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E. C. Spary, *Feeding France: New Sciences of Food, 1760–1815* (Cambridge: Cambridge University Press, 2014), pp. xi, 418, £65.00, hardback, ISBN: 978-1-107-03105-0.

Pundits these days never cease to warn us of the evils we court when we eat processed food for dinner. So it is a timely pleasure to read Emma Spary's fascinating study of the rise of scientific eating and industrial food production in eighteenth-century France. This is a story of stuff – bread, meat, potatoes and sugar – and of political contests over the nature of matter.

The book interweaves chapters on specific food products with chapters on politics and epistemology. Spary covers political–scientific debates around newly invented foods such as potato bread, gelatine and beet sugar. She interposes these with studies of knowledge. We learn, for example, how the *philosophes* mobilised food and digestion in the service of secular materialism. When, in 1760, Denis Diderot playfully proposed to eat a marble statue, he was playing with a serious epistemological rupture. Given enough time, he submitted, the marble would decay into the stuff of life. 'I like this passage from marble to humus, from humus to the plant kingdom, and from the plant to the animal kingdom, to flesh', he writes (p. 99). Diderot referred here to Georges-Louis Leclerc de Buffon's Universe of circulating matter, which travelled eternally 'from body to body' as it changed from dirt to food. The animal body appears as a chemical laboratory within a larger chemical machine, the natural economy. Buffon and Diderot participated in the rise of a chemical world view, shaped by the combination and decomposition of organic molecules.

Chemists are at the centre of Spary's story: testing new food substitutes, shaping French nutritional knowledge, setting state food policy and fostering a public marketplace for health products. Chemists treated food as an assemblage of unique molecules and nutritive principles. By chemical work they turned a food, such as bread, from a unitary object to a collection of unique components. Solvent chemistry became the model for digestion and for industrial food production. Hiding within bread, sugar and gelatine could be found their essential alimentary principles, the chemical elements that contain the food's true value.

The importance of this conceptual break, between foodstuff and food value, cannot be overstated. The alimentary principle, once identified, could be separated from its material substrate, manipulated and displaced. Although an eater's senses might react very differently to grape sugar, cane sugar and beet sugar, nevertheless, in chemists' eyes they became 'same'. Sensory distinctions did not correspond with analytical ones. Chemists, spurred by state administrators eager to save money, invented new industrial foods. Surrogates, ersatz food products, could stand in for the 'original' and even offer superior nutritional and economic value.

Chemists defined a food not by the material conditions of its production but by its nutritive value. That *value* became the guiding principle for the new regime of industrial food is not an accident. In this case, scientific method very explicitly served political economy. Food values served to constitute a modern market culture.

During the French Revolution, citizens proved their worth to the new Republic by their economic fitness. Both individual and social bodies were governed by the principle of *économie*, a practice of self-discipline and moderation. *Économie* combined the virtue of self-restraint and the skills of accounting, measurement and rational choice. Economic consumers measured food virtue on a scale of succulence. Gone were the delicately concentrated restorative broths prized by noble and literary sensibilities. Jean-Jacques Rousseau, among other social critics, associated meat juices with hypernourishment and moral bankruptcy. Instead, economic consumers were to select coarser vegetable foods

appropriate for a robust and virtuous body. 'A criticism of succulence was accompanied by portrayals of a new alimentary persona at once medical and economic' (p. 114). *Économie* linked the nutritive and the financial, the physical and the political.

This was a political program, and also a scientific one: rational consumers and charity administrators alike depended upon experts to define economic choices. Chemists offered their analytical techniques in the service of a broader epistemological and moral project. Philanthropic and governmental institutions strove to apply *économie* to their charges and relied on expert authority to do so. Gelatine, for example, mobilised enormous administrative and scientific interest because it promised a cheap substitute for meat. Paupers, hospital patients and other institutionalised populations could be sustained – given nutritive value – at lower cost. *Économie* relied upon a program of quantification, monetary accounting and scientific authority.

But this is no bloodless history of nebulous instruments of power. This is also a story of 'technologies of the senses' (p. 71). Scientific-industrial foodways developed a unique sensory, aesthetic and emotional experience. When chemists like Antoine Parmentier weighed, analysed and manipulated potato flour or gelatine, they also created new ways of feeling about food. When eighteenth-century consumers bit into a scientifically formulated bar of chocolate, specially designed potato flour or other 'health food', they undertook a knowledge-based act. Spary calls this eating as an 'epistemological transaction': health foods came to represent health, in the same way that scientific experts represented natural knowledge (p. 162). Knowledge was not always transparent, however: chemists and state administrators built a sensory world around techno-nutritive experiments in deception, substituting ingredients on the sly.

Feeding France juxtaposes high and low scientific practices, humble supermarket goods and powerful debates over materialism and epistemology. Things like potato bread and beet sugar lead Spary to examine debates over expert authority and the truths of nature. What are the political implications of finding truth through chemistry? How did scientists come to see substitution, surrogacy and public deception as legitimate paths to truth? What might it mean to speak of a 'politics of matter' (p. 321)? The politics of matter are at the heart of this project, for Spary is concerned here with the co-constitution of social facts and natural facts. Food proved a pivot for political economy, natural history and government. Food made the individual body and defined the body politic.

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Corinna Wagner, *Pathological Bodies: Medicine and Political Culture* (Los Angeles, CA: University of California Press, 2013), pp. xii + 258, $39.95, £27.95, paperback, ISBN: 9780520289529.

'Medicopolitical discourse *does* certain things: it disqualifies female bodies, it pathologizes rebellious radicals, and it censors luxuriating elites' (10). Corinne Wagner's rich and well-researched book does a very useful job in connecting Romantic medicine and politics via representations in literary and visual cultures in the widest sense. No-one has, as yet, produced a book-length study that shows the importance of medicine to politics and its transmission in a variety of cultural media (mainly literary and visual) so well.[1]

[1] Although the intersection of literature, medicine and politics in this period is well served in different ways by