

BOOK REVIEWS

Gavin Weightman, *The Great Inoculator. The Untold Story of Daniel Sutton and His Medical Revolution* (New Haven, NJ, and London: Yale University Press, 2020), pp. xv + 188, £16.99, hardback, ISBN: 9780300241440.

People in eighteenth-century Britain had to learn to live with smallpox; one family, and especially one member of the family, made a handsome living from it. Gavin Weightman's latest book offers the first full length account of the Suttons and their achievements in smallpox inoculation.

Smallpox was a major killer. Survivors, often badly pockmarked, could at least console themselves that they were now immune. Around the world, practices emerged that involved deliberate exposure to smallpox in favourable circumstances, increasing the chances of a safe passage through the disease. Lady Mary Wortley Montagu took an interest in smallpox inoculation in Istanbul in 1717 and arranged for a Greek woman to nick her son's arm and apply smallpox matter under his skin. After the success of the procedure, she resolved to bring the practice into fashion in England and organised the inoculation of her daughter in London in 1721. The medical men who witnessed the operation demonstrated its safety in further trials, and over the following decade, the practice found some favour in elite circles. In assimilating inoculation to their medical paradigms, though, British doctors made it unnecessarily burdensome, with the patient undergoing preparatory purging and bloodletting, suffering a deep cut on the arm, and kept closeted and blanketed during the fever and recovery. Although it was demonstrated statistically that patients' inoculated smallpox was less dangerous than natural infection, the practice involved a significant risk and its expense put it beyond the reach of the population at large.

Smallpox epidemics in the 1740s and 1750s increased interest in inoculation. Alongside medical men offering the procedure, less qualified operators emerged to meet the rising demand. Some proved highly proficient, learning from experience, refining their methods, simplifying the procedure, cutting costs, but achieving better results. Robert Sutton, a Suffolk surgeon, proved one of the most successful. After observing the wretched performance of another surgeon in 1756, he committed himself to a more thorough study of the practice. In 1757, he felt ready to advertise his services as an inoculator on his own account. It was his new business model, rather than his new method that was most immediately apparent. He leased 'commodious' houses and advertised packages covering the preparation, inoculation and care of patients. Advertising their successes, he and his sons, especially his second son Daniel, built a formidable reputation as inoculators.

In Weightman's fine study, Daniel Sutton is brought to centre stage. In 1763, he opened his own inoculation house at Ingatestone, Essex, on the road between London and Harwich. He won celebrity by inoculating an entire village in a day to staunch a smallpox outbreak, and turned opposition to his inoculation house into a publicity triumph by defeating his opponents in court. By the late 1760s, he was at the forefront of the family enterprise, with his father and brothers following in his wake. In addition to operating inoculation houses, they responded to calls for their services from landed families, often bringing in a carriage a smallpox patient as a source of lymph for inoculation. They contracted with parish officers, landlords and trustees of charities to provide group deals. They made money, too, by taking on associates, providing them with training and medicines, and giving them franchise rights in specific districts in the British Isles and even overseas. Daniel Sutton, in particular, made a small fortune and bought a coat of arms. He even hired a clergyman, Robert Houlton, who conducted services for his patients, preached in favour of inoculation and generally promoted the Suttonian enterprise.

The Suttons played a major role in the expansion of smallpox inoculation in Britain and its growing profile in overseas in the last third of the eighteenth century. Their success in reducing the risks of inoculation was widely acknowledged. The obvious improvements were the abbreviation of preparation, the use of fresh smallpox matter and the adoption of a cooling regimen for recuperation. There were

certainly other inoculators who were adopting similar measures, though not as decisively or confidently. In branding their mode of inoculation, the Suttons set much store on their patent medicine. The colour-coded packets of powders and pills prescribed by them for preparation and convalescence attracted much interest. If the exact composition of the pills was a trade 'secret', the active ingredients, notably mercurials, were easily discerned, not least because they were used by other inoculators. If the precise formula did less harm than some concoctions, it can scarcely have been beneficial. Most basically, the Suttons owed their success to hard-won skills and unrivalled experience as specialists. Their great achievement was to realise, demonstrate and publicise the potential of inoculation as an effective and tolerably safe procedure. Given that their achievement probably owed little or nothing to secret nostrums, though, they found it hard to maintain their dominance in the business from the 1770s.

Inoculating thousands of people, Daniel Sutton assuredly saved hundreds of lives. Elite physicians and surgeons were inclined to disparage him as a money-grubbing empiric but readily acknowledged his prowess and expertise. In writing about his own practice in 1796, he showed himself to be thoughtful and experimentally minded. He discovered, for example, that the optimum time for inoculation was in the morning, a finding supported by modern immunologists. Given his role in generalising the practice, Sutton should certainly share some credit for latter developments. It was inoculation of large groups of people that revealed a possible correlation between exposure to cowpox and resistance to smallpox. Jenner's experiments with cowpox and the vaccination revolution seem 'unthinkable' without inoculation. Weightman makes a good case that 'great inoculator' laid the foundations for Jenner's achievement. He also clearly merits a place among the better-known innovators, entrepreneurs and colourful characters of eighteenth-century England.

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Charles Allan McCoy, *Diseased States: Epidemic Control in Britain and the United States* (Amherst: University of Massachusetts Press, 2020), pp. 224, \$28.95, paperback, ISBN: 9781625345073.

In these COVID times, nothing should be timelier than a historical comparison of epidemic disease control in two countries with advanced public health systems, Britain and the United States, yet which have struggled badly to contain the COVID pandemic. Charles Allan McCoy is perhaps unfortunate in that his books appeared just as the COVID pandemic took off, so he was unable to include it in his analysis. Still, he is able to consider epidemic disease control measures in the two countries from cholera in the early nineteenth century through to SARS, Ebola and Zika in the twenty-first century.

McCoy adopts the perspectives and methods of historical sociology for his comparison. In particular, he applies theories of path dependency and biopower to seek to make sense of the diverging approaches to disease control in the two countries over the nineteenth and twentieth centuries. In brief, his thesis is that Britain adopted a sanitary/social approach to disease control in the first half of the nineteenth century shaped by the miasmatic theory of disease prevailing at the time. By contrast, he argues that the US adopted a more militaristic approach based on border controls and quarantine in second half of the century related to the increasing dominance of the germ theory of disease. In each case, he contends that once the policy had been set, feedback loops of response-formation cycles further embedded the initial approach.

In this reading, four factors then help explain the differences in response-formation cycles in the UK and the US. First, there were different levels of centralisation in each country (with the UK more centralised and the US decentralised). Second, medical authorities held different understandings of the diseases they faced (with UK consensus on miasma vs. US splits between miasma and contagion theory