Sir John Colbatch and Augustan Medicine: Experimentalism, Character and Entrepreneurialism†

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Summary

The medical career of Sir John Colbatch illuminates some of the ways in which experimental philosophy, social change, and medical entrepreneurialism together helped bring about the end of the old medical regime in England. Colbatch's career in Augustan England depended very much on a growing public culture in which the well-to-do decided matters of intellectual importance for themselves, becoming increasingly free not only from the clerics but from the physicians. In this new world, debates about the fundamental principles of the new science took place increasingly in public, and in the English language, without the learned men of the university being able to enforce their authority. It gave people like Colbatch a new opportunity to make their way into the medical establishment.

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1. Introduction

Physick for Ages past has gropt her way
In Paths of Darkness, without any Ray
Of Certain Truth, and still going astray:
When Colbatch rose, who with reviving Light
Dispelled the Clouds, and chas'd away the Night.

Such are the Myst'ries of which thou dost unfold, They'll write thy Name in Characters of Gold: To Thee alone Mankind's indebted more, Then t'all the Doctors that have gone before.

J. C. junior¹

¹ 'To the unknown Dr. Colbatch, Upon his several Most ingenious Tracts in Physick, Especially that of Alkalies and Acids', introducing Colbatch, A Relation Of a very Sudden and Extraordinary Cure of a Person Bitten by a Viper, By the Means of Acids (1698). The full citations to Colbatch's fifteen books are given in the Bibliography, in chronological order.

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As this attempt at heroic poetry suggests, one of the most remarkable London medical careers of the turn of the eighteenth century—a period of many remarkable medical careers—was that of John Colbatch. Probably born during the 1660s, beginning as an apprentice and then freeman apothecary in Worcester, he came to London in the early 1690s, where in 1696 he became a licentiate of the London College of Physicians; eventually, in 1716, he obtained a knighthood from George I. He died at what is described as 'an advanced age' on 15 January, 1728/9.2 During his lifetime, Colbatch published over a dozen books, most of which had several editions. He also became the central figure in one of the most vigorous pamphlet wars of the end of the seventeenth century. His many medical enterprises are therefore a telling story of how the social and political world affected English medicine in the period. But the pamphlet war that he caused also gives insight into the intellectual world in which such men could rise to medical importance: a world in which the 'experimental philosophy' had become the touchstone of truth yet meant different things to different people. The collapse of the old medical regime that allowed people like Colbatch to flourish had many causes, but not least among them was the confusion brought about by controversies in the new science.

Despite the promise of the poem that Colbatch would be ever remembered as one of mankind's great benefactors, one would be hard pressed, indeed, to find out anything about him in the historical literature. There is a very short paragraph on him in the Dictionary of National Biography.³ That entry is dependent in turn upon William Munk's short mention of Colbatch in his Roll of the Royal College of Physicians. Typically, Munk is clear about summing up Colbatch's life: 'He was a voluminous writer, but not of the highest class'.⁴ Ninety years later, G. N. Clark made one mention of Colbatch, but confused matters quite a bit: Clark calls Colbatch a 'junior fellow' (an unknown College rank) and repeatedly refers to him as 'Dr Colbatch', when in fact Colbatch never rose above the rank of licentiate and never obtained any university degrees.⁵ To confuse matters further, the Short Title Catalogue and catalogue of the British Library attribute the historical books of another John Colbatch, the Professor

² William Munk, *The Roll of the Royal College of Physicians of London*, second edition (London, 1878), I, 517. Munk's information came from the Annals of the Royal College of Physicians.

³ 'Colbatch, Sir John (d. 1729), physician, a native of Worcester, where he practised for some years as an apothecary, was admitted a licentiate of the College of Physicians on 22 Dec. 1696, was knighted by George I on 5 June 1716, and died on 15 January 1728/9. His books are ridiculed in Garth's "Dispensary", canto v. He published: ... [nine books]. His earlier tracts called forth "Examination of John Colbatch, his books", by Richard Boulton, 1699', *Dictionary of National Biography* (London, 1887), xi, 252 (hereafter *DNB*). This entry, quite unusually, is unsigned.

⁴ William Munk (footnote 2), 517–8, quotes from Samuel Garth's *Dispensary* (1699), canto v (see below, p. 501), to prove his point. Munk also lists nine of Colbatch's books, the same ones later mentioned by the *DNB*.

⁵ Our Colbatch is not mentioned by John and J. A. Venn, *Alumni Cantabrigiensis* (Cambridge, 1924–1927), or Joseph Foster, *Alumni Oxoniensis*, 1500–1714 (Oxford, 1891–1892). Clark mentions Colbatch in the context of the disputes within the College in the 1690s, simply noting his complaint against John Radcliffe and the fact that when accused of speaking ill of the College Colbatch blamed his words on John Badger (on whom, see below, p. 487). Since Colbatch was not admitted as a Fellow, Clark's conclusion that 'Dr. Colbatch was the only fellow admitted between 1694 and 1701', is wrong (the only Fellow admitted in the period was D. Nicolas, and several physicians were made Candidates during these years): G. N. Clark, *A History of the Royal College of Physicians* (Oxford, 1964), II, 471.

of Moral Theology at Cambridge from 1707 to 1744, to our medical writer.⁶ Finally, while there is reason for Colbatch to have been treated by those who have written about the history of quackery; not even C. J. S. Thompson's mine of anecdotal information makes mention of him.⁷

No, Colbatch seems to be one of those people so typical of the time who was a bit too respectable to be treated as a quack, and a bit too outrageous to be listed among the respectable. Colbatch's rise to prominence illustrates perfectly the contemporary excitement about experiment, contestability of theory, debate over character, weakening of the medical establishment, and growth of public sentiment as a judge of propriety and efficacy that makes the period so important. It is precisely because Colbatch, like John Radcliffe and a great many others of the period, made his career in ways that show the differences between the turn of the eighteenth century and our own era that his story is so interesting and instructive, and it deserves a closer look.

2. Empiricism and experiment: a new remedy and its surgical tests

John Colbatch's later testimony makes it plain that he began as an apothecary's apprentice in Worcester, gradually rising to the rank of master in the Mercer's Company (to which the apothecaries belonged), and developing a good practice there before trying his fortune in the capital. He moved from Worcester to London some time in the early 1690s, probably in the wake of his friend Dr William Cole. Cole had earned an Oxford MD in 1666, before entering upon a successful medical practice at Worcester. Cole became part of Thomas Sydenham's network after writing to him in 1681, afterwards calling Sydenham 'my Learned and Worthy Friend'. Colbatch knew Cole very well from at least the mid 1690s, and on several occasions praised his

⁶ Donald Wing, compiler, Short-Title Catalogue of Books Printed in England, Scotland, Ireland, Wales, and British America, and of English Books Printed in other Countries, 1641–1700, second edition (New York, 1972–1988). John Colbatch BA, MA, BD, and DD (1706) served for some years as chaplain at Lisbon between his BD and DD degrees (John and J. A. Venn, Alumni Cantabrigiensis, I, Pt. 1); he, and not our medical practitioner, pace the STC, is therefore certainly the author of An Account of the Court of Portugal (London, 1700), with French translation as Relation de la Cour de Portugal sous D. Pedre II. A Present Regnant. Traduite de l'Anglois (Amsterdam, 1702). Although the practitioner Colbatch is credited by the British Library with Jodocus Crull, Memoires of Denmark (London, 1700), Dutch edition as Mémoires de Dannemark, contenant la vie et le regne de defunt Christienne V, roy de Dannemark et la Norvege, etc. Trad. de l'anglois (Utrecht, 1701), it, too, was undoubtedly by the divine.

⁷C. J. S. Thompson, *The Quacks of Old London* (London, 1928). Thompson probably makes no mention of Colbatch because he was not one of those who advertised his practice by handbills, the two collections of these in the British Library being the major sources of Thompson's work. Roy Porter has recently mentioned Colbatch in passing in a line in his *Health for Sale: Quackery in England 1660–1850* (Manchester, 1989), p. 44. Colbatch is treated all too briefly in my *The Decline of the Old Medical Regime in Stuart England* (Ithaca, 1986), pp. 214 and 237; he gets more space in H. J. Cook, 'Practical Medicine and the British Armed Forces After the "Glorious Revolution"', *Medical History*, 34 (1990), 16–20. The only other treatment of Colbatch I have been able to discover is a short discussion of his 'hymn' to mistletoe of 1719, in Leo Kanner, 'Mistletoe, Magic and Medicine', *Bulletin of the History of Medicine*, 7 (1939), 875–936 (pp. 928–9).

⁸ Anthony Wood, Fasti Oxonienses, or Annals of the University of Oxford (London, 1820), II, 160, 230, 291. According to J. F. Payne's article in the DNB, IV, 73, people of distinction from the vicinity of Worcester consulted Cole.

⁹ William Cole, A Physico-Medical Essay Concerning the late frequency of Apoplexies. Together with a general Method of their Prevention, and Cure. In a Letter to a Physitian (Oxford, 1689), p. 113. Cole's letter of 1681 had called forth Sydenham's Dissertatio Epistolaris ad spectatissimum doctissimumque virum Gulielmum Cole. M.D. De observationibus nuperis circa curationem Variolarum confluentium: nec non De affectione Hysterica (London, 1682).

¹⁰ J. Colbatch, Novum Lumen Chirurgicum: Or, A New Light of Chirurgery (1695) concludes with praise for William Cole, p. 81. Cole will figure further in the account below.

medical methods.¹¹ In all likelihood, Colbatch and Cole had already come to know one another in Worcester, where Colbatch may have been one of the apothecaries serving Cole and his patients. By early 1693, Cole had moved to London,¹² with Colbatch moving at the same time.

For by the autumn of 1693, word of a powerful new medicine invented by Colbatch was running through the London medical community. Colbatch's 'Vulnerary Powder' (named after Sir Kenelm Digby's most famous remedy), 13 and his associated 'Tincture of the Sulphur of Venus', 14 were rooted in a general medical system being forwarded by followers of Sydenham, including Cole;15 but the specific medicine had been developed from Colbatch's own investigations. During these first years, Colbatch did not spell out the principles according to which he had developed his remedies, simply claiming that he had found them empirically through self-study in medical books, by performing chemical experiments in his laboratory, and by trying things out on 'dogs and other animals'. Like other medical empirics of the time, he discussed the reasons why his remedies worked only in very general terms, preferring to stress their practical results. The two remedies discovered by such labours were produced in the form of powders, and were most useful in surgical cases, he wrote. His 'Vulnerary Powder' had the power to stop bleeding almost immediately, even in very bad wounds, without the application of a tourniquet; and together with the 'Tincture of the Sulphur of Venus' helped the nutriment of the body restore the flesh. The 'Vulnerary Powder' was meant to be dissolved in water (or if that was unavailable, in urine), and applied both to the surface of wounds and squeezed or injected into them; the lips of the wound were then to be stitched together immediately rather than kept open by tenting for the extrusion of laudable pus and healing from the bottom up. The patient was also to be given internally some of Colbatch's 'Tincture of the Sulphur of Venus' dissolved in wine. 16 Together, these remedies would bring about painless cures even in the body cavity in a matter of days, Colbatch claimed. 17

Needless to say, Colbatch's claims were of great interest to the London surgeons. But since the contemporary marketplace was then flooded with medical empirics who made great claims for their secret remedies, 18 some of the surgeons resorted to the

¹² Cole became a Candidate of the London College of Physicians on 26 June 1693, and a Fellow one year later (25 June 1694), *Annals of the Royal College of Physicians*, vol. 6, fols. 69, 144–5 (hereafter, *Annals*). My thanks to the Fellows of the Royal College of Physicians for permission to cite their records.

¹¹ For example, J. Colbatch, A Treatise of the Gout: Wherein both its Cause and Cure are demonstrably made appear (1697) is dedicated 'To the Worthy Dr. William Cole'; J. Colbatch, The Doctrine of Acids in the Cure of Diseases Farther Asserted (1698) recommends a course of treatment following that of 'the Great Dr. Cole', p. 102; J. Colbatch, A Dissertation Concerning Mistletoe (1719) and J. Colbatch, A Dissertation Concerning Mistletoe ... The Second Edition (1720) report a medical case in the words of Cole, pp. 13-4.

¹³ Digby's famous 'weapon salve', which stopped the bleeding of wounds by application to the weapons which caused them, was in fact a 'powder of sympathy', or in Latin a 'vulnerary' powder. For a description of making the powder, see Sir Kenelm Digby, A Late Discourse Made in a Solemne Assembly of nobles and Learned Men at Montpellier in France... Touching the Cure of wounds by the Powder of Sympathy; With Instructions how to make the said Powder; whereby many other Secrets of Nature are unfolded, translated by R. White, second edition (London, 1658), pp. 137–42. Also see Allen G. Debus, 'Fludd, Gilbert and the Weapon-Salve', Journal of the History of Medicine, 19 (1964), 389–417; and William F. Bynum, 'The Weapon Salve in Seventeenth-Century English Drama', Journal of the History of Medicine, 21 (1966), 8–23.

¹⁴ It is not entirely clear whether the 'Venus' in this remedy implied that it could be used in venereal complaints, or (more likely) whether it referred to the links between the planet Venus and copper, and copper and green colour: the most important ingredient in Digby's powder is a vitriol powerful enough to turn the metal of knife-blades green.

¹⁵ On this point, see Section 4 below.

¹⁶ Colbatch, Novum Lumen Chirurgicum, pp. 81-2.

¹⁷ Ibid., pp. 27-39.

¹⁸ For a recent summary of contemporary medical empiricism, see Roy Porter (footnote 7).

methods of contemporary science and tried out experiments with the medicines. Late in 1693, with Colbatch's help, they arranged for a public trial of his medicines on a dog. As the surgeon and member of the Royal Society, William Cowper, soon wrote: 'The Report of Wonderful Cures wrought by Mr Colbatch's Styptick Pouder, so entertained the Expectations of divers Persons, that amongst others I thought my self obliged to obtain some convincing Proofs of its Operations'. A large dog was procured, his abdomen cut open so that some of his small intestines protruded, and a further cut was made in the intestines along their length; the intestines were then replaced in the dog's body, the wound stitched up, and some of Colbatch's powder applied. The Dog continued without any ill Symptoms, and became perfectly well in a few days after'. Then the rear leg of the same dog was amputated 'three Inches above the Patella' (close to the body), which caused a great flow of blood; 'but after two or three attempts [using Colbatch's powder] the Flux of Blood was stopt, and such a Bandage made use of as was necessary only to keep on the Dressings: the Dog continued without any considerable Flux of Blood, and the next day he was found on his three Legs'. 21

After the successful experiment with the dog, the surgeons moved to the next step: an experiment on people. The trial with the dog had suggested that Colbatch's claims for his remedy were accurate and, as Cowper put it, 'raised our Expectations of the like Success on Humane Bodies'. One of the Master-Surgeons of St Bartholomew's Hospital therefore arranged for Colbatch to try his medicines on two people there. ²² In Colbatch's presence, Cowper and several other surgeons tried the vulnerary powder on two patients at St Bartholomew's Hospital who required amputation: one a man whose arm was amputated above the elbow, the other a boy of about twelve or fourteen years old whose leg was taken off below the knee.

But in both cases, Cowper reported, several 'successess Applications of this Styptick were made', the blood finally being stopped by the usual tight bandages. In both cases, too, after initially ending the flow of blood, there was a recurrence of heavy bleeding a few hours later, which also had to be stopped by 'strict bandage'. Finally, in both cases the patients 'suffered extravagant Pains'. When the bandages were removed three days later, 'had any Person, a stranger to what had been done, seen the Stumps, he would have supposed nothing less than an actual Cautery had been applyed, or could have occasioned such large Escars, and so horrid an Appearance'. ²³ To Cowper, this trial of

¹⁹ William Cowper, 'An Account of some Experiments lately made on Dogs, and of the Effects of Mr. John Colbatch's Styptick on Humane Bodies', *Philosophical Transactions of the Royal Society*, 18, no. 208 (February 1693/4), 42. According to Colbatch, he performed these initial experiments for the surgeons, with Cowper among the observers: J. Colbatch, *Novum Lumen Chirurgicum Vindicatum*: Or, the New Light of Chirurgery Vindicated (1695), p. 69.

There seems to have been quite a bit of current interest in surgical experiments on dogs: for example, those of the Leiden anatomy professor Charles Drelincourt, in his Experimenta Anatomica, ex vivorum sectionibus petita, edited by Ernest Gottfr. Heyseum (Leiden, 1681), which was reviewed with considerable interest in the Philosophical Transactions of the Royal Society, 15, no. 169 (March 23, 1685), 945–6. Also see G. A. Lindeboom, 'Dog and Frog—Physiological Experiments', in Leiden University in the Seventeenth Century: An Exchange of Learning, edited by Th. H. Lunsingh Scheurleer and G. H. M. Posthumus Meyjes (Leiden, 1975), pp. 279–93 (pp. 289–90 on Drelincourt).

²¹ William Cowper (footnote 19) p. 42.

²² J. Colbatch, Novum Lumen Chirurgicum Vindicatum, p. 69; the language of Cowper's report suggests that the trial had been arranged by Cowper, but the surgeons officially appointed to St Bart's were then George Horsell, Charles Bernard and Robert Stevens: Nellie J. M. Kerling, 'Chronological List of Physicians and Surgeons', The Royal Hospital of St. Bartholomew, 1123–1973, edited by Medvei and Thornton (London, 1974), p. 389. Given Bernard's later involvement with testing Colbatch's remedies, he is probably the person who arranged for the experiment in the hospital, although perhaps it was at Cowper's instigation.

²³ William Cowper (footnote 19) pp. 42–4.

what he called Colbatch's 'styptick' proved that it was nothing other than 'a violent Caustick'. His report of the experiments in the *Philosophical Transactions* drew a larger lesson for his virtuosi readers as well: while animal experiments were commonly being performed on dogs and calves to try out new remedies, 'we ought to make our Experiments on those animals whose Magnitude and Age bear a Proportion to [the human body]: For, nothing is more obvious in Wounding the Arteries of Living Animals, than that the Protrusion of their Blood bears a Proportion to their Bulk'. This explanation was consistent with the prevailing mechanical ideas of the virtuosi with regard to physiology, associating what we would call 'blood pressure' with size. All had therefore been wrong in thinking that experiments on smaller animals could prove the efficacy of a remedy meant for humans.²⁴

But Colbatch told quite a different story, with quite a different lesson. He rejected the claims that his powder was a caustical styptic and that it did not work well on people; and he rejected the views of Cowper because he thought that Cowper and the surgeons had interests preventing them from giving his remedy a disinterested trial. Coming to London with confidence in his remedy, Colbatch had been happy to oblige the London surgeon-virtuosi in the hospital experiments as a way of gaining allies. But from the beginning of the trial, doubts about their motives began to surface in Colbatch's mind. According to him, the surgeons had requested that he come alone so that a crowd could be avoided, and he acceded to the request, bringing along only a servant boy to help. The Tuesday of the trial, however, he found about twenty surgeons waiting for him, who not only outnumbered him, but insisted on regulating the experiment themselves. Colbatch confessed that 'my Pouder was two or three times applied before the Fluxes of Blood were stopt', but he thought that 'the irregular application of it by one of themselves was the occasion of it'. His anxieties were temporarily relieved when after the patients had been treated and put to bed, the whole group went to a tavern, 'where every one seem'd to express great Satisfaction in what had bin done'.25

Even so, Colbatch quickly found that he had been snookered. The next morning, while he was at Tom's coffee house, Colbatch was informed by a physician that the performance had gone amiss

for that one of the People had bled afresh; and if Mr. [Charles] Bernard had not bin at hand to have taken off mine, and applied his own Medicins, he had bled to Death. The Truth of which I had no reason to believe, having sent one the Night before, and another that Morning, to make strict enquiry how they did, who brought me word they were both very well....²⁶

Colbatch immediately went to the hospital, meeting on the way Mr Blackstone, apothecary to the hospital, who told the same story that the physician had. But when he arrived, Colbatch found something quite different from what had been reported:

when we came to the Bed where the Man lay whom they said had bled again; before I was capable of speaking to him, he rose up in his Bed, and prayed most heartily for me, telling me he believed no man, that ever had an Arm cut off, was so well as he.

 ²⁴ Ibid., p. 44.
 ²⁵ J. Colbatch
 ²⁶ Ibid., p. 70.

²⁵ J. Colbatch, Novum Lumen Chirurgicum Vindicatum, p. 70.

The man showed Colbatch that the dressings he had on his wound were the same ones Colbatch had put on the day before; he reported having had some pains in the inflammation above the stump for four or five hours the previous night, but had slept well. The boy amputee reported the same.²⁷

The accounts of Colbatch and Cowper cannot be reconciled: one or both of them were twisting the truth. Therefore, the personal character of the antagonists quickly became the central issue in the argument. The issue of character not only determined the lessons to be drawn from the events, but the 'facts' themselves.²⁸

Given both the way in which the trial of his remedy had been performed, and the rumours about its outcome circulating in London, Colbatch protested vigorously. Charles Bernard, therefore, arranged for yet another experiment at St Bartholomew's. Given what he considered to have been his previous treatment, Colbatch refused to attend, but sent Mr Baker, surgeon in Suffolk Street, on his behalf.²⁹ We know of this experiment only from a letter of Bernard's to Colbatch, and have to infer several things. But it is clear that in answer to some of Colbatch's objections about the first experiment, Bernard invited only a small group of people,³⁰ and ones other than had been at Cowper's trial, to be witnesses. Yet again, the trial failed.

Nevertheless, the character of the performers and witnesses of the experiment became the central question in the debate about its meaning. Colbatch wrote a strong complaint about the test to Bernard, centring his remarks on the motives of the surgeons in performing the experiment as they did. His associate, Baker, was not allowed to apply the remedy himself, the remedy was taken off too soon so that it did not have its full effect, too little of it was applied, and in general the surgeons were seeking ways to denigrate a useful remedy, Colbatch wrote. Because Bernard himself had such an excellent personal reputation, Colbatch had to disassociate any nasty remarks he made about the surgeons in general from Bernard, for whom he publicly maintained a high regard.³¹

Bernard's reply to Colbatch took clear advantage of this inequality of reputation, mingling questions about Colbatch's own character with his own witnessing of the events. Bernard, who noted that 'it lookes very much like a jest that a medicine designed for universal use... should be capably of being artifically or successfully applyd but by one man', again speaks of the 'horrid' and long-lasting pain suffered by the patient and the huge and gruesome scars afterwards left on the stump, states baldly that had they not put on 'a fresh rowler... with streighter bandage the man had bled to death', and tells Colbatch that his ideas about the mechanical reasons for the failure of the experiment were 'fitter for a carpenter than a philosopher to assign', and generally

²⁷ Ibid., p. 71.

²⁸ The issue of personal character and medical practice has a very long history: Galen's books contain many examples of the topos. The question of character with regard to early modern experimental practice has been recently developed by Steven Shapin and Simon Schaffer, *Leviathan and the Air Pump: Hobbes, Boyle, and the Experimental Life* (Princeton, 1986); Schaffer, 'Godly Men and Mechanical Philosophers: Souls and Spirits in Restoration Natural Philosophy', *Science in Context*, 1 (1987), 55–85; S. Shapin, 'The House of Experiment in Seventeenth-Century England', *Isis*, 79 (1988), 373–404; and S. Shapin, 'Who was Robert Hooke?', in *Robert Hooke: New Studies*, edited by M. Hunter and S. Schaffer (Woodbridge, Suffolk, 1989), pp. 253–85.

²⁹ J. Colbatch, Novum Lumen Chirurgicum Vindicatum, p. 72.

³⁰ This is verified by the fact that J. Colbatch refers to the six or so surgeons who were going to be witnesses, ibid., p. 72.

³¹ Ibid., p. 64. I am far from charging him [Bernard] with any thing unfair, for I can hear of no one person who has at any time heard him declare, That the Man at the Hospital bled again after my Powder was applied, and had stopt the Flux of Blood'.

defends the integrity of himself and the other surgeons, who, he says, had every reason to want the remedy to work. In short, Bernard concludes, although Colbatch's letter to him 'carryes no very obliging air with it', he would be happy to arrange yet another trial at which anyone appointed by Colbatch could see the amputation and apply the remedy, so that 'we may avoid all objections and establish ye reputation of an experiment designed... for the advantage of mankind'.³² The acceptance of Colbatch's powder among the experimentalist surgeons depended entirely on the 'reputation' of the experiment: that is, on the personal character of the witnesses.

Whether Colbatch ever accepted Bernard's challenge is unknown, but unlikely, for one of the central objections Colbatch made against the trials of the surgeons was that of motive. The surgeons were old-fashioned people who did not want to acknowledge the usefulness of his remedy, Colbatch insisted, and so they found ways to bring it into disfavour. They were, in short, lying. It was he, the true experimenter but an unknown person, who battled for truth against the complacency of the medical establishment. Colbatch's controversy is a clear example of how important the character of the witnesses to experiments remained, not only in testifying to the accuracy of what happened afterwards but in the performance of the trial itself. To his mind, he only needed a public forum under his own direction to prove how valuable his remedy really was. But without access to a London hospital, where could he get his own experimental subjects to counter the criticisms of the surgeons? He found the answer in the army.

3. Going public: military interest and public successes

One suspects that Colbatch had from the beginning aimed his new remedy at the new and increasingly powerful military establishment. He came to London just a few years after William of Orange's army kicked James II off the throne of England, and William was just then busy after 'pacifying' Ireland in trying to expel Louis XIV from Flanders. Obviously, a set of remedies that would stop the bleeding of wounds and quickly and always successfully help them to heal, and which could be applied by any surgeon on a few moments' notice if the powder and some urine were at hand, would be quite useful in the army and navy. William was preoccupied with military affairs, and had political views described by one historian as 'empirical'.³³ He had already shown himself ready to put the prestige of the throne behind people who had experimentally shown that they had new and effective remedies.³⁴ With a bit of help from William's generals, therefore, Colbatch got a chance to experiment in his own way to show publicly the efficacy of his new medicines.

Who Colbatch's patron was is not clear, but someone in authority thought that Colbatch's remedy was worth a trial on soldiers, apparently in the late winter of 1694, as the campaigning season approached. According to Colbatch's later account, he performed one hundred experiments and had only five 'miscarry'. Unfortunately, three of his five failures occurred in the presence of Lord Cutts, Colonel of the Coldstream

³² Letter of C. Bernard to J. Colbatch, undated, British Library, Sloane MSS [hereafter 'Sloane'] 1783, fols. 80–1.

³³ John Carswell, The Descent on England (London, 1969), p. 220.

³⁴ For example, in May 1689 the King had given a royal licence to sell an antidote against poison 'from any stage in any city or town' to Cornelius à Tilbourne, since he had 'made experiment of the virtue' of the antidote, 'to the general satisfaction' (Calendar of State Papers, Domestic, 1689–90, p. 111); and in February 1692 the King received a report from the Earl of Nottingham on a beer that Sir Brian Broughton believed cured 'green wounds', which gained the interest of His Majesty. In the later case, too, William wanted some of the liquor sent along so that 'an experiment' could be made of it before 'some further resolution' would be taken with regard to it (Calendar of State Papers, Domestic, 1691–92, pp. 130–1).

Guards. Colbatch had an explanation, again based on the ill will of his opponents: two of the failures had occurred because, 'as I can plainly make appear', the soldiers had been intentionally poisoned 'after the danger' from their wounds 'was over'; the third failure ended in the death of the soldier due to yet further foul play. Knowing the views of the surgeons, who were in his opinion trying to destroy the reputation of his remedies, Colbatch watched over this last patient day and night 'for fear of Roguery'. But when the soldier had become free of 'all ill symtoms', and had become 'almost well', Colbatch let down his guard and left the patient alone for four or five hours, during which time he was gotten drunk; an hour or two after Colbatch's return, he died. As he later put it, 'My failing in these last Experiments, I suppose, was the Reason I was not then employed by His Majesty' for that spring's Flanders campaign. 35

Despite such severe setbacks at St Bartholomew's and in Lord Cutts' regiment, Colbatch had the vision of an anti-establishment prophet, and remained undeterred. Knowing that the only chance of his success lay in successful public experiments on severe wounds under his own direction, in May 1694 he applied for and received a pass from the government to go with two servants to Holland for the summer campaign. Colbatch had invested a large amount of money in making up a batch of his medicines to take with him. He gained (or retained) the support of Major General Sir Henry Bellasis, via whom the interest and good wishes of His Majesty himself may have been conveyed to Colbatch. He King was persuaded to issue a general order requiring that reports of any wounded men be brought to General Bellasis, and these men became Colbatch's next experimental subjects. His time, working in the field, 'thanks to God amongst the great number of Patients I had, there was none but one that miscarried'. Ho

Up to this point, Colbatch had done everything possible to establish the reputation of his remedies without resorting to methods that might label him a quack. He had tried working within the establishment, not advertising his remedies⁴¹ or otherwise trying to make a public splash, but working privately, attempting to make his way first among the London surgeons and then in the army. He had even refused a reply to Cowper's scathing report of the hospital experiments in the *Philosophical Transactions*. In taking this course, Colbatch was avoiding the reputation of someone who appealed to the public rather than people of good judgement. If those who were learned in medicine or who possessed the sound character of a leader accepted his remedy, he would not need to appeal to the common public, therefore avoiding the impression of quackery that came with such self-advertisements.

But in the autumn of 1694, perhaps to protect as much as to advance his reputation, he did take his case to the public by publishing a book about his medicines.⁴² After his

³⁶ Calendar of State Papers, Domestic, 1694-5 (10 May 1694), p. 130. ³⁷ J. Colbatch, Novum Lumen Chirurgicum, 'To the Reader'.

J. Colbatch, A Physico-Medical Essay, 'To the Reader', and p. 43.
 J. Colbatch, Novum Lumen Chirurgicum, 'To the Reader'.

⁴¹ A search of the London newspapers from 1693 to 1695 has revealed no advertisements by J. Colbatch; neither has a search of the handbills from the period collected together in the British Library.

³⁵ J. Colbatch, *Novum Lumen Chrirugicum*, 'To the Reader'. The experiments he performed on dogs operated on in front of Lord Cutts were, in his opinion, also being lied about: J. Colbatch, *Novum Lumen Chirurgicum Vindicatum*, p. 68.

³⁸ Dedication to J. Colbatch, Novum Lumen Chirurgicum. J. Colbatch later dedicated a book to the now Lieutenant-General Sir Henry Bellasis, who is said to have helped Colbatch when he 'stood most in need of your Assistance': J. Colbatch, A Physico-Medical Essay Concerning Alkaly and Acid (1696), dedication.

⁴² The Parliament did not renew the Licensing Act before it was prorogued on 3 May 1695; even just before the Act's lapse, when it became clear that it would not be reinstated, a flood of new and unregulated newspapers, pamphlets, and books began to appear.

successes in the summer campaign, he returned to London and found a publisher for a book about his practice that detailed many of the cases he had treated in Flanders. showing what he believed to be the slanders of his detractors.⁴³ In his book, the question of whether his remedies worked continued to be intimately associated with the question of character. Colbatch portrayed his battle for the acceptance of his medicines as a virtuous crusade carried on at the risk of death. While the English army had 'a great many Chirurgeons, who are Men of extraordinary Worth and Candor, from some of whom, I have received most civil treatment', others exhibited real malice toward him. 44 So great was the jealousy of some army surgeons, he said, that he had been publicly threatened with his life in camp, after which he and two friends were 'secretly Poysoned'. One of his friends died, and Colbatch and his other friend barely escaped with their lives. 45 The fact that in reply to his book one or more surgeons brought out their own tract early in 1694/5, taking their case against Colbatch to the public and denigrating his character in turn, did little to assuage his sense of self-sacrifice in a righteous cause.⁴⁶ Perhaps his sense of martyrdom gained increased force from his religious conviction, for although Colbatch later wrote that he was not a 'strong Predestinarian', some of his writing is thoroughly imbued with devout religious imagery.47

The pamphlet published by the surgeons in a counter-attack on Colbatch's work supported Cowper's idea that Colbatch's powder was nothing more than a 'considerable Caustick'. As In doing so, the author or authors again mixed the issues of character and experiment. They established their own veracity by showing a firsthand acquaintance with events that had taken place in Flanders. They noted how Colbatch had made himself a regular pest to the regimental surgeons by invading their hospitals, stripping the dresssings off their patients, and applying his remedy. They attacked Colbatch's person, for not even his friends placed credence in his story about being poisoned by the surgeons, they claimed. And they told how his remedy caused excessive pain, swelling, inflammation, and fever. As for the composition of his powder, they had analysed it by taste, smell, colour, and fire, and thought it to be something more

⁴³ J. Colbatch, Novum Lumen Chirurgicum. This book was published some time between 3 October 1694 (the date last mentioned in the book), and 18 April 1695, when he reported having seen the 'libel' published against his book by the surgeons (on which, see below, note 27): J. Colbatch, Novum Lumen Chirurgicum Vindicatum. It seems probable that Colbatch's medical patron William Cole introduced him to the publisher Daniel Brown, since it was Brown who had earlier brought out Cole's Novae Hypotheseos, Ad Explicanda Febrium Intermittentium Symptomata et Typos Excogitatae Hypotyposis. Unà cum Ætiologiâ Remediorum; Speciatim verò De Curatione per Corticem Peruvianum. Accessit Dissertatiuncula de Intestinorum Motu Peristaltico (London, 1693).

⁴⁴ J. Colbatch, *Novum Lumen Chirurgicum*, 'To the Reader'; he often mentions by name one Mr Chomley as a surgeon who helped him: pp. 40–80.

⁴⁵ J. Colbatch, *Novum Lumen Chirurgicum*, sig. b3. He repeated this charge in J. Colbatch, *Novum Lumen Chirurgicum Vindicatum*, p. 11.

⁴⁶ W. W., Novum Lumen Chirurgicum Extinctum; Or, Med. Colbatch's New Light of Chirurgery Put out. Wherein The dangerous and uncertain Wound-Curing of the Pretending Medicine and the Base Imposture of this Quack-Medicines, are impartially confuted (London, 1695). According to Colbatch, Novum Lumen Chirurgicum Vindicatum, Preface, this reply to him had come out by 18 April 1695. Both the surgeons' pamphlet and Colbatch's reply were dedicated to the Secretary of War, William Blaithwaite.

⁴⁷ For example, J. Colbatch, Some Farther Considerations Concerning Alkaly and Acid (1696), 'Preface'; and J. Colbatch, A Scheme for Proper Methods to be taken, should it please God to visit us with the Plague (1721), 'Preface'.

⁴⁸W. W. (footnote 46), vii.

⁴⁹ Ibid., pp. x, xi, 30–1.

than dried 'Vitriol of Copper... which hath a small Mixture of Iron', probably either Roman or Danzig vitriol, most probably the latter because it was cheaper. The tincture 'consists of a Mixture of Oil of Vitriol, and Spirit of Wine'.⁵⁰

But once begun, a public debate was difficult to stop, because it tended to call into question the characters of all parties, requiring further defence from them all. Colbatch therefore brought out another tract, accusing the surgeons of envy and other very grave moral failings in a collective conspiracy to undermine his remedies. They had also conspired to write it at a time when Colbatch was preparing to go to Flanders yet again, and when the officers of the army who could testify to last season's successes had gone out of town. In his reply, to support his own testimony, Colbatch kept hitting at the evidence that the officers would give if they were in London. For example, Colbatch wrote that Mr Hall, one of the authors of the book against him and a surgeon to the Honourable Colonel Fitzpatrick's regiment of Fusiliers, 'brings in the Major and two Captains of the said regiment to justify a most notorious Untruth; of which, when it shall com to their knowledg, I suppose he will have sifficient cause to repent'. That is, Colbatch felt confident enough to bring into his case the testimony of a gentleman officer against a surgeon of ordinary rank. 52

Colbatch also felt compelled to vindicate himself and his remedies by further experiments by literally returning to the field of battle. According to his own testimony, his remedies again enjoyed great success in Flanders in that summer of 1695. If we can believe a letter of his reprinted in an early eighteenth-century biography of John Radcliffe, he even gained the position of local Surgeon-General during the siege of Namur (one of William's great military successes). ⁵³ After returning to London from Namur (where he had successfully treated the Duke of Arlington), Radcliffe wrote to Colbatch: 'I Congratulate you very heartily upon your new Aquisition of Fame, by the Help of your renowned Stipick. The Cure you have performed is Attested by so many Persons, and comes from so good Hands, that I, who am never too credulous in Things of this Nature, give into the Belief of them very greedily'. ⁵⁴ Because Colbatch had gained 'the good Will of most Officers of the Army' by open trials and successful cures that were followed with interest by the generals, and even by the King, many people were being persuaded of the efficacy of Colbatch's medicines. ⁵⁵

Still, there remained plenty of detractors. Some of the army surgeons continued to abuse him, for again in 1696, Colbatch wrote that he would 'never design' any more to go to the Army in Flanders, 'being sufficiently deterred from it, by the ill Treatment I had there last Year, by the means of some of my old friends the surgeons'. ⁵⁶ And

⁵⁰ Ibid., pp. 61–4.

⁵¹ J. Colbatch, Novum Lumen Chirurgicum Vindicatum, p. 68.

⁵² Of course, being out of the country Colonel Fitzpatrick could not then testify against Colbatch, either; but Colbatch's confidence in his ability to use the colonel's name in print must have seemed impressive to some.

⁵³ W. Pittis, Dr. Radcliffe's Life, and Letters, third edition (London, 1716), p. 30.

⁵⁴ Ibid., pp. 31–2, dated July 23, 1695. A large excerpt from the letter is reprinted in Campbell R. Hone, The Life of Dr. John Radcliffe 1652–1714 (London, 1950), pp. 59–60. According to Pittis, Colbatch was 'a Person whom [Radcliffe] had favoured with his Conversation; more especially, one whom he had recommended'. Although Pittis glossed the letter as showing Radcliffe's support for Colbatch, he printed the letter for the first time in the third edition of his life of Radcliffe, which appeared shortly after Colbatch had been knighted; Pittis was apparently eager to show his hero on Colbatch's side in the early days.

⁵⁵ J. Colbatch, Novum Lumen Chirurgicum Vindicatum, Preface.

⁵⁶ J. Colbatch, Some Farther Considerations, sigs. A6-A6v.

Radcliffe's letter warned Colbatch that his new reputation in surgery was causing jealousies among his rivals in London. Radcliffe wrote that several of the

Pretenders in your Faculty... who would be thought equal to you in Skill, have already made Declarations of being let into the knowledge of your Secret. ... [Alexander] Read, the Mountebank, who has Assurance enough to come to our Table up Stairs at Garraway's, swears, that his Water is as much superior to any Restringent of yours, in stopping the Effusion of Blood, that he'll stake his Coach and Six Horses, his Two Blacks, and as many Silver Trumpets against a Dinner at Pontacks; that provided, every Soldier in the King's Army were furnish'd each with a small Viol of it, that in a Pitch'd Battle of Six Hours Duration, there should not be lost, amongst the whole Number of the Wounded above Three Quarts and a Pint of Blood. You may judge after what manner he was received.

The tone of the letter suggests that Radcliffe was looking forward to a fine duel between Colbatch and various other public empirics when he returned from Flanders.⁵⁷

All this controversy over his Vulnerary Powder certainly caused Colbatch's name to be very widely known, and undoubtedly increased sales of his powders. For example, a letter to Hans Sloane from an Irish correspondent, written three years after Colbatch's success at Namur, inquired about current London opinion, since 'two or three years ago I heard much of Colbatch's methode of curing wounds...[and his] powder and tincture... he talks so much of, for tho he talk as a quack yet he may improve some methods of cure wherein he is best skilled'. But as the letter also says, the manner in which Colbatch's reputation was being established—by pamphleting—made him seem too much like a quack for some. If Colbatch was to gain medical legitimacy, he would have to find a way to become more acceptable.

With the backing of his publisher, Daniel Brown, Colbatch began the process of removing his growing reputation for quackery by taking an important step. By 1696 he had 'sold the Receipt of my Vulnerary Powder and Tincture, and all the said Medicines I had by me', to Brown, 'who is better able to dispose of them for the Publick Good of Mankind than I could'.⁵⁹ Like other entrepreneurial booksellers of the time, Brown not only printed and sold Colbatch's books, but, probably more important for his 'bottom line', sold at his own shop the remedies Colbatch so loudly proclaimed.⁶⁰

⁵⁷ W. Pittis (footnote 53), 31–2. The letter suggests that Radcliffe was egging Colbatch on with mock support; certainly Radcliffe and Colbatch soon were strongly at odds, if they were not when the letter was written (see below, p. 488). On Read, knighted by Queen Anne in 1705, see Gordon W. Jones, 'A Relic of the Golden Age of Quackery: What Read Wrote', *Bulletin of the History of Medicine*, 37 (1963), 226–38; Roy Porter (footnote 7), 12, 50, 65, 66, 73, 95, 234.

⁵⁸ Anonymous letter (the name at the bottom of the page is torn) from a correspondent in Dublin, 18 September 1698, Sloane 4037, f. 119. Colbatch also associated with the London chemical empiric Moses Stringer, although Colbatch 'will not pretend to justifie Mr. Stringers conduct in a great many things': J. Colbatch, A Relation Of a very Sudden and Extraordinary Cure of a Person Bitten by a Viper, By the Means of Acids (1698), pp. 18–9. Stringer apparently was the person who sold the widely advertised 'Nectar and Ambrosia', which he presented to the Tsar upon his visit to London (The Post Boy no. 432 (8–10 February 1697/8)). For another view of Stringer, see John H. Appleby, 'Moses Stringer (fl. 1695–1713): Iatrochemist and Mineral Master General', Ambix, 34 (1987), 31–45.

⁵⁹ J. Colbatch, Some Farther Considerations, sigs A6-A6v.

⁶⁰ For instance, the preface to J. Colbatch, *Novum Lumen Chirurgicum Vindicatum*, published by Brown, informs the public that his true powders and tinctures can be had only at 'Mr. Brown the bookseller's', all others being only copies. It is also significant that Colbatch's public praise for William Cole (in his *Novum Lumen Chirurgicum*) is praise for another author published by Brown.

Publisher-booksellers like Brown had shops in London where they could sell medicines, and gain ready access to printed advertisements; but they were also part of a distribution network running from London to all the corners of the land by which they could sell remedies wholesale to local retailers in provincial towns. Historians of the early book trade often remark on how often booksellers sold medicines as well:⁶¹ as a publisher as well as a bookseller, Brown⁶² seems to have been adept at what was basically the commissioning of new remedies by publishing their 'authors'.⁶³ If we are to believe the advertisements Brown placed in the newspapers for the Vulnerary Powder and Tincture, he paid Colbatch a large sum for them indeed.⁶⁴ For Colbatch, there was the additional advantage in giving up his proprietary medicines of no longer appearing to be a one-medicine hawker of powders.

In the same year, Colbatch took a further step toward medical legitimacy by applying for the licentiate of the London College of Physicians, which would allow him to practise legitimately in London. Following College rules, he obtained a formal discharge from the Mercers' Company in Worcester, and began to pay visits to the Fellows so that they could meet him before voting on his application. He underwent the formal College examinations in physiology, pathology, and therapeutics. Although Dr Baynard informed the President and Censors that Colbatch had publicly complained of their rude behaviour towards him, Colbatch denied that he had any ill feelings toward them, placing the whole blame on John Badger, who had incited him to write a strong letter to the President. He begged their pardon and declared that he

⁶¹ For instance, Marjorie Plant, The English Book Trade: An Economic History of the Making and Sale of Books (London, 1965), pp. 96–7; John Feather, The Provincial Book Trade in Eighteenth-Century England (Cambridge, 1985), pp. 83–5.

⁶² Daniel Brown (or Browne) published many books between 1672 and 1729, beginning with a small theological tract: was there something about Colbatch's religious convictions that helped Brown place faith in him? After this start with religious tracts, Brown 'quickly rose to an important position in the trade. He also sold books by auction'. He was plainly an excellent entrepreneur. Quotations from Henry R. Plomer, A Dictionary of the Printers and Booksellers who were at Work in England, Scotland and Ireland from 1668 to 1725 (Oxford, 1922), p. 53.

63 In the language of the day, people like Colbatch were not only 'authors' of books, but 'authors' of remedies. Brown not only published Colbatch and his friend Cole, but other experimental and controversial medical works: for example, Joseph De la Chariene, New Chyrurgicall operacions with an explanacion of their causes founded on the structure of the parts, their symptomes alsoe, severall observacions and a generall account of Tumors (London, 1694/5); Edward Tyson, Orang-outang, sive homo silvestris: or, the anatomy of a pygmie compared with that of a monkey, an ape, and a man. To which is added a philological essay concerning the pygmies, the cynocephali, the satyrs, and sphinges of the ancients (London, 1699); and J. Spinke, Quackery Umnask'd; or, Reflections On the Sixth Edition of Mr. Martin's Treatise of the Venereal Disease, and its Appendix; And the Pamphlet call'd The Charitable Surgeon, etc. (London, 1709).

64 One advertisement (in *The Post Man*, no. 295 (20–23 March 1697)), said: This is to give notice that the vulnerary Powder and Tinctures (so famous for the safe and speedy cures of all External and Internal wounds) invented by Dr. Colbatch; were constantly sold for a Guinea the Bottle Now for the conveniency of those who can not spare so much money, they are divided into smaller bottles, and sold for half a Guinea each bottle: and each small bottle will cure (at least) ten considerable wounds.......... They were sold by Mr Peter Radison next to the Coach and Horses in Princess St., and Mr. Brown bookseller, without Temple Bar. 'As for the truth and goodness of the said Medicins, the said Doctor Colbatch will at all times attest, he being bound in an obligation of two Thousand pounds, to Inspect the preparation of all that shall be made, during his life.' Perhaps the 'two thousand pounds-obligation' was a guarantee of Colbatch's to return the selling price for the remedy to Brown if the remedies proved no good; it at least suggests that Colbatch was good for a large sum.

65 Annals, vol. 7, fol. 30 (3 July 1696); undated letter of Colbatch to Sloane, Sloane 4026, f. 431: 'I Presume

⁶⁵ Annals, vol. 7, fol. 30 (3 July 1696); undated letter of Colbatch to Sloane, Sloane 4026, f. 431: 'I Presume to waite on you in order to my being admitted as licentiate'.

⁶⁶ Annals, vol. 7, fols. 30, 32 (14 August 1696), 33 (11 September 1696). As with other licentiates, the examiners must have asked their questions in English, since Colbatch shows little signs of Latinate learning.
⁶⁷ Baynard had had problems of his own with the College officers, having been dropped from the published list of College members in 1693: see H. J. Cook, *Decline of the Old Medical Regime* (footnote 7), 226.

would sign a letter stating that the President and Censors had always behaved toward him as gentlemen.⁶⁸ A few months later, on 22 December 1696, he was admitted as a licentiate.69

Yet quite why the Fellows voted him a licentiate is not entirely clear. Colbatch's attempt to place the blame for his behaviour on John Badger would have suggested to the officers of the College either that Colbatch had been in collusion with Badger (a fellow ex-apothecary just then waging war on the medical establishment), or that Colbatch was self-consciously diverting attention from himself on to a known enemy. Badger was one of the most dogged opponents of the College in the 1690s, and had the support of the London Society of Apothecaries in his battle. 70 Colbatch's personal relations with several of his potential colleagues were also severely strained: not only had his supposed friend Baynard informed on him to the College officers, but Colbatch himself soon complained to the officers of Dr Radcliffe's behaviour toward him, and asked to have their permission to publish a public refutation of Radcliffe's charges.⁷¹ Further yet, at the time Colbatch was made a licentiate, a bitter struggle was brewing within the College between its officers and a vocal minority of Fellows (including Colbatch's friends Baynard and Cole), who together with the licentiates, were trying to resist a tightening of the internal rules of the College and the establishment of the Dispensary.⁷² A very strong suspicion, therefore, arises that Colbatch's membership in the College would not ordinarily have been welcomed by the officers or the majority of Fellows.73

Colbatch's success in gaining the licentiate therefore suggests that he retained the patronage of someone of influence. On previous occasions the King and great noblemen had been able to persuade the College to admit people they were otherwise reluctant to accept. Perhaps the patron was one of the English generals who had taken an interest in Colbatch's new styptic: in late 1696 and early 1697, the war in Flanders was being supported vigorously by the Whig Junto, and the College had otherwise lost its control over military medicine. ⁷⁴ To refuse Colbatch the public licence to practise in London would have meant taking a stand at a moment of patriotic feeling against someone who had been helping His Majesty in the field. Moreover, the officers of the College could take some small consolation in granting a licence to a hammer of the surgeons, a group also costing them some trouble at the moment; they may have thought that Colbatch's willingness to enter into public controversy would gain them a penman against some of their current rivals.⁷⁵

⁶⁸ Annals, vol. 7, fol. 33 (11 September 1696).

⁶⁹ Annals, vol. 7, fol. 91.

⁷⁰ See H. J. Cook, Decline of the Old Medical Regime (footnote 7), 227-8, 235-6. Badger was paid by the Society of Apothecaries: Soc. of Apothecaries, Court of Assistants, Minute Books, 22 May and 25 August 1696 (Guildhall MSS No. 8200, vol. 4, fols. 31, 38). Also see Badger's letter to the Society of Apothecaries, Sloane 4026, fols. 386-7.

⁷¹ Annals, vol 7, fols. 97–8 (5 March 1696/7). The request was denied.

⁷² H. J. Cook, Decline of the Old Medical Regime (footnote 7), 210-40; on Cole and Baynard, pp. 226, 228, 235, 246.

73 On this point, Clark's instincts were sound: Clark, History of the Royal College, p. 471.

⁷⁴ See H. J. Cook, 'Practical Medicine and the British Armed Forces' (footnote 7).

⁷⁵ T[homas] E[mes], A dialogue Between Alkali and Acid: Containing Divers Philosophical and Medicinal Considerations Wherein A late Pretended New Hypothesis, asserting Alkali the Cause, and Acid the Cure of all Diseases; is proved Groundless and Dangerous (London, 1698), p. 24, suggests that Colbatch had been brought aboard in order to write against John Badger of William Salmon, two of the College's enemies: 'I can hardly think, they would so readily have given you a Licence; but that they expected you would do something for them, they could not do for themselves; run down a Badger, catch the Salmon, or some other piece of Difficulty'.

Moreover, while appearing a bit quackish with his books on his medical experiences, he did not threaten the established order by offering much of a justification for his new system of therapy. That soon changed, and turned him into a dangerous opponent.

4. Threatening medical orthodoxy: offering a medical theory

Colbatch did not remain content: he wished for real medical legitimacy. To achieve that, he would have to convince people who had never met him of the power of his practices without seeming like a quackish empiric, and gain new medical allies. With the backing of his publisher Brown he published yet further books giving fuller reasons for his remedies and their uses. That is, to be accepted by the London establishment, not only Colbatch's specific remedies and his character, but his ideas would have to be scrutinized and found worthy. During the siege of Namur, then, he began the draft of a book explaining the uses of acids and alkalies in medicine. ⁷⁶

In his first two books, Colbatch had used arguments common to the period, but gave little insight into the details of how his medicines worked. He explained that nature would eventually heal the body herself, 'if she were not hindered, but assisted'. While the most common surgical remedies (such as suppuration, low diet, and tenting) operated against nature, in his view, his powders aided her. He further justified his views in some slightly outdated theory. He began by describing the process of digestion, arguing that the food becomes blood, the crucial element in the body. From a fiery substance in the blood came the heat of the body, and from blood serum came all the organs' nutrition. In cases of wounding, ordinary medicines 'corrupted' the nutritious 'juice' brought to the lips of the wound by the blood, turning it into 'matter' by 'fermentation', which in turn caused fever. But his own medicines were 'of a Friendly Nature to the Nutritious Juice', preventing it from corrupting and so encouraging it to fill up the 'vacuities' of wounds, turning them into flesh. This was why even 'most Wounds within the Cavity [of the body], may be cured with all the ease imaginable'. The sum of the sum o

Such reasonings were entirely consonant with some of the most popular medical opinions of the day. His views were generally consistent with various elements of the favoured mechanical philosophy;⁸⁰ the fact that he prepared his remedies chemically was in tune with the widely accepted idea that the most powerful and effective remedies were chemically prepared; and his claim to be finding new and improved medicines, not tried and true ones, also played upon the quite rapid growth of public enthusiasm for

⁷⁶ J. Colbatch, A Physico-Medical Essay; when he began to write it is explained in Colbatch, Some Farther Considerations, Preface.

⁷⁷ J. Colbatch, Novum Lumen Chirurgicum, p. 17.

⁷⁸ J. Colbatch's comments about fermentations and heat as a sulphurous substance suggest commonplace ideas in the period, ideas that had been best presented in England in Thomas Willis's Pharmaceutice Rationalis, first published in Latin in two parts at Oxford, 1674 and 1675; it had an English translation by S[amuel] P[ordage], as Pharmaceutice Rationalis: Or, an Exercitation of the Operations of Medicines in Humane Bodies, Shewing The Signs, Causes, and Cures of most Distempers incident thereunto. In Two Parts. As also, A Treatise of the Scurvy (London, 1679), with a revised edition in 1681; Pordage also translated Willis's The Remaining medical works... Viz. I. of fermentations. II. Of Feavours. II. Of Urines. IV. Of the ascension of the bloud. V. Of musculary motion. VI. Of the anatomy of the brain. VII. Of the description and use of the nerves. VIII. Of convulsive diseases... Englished by S. P. Esq. (London, 1681) reprinted 1684; there had also appeared Eugenius 'Philiatros', The London Practice of Physick: Or the whole Practical Part of Physick Contained in the Works of Dr. Willis. Faithfully made English, and Printed together for the Pubick Good (London, 1685). Willis's books had an obvious interest to someone practising as an apothecary.

⁷⁹ J. Colbatch, Novum Lumen Chirurgicum, pp. 1-39, quotations p. 37.

⁸⁰ Although, as we shall see, Boyle's ideas about natural heat being motion rather than a sulphurous substance in the blood made Colbatch's views seem dated.

novelties of all kinds. Like others, too, he used the esteem for experimentalism to argue that only by diligent work in the laboratory could knowledge of medical specifics be improved: he, like other empirics and many virtuosi, had no doubt that the goal of medicine was to find sure cures for specific diseases rather than to counsel patients about their illnesses. Colbatch's claim to have made his discoveries through diligent experiments on animals and in the laboratory, finding things for himself with his own hands rather than relying on the authority of books, was also a common sentiment much favoured at the time. Because he employed such common sentiments and little theory, Colbatch could be seen as unexceptional and within the broadly orthodox fold.

But in his later books, Colbatch offered a much expanded justification for his remedies. It was one that showed his ideas to be clearly unorthodox, and therefore more dangerous to the medical establishment than had he remained a simple medical empiric. The general theory that Colbatch worked from had a wide currency in the later seventeenth century, although it had much more support on the Continent than in England. The theory was that chemical processes could be described in terms of acids and alkalies. This doctrine had its origin in the early 1660s among Continental iatrochemists influenced by Cartesianism.⁸²

From one direction, English Helmontian practitioners had early criticized the doctrine of acids and alkalies for materializing diseases that were in their opinion rather caused by errors in the spirit of the life of the body itself.⁸³ From another direction, Robert Boyle felt obliged to criticize the doctrine in a work of 1675,⁸⁴ perhaps aimed specifically at the ideas of the Leiden medical professor and chemist, François Dela Boë Sylvius.⁸⁵ The problems with the theory, in Boyle's opinion, were several. But two problems were paramount. First, it seemed primarily a deductive system, simply reducing three or four primary qualities to two: 'the framers of [the theory] seem arbitrarily to have assigned provinces or offices to each of their two principles [of acid and alkali], as the chemists do to each of their *tria prima*, and the Peripateticks to each of their four elements'.⁸⁶ Second, there was no clear experiment to tell which substances were acids and which were alkalies:

...the definitions given us of acidum and alcali [are] but unaccurate and superficial, since I find not, that they have themselves any clear and determinate notion or sure marks, whereby to know them distinctly....⁸⁷

⁸¹ For an elaboration of this point, see H. J. Cook, 'Physicians and the New Philosophy: Henry Stubbe and the Virtuosi-Physicians', in *Medical Revolution in the Seventeenth Century*, edited by Roger French and Andrew Wear (Cambridge, 1989), pp. 246–71; and H. J. Cook, 'The New Philosophy and Medicine in Seventeenth-Century England', in *Reappraisals of the Scientific Revolution*, edited by David Lindberg and Robert Westman (Cambridge, 1990), pp. 397–436.

⁸² C. Louise Thijssen-Schoute, Nederlands Cartesianisme (1954; Utrecht, 1989), pp. 258-60; Marie Boas Hall, 'Acid and Alkali in Seventeenth Century Chemistry', Archives Internationales d'Histoire des Sciences, 34 (1956), 13-28; Hélène Metzger, Les Doctrines Chimiques en France du début du XVIIe à fin du XVIIIe Siècle (Paris, 1969), pp. 199-219. One of the best elaborations of the acid and alkali theory was Cornelis Bontekoe's Fragmenta, dienende tot een ondewys van de beweginge, en vyandschap...van het acidum met het alcali (Amsterdam, 1683), translated into Latin by Cornelis Blankaart as Fundamenta Medica, Sive de Alcali et Acidi Effectibus per modum fermentionis et effervescentiae (Amsterdam, 1688).

⁸³ Anon., The Principles of the Chymists of London Stated, with the Reasons of their Dissent from the Colledge of Physicians (London, 1676), pp. 49-63.

⁸⁴ Robert Boyle, Experiments, Notes, &c. about the mechanical origin or Production of divers particular Qualities: among which is inserted, a Discourse of the Imperfection of the Chemist's Doctrine of Qualities; together with some Reflections upon the Hypothesis of Alkali and Acidum (1675).

⁸⁵ E. D. Baumann, François Dele Boe Sylvius (Leiden, 1949), p. 206. Sylvius was one of Bontekoe's professors at Leiden.

⁸⁶ Robert Boyle's Works, edited by Thomas Birch (1772; reprint Hildesheim, 1966), IV, 286.

⁸⁷ Ibid., p. 287.

Boyle was careful to say that just because the doctrine had philosophical weaknesses did not mean that it might not be useful to chemists and physicians in devising remedies.88

Nevertheless, the idea that the chemical world could be divided into acids and alkalies had a strong grip on the public.89 As Colbatch himself put it in the Preface to one of his books.

It is scarce possible for a Man to converse with Persons that are ill, let the Distemper be what it will, especially such as have any smattering in Physic, which most now a days have, but they presently tell you, their Blood is so very acid, that unless the Acidity can be corrected, it is impossible for 'em to be well: And accordingly they fly to Alkalious Medicins, as Pouder of Pearl, Coral, Crabs eyes, or something of that nature....90

Not only the public, but many physicians, believed in the efficacy of medicinal alkalies. Apparently it was Thomas Sydenham and his followers who used the practice most. For instance, the physician Walter Harris, friend of Thomas Sydenham, warned readers not that alkalies were of no use, but that too many had a great enthusiasm for fixed alkali salts and needed reminding of the useful natural alkalies like pearl, oriental bezoar, crabs-eyes, chalk, coral, 'etc'.91

But Colbatch's ideas were not the usual ones when it came to acids and alkalies. According to him, when he had practised as an apothecary in Worcester he found that customers often asked for alkalies, but he had discovered that the only ones that worked were preparations of steel and antimony. Colbatch eventually decided that such remedies were not in fact alkalies, but acids. 92 His idea, then, was to reverse the usual relationship, and to show that diseases were not caused by acids but by alkalies, and that acids were therefore the best remedies; and his next several books were written to elaborate these views.93

Colbatch was not the only one to try to revise the common opinion. Some writers on the medicinal properties of spa waters had described them as acid. 94 And just then, Colbatch's friends Drs Edward Baynard and William Cole were prescribing acids rather than alkalies in London, with popular success. Cole had recently suggested in

⁸⁸ Ibid., p. 291.

⁸⁹ I might note that currently for sale in Britain is 'Aqua Libra', advertised on the bottle as: 'Helps Restore Alkaline Balance' in those who drink it.

⁹⁰ J. Colbatch, A Physico-Medical Essay, 'Preface'.

⁹¹ Walter Harris, Pharmacologia Anti-Empirica: Or a Rational Discourse of Remedies both Chymical and Galenical (London, 1683), p. 85; Harris also believed that children's diseases were caused by the moistness of children degenerating into acids, and hence that they were best treated with alkalies: Harris, An Exact Enquiry Into, and Cure of the Acute Diseases of Infants, Englished by W[illiam] C[ockburn] (London, 1693), p. 5.

92 J. Colbatch, A Physico-Medical Essay, Preface.

⁹³ J. Colbatch, A Physico-Medical Essay and J. Colbatch, Some Farther Considerations. In the preface to J. Colbatch, Some Farther Considerations, dated 25 March 1696, he notes that he is preparing a 'History of Human Blood' to further support his views, which he hopes to have ready for the press in June, but it never

⁹⁴ Moreover, the Committee of the College of Physicians on 6 June 1690 had tested some bottles of mineral water from different places in Europe brought by Dr Lorimes, Physician-in-ordinary and Proto medicus of Spa, by dissolving gall in them. One 'did tinge of a light Champaine', another gave 'a good Claret Colour', a third 'did not much alter its Colour with the Gall appeared only of a Pale Champaine'. This suggests that the physicians were interested in how acid the various waters were. On colour tests for acids and alkalies, see below, pp. 493-4. 'Minutes of Ye Comm. of Ye Coll. of Phys: 1681-97', Sloane 3915, fol. 81'.

print that on occasion acids were a good alternative to Sydenham's use of alkalies, 95 and Baynard had published on their use in curing suppression of urine in the *Philosophical Transactions* of the Royal Society. 96 Dr J. Jones 97 wrote to Colbatch that 'As for Acids, Dr *Baynard* and your self deserve eternal Praise' for promoting their usefulness. 98 It was to Baynard that Colbatch dedicated his next book, saying of him that 'It was you, SIR, who were (for ought I know) the most early Cultivator of the Doctrine of Acids in the Cure of Diseases, in this Nation. ..; 99 Cole received the dedication of the book Colbatch published after. 100

Baynard and Cole mentioned their practices with acids in passing, if at all; Colbatch made it into a doctrine. Moreover, Colbatch felt his lack of a university education keenly, for he had trouble in composing a sophisticated argument. The first book arguing for the use of acids retained the simple theme of his earlier works defending his vulnerary powder: learn from experience. It treated a whole host of diseases, giving examples of the usual alkalious counter-measures and their failures, and then telling of cases of his successful counter-measures based on acids. He gave plenty of examples of his recipes for various medicines. For example, it included a section on scurvy, in which he said that although many peoople now taught that the disease came from excessive acid in the body, he had found that it was due to alkalies and cured by acids: as proof he mentioned that sufferers of the scurvy could recover quickly by eating oranges and lemons. 101

The slight theory he offered in his first works, then, was by way of applauding the 'Experimental Philosophy' of Boyle, for, he observed, 'by chymically analyzing the Blood and Juices, both in their natural and morbid states, we may arrive to some Certainty in the knowledge of the Cause of Distempers, of which I am afraid we have hitherto bin greatly ignorant'. His next treatise was much the same, giving many

95 William Cole, A Physico-Medical Essay Concerning the late frequency of Apoplexies. Together with a general Method of their Prevention, and Cure. In a Letter to a Physitian (Oxford, 1689): 'But as to the several Chalybeate preparations, give me leave so much to digress (if you will call it a digression) as to say, that I think, if the parts of our body and crasis of the bloud are only to be strengthened, and no store of Acids abound; those of them that have been opened by Acids, and so reduced to a Vitriol, are most useful...', pp. 148-9. He went on to suggest that the 'Vitriolate particles' in Chalybeates 'are confessedly styptical' (pp. 151-2): a suggestion that had been followed up by Colbatch?

⁹⁶ See E. Baynard, 'An Account of the probable Causes of the Pain in Rheumatisms; as also of the Cure of a total Suppression of Urine, not caused by a Stone, by the Use of Acids; as communicated by Dr. Edward Baynard, Fellow of the Colledge of Physicians, London', *Philosophical Transactions*, 19, no. 219 (January–February 1694/5), 19–20. Written in the third person, this paper discussed how Baynard had cured a suppression of urine by administering vinegar when Charles Bernard (the surgeon who had earlier experimented with Colbatch's wound medicine and found it wanting) could not successfully bring on urination by a catheter. The essay also mentions Baynard's connections to one Mr Bannister, an apothecary in Old Fish-Street, London, and Dr Cole. The story is repeated in J. Colbatch, *Some Farther Considerations*, p. 14.

97 I presume he is the author of John Jones, Noverum dissertationem de morbis abstrusioribus tractatus primus: de febribus intermittentibus. In quo obiter febris continuae natura explicatur? (London, 1683).

⁹⁸ Quoted in J. Colbatch, A Treatise of the Gout, pp. 12–3. Colbatch had earlier praised the civilities toward him of the 'learned Dr. Jones', who also cured with acids, in J. Colbatch, Some Farther Considerations, pp. 88–9.

⁹⁹ J. Colbatch, Some Farther Considerations, Dedication. He went on to say 'Honoured Sir, The Civil and Gentlemanlike Treatment I met with the first time I saw you, and the many Favours I have received from you since I have been honoured with your more Intimate Acquaintance, emboldens me to prostrate this Trifle at your Feet' (sig. A2). Also see p. 90. Colbatch later also quoted 'that Prodigy of Nature, the learned Mrs. Ann Baynard', in J. Colbatch, Relation Of a very Sudden... Cure, sig. A2.

100 J. Colbtach, A Treatise of the Gout.

102 J. Colbatch, A Physico-Medical Essay, conclusion.

¹⁰¹ The idea that scurvy could be cured by acids, including citrus fruits, had a long history: see, for example, John Woodall, *The Surgeons' Mate* (London, 1617), pp. 184–6.

case reports and arguing that even the gout would soon be cured by acid medicines, but offering little by way of theoretical foundation for his practice. 103

Yet such resort to the experimental philosophy could hardly establish Colbatch's reputation as a physician who knew whereof he spoke. People were clearly levelling many criticisms at him—his second book on acids had been subtitled 'an Answer to the Objections that have been raised against' his first—and he had obviously been told that the Boyle he so much admired had had little patience for the theory of acids and alkalies. In his next book, therefore, Colbatch tried something more ambitious. After suggesting the establishment of a laboratory at public expense to carry out the experiments necessary to prove his theories, and continuing to defend his own education by 'ocular demonstrations' rather than through university learning, 104 he finally took the bit in his teeth, and implicitly attacked Boyle's argument with a plain demonstration.

In support of the theory of acids and alkalies, Colbatch borrowed a simple experiment known to Boyle himself,¹⁰⁵ but apparently found by Colbatch in a Continental critic of Boyle's argument, François André.¹⁰⁶ A short and clearly written rebuttal of Boyle's treatise against acids and alkalies,¹⁰⁷ André's book took the form of a dialogue between Pyrophilus ('a Lover of Experiments') and Eubulus ('a man of good Understanding'). The philosopher Eubulus takes the lead in proving the truth of the acids and alkalies theory, Pyrophilus only entering doubts. It is the philosopher Eubulus who gives empirical experiences to support the theory, some taken from the important contemporary bleaching industry.¹⁰⁸ In his attempts to show Boyle wrong, he is especially intent upon showing that there are several clear experimental proofs to show which things are alkalies and which are acids. Among the ways of telling acids from alkalies, he gives examples of invisible inks,¹⁰⁹ various smells,¹¹⁰ and best of all, six short proofs of the different colours caused by each.¹¹¹

One of these proofs Colbatch came to rely upon quite heavily: it was a kind of early litmus test. André noted that when syrup of violets, 'which is a Composition of Acid and

¹⁰³ J. Colbatch, Some Farther Considerations.

¹⁰⁴ J. Colbatch, A Treatise of the Gout, pp. xiii-xxii.

¹⁰⁵ Marie Boas Hall (footnote 82), 'Acid and Alkali', 19–20; J. R. Partington, A History of Chemistry, 4 vols (London, 1961–1970), II, 533–4.

¹⁰⁶ A royal physican to Louis XIV and professor of medicine at Caen, what little is known of André is summarized in the *Nouvelle Biographie Générale* (Paris, 1857–66), II, col. 556.

¹⁰⁷ François André, Entretiens sur l'acid et l'alcali, où sont examinées les objections de M. Boyle contre ces principes (Paris, 1677); it had another printing in 1681, and translations into Italian and English. I have not seen the edition that was according to Marie Boas Hall printed in 1672: Hall (footnote 82), 17; also see Hélène Metzger (footnote 82), 207-8, 217-8. It is the English translation that Colbatch cites: François André, Chymical Disceptations: Or, Discourses upon Acid and Alkali. Wherein are Examined the Objections Of Mr. Boyle against these Principles. Together with a Reply to a Letter of Mr. S. Doctor of Physick, & Fellow of the Colledg of..., wherein many Errors are corrected, touching the Nature of these two Salts.... To which is added, by the Translator, a Discourse of Phlebotomy, shewing the Absolute Evils, together with the Accidental Benefits thereof, in some Cases, translated by J. W. (London, 1689) (hereafter 'André'). The translation of André's book was one of the very few sources cited by Colbatch; he also quite unusually referred the reader to a page number in André: J. Colbatch, The Doctrine of Acids... Farther Asserted, pp. 29-30.

¹⁰⁸ For example, André, 'Sal Alkali whitens Linnen and cleanseth stuffs', p. 27.

¹⁰⁹ Ibid., pp. 57–63.

¹¹⁰ Ibid., pp. 68-72.

¹¹¹ Ibid., pp. 65–8. The Dutch defender of acids and alkalies, Cornelis Bontekoe, also recommended the use of colours as 'an acid test': 'insonderheyt agt te staan op de veranderinge van de *coleuren*, en op het geene na de grond geprecipiteert word: soo kan de *Mercurius* door het acidum gesolveert, de vitriol door 't water, en soo ook de metalla, vegetabilia, en animalia behoorlijk geexamineert worden'. Bontekoe, Alle de Philosophische, Medicinale en Chymische Werken (Amsterdam, 1689), II, pt. 2, p. 187.

Alkali, comes into contact with Alkali, it 'becomes of the fairest Green in the world'; when it is mingled with an Acid it becomes 'reddish'. Colbatch's book therefore began with this demonstration of André's. He told his readers that if they took some syrup of violets, they would see its blue colour turn to green if it was put into contact with an alkali, to red if an acid: a clear and simple experiment that could be performed by virtually anyone who had access to an apothecary. Such an experiment would show gentlemen plainly that in many illnesses, their blood was already abounding with alkali.

Having established in this manner that there was much akalious matter in the blood, he offered a bit of physiological theory about the cause of gout to support his method of treatment. In many diseases, including gout, the blood contained too much alkali to be absorbed by the capillaries. It therefore lay about in the blood, turning into a 'substance very much like chalk or Crabs eyes'. 114 Obviously, what was wanted was not an alkali but an acid to cure such problems. But Colbatch's attempts to make his practice respectable by persuading the public not only that his remedies worked but that they were based upon new doctrine threatened the medical establishment he was trying to enter.

5. Science at war: the controversy over acids and alkalies

While Colbatch's book on gout, like his previous ones, consisted mainly of case reports, his own growing confidence in advancing unorthodox theories in his defence—as well as the apparently growing public interest in his system of treatment—brought him sharply to the attention of the London medical establishment. In his book on gout, which he published in the months following his entry into the College, Colbatch not only noted the surgeons' continuing aversion to him but also printed an anonymous letter warning him that the physicians were going to mount an attack on his ideas.¹¹⁵

Colbatch was asking for it. His sense of battling an entrenched establishment had been evident from his first books. But his words were now increasingly aimed not at the surgeons but at the physicians. For instance, he wrote that his appeal to physicians to analyse the blood by chemical means had mostly fallen on deaf ears: the physicians 'have refused to do one Justice; nay instead of doing Justice and Truth to me, many of them have abus'd and reproach'd me in all places'. In his next book, published in the spring of 1698, Colbatch even wrote that 'Physicians get more reputation by keeping their Patients a long time in hand, and in continual danger of their lives, than by quick and expeditious Cures'. With general language like that, and his plea for 'improving the Doctrine of Specific Remedies' (something the orthodox physicians were then battling on other fronts), Colbatch's preface saying that 'generally speaking' the College of Physicians was the most learned body in the world might well be overlooked. 117

But Colbatch's new book on gout also began to develop his strong and unorthodox ideas about medicine with some confidence. The combination of attacks on the learned medical establishment together with idiosyncratic and dogmatically-stated theory could not be ignored.

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André, pp. 65-6.
J. Colbatch, A Treatise of the Gout, pp. 2-3.
J. Colbatch, A Treatise of the Gout, pp. 15-43, quotation from pp. 21-2.
J. Colbatch, A Treatise of the Gout, pp. 132-5.
J. Colbatch, Relation Of a very Sudden... Cure, p. 16.
J. Colbatch, Relation Of a very Sudden... Cure, pp. xxiv-xxv, xxiii.
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Quickly, then, the attacks on Colbatch mounted in number and vigour, and some found their way into print. Colbatch had been taking his case to the public. There were no longer any licensing laws to be used to suppress his books; since he had the licence of the College to practise in London, he could not be fined for illicit practice in an attempt to run him out of town. Physicians who were worried about Colbatch's words and practices could lambast him in private to their friends, colleagues, and patients. But such whispering campaigns could not reach the public at large. The only recourse, then, was to engage in open battle in the press.

The first to take the field was William Coward. Coward had recently arrived in London from Northampton (after 'some immorality' there) and had become a Fellow of the College of Physicians; he was soon to get into very hot water indeed over his religious opinions. Appearing in late 1697, 119 Coward's book defended the use of alkalies against Colbatch's use of acids. In doing so, it refuted many of Colbatch's views about specific diseases and their remedies, and showed Colbatch ignorant of good philosophy. Coward's general point was that Colbatch did not have the learning to 'assist the Judgment to discern between good and proper Medicines, between common and fatal symptoms, etc'. Thus, Colbatch's generalizations drawn from a few instances were incorrect: other and more probable reasons for the cures could be imagined than what Colbatch offered. Unfortunately for himself, however, Coward took the oportunity to tout his own tinctura sanitatis, the left him wide open for Colbatch's dismissive comment that

Dr. Coward took an occasion to make some wonderful Reflections upon me and my Hypothesis, in order to recommend a Medicine of his own invention to the World.... I can assure the World it is nothing else but the most ridiculus kind of Sal Volatile Oleosum that ever I saw; and were it not that I am unwilling to expose a Member of the College, I would print the Receipt....¹²²

¹¹⁸ DNB, IV, 1298–1299, article by Sir Leslie Stephen. Coward published Second Thoughts concerning the Human Soul (1702), which argued that there was no such thing as separate soul, but that immortality will be given to the whole man upon resurrection, to which he added The Grand Essay; or a Vindication of Reason and Religion against Impostures of Philosophy, to which was appended an Epistolary Reply, which led to a complaint in the House of Commons on 10 March 1703/4. The House declared that his books contained offensive doctrines, and ordered them burnt by the common hangman, although Coward continued to publish on the subject.

¹¹⁹ J. Colbatch, The Doctrine of Acids... Farther Asserted says that just as the last sheets of his book were going to press, Coward's book appeared: 'How far he has overthrown my Hypothesis I leave to all imparital Judges. For my part I don't think the Book worth a Reply: He has taken a great deal of Pains to shew his Learning and Gentleman-like Education in his scurrilous Reflections upon me; but considering the service his Book will do me, I think I have no reason to be angry with him' (p. 128). Colbatch's book has a preface dated 8 October, 1697. Coward's book was advertised in the London newspaper The Post Boy no. 402 (30 November-2 December 1697).

¹²⁰ William Coward, Alcali Vindicatum: Or, The Acid Opiniator not guilty of Truth. Being an Impartial Enquiry into the Fallacious Reasons and Erroneaus Philisophy of a late Physico-Medical Essay Touching Alcali and Acid. Especially as they relate to the Cause or Cure of the Small Pox, Scurvy, Gout, Rheumatism and Consumption. To which is added a Discourse of the Nature and Usefulness of an Hypothesis in Relation to the Practice of Physick. With a Description of a most Excellent Medicine call'd 'Tinctura Sanitatis', of great use in all Diseases of the Head and Stomack especially (London, 1698), pp. 122–3.

¹²¹ William Coward, *Alcali Vindicatum*, pp. 139–84. Coward dedicated his book to Charles, Earl of Maclesfield, who was said to have observed the usefulness of the 'tinctura sanitatis' in the cure of his sister, Lady Gerard of Bromly.

¹²² J. Colbatch, Relation Of a very Sudden... Cure, p. 112.

Thomas Emes, calling himself chirurgo-medicus, also threw himself into the breach with a dialogue in which 'Mr Acid' (i.e.: Colbatch) is refuted by 'Mr. Alkali'. 123

More seriously for Colbatch, someone known only as 'S. W.' soon joined in the criticism, claiming to do so on behalf of the College of Physicians. ¹²⁴ In his dedication to the President and Fellows of the College, he went on at some length naming the great medical men of the era, noting that they had belonged to the College. In the text, he scathingly attacked Colbatch for getting the 'Cant of "Experimental Knowledge", "Experiments upon the Blood", and such things' in precisely the same way that ignorant 'Enthusiasts' understood and wrote about scripture,

and in my opinion the only way of proselyting you, must be the same that the Church-men take with their Enthusiasts, to despise you.¹²⁵

S. W. therefore went on to lambast both Colbatch's ideas and character at some length. On Colbatch's character, S. W.'s book is a good example of contemporary scandal-mongering. On the ideas at issue he drew the reader's attention particularly to the fact that physicians had never been unanimous in the opinion that diseases were caused by acids (and so they would clearly not be unanimous in favouring any simple inversion of the equation), and that the supposedly simple experiment with the syrup of violets was ridiculous as an accurate test.

Yet these initial attacks on Colbatch went awry: they failed to elicit a wounded reply from the enemy that would bring other hounds to the hunt. Perhaps they were too obviously bad-spirited. Colbatch simply ignored them. As he had written in another context, there were now many physicians using acids against the gout with success:

tho there are another sort, who with good success have of late made use of Acids plentifully, and at the same time give me all manner of opprobrious Language: but I thank God I am out of their reach.¹²⁶

Colbatch's final words here again suggest a patron on his side. Perhaps he was Lord Cutts, or Colonels Mordant or Granville, both serving in the House of Commons and said by the Society of Apothecaries to be 'men of Justice' who could be counted on to oppose the Censors of the College of Physicians, who seemed to be behind some of the attacks on Colbatch.¹²⁷

Consequently, Colbatch at first brushed aside these assaults and only responded on his own ground. He printed a private letter sent to him by the provincial physician Francis Tuthill, and Colbatch and Tuthill went on to trade experimental reasoning

¹²³ E[mes], A Dialogue Between Alkali and Acid. This quite excellent summary of the intellectual issues in the medical debate was advertised in the London newspapers The Post Man no. 537 (12–15 November 1698), and in The Flying Post no. 580 (26–28 January 1698/9). An anonymous person replied to Emes with A Letter to a Physician concerning Acid and Alkali, to which Emes, replied with A Letter to a Gentleman concerning Alkali and Acid (London, 1700).

^{124&#}x27;S. W., no inconsiderable Branch of the College', An Examination of a Late Treatise of the Gout: Wherein John Colbatch's Demonstrations are briefly Refuted, the College cleared from his scandalous Imputations; And a short Account of his Vulnerary Powder (London, 1698), calls the College his 'masters' in his Preface.

¹²⁵ S. W., An Examination of a Late Treatise of the Gout.

¹²⁶ J. Colbatch, Relation Of a very Sudden... Cure, sig. A4. This book of Colbatch's was advertised in The Post Boy no. 491 (28–30 June 1698).

¹²⁷ Letter of Srgt. Tho. Adamson to Mr. Doody [of the Society of Apothecaries], undated [but early May 1698], Sloane 4026, fol. 385.

blow for blow in a polite and reasoned (if vigorous) published debate.¹²⁸ Colbatch made it clear that the experiment with the syrup of violets had been intended not as a proof for the knowing, but as a simple demonstration for his audience: those people with some curiosity but without a laboratory, i.e., people of good rank.¹²⁹

But Colbatch continued to have enemies within the College of Physicians, the most important of them being Charles Goodall. Goodall had become the strongest defender of the rights of the College to control medical practice in London, and for some vears had headed up a special committee to govern affairs behind the scenes. 130 In September 1697, just a few months before S. W.'s book appeared. Goodall for the first time agreed to stand for the public disciplinary post of College Censor, causing a minor furore in the annual election. Voting was done by having the Fellows place a black or white bean in a jar, and the number was then counted: on this occasion, the Fellows refused Goodall the Censorship by one vote, when it was discovered that more beans had been put into the jar than there were Fellows. At the time, the College was trying to find favour with the city fathers and the public through the Dispensary scheme—which the apothecaries were convinced was Goodall's idea¹³¹—and fighting the apothecaries and surgeons in Parliament and the many Fellows (and virtually all licentiates) who were in open revolt against the leadership. Because Goodall was one of the severest hardliners within the College, one or more of the Fellows clearly disliked Goodall so much as to resort to ballot-box stuffing. 132 On the second vote, after a stern lecture by the President and a check to make sure that each Fellow took only one bean, Goodall became censor.

The new Censor Goodall clearly did all he could to encourage attacks on Colbatch. Perhaps he had already had his hand in S. W.'s attack on Colbatch. Whoever S. W. may have been, he had made it plain that he was a licentiate of the College who hoped to be promoted to the rank of Fellow through this attack on an enemy of the established physicians.¹³³ On previous occasions, like the infamous episode around 1670 when Henry Stubbe attacked the Royal Society, members of the College had encouraged others to take up the cudgels for them.¹³⁴ Such tactics kept dignified physicians from having to lower themselves to trading insults with their social and medical inferiors in public in the vernacular, and so protected their reputations.¹³⁵ During his year as

¹²⁸ Colbatch, The Doctrine of Acids... Farther Asserted. In this tract, whose preface is dated 8 October 1697, Colbatch printed a letter to him of 9 August 1697 from Tuthill raising various objections to his book on the Gout, especially his test using syrup of violets; Tuthill replied in print with A Vindication of some Objections Lately Raised against Dr. John Colbatch his Hipothesis (London, 1698), in which he tried to persuade Colbatch that he was being too dogmatic in his views. Colbatch replied to Tuthill in print again, in J. Colbatch, Relation Of a very Sudden... Cure, praising his 'fair Antogonist' for sticking to the experimental questions, after which Tuthill kept his silence.

¹²⁹ J. Colbatch, The Doctrine of Acids... Farther Asserted, p. 21.

¹³⁰ See the 'minites of Ye Comm. of Ye Coll. of Phys: 1681–1697', Sloane 3915.

^{131 29} July 1695, 'Court of Assistants, Minute Books, vol. 4: 1694–1716', Guildhall MSS No. 8200, fol. 14, London Guildhall Library. Goodall was later mocked in two satirical handbills distributed in London. The first advertised that 'a Superfine Sort of Jesuits Bark ready powder'd and paper'd into Doses' could be had at 'Dr. Charles Goodal's, at the Coach and Horses in [the] Physicians Colledg... at 4s per Ounce, or for a Quantity together at £3 per Pound'. The second made more explicit fun of the prices 'he' listed in the first handbill, and said that he would now make this powdered bark available not through himself but 'at Physicians-Hall'. Handbills no. 28 and 29, British Library collection, call number C.122.f.9.

¹³² Annals, vol. 7, fol. 122.

¹³³ S. W., An Examination of a Late Treatise of the Gout, Dedication.

¹³⁴ H. J. Cook, 'Physicians and the New Philosophy', p. 255.

¹³⁵ See the observations of Mario Biagioli, 'The Social Status of Italian Mathematicians, 1450–1600', History of Science, 27 (1989), 41–95, especially p. 55.

Censor, therefore, Goodall looked for a champion who would slay Colbatch on behalf of the College. He thought he found him in Richard Boulton, although in the end Goodall became the victim of his own schemes.

When Goodall discovered Richard Boulton. Boulton was a resident of Brasenose College, Oxford. He had earned his MA and had a strong interest in medicine. He clearly hoped to use university contacts to gain a patron. The Vice-Chancellor of Oxford recommended Boulton to Charlett of University College, who in turn wrote to Hans Sloane saying that Boulton had laboured hard at the books of 'your faculty'. desiring to 'become an Early Author'. However, Boulton was a poor student, so he had never had a chance to see patients, only books. Charlett begged Sloane to give him some advice out of charity: 'I am told he is modest and Dutifull'. 136 While waiting to see what might result from such contacts, Boulton indeed busied himself with writing learned medical books in English, which attracted positive notice among the learned physicians of London. 137 Boulton had taken respectful exception to Thomas Willis's ideas of heat in the blood being due to sulphurous particles, giving instead the mechanical explanation that heat was only rarefied matter in swift motion, in this case the blood moving quickly and becoming hotter by attrition and fermentation. That is, the blood's heat was only a sensation, not a thing in itself. Such views obviously contradicted Colbatch's, among others.

As Boulton's book was coming, being printed in the spring of 1698, Boulton received some news that suggested that he might approach Goodall as a medical patron. Goodall replied on 26 May, asking Boulton to come to London to help him with a work of natural history, and in the meantime he would check the sheets of Boulton's book as they came off the press. Boulton arrived in London to lodge with Goodall as soon as he could arrange things in Oxford, but too late for what was mentioned in the...letter; or perhaps Goodall's request about natural history had been a ruse. Instead, when Boulton arrived, Goodall gave him room and board and set him to work translating into English and writing a reply to a book of one Joannes Groenevelt concerning Groenevelt's controversy with the College of Physicians, the Which Boulton did because Goodall promised Boulton that he would use his influence in Oxford to advance Boulton's career.

¹³⁶ Letter of Ar. Charlett to Sloane, 11 February 1697/8, Sloane 4037, fol. 26.

¹³⁷ Richard Boulton, A treatise of the reason of muscular motion: or the efficient causes of the contraction of a muscle. Wherein most of the phaenomena about muscular motion are explained (London, 1697); A Treatise Concerning the Heat of the Blood: And also of the Use of the Lungs (London, 1698). This last, dedicated to Revd Dr Jo. Meare, Principal of Brazen-Nose and Vice-Chancellor of Oxford, had earned the imprimatur of the College (dated 5 March 1697/8) during Goodall's Censorship.

¹³⁸ Richard Boulton, A Letter to Dr. Charles Goodall, Physician to the Charter-House; Occasioned By his Late Printed Letter, Entituled, A Letter from the Learned and Reverend Dr. Charles Goodall, to his Honoured Friend Dr. Leigh, etc. To which is Annexed, An Answer to a Sheet of Paper, Entituled, A Reply to Mr. Richard Boulton, etc. (London, 1699); a comment by Boulton on p. 11 suggests that he first approached Goodall on 18 May 1698; he had received the imprimatur of the College for his book in March.

¹³⁹ Ibid., pp. 10–11. As quoted by Boulton, Goodall's message, sent via a third party, said: 'be pleased to acquaint him, that there is a Work in a certain Part of Natural History, which he is very capable to perform, and will be both Reputable and Advantageous to him; but that for some Reason you cannot as yet acquaint him with Particulars. But let him disengage himself from all other Studies, reserve himself wholly for this, and come to Town as soon as his affairs will permit'.

¹⁴⁰ I am currently at work on a study of Groenevelt; for a brief review of his problems with the College of Physicians, see H. J. Cook, *Decline of the Old Medical Regime* (footnote 7), 240–3.

¹⁴¹ Richard Boulton (footnote 138), 11–12; Goodall wrote to Hans Sloane on 26 October 1698, requesting that Sloane let Boulton borrow some of his books to compose his attack on Groenevelt: Sloane 4037, fol. 143. Unfortunately for Boulton, he later found that Goodall had little credit in Oxford.

against Colbatch. As Goodall later wrote, 'I must own that I did encourage...' Boulton to attack Colbatch

he having so rudely treated the Universities, Colledge of Physitians, and the most Learned Men of our Faculty, and likewise Published and Defended such an Erroneous Hypothesis, and raised such a Dangerous Superstructire thereon, as I fear will prove fatal to many.¹⁴²

According to Boulton, Goodall did not just encourage him in his attack on Colbatch but edited the manuscript before it was sent to the printer.¹⁴³

But in this book, Boulton could not resist adding an appendix counter-attacking a pamphlet against himself authored by Charles Leigh. Leigh, a physician from Manchester, was trying to impress the medical establishment by attacking various opinions, including Boulton's. Leigh had written an earlier book containing arguments on the subject of the heat of the blood, and he tried to refute Boulton's views by claiming two somewhat contradictory things: Boulton had not had one single new idea but borrowed everything from others, while at the same time Boulton's idea of heat being only a sensation and a not a thing-in-itself was ridiculous. Leigh went on to assault Boulton's character, comparing him to the London empiric Gideon Harvey and to Rabelais's Pantagruel. Leigh also, separately, brought out a short pamphlet with the same vicious tone attacking Colbatch. Leigh also, separately.

Thus, while Goodall had decided to use the services of Boulton against Colbatch, Boulton himself could not resist responding to Leigh's personal attack on him as well. Being the victim of Leigh's character assassination, Boulton's remarks about him were much more vicious than his more reasoned refutation of Colbatch. For example, he addressed Leigh as follows:

taking a Survey of your Remarks, and finding throughout the whole, terrible strong Symptoms of a sick Brain, and not in the least Motives to any thing but Pity, I thought it a piece of Charity to let you see your own Infirmities.¹⁴⁷

Boulton also remarked that Leigh's pamphlet against his own book would serve a purpose only in a 'bog-house', but 'most People are afraid of fouling their Fingers with a

143 Boulton later reprinted two signed testimonials (probably from servants of the printer) to this effect in Richard Boulton (footnote 138), 6; on p. 10, Boulton says Goodall did not just do this with his book, but also 'corrected' James Younge's Sidrophel Vapulans: Or, the Quack-Astrologer tossed in a Blanket... in an Epistle to W...m S...n (London, 1699).

144 Richard Boulton, An Examination of Mr. John Colbatch his Books, viz. 1. Novum Lumen Chirurgicum.

II. Essay of Alkalies and Acids. III. An Appendix to that Essay. IV. A Treatise of the Gout. V. The Doctrine of Acids Further Asserted, etc. VI. A Relation of a Person Bitten by a Viper, etc. To which is added, An Answer to Dr. Leigh's Remarks on a Treatise concerning the Heat of the Blood. Together with Remarks on Dr. Leigh's Book intituled Exercitationes Quinq; Printed at a private Press in Oxford without the License of the University. As Also A Short View of Dr. Leigh's Reply to Mr. Colbatch, etc. (London 1698). Pages 1–252 reply to Colbatch's tracts one-by-one; pages 253–87 take on Leigh's remarks against Boulton, and pages 288–91 are a 'postscript' on Leigh's views of Colbatch.

145 [Charles Leigh], Remarks on Mr. Richard Bolton's Piece, Concerning The Heat of the Blood (Manchester, 1698); his earlier work had been Excercitationes quinque printed at Oxford.

146 Charles Leigh, A Reply to John Colebatch, Upon his late Piece, Concerning The Curing the Biting of a Viper by Acids (Manchester, 1698); this book was advertised as just published in the London newspaper The Post Man, no. 510 (1–3 September 1698).

¹⁴⁷ Richard Boulton (footnote 144), 256.

¹⁴² The text of Goodall's letter to Leigh was first printed in Charles Leigh, A Reply to Mr. Richard Bolton of Brazen-Nose-College in Oxford; Occasion'd by his presuming to Dedicate His Last Piece to Charles Goodall, One of the Censors of the College of Physicians (London, 1698), pp. 3–5, and reprinted with Boulton's unflattering comments in Richard Boulton (footnote 138), 4.

Piece of Paper the Doctor hath dirty'd already'. This kind of edifying language went on at some length, concluding by comparing Leigh to the ignoramus he attacked, John Colbatch. According to a later report, Boulton also threatened to have some mocking ballads printed up against Leigh and distributed in Manchester. 149

Needless to say, Dr Leigh took high exception to such attacks from an Oxford student, and wrote to Goodall to inquire whether it was true that Goodall had encouraged Boulton to write his book. Goodall replied to Leigh in a letter dated 6 December, explaining that while he had encouraged Boulton against Colbatch, 'The Language and Reflections [of Boulton on Leigh] I own to be such as no man of good Breeding, much less any Censor of the College of Physicians would pass with an Imprimatur'. That is, Goodall disavowed Boulton. ¹⁵⁰ Boulton quickly got news of this fact, and confronted Goodall. Goodall kicked Boulton out of his house, and by 11 December was writing to his friends to stop them from continuing to help Boulton with his project against Groenevelt. ¹⁵¹ Leigh quickly brought out a pamphlet further cutting Boulton and printing Goodall's letter disavowing Boulton; ¹⁵² by February 1699, Boulton responded to Leigh with his own published letter to Goodall publicly reviewing Goodall's turncoat and underhanded behaviour. ¹⁵³

All this made both Goodall and Boulton, not Colbatch, the butt of public satire. In addition to the apothecaries and Boulton running down Goodall's character, someone (perhaps William Salmon himself) placed an advertisement for Salmon's *A Rebuke to the Authors of a Blew-Book* in the London newspaper, *The Protestant Mercury*, ¹⁵⁴ saying it was a reply to 'All the Works of a Couple of Coxcombs: Written by the stupendious Critick, Crackbrain [James] Young of Plymouth, and Rattlehead Good Ale of London'. Goodall or one of his defenders replied in *The Post Boy* ¹⁵⁵ with an advertisement asking that two quacks be brought to the madhouse Bedlam for treatment: the first was William Salmon ('a Wit without Sense, and Scurrilous without Wit, Gentle without Breeding); the second was Boulton:

an odd contriv'd sort of a Country Clown, in a grey Coat, which he cannot change for want of another; pale Faced, of a down grinning, flearing look; wears his own hair; late of *Brazen Nose* and still of *Brazen Face*; being Impudent, proud, insolent, Atheistical, silly senceless, and a most abominable Lyer, Betrayer of his Trust, and a notorious Contriver and Fomenter of Mischief; with the several signs of a Madman following, as Snearing, Laughing, Vaulting, Leaping, Biting the Thumbs of his greasy, nasty Gloves, etc.

Goodall also had his 'footman' lambast Boulton's character in a little pamphlet that ended by suggesting that Boulton apprentice himself with the quack Salmon or else give himself over to the religious fringe of the day: 'W. Pen, G. Whitehead, or one of

¹⁴⁸ Richard Boulton, Ibid., p. 259.

¹⁴⁹ William Wilkinson, 'Footman to the Dr. [Goodall]', A Two-Penny Answer to R. Boulton's Six-Penny Letter to Dr. Charles Goodall, &c. (London, 1699), p. 13.

¹⁵⁰ Charles Leigh (footnote 142), 3-5; Richard Boulton (footnote 138), Preface.

¹⁵¹ Letter of Charles Goodall to Sloane, Sunday night, 11 December 1698, Sloane 4037, fol. 140.

¹⁵² Charles Leigh (footnote 142).

¹⁵³ Richard Boulton (footnote 138); the letter is dated 18 January 1698/9; it was advertised for sale in the London newspaper *The Post Man* no. 579 (21–23 February 1699). According to Wilkinson's *Two-Penny Answer* (footnote 149), 8, Boulton did not have the money or credit to print his *Letter* until a publisher had offered him an advance for nis summary of Boyle's works.

¹⁵⁴ No. 341 (3–8 February 1698/9).

¹⁵⁵ No. 601 (14-16 February 1699).

Muggleton's Successors, He being endowed with the gifts and qualities they so much admire and recommend in several of their Pamphlets'. ¹⁵⁶ So ended the attempt of the London medical establishment to make Colbatch into a quack, having brought everyone's reputation into question. ¹⁵⁷

6. Conclusion

The Colbatch affair dramatically shows the terrible difficulties of the orthodox physicians in bringing anyone to a public accounting for their medical ideas or behaviour in the later 1690s. Samuel Garth wrote Colbatch into his mock-epic poem, the *Dispensary*, published in May 1699:

How many, said the Fury, had not split On Shelves so fatal, if they ne're had writ! Had Colbatch printed nothing of his own, He had not been the Saffold o' the Town.¹⁵⁸ Asses and Owls, unseen, themselves betray, If These attempt to Hoot, or Those to Bray.¹⁵⁹

Garth's work set off a spate of satirical poems on medicine that mocked physicians, ¹⁶⁰ many of which poked fun at the acids and alkalies controversy. One poem attributed to Ned Ward portrayed a scene in Hell in which the physicians came before the Devil to be judged:

Grave Seigniors led the *Æsculaptian* Rout, Some crying, Oh! the Stone, some Oh! the Gout; Holding in ev'ry Interval a Chat, Of *Acids*, *Alkalies*, and Hell knows what.¹⁶¹

The debate also found its way into such literature as the wit Tom Brown's 'Amusement', titled 'The Philosophical, or Virtuosi Country'. There, 'Determining the Controversy between the Acidists and Alkalists' became one of the problems being argued by his mock virtuosi. 162

Still, despite the continuing laughter over the acids and alkalies controversy, Daniel Brown, the publisher, brought out collections and editions of Colbatch's works in what

¹⁵⁶ Wilkinson, Two-Penny Answer, p. 13. It is certainly possible that Goodall 'edited' this tract himself.
157 It did not finally end the dispute over acids and alkalies, however: see, for example, 'An Examen of the Chalybeat, or Spa-Waters, called by the Germans Acid or Sowre-Brunns, or Fountains; but prov'd to be of a contrary Nature, that is, Alkali's. By Fred. Slare, Fellow of the College of Physicians and Royal Society', Philosophical Transactions, 28 no. 337, (1713), 247.

¹⁵⁸ Thomas Saffold was one of the most notorious empirics of the period, advertising his medicines with short rhymes which, as Garth's words imply, were held in very low esteem by people who liked literature.

¹⁵⁹ Samuel Garth, The Dispensary (May 1699), Canto 5, lines 61–66; version quoted from Poems on Affairs of State, edited by Frank H. Ellis (New Haven, 1970), vi (1697–1704), 107.

¹⁶⁰ For instance: Spite and Spleen: Or the Doctor run Mad (c. 1699), on Dr Edward Tyson; Vindiciae Pharmacapolae, or an Answer to the Doctors Complaints against Apothecaries (c. 1699).

^{161 [}Edward Ward], A Journey to Hell: Or, a Visit paid to the Devil (London, 1700), p. 29. In The continuation of the poem, Hell in an Uproar, Occasioned by A Scuffle That Happened between the Lawyers and the Physicians, for Superiority. A Satyr (London, 1700), has the doctors and lawyers coming to blows at a feast in Hell over 'which of those/Professions ought by Cheating most to take/ The upper-hand...in this Sulph'rous Lake'; in the end, it is judged a worse crime to ruin subjects than to poison kings, and so the lawyers get to si, before the physicians.

¹⁶² Thomas Brown, Works, vol. III: Amusements Serious and Comical, fourth edition (London, 1719), p. 95.

would appear to be a classic case of benefiting from 'adverse' publicity. ¹⁶³ Boulton himself went on to publish an edition of Boyle's works. ¹⁶⁴ With the College of Physicians ever more on the defensive and internally divided (in part because of tactics like Goodall's), other problems claimed the attention of the physicians. The views of one person, unorthodox as they might be, were passed over for more pressing problems, mostly surrounding the Dispensary dispute, and soon surrounding the events leading up to the Rose case. ¹⁶⁵

In later years, Colbatch published only a few books, suggesting that he had become accepted as a member of the medical establishment. His book on mistletoe mentions not only the continued friendship of Dr Cole, and his continued preference for the theory of acids, but his driving through the countryside in a carriage, suggesting that he had become well-to-do. ¹⁶⁶ He received a knighthood from George I in 1716. ¹⁶⁷ During the threatened plague epidemic of 1720–21, Colbatch submitted an unexceptionable scheme for its prevention to the King and Parliament. ¹⁶⁸ And his reputation had become sound enough by his last years that after his death a manual of family medicine came out under his name. ¹⁶⁹ In 1723 he could afford to give £50 to his man-servant to set him up in business; when Colbatch died, he left all his estate to his wife, Elizabeth. ¹⁷⁰

The success of Colbatch's career thus illustrates clearly that the medical world had become quite chaotic by the later 1690s. The end of censorship and the death of Queen Mary in 1695 and the unsettling peace with France in late 1697 helped cause some of the political problems for the College. More generally, the rise of a political culture based upon popular opinion was causing a sea-change in the methods of governing,

¹⁶³ J. Colbatch, Four Treatises of Physick and Chirurgery (1698). Brown also brought out J. Colbatch, Novum Lumen Chirurgicum in a third edition in 1698, a fourth edition in 1699, and another edition in 1704; John Colbatch, Novum Lumen Chirurgicum Vindicatum in a third edition in 1698; second and third editions of Colbatch, A Physico-Medical Essay in 1698 and a fourth edition thereafter; a third (1698) and fourth edition (1699) of J. Colbatch, Some Farther Considerations; second (1698) and third (1699) editions of J. Colbatch, A Treatise of the Gout; a second edition of Colbatch, The Doctrine of Acids... Farther Asserted; and a second edition (1699) of Colbatch, Relation Of a very Sudden... Cure.

¹⁶⁴ Robert Boyle, The works of Hon. Robert Boyle epitomiz'd. By Richard Boulton, 3 vols (1699).

¹⁶⁵ For more on these problems, see H. J. Cook (footnote 7), 210–53.

¹⁶⁶ J. Colbatch, A Dissertation Concerning Misletoe, slightly expanded in J. Colbatch, A Dissertation Concerning Misletoe...2nd edition. This book suggests that the power of the ancient Druids stemmed from their knowledge of the uses of mistletoe.

¹⁶⁷ Unfortunately, I have been able to discover nothing about the reasons for his knighthood. Given that his friends (including the generals) and publishers (like Brown and Churchill) were generally Whigs or sympathetic to Whig causes, it is probable that their influence with the new monarch did not hurt his case.

168 J. Colbatch, Scheme for Proper Methods; and J. Colbatch, Observations upon the Scheme Lately Published (1721).

¹⁶⁹ J. Colbatch, The Generous Physician, or Medicine made easy. Although there is no date given on the title page, the British Library copy has the date '1733' pencilled in at bottom of the page; inked on the inside of the title page is the note: 'N.B.: This book was publish'd in sixpenny Numbers under the following Title, which is the running Title of hereof: "Dr. Colbatch's Legacy or the family Physician", Lond, by Jn. Roberts, 1733'. The contents are a bit odd for a family manual (probably being the reason that only diseases to the letter 'B' were printed) but do exhibit some of Colbatch's interests: Abortion (that is, how to avoid miscarriages), Ague, St Anthony's Fire, Apoplexy, Appetite Lost, Appetite Vitiated, Aphthae or Thrush, Asthma, Beating or Palpitation of the Heart, Belching or Ructation, Bite of a Mad Dog, Viper, etc., Bleeding at the Nose, Blood spitting, Blood-Vomiting, and Bruises.

¹⁷⁰His will, made out soon after his knighthood on 26 June 1716, was witnessed by Sir Philip and Elizabeth Boteler of Teston, Kent; it was probated in mid-March 1729: Public Record Office, Chancery Lane, Prob. 11/628/67, fols. 162–3.

just as new forms of commerce were changing the economy.¹⁷¹ Then, too, changing notions about what made a gentleman also brought confusion: it was no longer simply education or birth, but manners and looks that defined a gentleman. The issue of character, which had always been important in medical debates, remained crucial but became more difficult to determine in the more fluid social world of the period.

Not only political and social confusion, however, but the collapse of a learned consensus about medical theory brought about the break-down of the medical establishment. Many people had come to agree that medicine was about finding new and better specific remedies for specific diseases. Experimental science was everywhere proclaimed as the best way to find such new remedies. As Sir William Temple, English ambassador to The Netherlands, remarked, 'I had ever quarrelled with [the physicians'] studying art more than nature, and applying themselves to methods, rather than to remedies; whereas the knowledge of the last is all that nine parts in ten of the world have trusted to in all ages'. 172 But if the physicians would be valued according to their knowledge of remedies rather than their learning, what was to differentiate a well-informed medical judgment from that of a half-educated empiric marketing his patent medicines? Given that the physicians themselves could not agree about what constituted a correct theory of practice, the problem of how to tell a good from a bad practitioner could not be solved simply by examining his ideas.¹⁷³ The battle over the doctrine of acids and alkalies shows that different people thought different philosophical systems to be true and evident. Who would now decide?

Since the new monarchy refused to support the regulatory powers of the London College of Physicians, it was the public who decided on what medical ideas and treatments were best. More importantly, it was the clear opinion of the Sir William Temples of England—the gentry and aristocracy—that they, not the physicians, would decide what medical systems were best. It was the generals, and perhaps even the king himself, who laid the foundation of Colbatch's career. It was they who decided in the House of Lords that apothecaries were as much professionals as physicians, and they who declared in the celebrated Rose case of 1704 that apothecaries had the right to practice as they liked. They, the 'public', would chose whomever they wished for their medical advice, not those who the establishment physicians thought proper.

Men like Colbatch certainly benefited from these changes. The self-made practitioner, the medical innovator, writing in English, explaining that his remedies were discovered by experiment and were consistent with a simple philosophical system that his readers could demonstrate for themselves: this person was the largest beneficiary of the breakdown of the old medical regime during the 1690s and after. Colbatch's knighthood, conferred by George I soon after he came to the throne, symbolized that the new monarchs of the eighteenth century would continue the system

172 Quoted in George Rosen, 'Sir William Temple and the Therapeutic Use of Moxa for Gout in England', Bulletin of the History of Medicine, 44 (1970), p. 36, quoting from Temple's 'Essay upon the Cure of the Gout by Moxa', written in 1677 and published in his Miscellanea (London, 1680), p. 207.

¹⁷¹ On commercialism and political culture, see especially the work of John Brewer, 'Commercialization and Politics', in *The Birth of a Consumer Society: The Commercialization of Eighteenth-Century England*, edited by Neil McKendrick, John Brewer, and J. H. Plumb (Bloomington, Indiana, 1982), pp. 197–262; on commericalization and medicine, see the work of Roy Porter, especially his 'The Language of Quackery in England, 1660–1800', in *The Social History of Language*, edited by P. Burke and R. Porter (Cambridge, 1987), pp. 73–103; and R. Porter, *Health for Sale* (footnote 7).

¹⁷³ This problem had already become pressing with the growth of the new philosophy in the 1660s: H. J. Cook (footnote 7), 133–82; H. J. Cook, 'Physicians and the New Philosophy'; and H. J. Cook, 'The New Philosophy and Medicine' (footnote 81).

that had come into being with the 'Glorious Revolution' of 1689. Whether it was Colbatch or the well-educated physicians of the London College who now best represented the medical establishment must be left for the reader to decide.

7. Colbatch's bibliography

All references are given the numbers assigned to them in the STC (Donald Wing, compiler, Short-Title Catalogue of Books Printed in England, Scotland, Ireland, Wales, and British America, and of English Books Printed in other Countries, 1641–1700, second edition, 3 vols (New York: Index Committee of Modern Language Association, 1972–1988), or 18thC (F. J. G. Robinson, G. Averley, D. R. Esslemont, and P. J. Wallis, compilers Eighteenth-Century British Books: An Author Union Catalogue, 5 vols (Folkestone, Kent: Wm. Dawson and Sons, 1981–)).

Novum Lumen Chirurgicum: Or A New Light of Chirurgery. Wherein is Discussed, a much more Safe and Speedy new way of Curing Wounds, than hath heretofore been usually Practiced. Illustrated with several Experiments made this Year in Flanders (London, 1695), printed for D. Brown, at the Bible and Swan without Temple Bar (STC 4998); third edition, by J. D. for D. Brown, 1698 (STC 4999); fourth edition 1699 (STC 5000); (another edition) published by D. Brown, 1704 (18thC 3087C1).

Novum Lumen Chirurgicum Vindicatum: Or, the New Light of Chirurgery Vindicated From the many unjust Aspersions of several unknown Calumniators. With the Addition of som few Experiments made in Winter, 1694/5, in England (London, 1695), for D. Brown (STC 5001); third edition, 1698 (STC 5002); fourth edition, 1704 (18thC 3087C1).

A Physico-Medical Essay Concerning Alkaly and Acid, so far as they relate to the Cause or Cure of Distempers. Wherein is endeavored to be prov'd, that Acids are not (as is generally and erroneously suppos'd) the cause of all or most Distempers, but that Alkalies are.... (London, 1696), for Dan. Browne (STC 5003); second edition, for D. Brown, 1698 (STC 5004); third edition, 1698 (STC 5005); fourth edition, 8 vo (STC 5006).

Some Farther Considerations Concerning Alkaly and Acid, By Way of Appendix to a late Essay. Wherein The Terms are made Clear, and the Natures of them Both more fully Explained: Together with an Answer to the Objections that have been raised against some Things contained in the said Essay (London, 1696), printed for Fr. Mills and W. Turner, at the Rose and Crown without Temple Bar (STC 5009); (another edition), for Dan. Brown, 1696 (STC 5010); third edition, 1698 (STC 5011); fourth edition, 1699 (STC 5012).

A Treatise of the Gout: Wherein both its Cause and Cure are demonstrably made appear. To which are added, some Medicinal Observations Concerning the Cure of Fevers, etc. by the Means of Acids (London, 1698), printed for Daniel Brown at the Black Swan and Bible without Temple-Bar, and Roger Clavel at the Peacock in Fleetstreet, 1697 (STC 5013); second edition (STC 5014); third edition, 1699 (5015).

The Doctrine of Acids in the Cure of Diseases Farther Asserted: Being an Answer to some Objections raised against it by Dr. F. Tuthill of Dorchester in Dorsetshire. In which are contained some things relating to the History of Blood; As also an Attempt to prove what Life is, and that it is principally supported by an Acid and Sulphur. To which is added an exact Account of the Case of Edmund Turner Esq. deceased; as also the Case of another Gentleman now living, exactly parallel to Mr. Turner's (London, 1689 [sic; read 1698]), printed for Dan. Brown, at the Black Swan and Bible without Temple Bar; and Abel Roper at the Black-Boy in Fleet-street (STC 4995); second edition, 8 vo, 1699 (STC 4996).

A Relation Of a very Sudden and Extraordinary Cure of a Person Bitten by a Viper, By the Means of Acids. Together with Some Remarks upon Dr. Tuthill's Vindication of his Objections against the Doctrine of Acids. Wherein are contained several things in order to the further clearing of the said Doctrine (London, 1698), printed for Dan. Brown without Temple Bar; Abel Roper at the Black-Boy, and Tho. Leigh at the Peacock in Fleetstreet (STC 5007); second edition, 8 vo, 1699 (STC 5008).

Four Treatises of Physick and Chirurgery: viz. I. A Physico-Medical Essay concerning Alkaly and Acid. II. Farther Considerations by way of Appendix to the said Essay. III. Novum Lumen Chirurgicum, or a New Light of Chirurgery. IV. Novum Lumen Chirurgicum Vindicatum, or the New Light of Chirurgery Vindicated from many unjust Aspersions. The 2nd ed. Corrected and Enlarged (London, 1698), printed by J. D. for Daniel Brown at the Black Swan and Bible without Temple Bar (STC 4997).

A Collection of tracts chirurgical (London, 1699, 1700, 1704), for Dan. Brown, (18thC 3086C6).

A Dissertation Concerning Misletoe: A Most wonderful Specifick Remedy for the Cure of convulsive Distempers. Calculated for the Benefit of the Poor as well as the Rich, and heartily recommended for the Common Good of Mankind (London, 1719), printed for William Churchill at the Black-Swan in Paternoster-Row (18thC 3087C2).

A Dissertation Concerning Misletoe: A most wonderful Specifick Remedy for the Cure of Convulsive Distempers. Calculated for the Benefit of the Poor as well as the Rich, and heartily recommended for the Common Good of Mankind. The Second Edition. To which is added, A Second Part, containing farther Remarks and Observations (London, 1720, 1725, 1730?), printed for A. C. and sold by James Roberts in Warwick-Lane (18thC 3087C2).

A Scheme for Proper Methods to be taken, should it please God to visit us with the Plague (London, 1721), printed by J. Darby, and sold by J. Roberts in Warwick-Lane, and A. Dodd without Temple-Bar (18thC 3087C5).

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