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Potatoes, Populations, and States

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ABSTRACT Today, dietary guidelines, healthy-eating pyramids, and other nutritional advice are a familiar and expected feature of governance. This was not always the case; what we eat has not always been of such interest to the state. *That* people ate was of course very important—since ancient times, rulers have feared the disruptive effects of famine. The minutia of what ordinary folk ate, in contrast, was rarely considered an essential component of statecraft. Over the course of the eighteenth century, however, the diet of working people acquired unprecedented importance within European notions of statecraft because of its perceived capacity to foster or impede the expansion of a high-quality population. This article reviews these developments to show how during the Enlightenment, everyday eating habits acquired political relevance. Although scholars often identify the twentieth century as the period when food became an object of governance, food as a vital instrument of modern statecraft has a much longer history.

“Nothing,” declared William Cecil, an influential advisor to Elizabeth I, “will sooner lead men to sedition than dearth of victuals.” The assumption that hunger leads directly to social unrest has long provided a motivation for rulers to devote attention to securing a reliable food supply for the polity. States from the earliest times ordered the construction of grain stores and regulated trade in staples in order to guard against sedition and the accompanying threats of riot or rebellion. Such matters were recognized as central to the art of governance. The minutia of what ordinary people ate for dinner, on the other hand, rarely troubled the minds of political thinkers before the eighteenth century. Over the course of the eighteenth century, however, the diet of working people acquired unprecedented importance within European notions of statecraft because of its perceived capacity to foster or impede the development of a higher-quality population. During the Enlightenment, European states, patriotic organizations, and individuals

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stressed the importance of ensuring that everyone—but especially the working poor—consumed a suitable diet so as to create the robust working population that was increasingly considered essential to economic and military success. In contrast to earlier centuries, when political theorists rarely gave thought to the daily diets of the mass of the population, during the Enlightenment the population's eating habits became “worthy of the meditations of philosophers and the protection of government,” in the words of one French scientist. Everyday diets, in short, came to form an important component of statecraft.¹

The article explores these developments by focusing on the food that was most often identified by European writers as a suitable population-builder: the potato. Introduced from the Americas in the sixteenth century, the tuber was already consumed in many parts of eighteenth-century Europe but had attracted little attention from statesmen, unconcerned as they were with the population's daily eating habits. With the growing consensus that political and economic power required a hearty population of workers, patriotically minded individuals and state organizations devoted increasing attention to identifying and promoting population-building foods. No food aroused as much enthusiasm as the potato, which came to occupy an almost talismanic position within European discussions of popular diets. Spurred by impressive claims about the potato's nutritive power, patriotic societies, academies of science, and many other groups and individuals encouraged potato-consumption as a way of building a robust and hardworking population. The eating habits of ordinary people thus acquired a powerful political importance. The contrast between this eighteenth-century focus on the population's eating habits, and political theorists' earlier disregard for what ordinary people actually ate, points to the significant changes in ideas about

1. John Walter, “The Social Economy of Dearth in Early Modern England,” in John Walter and Roger Schofield, eds., *Famine, Disease and the Social Order in Early Modern Society* (Cambridge University Press, 1989), 76 (first quote); Antoine Augustin Parmentier, *Les pommes de terre, considérées relativement à la santé & à l'économie: ouvrage dans lequel on traite aussi du froment & du riz* (Paris, 1781), 3–4 (second quote). See also Natalie Zemon Davis, “Poor Relief, Humanism, and Heresy,” in *Society and Culture in Early Modern France* (Stanford, Calif.: Stanford University Press, 1975); and Charles Tilly, “Food Supply and Public Order in Modern Europe,” in Charles Tilly, ed., *The Formation of National States in Western Europe* (Princeton: Princeton University Press, 1975). Modern scholarship does not endorse Cecil's easy equation of hunger and political unrest; many studies conclude that hunger alone is rarely sufficient to motivate a food riot, let alone a full-scale rebellion.

governance that took place during this period. The Enlightenment, in short, saw the emergence in Europe of what Mark Swislocki termed “nutritional governmentality”: efforts by the state to use “nutritional knowledge to conceptualize its political objectives and administer the health of its population.”²

This article first demonstrates that although states have always been concerned to prevent outright famine, and have often regulated other aspects of the food supply and, on occasion, certain consumption practices, the precise nature of what ordinary people ate was rarely viewed as politically relevant. This changed in the eighteenth century, when—as a review of eighteenth-century potato promotion reveals—everyday eating habits were linked to national strength. The second section explores the potato’s eighteenth-century celebrity, which highlights the growing appeal of dietary reform for European states seeking strategic advantage in a century marked by intense international competition and conflict.

The final section connects these eighteenth-century developments to the deepening nineteenth-century conviction that the eating habits of the working class were a matter of fundamental concern to political and industrial stability and strength. The conclusions contrast this longer history with the view, prevalent in much of the literature on food security, that it was only in the twentieth century that daily eating habits acquired political importance. In fact, as this article demonstrates, food’s importance as an instrument of modern statecraft has a much longer history.

NOURISHING THE COMMONWEALTH

Today, dietary guidelines, healthy-eating pyramids, and other nutritional advice are a familiar and expected feature of governance. We are not surprised when chief medical officers advise us to reduce our salt intake or to increase our consumption of leafy green vegetables. It was not always so. What we eat has not always been of such interest to the state. *That* people ate was of course very important. Rulers everywhere have long been concerned about the political consequences of famine. For millennia, kings and ministers strove to avoid outright famine, sharing Cecil’s belief that “dearth of victual” could lead to revolt. Attention was usually focused on ensuring an adequate

2. Mark Swislocki, “Nutritional Governmentality: Food and the Politics of Health in Late Imperial and Republican China,” *Radical History Review* 110 (Spring 2011). For the potato’s introduction to Europe, see Rebecca Earle, *Feeding the People: The Politics of the Potato* (Cambridge: Cambridge University Press, 2020).

food supply to cities, whose concentrated populations offered the greatest potential for rebellion. States in many parts of the ancient and early modern worlds accordingly oversaw the construction of public warehouses that could distribute grain to urban residents in moments of shortage. Where a ruler maintained men under arms, their need for food was difficult to ignore as well.³

Legislators also took steps to regulate the cost and quality of foodstuffs. The leaders of the early modern Ottoman Empire intervened systematically in the grain cycle to guarantee that Istanbul received the hundreds of tons of flour it required daily. Ottoman regulations also controlled the prices at which food was sold, and at times directly oversaw the transport of grain to urban markets using a fleet of state-owned shipping vessels. Municipal governments in many European cities likewise controlled the sale of foodstuffs, while the guild system aimed to ensure that foods sold at market conformed to the required standards of healthfulness and quality. Foods and food suppliers who did not satisfy these expectations were fined or otherwise punished. Such interventions were considered a legitimate—indeed necessary—exercise in governance.⁴

Other policies aimed to govern the behavior of consumers rather than the producers or sellers of foods. Civic authorities in many parts of the ancient and early modern worlds attempted to constrain the extravagance of meals served at weddings or other festive gatherings by prohibiting certain dishes or imposing budget caps. The Roman *Lex Fannia*, from the second century

3. Geoffrey Rickman, *Corn Supply of Ancient Rome* (Oxford: Clarendon Press, 1980); Fernand Braudel, *The Mediterranean and the Mediterranean World in the Age of Philip II*, trans. Siân Reynolds, 2 vols. (Berkeley: University of California Press, 1995), 1:328–32, 570–605; Pierre-Etienne Will and R. Bin Wong, *Nourish the People: The State Civilian Granary System in China, 1650–1850* (Ann Arbor: University of Michigan Press, 1991), 507–25; Carolyn Steel, *Hungry City: How Food Shapes Our Lives* (London: Vintage, 2013).

4. On the Ottoman empire, see Rhoads Murphey, “Provisioning Istanbul: The State and Subsistence in the Early Modern Middle East,” *Food and Foodways* 2, no. 1 (1988): 217–63; and Will and Wong, *Nourish the People*, 511. On municipal regulation in Europe, see for instance “Ordinances of the Pastelers, or Piebakers,” 3 Richard II. A.D. 1379, in H. T. Riley, ed., *Memorials of London and London Life in the Thirteenth, Fourteenth, and Fifteenth Centuries* (London, 1868), 438; Brian Pullan, *Poverty and Charity: Europe, Italy, Venice, 1400–1700* (Aldershot, England: Variorum, 1994); and Buchanan Sharp, *Famine and Scarcity in Late Medieval and Early Modern England: The Regulation of Grain Marketing, 1256–1631* (Cambridge: Cambridge University Press, 2016).

B.C.E., restricted the number of courses that could be served at private banquets. Such sumptuary laws aimed to prevent wasteful expenditure or sinful overindulgence and also worked to preserve social distinctions. By the sixteenth century, European regulations also began to reflect a concern that individual or communal gluttony might presage a descent into more generalized immorality in ways that threatened the body politic as a whole. Sixteenth-century French Catholics thus mocked the puffy, overfed body of Henry VIII for evincing both the physical dangers of gluttony and the moral bankruptcy of Reformation England. From this perspective, the head of state's dietary failings influenced—and mirrored—the spiritual state of the country.⁵

Since feeding the needy is a charitable imperative in most religions, the poor's need for sustenance also imposed a moral obligation on rulers. Sovereigns who failed to meet this expectation risked a loss of legitimacy. The practical dimensions were often overseen by religious institutions. In Europe and the Mediterranean world, a variety of charitable groups dispensed food to prisoners, paupers, and other hungry folk. These associations between feeding the poor and the larger religious framework helped position governmental attention to the food supply as a matter of ethics. For this reason, feeding the hungry was often central to a sovereign's spiritual well-being and moral legitimacy (see figure 1).⁶

In sum, ensuring that urban populations had access to a steady and safe food supply was a recognized component of statecraft in most ancient and early modern states. Rulers moreover demonstrated their moral fitness to govern in part through their concern for the welfare of the poor. But as long as the population was not perishing as a result of famine, unsettling the social order by conspicuous displays of extravagance, or provoking divine wrath through sinful overconsumption, political philosophers gave little thought to what ordinary people had for dinner. Monarchs worried about preventing food riots but not about the particularities of their subjects'

5. Johanna Moyer, "The Food Police': Sumptuary Prohibitions on Food in the Reformation," in Ken Albala and Trudy Eden, eds., *Food and Faith in Christian Culture* (New York: Columbia University Press, 2011).

6. See for instance Pullan, *Poverty and Charity*; Thomas Max Safley, ed., *The Reformation of Charity: The Secular and the Religious in Early Modern Poor Relief* (Boston: Brill, 2003); Laurinda Abreu, *The Political and Social Dynamics of Poverty, Poor Relief and Health Care in Early-Modern Portugal* (London: Routledge, 2016); and Jodi Campbell, *At the First Table: Food and Social Identity in Early Modern Spain* (Lincoln: University of Nebraska Press, 2017).



Figure 1. This illustration from a small prayer book that belonged to a French monarch depicts the saintly actions of an earlier king of France. We see Saint Louis, Jeanne d'Evreux's ancestor, placing food in the mouth of an ailing man. In caring for his subjects in this way, he demonstrated both his Christian humility and his fitness to rule over them. Jean Pucelle, "St Louis Feeding the Sick," *The Hours of Jeanne d'Evreux, Queen of France*, ca. 1324–28, fol. 142v, the Cloisters Collection, 1954, The Metropolitan Museum of Art, New York, N.Y., <https://www.metmuseum.org/art/collection/search/470309>. Courtesy of the Cloisters Collection, 1954.

daily diets. Whether their polenta was made of millet or barley, whether their soups contained cabbage, or whether they baked or griddled their bread had no political significance.

Such things were the purview of priests and doctors, not statesmen. Food's importance to maintaining spiritual and physical health was universally recognized in medieval and early modern Europe. In this nonpolitical context, individual diet was enormously important. Pious living called for regular abstinence from particular foodstuffs, and within Christian ethics gluttony was one of the seven deadly sins. Bodily health in turn depended in large measure on diet. Each person's constitution demanded an individualized diet that reflected their particular balance of "humours," the vital fluids that coursed through the body, and that matched their overall lifestyle. Sudden changes in daily routine were particularly dangerous but could

sometimes be mitigated by adjusting one's diet. For this reason, voyagers were advised to attend carefully to what they ate to ensure that their health was not perturbed by the stresses of travel. Maintaining an appropriate diet, along with exercise and "moderation of passions," was the key to safe and healthy travel.⁷

These long-standing convictions took on renewed importance as Europeans began traveling overseas in ever-increasing numbers during the early modern expansion of global trade and colonial conquest. Officials across Europe's expanding colonial territories struggled to provide settlers with suitably healthful foods so that they did not sicken on unfamiliar diets. These matters were considered essential to the survival of individual travelers and to the growing number of Europeans residing in the Americas, Africa, and East Asia. In addition, many European settlers were convinced that if colonized peoples adopted a more European diet, it would improve their level of civilization and thus contribute to the colonial enterprise. Such beliefs about the corporeal challenges posed by colonialism and about the transformative potential of modified dietaries raised specific concerns that were slow to translate into the precepts of political theory back in Europe, where the dietary practices of settled populations held little interest for those concerned with theories of statecraft.⁸

Because such matters did not form part of the art of governance, the everyday eating habits of the population do not feature in political treatises from early modern Europe. Niccolò Machiavelli did not find the subject relevant to his discussion of statecraft. His 1513 *The Prince* reflected the long-held consensus that rulers must avoid famine—he for instance commended German cities for stockpiling enough "drink, food, and fuel for a year," but the particular features of the stockpiled food held no importance. Giovanni Botero, whose 1589 *The Reason of State* offered a pioneering and influential analysis of effective governance, took an entirely traditional view

7. Thomas Palmer, *An Essay on the Means How to Make our Travellers, into Forraigne Countries, the More Profitable and Honourable* (London, 1606), 46–47 (quote). See also David Gentilcore, *Food and Health in Early Modern Europe: Diet, Medicine, and Society, 1450–1800* (London: Bloomsbury, 2016); and Rebecca Earle, "Food," in Elaine Leong and Claudia Stein, eds., *A Cultural History of Medicine in the Renaissance (1450–1650)* (London: Bloomsbury, 2021).

8. Rebecca Earle, *The Body of the Conquistador: Food, Race and the Colonial Experience in Spanish America, 1492–1700* (Cambridge: Cambridge University Press, 2012); Rebecca Earle, "Climate, Travel and Colonialism in the Early Modern World," in Sara Miglietti and John Morgan, eds., *Governing the Environment in the Early Modern World: Theory and Practice* (Abingdon, U.K.: Routledge, 2017).

of food's political importance. He reminded readers that "experience has shown us, not once but many times" that "scarcity of bread exasperates the common people more than anything else" and so could lead to rebellion. He noted the importance of food supply in mounting military campaigns and also lectured rulers on the ethical need for personal restraint in all things, diet included. The people's particular eating habits, however, did not form part of his model of statecraft. The political philosopher Thomas Hobbes devoted no attention at all to the topic. In his 1651 *Leviathan*, Hobbes addressed eating simply as a basic human need, not as a matter of state. The chapter on "the nourishment of a commonwealth" did not consider the mundane matter of how people actually nourished themselves; *nourishment* instead provided a metaphor for commerce and property rights.⁹

The policing of markets and the supply of grain were thus important matters for the emergent science of statecraft, but what people did in their kitchens was not. This is why, in England, systematic efforts at surveying national eating habits emerged only at the end of the seventeenth century, the same period in which German political theorists first began to address the nutritional status of the population. Previously, collecting such data was rarely regarded as an important task. States, in short, have not always and inevitably paid close attention to what ordinary people are consuming.¹⁰

9. Niccolò Machiavelli, *The Prince*, trans. and ed. Peter Bondanella (Oxford: Oxford University Press, 2005), 38 (first quote); Giovanni Botero, "The Reason of State" (1598 edition), in *The Reason of State and the Greatness of Cities*, trans. P. J. Waley and D. P. Waley (New Haven: Yale University Press, 1956), 73 (second quote); Thomas Hobbes, *Leviathan, or, The Matter, Forme, and Power of a Common Wealth, Ecclesiasticall and Civil* (London, 1651). See also Anthony Pagden, *The Languages of Political Theory in Early Modern Europe* (Cambridge: Cambridge University Press, 1987).

10. Johann Joachim Becher, *Politische Discurs von den eigentlichen Ursachen deß Auf- und Abnehmens der Städt, Länder und Republicken* (Frankfurt, 1688), 205; Gregory King, "Natural and Political Observations and Conclusions upon the State and Condition of England" (1696), in George Barnett, ed., *Two Tracts by Gregory King* (Baltimore: Johns Hopkins Press, 1936), 39; John Walter and Roger Schofield, "Famine, Disease and Crisis Mortality in Early Modern Society," in Walter and Schofield, *Famine, Disease and the Social Order*, 7; Keith Tribe, *Governing Economy: The Reformation of German Economic Discourse, 1750–1840* (Cambridge: Cambridge University Press, 1988), 85; Keith Tribe, "Cameralism and the Sciences of the State," in Mark Goldie and Robert Wokler, eds., *The Cambridge History of Eighteenth-Century Political Thought* (Cambridge: Cambridge University Press, 2006), 527.

EATING LIKE A STATE

By the late eighteenth century, however, such matters had become central to the art of governance. In his writings on population, the French theorist Michel Foucault identified the new appreciation of population that emerged in Europe in the late seventeenth century and grew in influence over the next decades. The new theorists of statecraft viewed the population as a resource to be managed alongside other endowments such as forests or industries. The population, increasingly seen as a “technical-political object of management and government,” was itself regulated by a series of variables—climate, legislation, custom, means of subsistence—whose effects the state had a duty to understand. It was particularly important to ensure that the population was healthy and robust. At the same time, the population was made up of individuals whose actions affected the totality. In this way, the health and well-being of individuals became linked to economic and political security.¹¹

Building on Foucault’s analysis of these new forms of statecraft, the political anthropologist James C. Scott expanded on the ways in which modern states have sought to intervene in the lives of members of the population in order to create better-regulated polities. “Much of early modern European statecraft,” Scott argued, “seemed devoted to rationalising and standardising what was a social hieroglyph into a legible and administratively more convenient format. . . . [which] not only permitted a more finely tuned system of taxation and consumption but also greatly enhanced state capacity. They made possible quite discriminating interventions of every kind, such as public health measures, political surveillance and relief of the poor.” Just as forestry officials in eighteenth-century Germany attempted to remake natural woodlands into efficient, well-organized, and rational plantations, so too modern states sought to rationalize and reshape the people inhabiting their territories into more modern subjects. Foucault and Scott identified a wide range of interventions available to the early modern and modern state in its efforts to render the population useful and productive, including “censuses, cadastral maps, identity cards, statistical bureaus, schools, mass media, internal security apparatuses.”¹²

11. Michel Foucault, “The Subject and Power,” *Critical Inquiry* 8, no. 4 (1982): 777–95; Michel Foucault, *Security, Territory, Population: Lectures at the Collège de France, 1977–1978*, ed. Michel Senellart, trans. Graham Burchell (New York: Palgrave Macmillan, 2009), 70; John Coveney, *Food, Morals and Meaning: The Pleasure and Anxiety of Eating* (London: Routledge, 2000).

12. James C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven: Yale University Press, 1998), 3 (first quote), 343

Neither identified food as such an instrument of statecraft, but the new focus on building robust populations made dietary reform an inevitable part of the eighteenth-century understanding of governance. From the perspective of eighteenth-century political theorists, what people ate on a daily basis was deeply relevant to evaluating the strength and fitness of the polity. By the end of the century, the earlier dearth of accounts describing the eating habits of peasants and other ordinary folk had been replaced by myriad commentaries from politically engaged observers eager to assess the overall health of the body politic. Together with pronatalist policies, schemes to extirpate idleness, public health campaigns, and other enterprises aimed at improving the population, dietary reform became part of the eighteenth-century political tool kit.

Since the sixteenth century, European treatises on good government had insisted that states generally benefitted from a large population to provide an ample labor force for agriculture and industry, a larger tax base, and a broader pool of soldiers. This interest in the links between population size and state power encouraged the development of mathematical skills such as probability and statistics necessary to measure population growth. By the mid-eighteenth century, the critical importance of encouraging population growth had become a staple within the republic of letters. There was widespread agreement that a large population was beneficial; as one Spanish statesman explained, “the population is the basis of everything.” Without men, he continued, “there is neither agriculture, nor industry, nor commerce, arts, power or wealth.” The opening lines of Anders Berch’s 1746 *Politisk aritmetica*, published 2,500 kilometers away in Stockholm, read, “The principal foundations on which a nation’s economy must be built, for the advancement of the public good, is the number of inhabitants.”¹³

(second quote). See also Stuart Elden, *The Birth of Territory* (Chicago: University of Chicago Press, 2013).

13. Bernardo Ward, *Proyecto económico, en que se proponen varias providencias, dirigidas á promover los intereses de España, con los medios y fondos necesarios para su plantificacion* (Madrid, 1779), 70 (first quote); E. P. Hutchison, “Swedish Population Thought in the Eighteenth Century,” *Population Studies* 12, no. 1 (1959): 85 (second quote). See also James Riley, *Population Thought in the Age of the Demographic Revolution* (Durham, N.C.: Carolina Academic Press, 1985); Sylvana Tomaselli, “Moral Philosophy and Population Questions in Eighteenth-Century Europe,” *Population and Development Review* 14 (1988); Andrea Rusnock, *Vital Accounts: Quantifying Health and Population in Eighteenth-Century England and France* (Cambridge: Cambridge University Press, 2002); Foucault, *Security, Territory, Population*; Yves Charbit, *The Classical Foundations of Population Thought from Plato to Quesnay* (London: Springer, 2011); and Alison Bashford and Joyce Chaplin, *The New Worlds of Thomas*

In order for a population to be beneficial, it needed to be usefully employed. *Industrious* inhabitants—not just people in general—lay at the heart of national grandeur and success. Another Swedish economic writer, the military engineer Ephraim Otto Runeberg, stated this clearly in 1761: “the wealth of a state depends on the working population, *provided it is well employed.*” An increase in workers’ health and energy was therefore directly important to the state. This robustness in turn required an ample supply of nourishing food. Since a nation’s strength and wealth lay “in the populousness of the lower classes, . . . it is in vain to expect an increase of people, without plenty of food,” noted the East-India Company official Alexander Dalrymple, expressing a widely shared view. Commentators feared that poorly fed peasants would engender sickly children and worried that poorly fed soldiers provided a feeble bulwark against attack. As one of many pamphlets on the matter stated, national strength and wealth thus demanded that working people be “plentifully and cheaply fed.” The British Board of Agriculture, a government-funded body devoted to promoting national well-being through agricultural improvement, summed the matter up in a report on its own investigation into long-life breads. “The increase of population to be expected from such an increase of food,” the board observed in its minutes, would stimulate manufactures and lead to “many other advantages.” Because of the new attention devoted to developing a fit and hard-working population, states across Europe became interested in more than simply preventing famine or forestalling food riots; the everyday eating habits of working people found their way into the sphere of governance.¹⁴

This association of food, working bodies, and national strength animated the vigorous eighteenth-century pursuit of nourishing staples for working people. Seeking to build healthy populations, institutions and individuals

Robert Malthus: Rereading the Principle of Population (Princeton: Princeton University Press, 2016).

14. Hutchison, “Swedish Population Thought,” 88 (first quote; my italics); Alexander Dalrymple, *The Poor Man’s Friend* (London, 1795), 21 of the appendix (second quote); S. Girdler, *Observations on the Pernicious Consequences of Forestalling, Regrattling, and Ingrossing* (London, 1800), 53 (third quote), 88; Committee on Doctor Gordon’s Discoveries in the Art of Dying, & Making Potatoe Bread, August 23, 1794, Papers of the Board of Agriculture, SR RASE B/X, fols. 2–3, Museum of English Rural Life Special Collections, University of Reading, Reading, U.K. (fourth quote). The board was experimenting with breads that could allegedly be stored for several years. See also Louis Lémery, *Traité des aliments, où l’on trouve la différence, & le choix qu’on en doit faire*, ed. Jacques Jean Bruhier, 3rd ed., 2 vols. (Paris, 1755), 1:xxxix–xxx; or Jacques Ballexserd, *Dissertation sur l’éducation physique des enfans* (Paris, 1762), 29.

across Europe sponsored investigations into promising new foodstuffs and promoted favored items. From St. Petersburg and Stockholm to Dublin and Madrid, patriotic societies and other organizations encouraged consumption of a wide range of foods, including wild rice, quinoa, and peanuts. German economic societies, by way of example, consistently investigated promising new food sources. In 1771, for instance, the Leipzig economic society reported on the potential of “Siberian buckwheat,” “Canadian cabbage,” and sweet potatoes, all of which it hoped might prove useful to the region. The Royal Agriculture Society of Braunschweig-Lüneburg conducted trials of winter beets, spelt, potatoes, peas, turnips, and semolina as well as new varieties of barley, wheat, and rye.

Although schemes to popularize these foods stressed their universal appeal, the real ambition was usually to increase consumption by, as one promoter put it, “a poor man with a large family.”¹⁵ The supposed appeal of such foods to poor men with large families lay in their nourishing potential. The potato, proclaimed the Scottish agronomist and printer David Henry, was a tasty, wholesome root that appeased hunger and could be enjoyed by young and old. In addition, he observed, it had a further advantage: “it is favourable to population; for it has been observed, that in the western parts of Ireland where it is almost the only dyet of the labouring poor, it is no unusual thing to see six, seven, eight, or ten, and sometimes more children.” Henry referred approvingly to the “healthy progeny that crowd the cabins of those mean people.” Such foods were important because they could help to build the hearty working populations that underpinned economic and military success.¹⁶

15. Marcus Popplow, “Economizing Agricultural Resources in the German Economic Enlightenment,” in Ursula Klein and E. C. Spary, eds., *Materials and Expertise in Early Modern Europe: Between Market and Laboratory* (Chicago: University of Chicago Press, 2010), 267–69 (first quote); William Buchan, *Observations Concerning the Diet of the Common People* (London, 1797), 32 (second quote). See also Francisco Tabáres de Ulloa, *Observaciones prácticas sobre el cacahuete, o maní de América* (Valencia, 1800); Antonio Targioni-Tozzetti, *Cenni storici sulla introduzione di varie piante nell'agricoltura ed Orticultura Toscana* (Florence, 1853), 46; Ernest-Théodore Hamy, ed., *Joseph Dombey: Médecin, naturaliste, archéologue, explorateur du Pérou, du chili et du Brésil* (Paris, 1905), 42; Lisbet Koerner, *Linnaeus: Nature and Nation* (Cambridge: Harvard University Press, 1999); Henry Lowood, *Patriotism, Profit and the Promotion of Science in the German Enlightenment: The Economic and Scientific Societies, 1760–1815* (New York: Garland, 1991), 159–60; and Anya Zilberstein, “Inured to Empire: Wild Rice and Climate Change,” *William and Mary Quarterly* 72, no. 1 (2015): 127–58.

16. David Henry, *The Complete English Farmer, or, A Practical System of Husbandry* (London, 1771), 275–76.

POTATOES AND POLITICAL ECONOMY

Henry was scarcely alone in viewing the potato as a particularly powerful begetter of population. Potatoes reached Europe from their Andean homeland in the sixteenth century and over the next two hundred years spread widely albeit unevenly across the continent. By the mid-eighteenth century, they were a familiar foodstuff in some regions but were less common in others. The protagonists of the potato's European dissemination seem to have been peasants and laborers who enjoyed access to cottage gardens in which to raise a few vegetables for their own use. They were the ones who adapted the Andean cultivars to Europe's varied day lengths and who in some regions helped make potatoes (as one German cookery book put it in 1651) "so common that practically every farmer grows them in his garden." Contributing to the potato's popularity was doubtless the very fact that statesmen and tax collectors were generally uninterested in the eating habits of ordinary people and so were slow to levy tithes and taxes on this new food. In addition, the potato was then, as now, an exceptionally productive crop. A hectare of land sown with potatoes will yield three times the calories as the same land sown with wheat and more than double the protein. Prior to the eighteenth century, political writers generally viewed the potato's nutritiousness with ambivalence, suspecting that it encouraged not industriousness but rather loafing. "What need they to work, who can content themselves with potatoes, whereof the labour of one man can feed forty?," complained the English colonial official William Petty in 1672.¹⁷

By the eighteenth century, this once-problematic fecundity had become a virtue. All across Europe statesmen, économistes, scientists, economic societies, improving agronomists, priests, and many other members of the republic of letters engaged in a transcontinental flurry of potato promotion, with the explicit aim of encouraging working people to eat more potatoes so as to improve their own health and thereby that of the body politic. The British Board of Agriculture had an entire subcommittee devoted to potatoes. As the board insisted, ensuring greater potato consumption by the poor was a matter "of great importance in political oeconomy." Potatoes were political.¹⁸

17. Johann Royer, *Eine gute Anleitung wie man sonderliche Garten-Gewächse . . . nützen solle* (Braunschweig, 1651), 104–5 (first quote); William Petty, "The Political Anatomy of Ireland" (1672), *Tracts; Chiefly Relating to Ireland* (Dublin, 1769), 366 (second quote).

18. *Report of the Committee of the Board of Agriculture Appointed to Extract Information from the County Reports and other Authorities Concerning the Culture and Use of Potatoes* (London, 1795), 73. Since the potato afforded food to a significant portion

The potato's advocates made extravagant claims. The Polish writer and statesman Julian Ursyn Niemcewicz declared the tubers to be the "greatest blessing conferred by heaven," second only to baptism. Claudio Boutelou, the head gardener at Madrid's Royal Botanical Garden, agreed, adding that the rest of Europe ought to thank Spain for introducing this botanical treasure. The editors of a Swiss newspaper described French advances in making potato bread as "one of the most important discoveries of the century." And lest anyone imagine that such praise was exaggerated, another potato advocate, the U.S.-born Count Rumford, Sir Benjamin Thompson, reminded readers that since schemes to encourage potato consumption aimed ultimately to improve the well-being of the working poor, they were by definition of interest to "enlightened statesmen."¹⁹

Enlightened statesmen accordingly devoted attention to these now-interesting tubers. Monarchs from Spain's Charles III to Sweden's Adolf Frederick issued edicts encouraging the cultivation of potatoes, in Adolf Frederick's case inspired by experiments on potatoes undertaken at the

of Britain's inhabitants, "every improvement in its culture becomes an object of national importance," agreed the president of the Horticultural Society of London. Thomas Andrew Knight, "On Raising New and Early Varieties of the Potatoe (*Solanum Tuberosum*)," January 6, 1807, *Transactions of the Horticultural Society of London* (London, 1812), 1:57. Encouraging potato cultivation, observed the translator of a text by France's premier potato promoter, was "an object of highest national importance." Antoine Augustin Parmentier, *Observations on Such Nutritive Vegetables as May be Substituted in the Place of Ordinary Food, in Times of Scarcity* (London, 1783), vii.

19. Piotr Miodunka, "L'essor de la culture de la pomme de terre au sud de la Pologne jusqu'au mileau du XIXe siècle," *Histoire & Sociétés Rurales* 41, no. 2 (2014) (first quote); *Journal historique et politique des principaux événemens des différentes cours de l'Europe* (Geneva) 1, January 10, 1779, 69 (second quote); Benjamin Thompson, "Of Food, and Particularly of Feeding the Poor," in *Essays, Political, Economical, and Philosophical*, 3 vols. (London, 1797–1803), 1:277 (third quote). See also Antoine Augustine Parmentier, *Mémoire couronné le 25 aout 1784, par l'Académie Royale des Sciences, Belles Lettres et Arts de Bordeaux, sur cette question: Quel seroit le meilleur procédé pour conserver, le plus long-temps possible, ou en grain ou en farine, le maïs ou blé de Turquie, plus connu dans la Guienne sous le nom de blé d'Espagne? Et quels seroient les différens moyens d'en tirer parti, dans les années abondantes, indépendamment des usages connus & ordinaires dans cette province?* (Bordeaux, 1785), 5; James Adam, *Practical Essays on Agriculture* (London, 1789), 2:20–21; and Gabriel Alonso de Herrera, *Agricultura general de Gabriel Alonso de Herrera, corregida según el texto original de la primera edición publicada en 1513 por el mismo autor y adicionada por la Real Sociedad Económica Matritense*, 2 vols. (Madrid, 1819), 2:248.

Swedish Royal Academy of Science. August III of Saxony and Empress Maria Theresa did the same; the latter for instance issued a decree in 1767 “ordering the local authorities to encourage the whole population, but especially those living in infertile mountain areas, to grow potatoes.” Patriotic societies and other organizations dedicated to promoting approved agricultural practices followed suit, offering prizes for bumper crops, sponsoring competitions, and publishing the results of their own investigations into potato agronomy (see figure 2).²⁰

In Finland, for instance, the Finnish Economic Society, founded in 1797 with the aim of strengthening the state through programs of economic “improvement,” energetically promoted potato consumption, distributing free seed potatoes and undertaking research into the optimal cultivation techniques. Preventing a repeat of the traumatic famines that had decimated the Finnish population in the late seventeenth century also motivated these endeavors. Under the auspices of the state church, “potato priests” such as Axel Laurell exhorted their parishioners to consume more potatoes, sometimes (in Laurell’s case) in sermons lasting up to four hours. Laurell, like many others, also published a horticultural guide that explained the best ways to grow this favored food. Such private and religious activities resonated strongly with broader state concerns and indeed often involved the same individuals. Anders Chydenius, an active potato-promoter who studied at the Abo Akademi under the reknowned naturalist Pehr

20. Eszter Kisbán, “The Beginnings of Potato Cultivation in Transylvania and Hungary: Government Policy and Spontaneous Process,” in John Burnett and Derek Oddy, eds., *The Origins and Development of Food Policies in Europe* (London: Leicester University Press, 1994), 180–81 (quote). See also *The Gentleman’s Magazine and Historical Chronicle* 34 (1764), 599; *Extractos de las juntas generales celebradas por la Real Sociedad Bascongada de los Amigos del País en la ciudad de Vitoria por julio de 1786* (Vitoria, Spain, 1786), 28; and Enrique Doyle, *Tratado sobre el cultivo, uso y utilidades de las patatas ó papas, é instrucción para su mejor propagación* (Madrid, 1797). For other state-level directives, see for instance *Instrução sobre a cultura das batatas, traduzida do inglez por ordem superior* (Lisbon, 1800); Günter Wiegelmann, *Alltags- und Festspeisen in Mitteleuropa. Innovation, Strukturen und Regionen vom späten Mittelalter bis zum 20. Jahrhundert* (Marburg, Germany: Waxmann, 1967), 83n40; Emma Spary, *Feeding France: New Sciences of Food, 1760–1815* (Cambridge: Cambridge University Press, 2014); Robert Jones, *Provincial Development in Russia: Catherine II and Jacob Sievers* (New Brunswick, N.J.: Rutgers University Press, 1984), 154–55; and R. E. F. Smith and David Christian, *Bread and Salt: A Social and Economic History of Food and Drink in Russia* (Cambridge: Cambridge University Press, 1984), 199–200.

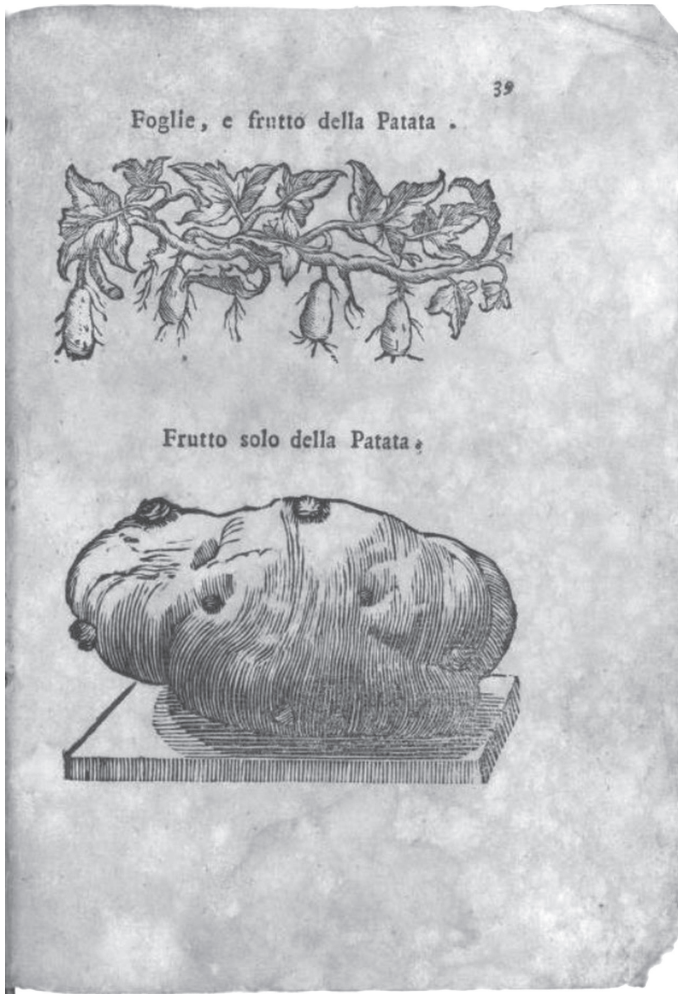


Figure 2. The Italian priest Giovanni Battista Occhiolini was one of hundreds of eighteenth-century potato enthusiasts who penned promotional treatises aimed at encouraging ordinary people to eat and grow this “marvellous” food. Giovanni Battista Occhiolini, *Memorie sopra il meraviglioso frutto Americano chiamato volgarmente patata ossia pomo di terra* (Rome, 1784), 39, https://jcb.lunaimaging.com/luna/servlet/detail/JCB~1~1~4335~6700006:-top--Foglie,-e-frutto-della-Patata?sort=image_date%2Csubject_groups&qvq=q:potato;sort:image_date%2Csubject_groups;lc:JCB~1~1&mi=30&trs=37. Courtesy of the John Carter Brown Library at Brown University, Providence, R.I.

Kalm (author of an oft-cited account of his travels North America), both participated in the Finnish Economical Society and served as a member of the Swedish Parliament under Gustav III.²¹

Across Europe, publicly minded priests, economic societies, and individuals engaged in similar activities. In Germany, local economic societies devoted so much attention to the potato's merits that satirists poked fun at the pretentious individuals who claimed to prefer discussing "dung and potatoes" to writing poetry. Potatoes, in sum, attracted this attention not because they were novel, but because the eating habits of working people had begun to attract the attention of "enlightened statesmen" eager to build the hearty populations necessary for economic and political success. Food had become "a material instrument of statecraft."²²

LAZY POTATO BLOOD

This new, eighteenth-century interest in improving the quality of the working population through diet set the stage for subsequent centuries' discussions of public health and working bodies. Over the course of the nineteenth century, the nature of work in Europe changed. The level of industrialization and the percentage of the population living in cities more than doubled in the United Kingdom and France, with Germany not far behind.²³ These changes in the nature of work and societal organization provoked anxieties about their negative effects on morality, social cohesion, and the health of the body politic. Concern focused on the strength and vitality of the industrial

21. Ilmar Talve, "The Potato in Finnish Food Economy," in Alexander Fenton and Trefor M. Owen, eds., *Food in Perspective: Proceedings of the Third International Conference on Ethnological Food Research, Cardiff, Wales, 1977* (Edinburgh, Scotland: John Donald, 1981); Jani Marjanen, "Between 'Public' and 'Private Economy': The Finnish Economic Society and the Decline of Economic Patriotism, 1797–1833," in Koen Stapelbroek and Jani Marjanen, eds., *The Rise of Economic Societies in the Eighteenth Century* (London: Palgrave Macmillan, 2012).

22. "Schreiben des Kantors in L** an den Verfasser A** zu ** über das Studium der ökonomischen und Cammeralwissenschaften," *Ökonomische Weisheit und Thorheit* 1 (1789), 46 (first quote); Nick Cullather, "The Foreign Policy of the Calorie," *American Historical Review* 112, no. 2 (2007): 338 (second quote). See also Andrew Wakefield, *The Disordered Police State: German Cameralism as Science and Practice* (Chicago: University of Chicago Press, 2009), 112. On the potato's introduction to Europe, see Earle, *Feeding the People*.

23. Stephen Broadberry, Rainer Fremdling, and Peter Solar, "Industry," and Paolo Malanima, "Urbanization," in S. Broadberry and K. O'Rourke, eds., *Cambridge Economic History of Modern Europe*, 3 vols. (Cambridge: Cambridge University Press, 2010), 1:169–70, 244.

workforce. Analysts worried that the flesh-and-blood bodies of urban workers would not be able to sustain the relentless labor that mechanized industry demanded. *Fatigue* emerged as the great enemy of national efficiency and economic success.

From the mid-nineteenth century, research into thermodynamics tended to characterize the human body as a sort of motor, an analogy that itself reflected growing industrialization. Like other engines, the bodies of factory workers required proper fuel in the form of suitable food. Food, the fuel that powered work, was thus crucial to maintaining the bodies of industrial workers in good order and thereby to ensuring the competitiveness of national industry. As the historian Anson Rabinbach has shown, scientists and politicians concurred that understanding the fuel needs of this motor was essential to a nation's economic and political success. Investigators such as Carl von Voit, Wilbur Atwater, and a great many others devised a range of ingenious experiments that allowed them to correlate food inputs with energy outputs. The invention in the 1870s of the calorie expressed concisely this connection between food and work: the calorie measures the amount of energy that a specific food enables its eater to expend. This development, together with the emergence of a scientific consensus about the physiology of human digestion, made food chemistry an effective language for expressing the relationship between workers' diet and their productivity. Through these tools, the overall nutritiveness of a dietary regime, in the form of its caloric value and chemical constituents, could be correlated mathematically with the eaters' health and vigor, which in turn affected economic efficiency. Whereas Enlightenment political economists had asserted a general connection between the abundance and healthfulness of the food supply and the power of the state, nineteenth-century scientists could now demonstrate precise numerical correlations between the chemical components of different foodstuffs and the thermodynamic work they enabled in individual workers, as well as in the overall labor force.²⁴ The eighteenth-century conviction that workers' dietary practices materially affected a nation's economic and military success was greatly strengthened by the emergence of a mathematical and scientific language for expressing this relationship.²⁵

24. Anson Rabinbach, *The Human Motor: Energy, Fatigue, and the Origins of Modernity* (Berkeley: University of California Press, 1992).

25. Rabinbach, *Human Motor*; Kenneth Carpenter, *Protein and Energy: A Study of Changing Ideas in Nutrition* (Cambridge: Cambridge University Press, 1994); Harmke Kamminga and Andrew Cunningham, eds., *The Science and Culture of Nutrition, 1840–1940* (Amsterdam: Rodopi, 1995); Cullather, "Foreign Policy of the

Experiments in food chemistry usually focused explicitly on the energy requirements of industrial workers, soldiers, and other people viewed as particularly important to national success. Attention had shifted from agricultural workers to the urban proletariat. In the hundred years between the eighteenth-century conviction that national security and economic success demanded a large and robust workforce of laborers, and the late nineteenth century's concern about national efficiency, both economic production and the understanding of nutrition had altered dramatically, and these changes shaped discussions of the political and economic significance of the everyday eating habits of working people.

Looking at potatoes offers a way to track the impact of these changes on the relationship between popular diets and the modern state. The findings of late nineteenth-century nutritionists were not encouraging with regard to the potato's contribution to industrial efficiency. Laboratory analysis revealed it to be low in protein compared to meat, and nutritionists argued that its chemical components were a poor match for the human body. A diet heavy in potatoes left its eater sluggish, enfeebled, and unsuited to the demands of modern labor. A mere fourteen days of subsisting on potatoes was all that was required to render a laborer unable to work at all, in the view of the Dutch physician and politician Jacob Moleschott (see figure 3).²⁶

Moleschott had earned a degree in medicine from the University of Heidelberg in 1845 and subsequently lectured at various universities in Switzerland, Germany, and Italy before gaining Italian citizenship, and from 1876 serving as a senator in Rome. Moleschott's varied compositions on scientific and policy matters stressed the importance of eliminating poverty and ensuring that working people could afford the nourishing food that would allow them to live with a measure of dignity. He also stressed the centrality of food to industrial productivity and national progress. Like many other food chemists, Moleschott believed that a large quantity of protein, together with phosphorus, was essential to good nutrition, and for this reason he regarded the potato as a poor substitute for meat. It was therefore unfortunate, in his view, that it so often performed precisely this role in the diet of ordinary Germans. Moleschott insisted that a potato-heavy diet led

Calorie"; Corinna Treitel, "Max Rubner and the Biopolitics of Rational Nutrition," *Central European History* 41, no. 1 (2008): 1–25; Charlotte Biltekoff, *Eating Right in America: The Cultural Politics of Food and Health* (Durham, N.C.: Duke University Press, 2013); Dana Simmons, *Vital Minimum: Need, Science and Politics in Modern France* (Chicago: University of Chicago Press, 2015).

26. Jacob Moleschott, *Der Kreislauf des Lebens*, 2 vols. (Giessen, Germany, 1887), 2:570.

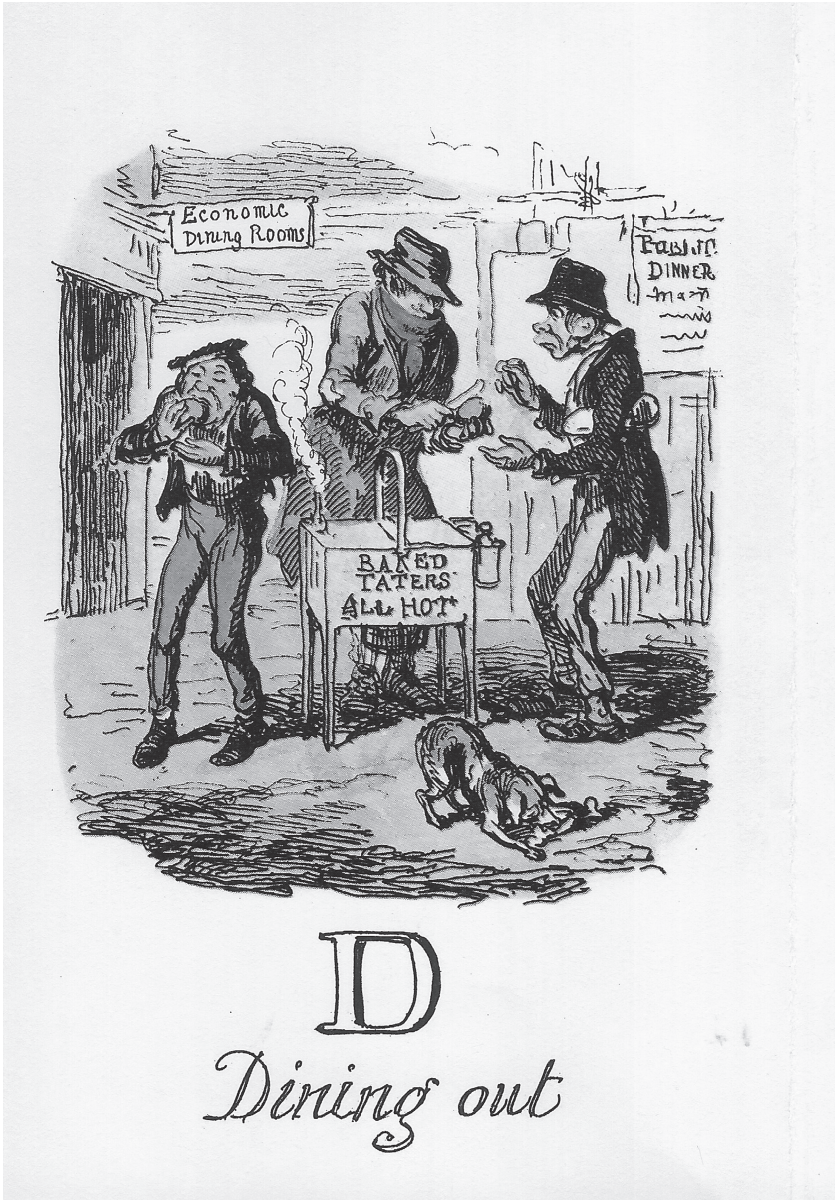


Figure 3. These scrawny potato-eaters unable to afford even a meal at the nearby “Economic Dining Room” were not the sort of urban proletariat that nutritionists, economists, and politicians believed essential to industrial growth and national progress. George Cruikshank, “Dining Out,” in *Comic Alphabet* (London, 1836). Courtesy of the Arts Council of Great Britain.

inevitably to illness and infirmity. It provided inadequate nourishment for the workers who so often relied on it. “Lazy potato blood, how can it give muscles the strength to work, or the brain the stimulating impulse of hope?” he asked in his 1858 *Lectures on Food*. Reliance on potatoes, he believed, moreover explained Ireland’s poverty and condemned it to permanent subservience to Britain. The chemical properties of potatoes generated “powerless despair” in the Irish constitution. In contrast, the energized blood of meat-eaters coursed through the veins of their British colonizers. “Poor Ireland, whose poverty begets poverty,” lamented Moleschott, “you cannot win!” For the Irish, national strength and economic success were impeded—not advanced—by a potato diet.²⁷

The terrible Irish famine of the 1840s provided a touchstone for nutritionists and politicians alike, who concurred that reliance on potatoes weakened both the bodies of individuals and the strength of the polity. “What hope is there for a nation which lives on potatoes?” exclaimed Charles Trevelyan, the chief administrator at the treasury in London and an advocate of economic liberalism, in his analysis of the catastrophe. Even before the famines of the 1840s, writers of many political persuasions viewed Ireland as the prime illustration of the potato’s malevolent effects on progress and modernity, in sharp contrast to the opinions of eighteenth-century observers such as David Henry, who had celebrated the large families raised by Irish potato-eaters.²⁸

Like Moleschott, other influential nutritionists too viewed a potato-heavy diet in a dim light. His pioneering nutritional experiments into

27. Moleschott, *Der Kreislauf des Lebens*, 2:268–70, 568–70; Jacob Moleschott, *Lehre der Nahrungsmittel: Für das Volk* (Erlangen, Germany, 1858), 80, 115–20, 184 (119 quotes); C. A. Meinert, *Armee- und Volks-Ernährung. Ein Versuch Professor C. von Voit’s Ernährungstheorie für die Praxis zu verwerthen*, 2 vols. (Berlin, 1880), 2:189; Harmke Kamminga, “Nutrition for the People, or the Fate of Jacob Moleschott’s Contest for a Humanist Science,” in Kamminga and Cunningham, *Science and Culture of Nutrition*, 26; Laura Meneghelo, *Jacob Moleschott—A Transnational Biography: Science, Politics, and Popularization in Nineteenth-Century Europe* (Bielefeld, Germany, Transcript, 2017), 63, 67, 83, 117, 133–37, 309.

28. Charles Trevelyan, *The Irish Crisis* (London, 1848), 2 (quote). See also Thomas Robert Malthus, *An Essay on the Principle of Population* (1798), ed. Philip Appleman (New York: Norton, 1974), 38–39; Thomas Robert Malthus, *An Essay on the Principle of Population. The 1803 Edition*, ed. Shannon Stimson et al. (New Haven: Yale University Press, 2018), 453; William Cobbett, *Cottage Economy* (London, 1826), para. 99; William Cobbett, *Cobbett in Ireland: A Warning to England*, ed. Denis Knight (London: Lawrence and Wishart, 1984), 95, 125; David Lloyd, “The Political Economy of the Potato,” *Nineteenth-Century Contexts* 29, nos. 2–3 (2007): 311–35.

nitrogen and protein convinced the German chemist Carl von Voit that bread should form the bulk of a worker's diet, with potatoes and other vegetables making up no more than 30 percent. Voit's calculations indicated that the human motor required at least 118 grams of protein per day in order to function efficiently, and many other nutritionists endorsed this *Voit standard* as a minimum. Insofar as the low-protein potato replaced more nourishing meat in the worker's diet, its consumption was positively dangerous. The Italian economist Francesco Nitti was certain that the high consumption of meat explained the greater productivity of U.S. and British industry, while the high consumption of potatoes and other "hydrocarbonates" was responsible for the inferior performance of German and French workers. To illustrate his point, he produced a series of comparative charts that showed the close correlation between diet and the robustness of soldiers and industrial workers. The potatoes that German economic societies had so enthusiastically championed a century earlier were now identified as a reason why Germany lagged behind Britain and the United States in economic output and national prowess.²⁹

In the view of nutritionists and political analysts, what nations required was not a stolid population of potato-eating peasants but rather an agile proletariat adequately nourished to withstand the demands of industrial labor. The extent to which states acknowledged some responsibility for ensuring that the population was able to access such appropriate nourishment also shifted. Advocates of subsidized school meals, state canteens for key workers, and the like grew in number over the course of the next century, and as systems of state education spread, it became easier to translate ambitions into concrete programs. The First and Second World Wars further equipped states with powerful organizational structures for implementing change. As many scholars have noted, the tools of European statecraft have transformed since the Enlightenment, and states' ability actually to intervene in the population's diet increased greatly as a result. These developments underscore the differences between late nineteenth- and

29. Rabinbach, *Human Motor*, 129. See also Wilhelm Franz Pissling, *Gesundheitsslehre für das Volk* (Vienna, 1856), 68; Wilhelm Hildesheim, *Die Normal-Diät. Physiologisch-chemischer Versuch zu Ermittlung des normalen Nahrungsbedürfnisse der Menschen, behufs Aufstellung einer Normal-Diät, mit besonderer Rücksicht auf das Diät-Regulative des neuen Reglements für die Friedens-Garnison-Lazarethe, und die Natural-Verpflegung des Soldaten sowie auf die Verpflegung der Armen* (Berlin, 1856), 37; Meinert, *Armee- und Volks-Ernährung*, 2:188; and Francesco S. Nitti, "The Food and Labour-Power of Nations," *Economic Journal* 6, no. 21 (1896). The current recommended protein intake is about half that amount.

twentieth-century state food policies and those of the previous century. At the same time, the belief that the population's health and vitality affected the wealth and stability of the state was not new. These associations were born in the eighteenth century.

CONCLUSION: TOWARD A GENEALOGY
OF FOOD SECURITY

Today, the notion that the population's eating habits affect the resilience and strength of the state is often articulated through the concept of food security—the belief that ensuring a robust and reliable supply of food is a fundamental responsibility of government and that both political and economic stability depend in part on a state's success in assuring this supply. Food security is usually framed as a resolutely modern concept. Most scholars identify the period between 1900 and 1950 as crucial for the emergence of the idea that political and economic security are inherently linked to a state's ability to feed its population. The historian James Vernon, for instance, has provided a subtle and convincing account of how hunger was transformed in the late nineteenth and twentieth century from individual misfortune to national emergency. Hunger, Vernon wrote, began during this period to be perceived as threatening “the health, wealth, and stability of all of society in ways that demanded a new ethic of collective social responsibility and action.” Politicians and officials became ever more concerned about the effect of poor diet on national efficiency and strength and responded with a range of innovative new programs, from the distribution of free school meals to healthy-eating campaigns. Schemes aimed at improving the diet of key members of society sprang up not only in Europe but also in Latin America and East Asia from the early twentieth century onward.³⁰

30. James Vernon, “The Ethics of Hunger and the Assembly of Society: The Techno-Politics of the School Meal in Modern Britain,” *American Historical Review* 110, no. 3 (2005): 723 (quote). Hungry people began to be viewed as “innocent victims of failing political and economic systems over which they had no control, and their hunger threatened not just themselves, but the health, wealth, and security of society as a whole.” James Vernon, *Hunger: A Modern History* (Cambridge: Harvard University Press, 2007), 2–3. See also Pat Thane, “The Working Class and State ‘Welfare’ in Britain, 1890–1914,” *Historical Journal* 27, no. 2 (1984): 877–900; Laura Shapiro, *Perfection Salad: Women and Cooking at the Turn of the Century* (New York: Farrar, Straus and Giroux, 1986), 137–38; Susan Pedersen, *Family, Dependence, and the Origins of the Welfare State: Britain and France, 1914–1945* (Cambridge: Cambridge University Press, 1993); Martin Daunton, *Wealth and Welfare: An Economic and Social History of Britain, 1851–1951* (Oxford: Oxford University Press, 2007);

The voluminous writings on food security itself offer a similar chronology, which connects developments during the interwar years to the deepening conviction that adequate diets are essential to national and global stability. The establishment in the late 1940s of international agencies such as the Food and Agriculture Organization of the United Nations is usually considered the culmination of the new political imperative to ensure that citizens are adequately nourished. “Raising levels of nutrition” was a primary aim of the new agency, enshrined in its 1945 constitution. The term *food security* itself first appeared in UN documents in 1974 and remains an important analytical concept. Ambitious programs to end world hunger are central features of international organizations such as the UN and bodies such as the Rockefeller Foundation. From this perspective as well, political attention to the connections between public health and national or global security is, fundamentally, a twentieth-century phenomenon. Studies from a number of different angles are thus in accord that, as the historian Nick Cullather put it, it was in the early part of the twentieth century that “‘food’ lost its subjective, cultural character and evolved into a material instrument of statecraft.”³¹

There is much to be said for this interpretation. Nonetheless, dating the emergence of food as an element of statecraft to the early twentieth century produces a surprisingly shallow chronology for this central aspect of the

Franz-Xaver Kaufmann, *Variations of the Welfare State: Great Britain, Sweden, France and Germany between Capitalism and Socialism*, trans. Thomas Dunlap (Heidelberg, Germany: Springer, 2013); Sandra Aguilar-Rodríguez, “Cooking Modernity: Nutrition Policies, Class, and Gender in 1940s and 1950s Mexico City,” *The Americas* 64, no. 2 (2007): 177–205; and Stefan Pohl-Valero, “Food Science, Race, and the Nation in Colombia,” *Oxford Research Encyclopedia of Latin American History*, November 22, 2016, <http://oxfordre.com/latinamericanhistory/view/10.1093/acrefore/9780199366439.001.0001/acrefore-9780199366439-e-321?print=pdf>.

31. Cullather, “Foreign Policy of the Calorie,” 338 (quote). See also Simon Maxwell, “Food Security: A Post-Modern Perspective,” *Food Policy* 21, no. 2 (1996): 155–70; Johan Pottier, *Anthropology of Food: The Social Dynamics of Food Security* (Cambridge, U.K.: Polity, 1999); Edward Carr, “Postmodern Conceptualizations, Modernist Applications: Rethinking the Role of Society in Food Security,” *Food Policy* 31, no. 1 (2006): 14–29; David John Shaw, *World Food Security: A History Since 1945* (London: Palgrave Macmillan, 2007); William D. Schanbacher, *The Politics of Food: The Global Conflict between Food Security and Food Sovereignty* (Santa Barbara: Praeger, 2010); Lucy Jarosz, “Defining World Hunger: Scale and Neoliberal Ideology in International Food Security Policy Discourse,” *Food, Culture & Society* 14, no. 1 (2011): 117–39; and “Raising levels of nutrition” is from the “Constitution of the United Nations Food and Agriculture Organization,” October 16, 1945, <http://www.jus.uio.no/english/services/library/treaties/14/14-01/food-organization.xml>.

modern state. This article has offered an alternative genealogy that dates the emergence of food as material to statecraft not to the early twentieth century but rather to the late eighteenth.

Certainly, between the eighteenth and early twentieth centuries there were meaningful changes in the conceptualization of the relationship between the state and the eating habits of the population. The extent to which states accepted responsibility for the health of the population has changed markedly over the last two centuries. Few eighteenth-century statesmen believed that the state had a direct responsibility to ensure that the population was well fed. In addition, in the intervening centuries, political attention shifted from the desirability of developing a robust population of “working poor”—of agricultural laborers, soldiers, and sailors—to anxiety about the health and stamina of the urban proletariat. The new nutritional language created in the nineteenth century also permitted a much more detailed analysis of the relationship between national diet and industrial prowess. Moreover, the ability of European states to implement large-scale interventions in the daily lives of their populations increased dramatically during this period as well.

At the same time, as the sociologist Mitchell Dean reminds us, it is possible to identify commonalities between eighteenth- and twentieth-century ideas about governance “without denying the evident reality of state transformation of the last two centuries.” Both eighteenth-century states and their successors shared a conviction that what ordinary people ate on a daily basis was politically and economically relevant, and both sought to influence daily diets using the means at their disposal. The belief that what people ate had a direct impact on the wealth and power of the state emerged in the Enlightenment, as part of a broader reconceptualization of governance. As a result, the origins of food security as a political concept lie in the eighteenth century.³²

32. Mitchell Dean, *The Constitution of Poverty: Toward a Genealogy of Liberal Governance* (London: Routledge, 1991), 6.