

Cullen, a Cautionary Tale

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Abstract: Some ideas return after the briefest of exiles: reductionism is back in vogue. Existential questions – about who we are, about our origins and future, about what is valuable – no longer require difficult soul searching, especially when straightforward answers are expected from the neurosciences. History is being rewritten with the brain as its centrepiece; the search for great men and big ideas of the past begins again. William Cullen (1710–90), whose work on neurosis was once part of the history of psychoanalysis, is now well placed to become part of such a neuro-history. This article attempts to subvert this process, by rebuilding the original meaning of neurosis through Cullen’s physiological and medical works, in comparison with his predecessor, Robert Whytt (1714–66), and illustrating this meaning using one particular neurosis: hypochondriasis. The result is a more complicated version of neurosis which, importantly, carries significant insights into the nature and practice of medicine. Moreover, this article examines how Cullen’s standing fell in the 1820s as British physicians and surgeons turned to an idea which promised to reform medicine: pathological anatomy. When these hopes faded, Cullen became a figure obsessed with the nerves. This image has survived to the present, a blank canvas onto which any theory can be projected. It also values precisely what Cullen warned against: simplistic explanations of the body and disease, and unthinking confidence in the next big idea or silver bullet. Neurosis was not simply a nervous ailment, but it is a warning against reductionism in history making.

Keywords: Hypochondriasis, Medical History, Neurosis, Nervous system, Pathological anatomy, William Cullen

Divination is the most difficult of all sciences. But even rarer than a prediction that comes true is a prediction that outlasts its creator’s intentions. The prophet in this case is President George H.W. Bush, when he designated the 1990s as the ‘decade of the brain’.¹

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¹ Edward Jones and Lorne Mendell, ‘Assessing the Decade of the Brain’, *Science*, 284 (2010), 739.

While scientific research on the brain may well antedate the president's approbation, the notion that we understand ourselves by first understanding our brains has had a much greater lifespan than perhaps Bush intended. However, a more recent development is the enthusiasm with which historians and sociologists have taken up this project as well.² Such a reduction of human passions, motives and understanding is not without its problems: on the one hand, reducing the humanities to the neurosciences has not been left uncontested³ and, on the other, rewriting the past in this manner is no different from the way in which neuroscientists themselves have been remaking it. To spoil the ending of Antonio Damasio's *Descartes' Error: Emotion, Reason and the Human Brain*, the problem is that Descartes was not a twentieth-century neuroscientist.⁴ Moreover, judging the past with, or according to, the scientific theories of the present is only one means of establishing their credibility. An older, more trusted, method is the hunt for precursors.

William Cullen remains an important and influential figure within the history of medicine, if only because he can be easily drafted into whatever historiographical trend is currently fashionable. Indeed, Cullen and his bequest to medicine have been remade several times before. Because the diagnostic term he coined – neurosis – was also the term used by psychoanalysts to describe a mild psychological problem, mid twentieth-century historians of psychiatry have attached this later meaning to this eighteenth-century Edinburgh Professor of the Theory and Practice of Medicine. Their royal road led to Freud.⁵ But Cullen was not a mad-doctor, just as he was not a neuroscientist. At least in recent years the analysis has become more nuanced. The social historian Heather Beatty's examination of Cullen's medical correspondence has shown that most of his nervous patients complained of embarrassingly somatic ailments rather than 'the vague symptoms of nervous sensibility typically discussed in novels and sources intended for public consumption'.⁶ Whether this becomes the foundation of purely biological account of neurosis, according to which Cullen is a precursor once again, remains to be seen. The potential remains because it has happened before. When considered as purveyors of medical jargon, then any medical thinker in history may be purchased for whatever role we see fit.

Such a trade in legacies, transferring a precursor from one science to another, is merely a symptomatic of a much larger problem. It ultimately stems from a reductionist view of history, in which a 'great man' is known only for his discoveries – or for the terms he coined – without a clear understanding of what they meant. Such attention to detail is what is missing when historians have considered the term 'neurosis', More precise, yet still marking time until Charcot and Freud, in 1983 José López Piñero wrote that '[Cullen] was the best representative of the school of so-called 'neuropsychology' (or neural

² See, for example, Nikolas Rose, 'The Human Sciences in a Biological Age', *Theory, Culture and Society*, 30, 1 (2013), 3–34; Edward Shorter, *How Everyone Became Depressed: The Rise and Fall of the Nervous Breakdown* (Oxford: Oxford University Press, 2013); Daniel Smail, *On Deeper History and the Brain* (Berkeley, CA: University of California Press, 2008).

³ See, for example, Roger Cooter, 'Neural Veils and the Will to Historical Critique: Why Historians of Science Need to Take the Neuro-Turn Seriously', *Isis*, 105, 1 (2013), 145–54; Hilary Rose and Steven Rose, *Genes, Cells and Brains: The Promethean Promises of the New Biology* (London: Verso, 2012); Fernando Vidal, 'Brainhood, Anthropological Figure of Modernity', *History of the Human Sciences*, 22, 1 (2009), 5–36.

⁴ Antonio Damasio, *Descartes' Error: Emotion, Reason and the Human Brain* (London: Picador, 1996), xi.

⁵ Such works include Gregory Zilboorg, *A History of Medical Psychology* (New York: W.W. Norton, 1941); Edward Shorter, *From Paralysis to Fatigue: A History of Psychosomatic Illness in the Modern Era* (New York: Free Press, 1992).

⁶ Heather Beatty, *Nervous Disease in Late Eighteenth-Century Britain* (London: Pickering & Chatto, 2012), 73.

pathology) whose main postulate was the identification of the vital principles with the activity of the nervous system'.⁷ This is the most common description of William Cullen and his concept of neurosis: a man obsessed by the nervous system. Writing in 1975, Inci Bowman concluded that 'Although Cullen occasionally emphasised the complexity and interdependence of various functions in the animal organism, it is clear that he regarded the nervous system as being the most important. Ultimately all functions were dependent on the nervous system'.⁸ This article attempts to circumvent these simplistic accounts of Cullen's work, which often slip into falsehood. Robert Kendell has suggested that 'Like many other physicians before and since, Cullen gradually convinced himself that excesses or deficiencies, local or general, of the hypothetical influence which interested him most, "nervous energy", were the root cause of most disease'.⁹ As we shall see, this was never Cullen's doctrine. Rather, it was the theory of his student-turned-rival John Brown (1735–88).¹⁰ More is needed to distinguish Cullen from his contemporaries; to a late eighteenth-century Scot, there was no such thing as a neuropathological 'school'.

Another sign that Cullen's work needs further interpretation is that these are physiological, not strictly medical, accounts of neurosis. The concerns of physiology, or a doctrine of animal oeconomy, had no inherent link with the immediate problem of healing the sick. In late eighteenth-century Britain, this distinction was important, and it was reflected in Cullen's teaching.¹¹ Indeed, while eighteenth-century Britain has been described as a culture of nerves, the prevalence of such ailments gave physicians cause for alarm.¹² As Robert Whytt, Edinburgh Professor of the Theory of Medicine, realised in 1765, a diagnosis of nervous disease was increasingly being given 'to many symptoms seemingly different, and very obscure in their nature, [which] has often made it be said that Physicians have bestowed the character of *nervous* on all those disorders whose nature and causes they were ignorant of'.¹³ Here is the problem for the historian: regardless of how important the nerves may have been for physiology, medical theorists were not trying to develop or expand the domain of nervous disease but to narrow and subdue it. Trying to resolve this apparent contradiction was what drove these thinkers into print, some with more success than others, but none more so than Cullen. His guide to medical practice,

⁷ José López Piñero, *Historical Origins of the Concept of Neurosis*, D. Berrios (trans.), (Cambridge: Cambridge University Press, 1983), 12.

⁸ Inci Bowman, *William Cullen (1710–90) and the Primacy of the Nervous System* (Ann Arbor, MI: University Microfilms International, 1979), 92.

⁹ Robert E. Kendell, 'William Cullen's *Synopsis Nosologiae Methodicae*', in A. Doig *et al.* (eds), *William Cullen and the Eighteenth Century Medical World*, (Edinburgh: Edinburgh University Press, 1993), 223–4.

¹⁰ Brown's views are easily summarised: all diseases were caused by excessive (sthenic) or deficient (asthenic) nervous energy, and treated either with laudanum or alcohol. See William Bynum and Roy Porter (eds), *Brunonianism in Britain and Europe* (London: Wellcome Institute for the History of Medicine, 1988).

¹¹ Not a 'totality of discourse' but an 'organised body of opinions on particular topics in the medical curriculum': Michael Barfoot, 'Philosophy and method in Cullen's medical teaching', in A. Doig *et al.* (eds), *William Cullen and the Eighteenth Century Medical World* (Edinburgh: Edinburgh University Press, 1993), 114.

¹² Social histories of nervous ailments include Roy Porter, 'Nervousness, eighteenth and nineteenth century style: from luxury to labour', in Roy Porter and Marijke Gijswijt-Hofstra (eds), *Cultures of Neurasthenia: From Beard to the First World War* (Amsterdam: Rodopi, 2001), 31–50; W.F. Bynum, 'The nervous patient in eighteenth- and nineteenth-century Britain: the psychiatric origins of British neurology', in Roy Porter, W.F. Bynum and Michael Shepherd (eds), *The Anatomy of Madness: Essays in the History of Psychiatry*, Vol. 1 (London: Tavistock, 1985), 89–102; Christopher Lawrence, 'The nervous system and society in the Scottish enlightenment', in Barry Barnes and Steven Shapin (eds), *Natural Order: Historical Studies of Scientific Culture* (London: Sage, 1979), 19–40.

¹³ Robert Whytt, *Observations on Those Disorders Commonly Called Nervous, Hypochondriac, or Hysterical* (Edinburgh: J. Balfour, 1765), iii.

First Lines of the Practice of Physic, first published in 1777, was the pre-eminent medical textbook for over forty years, constantly republished in London, Dublin, New York and Philadelphia, and translated into French by Philippe Pinel (1745–1826) in 1786.¹⁴ Cullen stands out in the crowd of eighteenth-century nerve doctors. As an Enlightenment scholar, he was a successful chemist and agronomist, a friend of David Hume and Adam Smith, and his lectures were widely known for the philosophical scepticism he imbued in his students.¹⁵ He deserves historical attention.

It is through a closer reading of Cullen's works that this article attempts to reconstruct his thought, its fate and its relevance today. The first two sections examine the differences between his physiological and medical texts and how they related to his predecessors, the powers he ascribed to the body, and the role of the nerves in a particular neurosis: hypochondriasis.¹⁶ It reveals a more nuanced conception of neurosis, which served the requirements of both physiological thought and practical medicine. The next two sections of this article shows precisely how this doctrine was reduced. As the third section details, this was due to the rise of pathological anatomy in the 1820s, a method which promised to reform medicine, at the expense of all other forms of medical knowledge, including Cullen.¹⁷ The final section charts what happened when this promise was broken in the 1830s, as well as the inadequacies that British physicians and surgeons felt, particularly in response to the apparently more successful medicine practised by the French. Cullen's reputation suffered in this turmoil, as physicians attempted to show that a forward-looking medicine had bested him, to break medicine away from its own past. What they left behind was an oversimplified version of neurosis, valuable only as a projection of their own anxieties surrounding nineteenth-century medicine, and later, as currency within the history of medicine and psychiatry.

Fluids, Fibres and Motivating Powers

Within the history of physiology, Cullen's view of the animal oecconomy has been attributed to the eighteenth-century Dutch professor Jerome Gaub and even to Galen.¹⁸ Yet in his *Institutions of Medicine*, published in 1772, the main source of Cullen's

¹⁴ Phillippe Pinel, *Institutions de Médecine Pratique, Traduites sur la quatrième & dernière édition de l'ouvrage anglois de M. CULLEN*, Vol. 3 (Paris: P.J. Duplain, 1786).

¹⁵ Barfoot, *op. cit.* (note 11), 110–32.

¹⁶ Social histories of hypochondriasis touch similar themes to those of nervousness, often written by the same authors. See Russell Noyes Jr, 'The Transformation of Hypochondriasis in British Medicine, 1680–1830', *Social History of Medicine* 24.2 (2011), 281–98; Fredrik Jonsson, 'The physiology of hypochondria in eighteenth-century Britain', in Christopher Forth and Ana Carden-Coyne (eds), *Cultures of the Abdomen: Diet, Digestion, and Fat in the Modern World* (Basingstoke: Palgrave Macmillan, 2005), 13–30; George Rousseau, 'Hypochondriasis: history of a concept', in Vladan Starcevic and Don Lipsitt (eds), *Hypochondriasis: Modern Perspectives on an Ancient Malady* (Oxford: Oxford University Press, 2001), 3–20.

¹⁷ The classic formulations of pathological anatomy are Erwin Ackerknecht, *Medicine at the Paris Hospital, 1794–1848* (Baltimore, MD: Johns Hopkins Press, 1967); Michel Foucault, *The Birth of the Clinic: An Archaeology of Medical Perception* (London: Tavistock, 1973). For a counter-argument to these works, see Othmar Keel, 'Was anatomical and tissue pathology a product of the Paris clinical school or not?' in Caroline Hannaway and Ann La Berge (eds), *Constructing Paris Medicine* (Amsterdam: Rodopi, 1998), 117–83.

¹⁸ On Cullen and Gaub, see Thomas Hall, *Ideas of Life and Matter*, Vol. 2 (Chicago: University of Chicago Press, 1969), 91–5; on Cullen and Galen, see William Bynum, 'Cullen and the nervous system', in A. Doig *et al.* (eds), *William Cullen and the Eighteenth Century Medical World* (Edinburgh: Edinburgh University Press, 1993), 158–9.

physiological doctrine seems to be his older colleague Robert Whytt.¹⁹ To begin with, both authors posited that the animal oeconomy consisted of a mixture of solid and fluid parts: for Whytt the body was essentially fibrous, while for Cullen ‘the state of cellular texture is the most important circumstance in all organized parts’.²⁰ This in itself was nothing controversial. The concept of solids – whether fibre or cell – was integral to eighteenth-century medicine: it allowed otherwise incommensurable medical theories to be compared and judged; it allowed eighteenth-century physicians to move from ‘mechanist’ to ‘vitalist’ conceptions of the body.²¹ It was also fundamental to the Enlightenment ‘science of man’, in which the nerves took especial political and social importance.²² Secondly, while for both Whytt and Cullen the body could not be explained as if it were a machine, nor could they agree with the animism of Georg Stahl (1659–1734), that all bodily functions depended upon some rational principle or soul. As Cullen remarked: ‘it is with little probability acknowledged, that the administration of the corporeal functions is intirely [sic] directed by the mind acting independently of the body’.²³ On these two extreme conceptions of the body, Whytt and Cullen were in full agreement.

On other matters, however, Cullen and Whytt may have begun with the same principles, but they ended with very different conclusions. The first concerns a debate which Whytt had conducted with Albrecht von Haller on the nature of nervous and muscular fibres. For Haller, the muscles contained their own power to contract, ‘irritability’, while for Whytt this was merely an extension of the nerves’ own power, ‘sensibility’.²⁴ In his *Institutions*, Cullen agreed with Whytt: ‘the muscular fibres are a continuation of the medullary substance of the brain and nerves’.²⁵ Yet, Cullen also included an important caveat. Talk of separate powers of the body, Cullen proposed, only made sense within a particular context: as conditions of movement rather than as states of the nervous fluid itself. Thus three distinctions could be made in what was essentially the same medium: ‘inherent power’ was the capacity of a muscle to move, ‘nervous power’ excited the muscle into contraction ‘by a motion propogated along the nerves’ and an ‘animal power’ by which the nervous power ‘is commonly determined to motion by the will’ and which ‘depend[ed] upon sensation and other modifications of thought’.²⁶ This was a middle ground between Haller and Whytt: the powers of the body, whatever their different actions, flowed through unvarying bodily fibres.

¹⁹ On Whytt’s life and doctrines, see Roger French, *Robert Whytt, The Soul, and Medicine* (London: Wellcome Institute of the History of Medicine, 1969).

²⁰ Robert Whytt, *Essay on the Vital and Other Involuntary Motions of Animals* (Edinburgh, Hamilton: Balfour & Neill, 1751), 12; William Cullen, *Institutions of Medicine Part I: Physiology* (Edinburgh, 1772), 18.

²¹ Hisao Ishizuka, ‘Fibre Body’: The Concept of Fibre in Eighteenth-Century Medicine, c.1700–40’, *Medical History*, 56.4 (2012), 562–84.

²² See, for example, Sarah Knott, *Sensibility and the American Revolution* (Chapel Hill, NC: University of North Carolina Press, 2009); George Rousseau, ‘Nerves, spirits and fibres: towards the origins of sensibility’, reprinted in his *Nervous Acts: Essays on Literature, Culture and Sensibility* (Basingstoke: Palgrave Macmillan, 2004), 157–84; G.J. Baker-Benfield, *The Culture of Sensibility: Sex and Society in Eighteenth-Century Britain* (Chicago: University of Chicago Press, 1992).

²³ Cullen, *op. cit.* (note 20), 93. See also John P. Wright, ‘Metaphysics and physiology: mind, body, and the animal oeconomy in eighteenth-century Scotland’, in M.A. Stewart (ed.), *Studies in the Philosophy of the Scottish Enlightenment* (Oxford: Clarendon Press, 1990), 251–302.

²⁴ Hubert Steinke, *Irritating Experiments: Haller’s Concept and the European Controversy on Irritability and Sensibility, 1750–90* (Amsterdam: Rodophi, 2005).

²⁵ Cullen, *op. cit.* (note 20), 70.

²⁶ *Ibid.*, 66–8.

A second difference between Cullen and Whytt on physiological doctrine concerned the 'sentiment principle'. Whytt had posited its existence in response to Stahl and Haller: it controlled the body, but it was distinct from it (*pace* Haller) and the mind was not conscious of its function (contra Stahl).²⁷ To this nervous hierarchy, Cullen added 'impressions', powers which caused involuntary motion yet without arousing sensations in the mind.²⁸ This move was deliberate. Following Hume, Cullen only cautiously accepted hypotheses in all of his endeavours.²⁹ A 'sentient principle', a part of the mind of which it was unaware, was a great unknowable on which Cullen would not speculate. Cullen did not evoke final causes.³⁰ This was an important distinction to make, and with regard to the 'reflex function' controversy, it would be made again.³¹ But here there is also little difference between Cullen's physiology and his reputation within the history of medicine. The primacy of the nervous system was rigorously maintained.

However, this was certainly not the case with Cullen's medicine. When in 1784 Cullen published the fourth edition of his *First Lines of the Practice of Medicine*, it was written as a handbook for physicians rather than a lecture guide for his students: an additional fourth volume and a preface of forty-eight pages only made the differences between his medicine and Whytt's clearer.³² To be sure, there were still the admonishments against those he had disagreed with within his *Institutes of Medicine*. Georg Stahl's *vis conservatrix et medicatrix naturae*, the ways in which the body could naturally maintain and repair itself, was still a 'vague idea' driving physicians to use 'only very inert and frivolous remedies' and to zealously oppose 'the use of some of the most efficacious, such as opium and the Peruvian bark'.³³ But it was also an opportunity for Cullen to develop his own medical doctrines, his view of the body especially in relation to making it well again. On this note, Cullen saw Herman Boerhaave's medicine as misguided, since it rested upon changes in the blood even when 'the nature of these changes is seldom understood, and more seldom still is it known when they have taken place'.³⁴ For Cullen, theories which based greater importance on bodily fluids rather than the solids – what Cullen derided as 'humoralism' – had no place in medicine.

Instead Cullen looked to the writings of another eighteenth-century physician, a Cartesian in medicine and Pietist in theology, Friedrich Hoffman (1660–1742).³⁵ From a long passage that Cullen quoted approvingly, Hoffman had maintained that 'Careful observation teaches that all kinds of morbid motions principally reside in and exercise their tyranny over the nervous parts of the body'. But this did not mean, Hoffman continued, that there could be no distinction between the nerves and other parts of the body: the 'canals,

²⁷ Whytt, *op. cit.* (note 20), 182.

²⁸ Cullen, *op. cit.* (note 20), 63.

²⁹ J.R.R. Christie, 'Ether and the science of chemistry', *Conceptions of Ether: Studies in the History of Ether Theories 1740–1900* in G.N. Cantor and M.J.S. Hodge (eds), (Cambridge: Cambridge University Press, 1981), 85–110.

³⁰ John P. Wright, 'Materialism and the life soul in eighteenth-century Scotland', in Paul Wood (ed.), *The Scottish Enlightenment: Essays in Reinterpretation*, (Rochester, NY: University of Rochester Press, 2000), 177–98.

³¹ Ruth Leys, *From Sympathy to Reflex: Marshall Hall and His Opponents* (New York: Garland, 1991).

³² William Cullen, *First Lines of the Practice of Physic*, 4th edn, Vol. 1 (Edinburgh: C. Elliot, 1784), ii.

³³ *Ibid.*, xii–xv.

³⁴ *Ibid.*, xxxii.

³⁵ On Hoffman, see Roger French, 'Sickness and the soul: Stahl, Hoffman and Sauvages on pathology', in Andrew Cunningham and Roger French (eds), *The Medical Enlightenment of the Eighteenth-Century* (Cambridge: Cambridge University Press, 1990), 88–110; Lester S. King, *The Road to Medical Enlightenment, 1650–95* (London: Macdonald & Co., 1970), 181–204.

which by systaltic and diastaltic motion precisely direct robust juices, undoubtedly also the entirety of the intestines and of the stomach, from the oesophagus to the anal canal, the whole system of arterial vessels, as well as the biliary, salivary, urinary and subcutaneous tracts', the coverings of the brain and spinal cord, even the ligaments were involved in disease. The nerves played an important role in Hoffman's medicine, but only in the sense that 'all causes of disease bring forth their effect chiefly in those parts endowed with motion and perception'.³⁶ The condition of the vital organs was an essential part of health, the solids and nerves were affected in all illnesses. All medical authorities were egregiously mistaken, Hoffman concluded, to focus solely on fluids.

While Cullen did not agree with Hoffman's doctrine of animal oeconomy – the Prussian had 'everywhere intermixed an Humoral Pathology as incorrect and hypothetical as any other'³⁷ – he had provided the only clear and simple foundations for medicine. Indeed, Cullen wrote that 'It is to me surprising that physicians were so long of [*sic*] perceiving this, and I think we are therefore particularly indebted to Dr Hoffman for putting us into the proper train of investigation'.³⁸ This train was based on two principles: first, that while the nervous system was involved in all diseases, this was of absolutely no help to medical practice. While historians have been quick to point out that in the *First Lines*, Cullen stated that 'of a certain view, almost the whole of the diseases of the human body might be called NERVOUS', they have often overlooked the following important qualification: that 'there would be no use for such a general appellation; and, on the other hand, it seems improper to limit the term, in the loose inaccurate manner in which it has been hitherto applied, to hysteric and hypochondriacal disorders, which are themselves hardly to be defined with sufficient precision'.³⁹ But secondly, Cullen reasoned that just as the nerves had previously been imbued with great powers over the body, the same courtesy had to be extended to the vital organs as well. It was of no significance whether the body was composed of a homogenous matter, only how it became diseased: 'There can be no sort of doubt that the phenomena of the animal oeconomy in health and in sickness, can only be explained by considering the state and the affections of the primary moving powers in it'.⁴⁰ Physiologically, nervous tissues may be the sole constituent of the body, but in practice the various powers of the vital solids – of digestion, of respiration, of generation, etc. – mattered as much to the health of the patient. Thus, 'Dr Haller has advanced this part of science very much by his experiments on irritability and sensibility'.⁴¹ This was quite a shift for Cullen: in his *Institutes* he had deprecated Haller's doctrine, while in his *First Lines* he endorsed it. But whether Cullen had actually changed his mind is irrelevant. The most important distinction was between physiology and medicine, between the doctrine of animal oeconomy and the art of healing. For Cullen, medicine was to be guided by physiology, but should never be a handmaiden to it.

³⁶ 'Deinde attenta observation docet, motus quosvis morbosos principaliter sedem figere et tyrannidem exercere in nervosis partibus, cujus generis praeter omnes canales, qui systaltico et diastaltico motu pollenter, contentos succos tradunt, universum nimirum intestinorum et ventriculi ab oesophagi ad anum canalem, totum systema vasorum arteriosorum, ductuum biliariorum, salivalium, urinariorum, et subcutaneorum . . . Porro etiam omnes, quae morbos gignunt causae, operationem suam potissimum perficiunt in partes motu et sensu praeditas'. Friedrich Hoffman, *Medicina Rationalis Systematica*, Tom. III, quoted in Cullen, *op. cit.* (note 32), xix–xxii.

³⁷ *Ibid.*, xxiv.

³⁸ *Ibid.*, xxii–xxiii.

³⁹ William Cullen, *First Lines of the Practice of Physic*, 4th edn, Vol. 3 (Edinburgh: C. Elliot, 1784), 121–2.

⁴⁰ Cullen, *op. cit.* (note 34), xxii.

⁴¹ *Ibid.*, xxiii.

Hypochondriasis

This was a distinction, moreover, which only became more pronounced when considering individual diseases. In order ‘to deliver a System of the Doctrines and Rules proper for directing the Practice of Physic’,⁴² Cullen emphasised the need to understand a disease beyond the mere register of symptoms, to distinguish between the seat of the disease and the symptoms it produced.⁴³ Disease could disrupt the three great motivating powers of the body – the vital, the animal and the intellectual – and from these the ailment could be discerned and treatment given. To illustrate the scope of this medicine, and its effects on conceptions of nervous diseases, this section will examine an illness which remained on the periphery of medical understanding: hypochondriasis.

For eighteenth-century physicians, hypochondriasis was a nervous disorder which primarily affected the digestive organs, which should be distinguished from nervousness in general. Indeed, Robert Whytt had recognised this necessity in 1765, even if he was unable to do so. In his physiology every bodily fibre, and hence every disorder, was nervous. Yet purely nervous ailments were impossible to identify except when no other disease or accident could be attributed. Whytt’s notion of sympathy – the sentient principle or ‘feeling’ invested throughout the entire nervous system⁴⁴ – only made matters worse. Through this power, these maladies could mimic any other:

the shapes of *Proteus*, or the colours of the *chameleon* are not more numerous and inconstant, than the variations of the hypochondriac and hysteric disease; so those morbid symptoms which have been commonly called nervous, are so many, so various, and so irregular, that it would be extremely hard, either rightly to describe, or fully enumerate them.⁴⁵

Moreover, nervousness seemed to attack without cause, and no trace of degeneration could be found in the abdominal organs at autopsy.⁴⁶ Despite these problems, Whytt still attempted to describe the condition with a list of symptoms over four pages long – from frequent sighing to muscle cramps, ridiculous fancies to wind in the stomach – but still without any discriminating characteristics.⁴⁷ Whytt could not erect a barrier between hypochondriac disease and nervous disorder. Instead of checking the proliferation of nervous ailments, he reinforced and justified it.

As we have seen, Cullen did not restrict himself to a medicine solely based on his physiology. Indeed, when defining neurosis he was careful to avoid Whytt’s mistake of reducing every disease to the nerves. In an often quoted passage, Cullen wrote:

I propose to comprehend, under the title of NEUROSES, all those preternatural affections of sense and motion which are without pyrexia, as a part of the primary disease; and all those which do not depend on a topical affection of the organs, but on a more general affection of the nervous system, and of those powers of the system upon which sense and motion more especially depend.⁴⁸

The only true neuroses within this framework were diseases of sense and motion: coma, apoplexy, palsy, tetanus, epilepsy and chorea. But most importantly, diseases also broke through these limited boundaries. Nervous ailments could involve the vital and the intellectual powers as well. Thus hypochondriasis, while still technically a neurosis, was

⁴² *Ibid.*, i.

⁴³ *Ibid.*, xxxvi–xxxvii.

⁴⁴ Whytt, *op. cit.* (note 13), v–vi.

⁴⁵ *Ibid.*, 96.

⁴⁶ *Ibid.*, 110.

⁴⁷ *Ibid.*, 97–102.

⁴⁸ Cullen, *op. cit.* (note 39), 122.

also considered an *adynamiae*, a disease 'consisting in a weakness or loss of motion in either the vital or natural functions'.⁴⁹ As a result, the object of Cullen's medicine was completely different from that of Whytt's. Indeed, even the names they gave to this disorder reflect this different methodical approach. Whytt investigated 'hypochondriac diseases', a loose collection of ailments united only by their location in the animal oecconomy; Cullen studied 'hypochondriasis', a disorder that affected some of the most important powers in the body. In other words, it was not its distinct nervousness which made hypochondriasis unique, but its combined effects on the vital and intellectual functions.

Under this view of the body, therefore, hypochondriasis should not be differentiated from hysteric diseases or other protean ailments with which they had little in common. Instead, hypochondriasis should be distinguished from dyspepsia and melancholia.⁵⁰ Like hypochondriasis, dyspepsia was an *adynamiae*. They even shared a number of symptoms: 'A want of appetite, a squeamishness, sometimes a vomiting, sudden and transient distensions of the stomach, eructations of various kinds, heartburn, pains in the region of the stomach, and a bound belly'.⁵¹ But here the similarities ended. Dyspepsia was an illness that appeared early in life and from which patients tended to recover, they did not suffer from the depression which afflicted hypochondriacs. Indeed, the different mental states echoed the changes that took place during life: 'In youth, the mind is cheerful, active, rash and moveable: but as life advances, the mind by degrees becomes more serious, slow, cautious and steady; till at length, in old age, the gloomy, timid, distrustful, and obstinate state of melancholic temperaments, is more exquisitely formed'.⁵² Similarly, while melancholia may share 'Fear and dejection of mind, or a timid and desponding disposition' with hypochondriasis, melancholics suffer from neither dyspepsia nor the 'anxious melancholic fear, arising from the feeling of these symptoms'.⁵³ In short, the simplicity of Whytt's physiological doctrine had led him into medical perplexities. Cullen's physiology of the three motivating powers was simple as well, but in a medical context it was not a pronouncement on the ultimate nature of disease. They were descriptive principles, useful for diagnosing patients, directing treatments and classifying new diseases. The popularity of Cullen's medicine – including his concept of neurosis – rested upon this sensitivity to specific needs.

Pathological Doubts

Indeed, such was the popularity of Cullen's medicine that nervous disorders continued to be diagnosed even after they had fallen from social grace. In 1807, as French Revolutionary and Napoleonic armies threatened to invade, the naval physician Thomas Trotter (1760–1832) warned that nervous disorders made Britons an easy target for conquest.⁵⁴ The idea

⁴⁹ *Ibid.*, 197.

⁵⁰ The hysteric diseases were classified alongside cholera and diabetes as 'spasmodic affections in the natural functions'. William Cullen, *First Lines of the Practice of Physic*, 4th edn, Vol. 4 (Edinburgh: C. Elliot, 1784), 93–106.

⁵¹ Cullen, *op. cit.* (note 39), 217.

⁵² *Ibid.*, 255.

⁵³ Cullen, *op. cit.* (note 50), 176–7.

⁵⁴ Thomas Trotter, *A View of the Nervous Temperament*, 2nd edn (London: Longman, Hurst, Rees & Orme, 1807), xi; On Trotter, see I.A. Porter, 'Thomas Trotter, M.D., Naval Physician', *Medical History* 7.2 (1963), 154–64. According to Heather Beatty, this was a common attitude to take in eighteenth-century whenever Britain went to war. See Beatty, *op. cit.* (note 6), 52–5.

of British society rendered indolent by its own luxury may have been distasteful, but the disease of luxury continued. However, by 1820 a change had come upon British physicians and surgeons. Many believed that Cullen's medicine was in need of revision, that the motivating powers had no place in classifying disease, that medicine could be given firmer foundations.

Interestingly, these same physicians also believed that this new medicine had been heralded long ago, and history would always remember the achievements of two authors. The new style of medicine now discovered in the works of the physician James Hamilton (1749–1835) and the surgeon John Abernethy (1764–1837) has become known as pathological anatomy.

It was certainly not Hamilton's intention to overthrow prevailing medical thought. The beginnings of his rise to medical acclaim began on the 9th of August, 1781 when 166 men with typhus fever landed at Leith from the *HMS Suffolk* and *HMS Egmont*. Working at the Royal Infirmary, Hamilton witnessed the epidemic that followed. According to Cullen's medicine, physicians should resist the temptation to purge the bowels of the offensive feculent matter: 'as this evacuation may induce a considerable degree of debility; so, in those cases in which a dangerous state of debility is likely to occur, purging is to be employed with a great deal of caution'.⁵⁵ Yet after a course of mild antimonial medicines did no further harm his patients, Hamilton began prescribing larger doses – 'I entertained hopes that a favourable crisis might be procured' – and found, to his surprise,

that the full and regular evacuation of the bowels relieves the oppression of the stomach, cleans the loaded and parched tongue, and mitigates thirst, restlessness, and heat of the surface; and that thus the later and more formidable impression on the nervous system is prevented, recovery more certainly and speedily promoted, and the danger of relapsing into the fever much diminished.⁵⁶

Spurred by his success, he 'employed these with a freedom not usual, but with manifest advantage, in several other diseases'.⁵⁷ It was not long before the novelty of his treatment was noticed at the hospital, and soon Hamilton was forced into print to defend his actions.⁵⁸ Indeed, in later editions Hamilton took extra measures to ensure his work was not interpreted as recklessly new. In the fourth edition of his work, published in 1811, he carefully noted that no taxonomic boundaries had been crossed: with regard to fevers, he stressed that 'Dr Cullen has proposed the best arrangement on this subject in his *Synopsis Nosologiae Methodicae*'.⁵⁹ Moreover, there were still dangers that physicians had to avoid when they prescribed purgatives: the state of the patient, the state of the disease, and the state of the faecal matter all had to be taken into account.⁶⁰ In other words, this was not the work of a radical physician attempting to call medical theory into question, but a physician's attempt to defend his professional judgement in trying times.

By 1820, however, this was no longer the meaning that physicians gave to Hamilton's studies. No longer considered an advocate for a more effective – if more perilous – form of treatment, Hamilton's success was viewed as an indictment of Cullen's entire medicine. While lavishing praise upon Hamilton, a Cheltenham physician, John Thomas, had only scorn for Cullen:

⁵⁵ Cullen, *op. cit.* (note 32), 144.

⁵⁶ James Hamilton, *Observations on the Utility and Administration of Purgative Medicines in Several Diseases* (Edinburgh: Balfour, Hill, Laing, Constable & Co., 1805), 14–9.

⁵⁷ *Ibid.*, ix.

⁵⁸ *Ibid.*, xv–xvi.

⁵⁹ *Ibid.*, 31.

⁶⁰ *Ibid.*, xvii–xxii.

many maladies classed by the most learned Nosologists, as pyrexiae and neuroses, (fevers and nervous disorders), are very commonly but a very disturbed state of the function of digestion and assimilation, sometimes degenerating by neglect, or what is worse, improper treatment, into obstruction, congestion, or inflammation of one or more of those organs destined to perform the first function in the animal economy.⁶¹

Despite Cullen's medicine, guided by the three motivating powers, Thomas thought that in practice there was little to distinguish between diseases, the sometimes imperceptible changes of function, except by the symptoms that each individual suffered. In other words, diagnosis should not rely on superficial resemblances: the motivating powers themselves had to be restored to balance. This was not a wholesale rejection of Cullen's medicine, but it was certainly a cause for alarm.

Like Hamilton, when John Abernethy published his *Surgical Observations on the Constitutional Origin and Treatment of Local diseases* in 1809, it was not his intention to offer any radically new conception of the body. Moreover, he certainly would not have advocated for a research method commonly associated with the French.⁶² Indeed, one of the aims of this work was to erode the professional division between physicians and surgeons. Since the aim of both groups was to alleviate human suffering, Abernethy reasoned, it was unnatural to divide them into those who treated the external signs of disease and those who understood the underlying functions. The result, both in education and practice, Abernethy wrote, was detrimental to all:

The effects of local disorders upon the constitution have, in consequence, been too little attended to; and indeed, I know of no book, to which I can refer a surgical student for a satisfactory account of those febrile and nervous affections which local disease produces, except in Mr Hunter.⁶³

Understanding the essential nature of disease was impossible, Abernethy concluded, without knowledge from both physic and surgery. The relationship between local and constitutional afflictions, descriptions of which comprised the rest of this work, was the relationship that Abernethy believed contemporary medicine had overlooked due to its unnatural separation of the professions.

Abernethy explained this medical relationship by borrowing a term from his mentor, John Hunter (1728–93). 'Universal sympathy', Abernethy explained, was the reciprocal relationship between the nerves, brain and stomach which accounted for the disparate, seemingly unconnected symptoms seen in medical and surgical practice.⁶⁴ Teething in children caused convulsions, a failing appetite, and bowels to become costive or to purge.⁶⁵ Blows to the stomach could cause vomiting, a furred tongue, fever, delirium, leading a perfectly healthy person into hypochondriasis.⁶⁶ A fit of passion, Abernethy stated, had been known to produce jaundice.⁶⁷ Although Robert Whytt had also used the term 'sympathy', there was nothing revolutionary about such a work. Distinguishing the symptoms of various diseases lay at the heart of Cullen's medicine as well. The body was interconnected, a system of many parts.

⁶¹ John Thomas, *Practical Observations on Chronic Affections of the Digestive Organs* (London: G. & T. Underwood, 1820), 10. Parentheses in original.

⁶² When in 1816 Abernethy's former student William Lawrence questioned his physiology, Abernethy declared Lawrence an atheist subversive in league with the French. See Adrian Desmond, *Politics of Evolution: Morphology, Medicine and Reform in Radical London* (Chicago: University of Chicago Press, 1989).

⁶³ John Abernethy, *Surgical Observations on the Constitutional Origin and Treatment of Local Diseases* (London: Longman, Hurst, Rees, and Orme, 1809), 1.

⁶⁴ *Ibid.*, 2.

⁶⁵ *Ibid.*, 14.

⁶⁶ *Ibid.*, 45–6.

⁶⁷ *Ibid.*, 49.

However, there was one facet of Abernethy's work that fascinated both surgeons and physicians in the 1820s. In Cullen's medicine, while it was important to distinguish between the key symptoms of an ailment and those which were merely incidental, and even to distinguish between the ailment and its symptoms, there had been little need for a distinction between disease and disorder. For Cullen, this had meant a derangement of the motivating powers. Hypochondriasis, for example, could affect the vital organs as well as the animal and intellectual powers. Indeed, it was a distinction that Abernethy did not make until 1817, worried that such a use 'might be construed into mere affectation'. Yet, by the fourth edition of his *Surgical Observations* this idea had become crucial for his notion of universal sympathy:

Disorder, I should define to be an unhealthy state of the feelings or functions of parts, without any apparent alteration of structure; and disease, a visible alteration in the appearance or structure of the affected part; disorder is nervous; disease is the effect of vascular actions, excited by nervous disorder.⁶⁸

What had changed was the meaning of the term 'disease'. For the surgeon Abernethy, without proof of a pathological change within a specific organ, a disease had not been discovered. Without a clear lesion, then the ailment had to be a nervous disorder. In other words, medicine was to be founded upon a more rigorous criterion than that already in place.

In short, by the 1820s British physicians had found a means to reform medicine. On the one hand, Hamilton's treatment of typhus fever suggested that merely gathering symptoms together was no way to paint a clinical picture. On the other hand, Abernethy seemed to offer morbid anatomy as a method by which medical certainty could be restored. This was not to begrudge Cullen's medicine completely, but it signalled that his vague pronouncements were to be replaced with the precision of pathological anatomy.

At least, this was the intention. In reality, while pathological anatomy seemed to be a guarantor of medical knowledge, it was only an aspiration. Hamilton and Abernethy had created a simple means by which medicine could be guided, but this was difficult to achieve in practice. The problem was already identified in 1820 by the Nottingham physician Marshall Hall (1790–1857), later notorious for his concept of a 'reflex action'.⁶⁹ While Hall offered breathless admiration for both Hamilton and Abernethy, he also warned that

there is in the profession a two-fold prejudice, respecting medical investigations: whilst one class of practitioners seem inclined to refer too many morbid affections to a deranged state of the chylopoetic organs, another . . . turn their attention too exclusively to such diseases as leave traces under the scalpel of the anatomist.⁷⁰

Physicians were caught between two methodological approaches to disease: between studies of the living and observations of the dead. In theory, physicians should have been able to distinguish between disorder and disease; in practice, all they faced were disordered bodies. Throughout the 1820s, this dilemma posed a host of new medical problems which physicians and surgeons had to address, and for solutions they looked to the past, recreating it in their own image in the process.

⁶⁸ *Ibid.*, 219.

⁶⁹ On Hall, his life and fraught relations with the Royal Society, see Diana Manuel, *Marshall Hall (1790–1857): Science and Medicine in Early Victorian Society* (Amsterdam: Rodopi, 1996).

⁷⁰ Marshall Hall, *A Descriptive, Diagnostic, and Practical Essay on Disorders of the Digestive Organs and General Health* (London: Longman, Hurst, Rees, Orme & Brown, 1820), 9.

Nervous Pathologies

For an ailment such as hypochondriasis, already on the cusp of medical understanding, pathological anatomy only made its ambiguities more prominent. First, there were now a greater number of sites which potentially caused the disease. Put simply, the individual, localised sources of disease were more numerous than the motivating powers. The size and scope of the problem was recognised in 1826 when James Johnson (1777–1845), editor of the *Medico-Chirurgical Review* and physician to the future King George IV, noted in his *Essay on Indigestion* that the number of works on the subject had dramatically increased in recent years: ‘The subject of this Essay has occupied the pens of so many able writers, of late, that some excuse may seem necessary for another tax on the Public’.⁷¹ For all his misgivings, however, he offered no apology: at least his was ‘a little book’. Given the urgencies of practical medicine, Johnson complained that hypochondriasis was little more than a name: it ‘conveys no just idea of the nature of the disease, though a group of its more prominent phenomena is usually understood by that term’.⁷² Yet, where the true disease lay was difficult to judge. On the one hand, indigestion, ‘eructations’ of air, acid or food; flatulence in the bowels; fur on the tongue; bad breath and constipation suggested that hypochondriasis was a disease of the stomach. On the other hand, ‘losses in business, crosses in love, disappointed ambition, or a thousand other mental afflictions’ hinted at a disorder of the intellectual functions.⁷³ Ultimately, Johnson decided that hypochondriasis was fundamentally a nervous complaint: ‘It is said of the hypochondriac, that he *exaggerates* every feeling: but the truth is, that every sensation is *exaggerated*, not by his voluntary act, but by the morbid sensibility of his nerves, which he cannot, by any exertion of his mind, prevent’.⁷⁴ Johnson’s contemporaries seem to have agreed: his *Essay on Indigestion* went through six editions in three years.⁷⁵

Second, how the nerves caused the rich variety of symptoms displayed in hypochondriasis – how disease became disorder – remained unexplained. Yet for Johnson this issue gave him no trouble at all. Indeed, his concept of nervous disorder reveals an eclectic range of influences. On the one hand, he did not believe that the nerves were the sole arbiter of health and disease. This would be to echo Cullen’s former student John Brown, or in his words, to agree with the ramblings of a ‘confirmed drunkard’.⁷⁶ But on the other hand, the nervous system was certainly more than the custodian of sense and motion. When Johnson drew a connection between hypochondriasis and suicide – that nine-tenths of suicides had been hypochondriacs – he explained that ‘There might be no real moral cause – but there was a real physical cause for the momentary hallucination of the judgement, in the irritation of the organ of the mind, very often through sympathy with the organs of digestion’.⁷⁷

This was significant for two reasons. First, Johnson denied the methodological standards of pathological anatomy. Actual lesions of the brain, for example, may be found in deceased patients, but not in all. In any case, these were a secondary effect to the main

⁷¹ James Johnson, *An Essay on Indigestion, or, Morbid Sensibility of the Stomach and Bowels*, 6th edn (London: T. & G. Underwood, 1829), i.

⁷² *Ibid.*, 2.

⁷³ *Ibid.*, 66–7.

⁷⁴ *Ibid.*, 68.

⁷⁵ *Ibid.*, i–iii.

⁷⁶ *Ibid.*, 58.

⁷⁷ *Ibid.*, 30–1.

problem.⁷⁸ Following the French physician Jean-Baptiste Louyer-Villermay (1776–1838), he believed that ‘The immediate cause of this neurosis does not lie in the nervous tissue itself; it is an affection of the vital properties of the nerves of nutrition; it is generally recognised that the primary seat of hypochondria is the abnormal organic sensibility of the abdominal viscera, especially the stomach’.⁷⁹ A single part of the body was responsible for the mischief, therefore, but only with much broader notion of how the body operated, none of which could be seen by the human eye. Secondly, Johnson became aware of the province of such an explanation only after the original publication of his *Essay*, that Villermay had himself borrowed a conception of the body from a much older source. Talk of sympathy belonged to Robert Whytt. Indeed, after expounding the multitude of nervous sympathies in the body, Johnson wrote that ‘The experience of one hundred years has not contradicted one iota of [Whytt’s] observations, though the varying doctrines of the day have often caused them to be lost sight of for a time’.⁸⁰ In other words, Johnson’s work not only reasserted the importance of medical practice for explaining disease – against the methodological sterility of morbid anatomy – but also revealed a growing distance from late eighteenth-century medicine. Previously, sympathy and sensibility had been loaded terms, the explanatory tools of Whytt’s and Cullen’s incommensurable views of the body. Indeed, the notion of sympathy itself was still controversial. Only a few years earlier in 1824, William Shearman (1767–1861), President of the Medical Society of London and Senior Physician to the Royal West London Infirmary, had regarded sympathy as equivalent to magnetism and gravity, as a type of medical occult.⁸¹ However, by 1830 these issues had faded away: the works of both professors could be used to assemble a concept of the nerves and the mechanisms by which hypochondriasis affected them. The hope of finding anatomical lesions was quietly dropped.

However unsuccessful it may have been in practice, therefore, the advent of pathological anatomy had irrevocably changed the practice of medicine. Although its methodological standards had been proved to be overoptimistic, the object of these methods – to identify diseases within a single organ of the body – still amounted to a break with the recent past. When in 1829 another edition of Cullen’s *First Lines of the Practice of Physic* was published, it was an opportunity for the editor John Crauford Gregory (1801–32), physician to the Royal Infirmary and the Fever Hospital in Edinburgh, to cast an eye on over forty years of medical development. Although pathological anatomy was still in its infancy at the time Cullen was writing, Gregory reflected, there was still much to interest the modern physician:

it is probable, without reference to Dr Cullen’s peculiar theoretical and pathological doctrines, that the number of important facts which they contain, the extent and variety of medical knowledge, and the acuteness of reasoning which they display, and the accurate discrimination and classical description of diseases which they present, will always entitle the ‘First Lines’ to occupy a very distinguished place among the standard works on medicine.⁸²

⁷⁸ *Ibid.*, 65.

⁷⁹ ‘Ce n’est pas dans l’altération du tissu nerveux lui-même, que réside la cause immédiate de cette nerveuse; c’est dans une affection des propriétés vitales des nerfs de la nutrition; aussi l’on reconnaît généralement pour siège primitif de l’hypochondre, les viscères abdominaux, spécialement l’estomac, affecté dans leur sensibilité organique’. *Ibid.*, 66. Italics in original.

⁸⁰ Johnson, *op. cit.* (note 71), 50.

⁸¹ William Shearman, *Observations Illustrative of the History and Treatment of Chronic Disability: The Prolific Source of Indigestion, Spasmodic Disease, and Various Nervous Affections* (London: Thomas & George Underwood, 1824), 161.

⁸² William Cullen, *First Lines of the Practice of Physic: A New Edition*, with an appendix, commenced by the late William Cullen, continued and completed by J.C. Gregory, Vol. 1 (Edinburgh: Bell & Bradfute, and Adam Black, 1829), v.

Alongside Gregory's kind words, there was an acknowledgement that the time had passed when great figures like Cullen could survey the entirety of medical practice and encapsulate it within a single work. Where for Cullen the precise nature of disease was relatively unimportant, for pathological anatomy the question was all-consuming. Whereas Cullen had once been praised for his eclecticism, Gregory self-consciously avoided all discussion of hypotheses.⁸³ Whereas previous editors had used footnotes to point out small errors in Cullen's advice, Gregory used appendices to explain recent developments in medical research. On the subject of hypochondriasis, however, even this technique did not work: Gregory simply gave a list of authors to which the reader should refer.⁸⁴ Unable to provide assistance on these new medical problems, the real value of the *First Lines* was as an historical work rather than as a manual for practical medicine. Indeed, the 1829 edition was the last to be published in the nineteenth century. Gregory's publication, in other words, was a eulogy.

But not everyone was as nostalgic as Gregory, and those who perceived Cullen's doctrines in ruins also saw the opportunity to help their own careers. From the beginning of the 1830s, a small group of ambitious physicians began collecting essays for a new textbook: James Forbes (1779–1837) from the Chichester Infirmary, Alexander Tweedie (1794–1884) from the London Fever Hospital, and John Conolly (1794–1866), who had left the new London University under a cloud.⁸⁵ Their new work, the *Cyclopaedia of Practical Medicine*, had two purposes. The first was to show that British medicine could rival the French. According to *The Athenaeum*, they were successful: 'The French, besides "Le Dictionnaire des Sciences Médicales", in sixty volumes, have a compendium of it in fifteen, another dictionary in twenty-one, and they are now publishing one of Practical Medicine. It was certainly time that something should be done in this way in England'.⁸⁶ The *Edinburgh Medical and Surgical Journal* agreed: 'it is by an immeasurable distance superior to the *Dictionnaire des Sciences Médicales*, in selection, concentration, and precision, and all those qualities which render a didactic work either for reference or any other purpose, valuable'.⁸⁷ But secondly, the editors saw the chance to showcase the success of the new medicine:

The progress of medicine during the past forty years had led to successive editions of the few systematic works already existing, to which the recent acquisitions of medical science were somewhat inconveniently, because incongruously, attached. The cultivation of anatomy, the changes effected in physiology, and the immense advancement of the knowledge of morbid structures, required that the whole of Practical Medicine should be presented in that reconsidered and augmented state which had been the result of this progression.⁸⁸

The contributors to the *Cyclopaedia* agreed that Cullen's medicine was outdated even if, as John Bostock (1772–1846) argued, it had been founded on the best of therapeutic intentions: the *vis medicatrix naturae* still had a place in contemporary medicine.⁸⁹ Perhaps it did not matter that Cullen had rallied against the idea of nature alone curing

⁸³ *Ibid.*, vii.

⁸⁴ *Ibid.*, 340–1.

⁸⁵ On John Conolly's career, see Andrew Scull, Charlotte MacKenzie and Nicholas Hervey, *Masters of Bedlam: The Transformation of the Mad-Doctoring Trade* (Princeton, NJ: Princeton University Press, 1996), 48–83.

⁸⁶ Anon, 'Medical Works', *The Athenaeum*, 28th January 1832, 64.

⁸⁷ Anon, 'The Cyclopaedia of Practical Medicine', *Edinburgh Medical and Surgical Journal*, 39 (1833), 425.

⁸⁸ James Forbes, Alexander Tweedie and John Conolly, *Cyclopaedia of Practical Medicine*, Vol. 1 (London: Sherwood, Gilbert and Piper, and Baldwin and Cradock, 1832), iii.

⁸⁹ James Bostock, 'History of Medicine', in Forbes, Tweedie and Conolly (eds), *Cyclopaedia of Practical Medicine*, Vol. 1 (London: Sherwood, Gilbert and Piper, and Baldwin and Cradock, 1832), lxii.

disease. His medicine was outdated; it had no place in medicine. New medical research, the editors believed, had produced an even more sophisticated view of health and disease. Cullen was an historical relic: alongside Hippocrates, Galen, Sydenham and Boerhaave in the pantheon of faded medical heroes. His name to be used as a support for any doctrine they preferred, but otherwise cast aside.

However, there was also a discrepancy between what this new generation of medical thinkers believed they were overthrowing and what they offered in its place. On the one hand, in their optimism over the current state of medicine, they continued to attribute opinions to Cullen which he had never actually held. Writing for the *Cyclopaedia* on the recent history of medicine, the Edinburgh Professor of the Theory of Physic William Pulteney Alison (1790–1859) observed that Cullen’s notion that ‘the principle of life itself, being lodged exclusively in the Nervous System, is an unfounded hypothesis’.⁹⁰ When the *Edinburgh Medical and Surgical Journal* reviewed the *Cyclopaedia*, it paid particular attention to John Conolly’s article on disease:

the author justly observes, that those who have maintained the sovereign influence of the nervous system, have given this influence so unbounded, as to enable its partizans [*sic*] to avail themselves of all the advantages to be derived from bold and unrestrained conjecture.⁹¹

In other words, Cullen’s vast theoretical structures were flattened. The distinctions between the powers of the body, the aspects detailed in this article and the reason for his popularity, received no mention. What remained was a hollow version of his physiology, unsuited for medical practice. With greater attention to detail, Cullen’s first biographer John Thomson noted that he was influenced by Friedrich Hoffman, but maintained that the latter’s concept of the body was founded upon Aristotle’s vital, animal and intellectual souls: a view any good Cartesian would find difficult to swallow.⁹² Once again, a separation was made between the present and the past, between a shining new future and a past of indistinguishable failure.

On the other hand, away from this illustrious view of contemporary medicine removed from the ignoble past, matters were very different. When in 1833 the surgeon Edwin Lee published his *Treatise on some Nervous Diseases*, he warned that nervous disorders were protean, able to disguise themselves as a variety of other diseases: digestive complaints, hysteria, muscular weakness, chorea. Moreover, he proposed a way of conceptualising the nervous system and its ailments, one which would have been familiar to any late eighteenth-century physician:

In proportion . . . to the increased exercise of the intellectual faculties, and to the progress made in the luxury and refinement of civilized nations, does the nervous system become more sensible to pleasing and painful impressions: the causes of nervous excitement become more multiplied, and a high degree of sensibility is engendered; which, while it enhances many of the enjoyments of life, at the same time predisposes to numerous diseases, from which the barbarian and the labouring man, occupied in his daily routine of mechanical employment, are exempt.⁹³

This was a view which Thomas Trotter had dismissed in 1807: British subjects needed strong nerves to defeat the Napoleonic menace. By the 1830s, that particular threat had

⁹⁰ William Pulteney Alison, ‘History of Medicine in the Present Century’, *ibid.*, lxxiv–lxxv.

⁹¹ Anon, *op. cit.* (note 87), 423.

⁹² John Thomson, *An Account of the Life, Writings and Lectures of William Cullen*, Vol. 1 (Edinburgh: William Blackwood, 1832), 167–70. According to Stephen Jacyna, Thomson’s biography serves more to reinforce his own professional persona and gain extra credibility for his own reformist views: L.S. Jacyna, *Philosophic Whigs: Medicine, Science and Citizenship in Edinburgh 1789–1848* (London: Routledge, 1994), 111–12.

⁹³ Edwin Lee, *A Treatise on some Nervous Disorders* (London: Burgess & Hill, 1833), 22–3.

already passed, but so too had any need for morbid anatomy. Perhaps more extreme were the brothers William and Daniel Griffin, a Limerick physician and surgeon respectively, who wrote their 1834 *Observations on Functional Affections of the Spinal Cord* that

the spinal marrow is not always a mere inert nervous conductor between the source of the disturbance and the distant affections indicative of constitutional irritation, but is itself the part absolutely and immediately thrown into an morbid state, of which these affections are but the symptoms.⁹⁴

Nervous disorders now affected a wide array of organs and caused a whole gamut of symptoms: from blindness to cholera, pain in the hip joint to vomiting, heart palpitations to kidney stone. In the following year a Mancunian physician, John Marshall, extended this list further: gout, renal debility, ‘diseases peculiar to our sex’ and even malaria could be traced to the spinal column.⁹⁵ It was as if, the brothers Griffin remarked, ‘there existed in the animal economy some evil influence, without home, or habit, or relation, capable of increasing or interrupting any of its functions, or assuming any of its morbid actions, yet free and independent of all organic change’.⁹⁶ Marshall could only agree: because the nerves were so closely interwoven with the body, ‘the whole system must vibrate with sympathy’.⁹⁷ That the nerves were vulnerable to only a small number of ailments, contrary to what Cullen supposedly believed, was a nothing more than a delusion.

Even more striking was an article by the physician, anthropologist and alienist James Prichard (1786–1848), a contributor to the *Cyclopaedia* whose views differed greatly from those of its editors.⁹⁸ In his article on hypochondriasis, he wrote that: ‘it seems to be sufficiently evident that the actual seat of hypochondriasis, or the part of the organised fabric on the disordered state of which its characteristic symptoms depend, is the brain and nervous system’.⁹⁹ But this decision, he continued, was not based on firm denial of pathological anatomy:

Anatomical researches have thrown no light on the pathology of hypochondriasis and nor does it appear probable that the subject will ever be elucidated by such means. Organic changes of almost every description have been discovered in the bodies of persons who have been subject to this malady.¹⁰⁰

What caused these lesions, Prichard elaborated, was not sympathy travelling through the nerves from a damaged organ of the body. The lesions were caused by the nervous system itself. In other words, Prichard attributed to the nerves powers which they were not supposed to have.

In short, what these authors offered was an account of the body far away from that which Cullen had advocated in the late eighteenth century. But neither was this the new scientific medicine which the editors of the *Cyclopaedia* had envisioned. Not only did physicians use Whytt’s notion of sympathy, but now they adopted a notion which Whytt had tried to counteract in the middle of the previous century. Notions of health and disease – indeed, ideas of how the body operated at all – had become heavily reliant on the nervous system.

⁹⁴ William and Daniel Griffin, *Observations on Functional Affections of the Spinal Cord and Ganglionic System of Nerves* (London: Burgess & Hill, 1834), vi.

⁹⁵ John Marshall, *Practical Observations on Diseases of the Heart, Lungs, Stomach, Liver, &c. occasioned by Spinal Irritation* (London: Henry Renshaw, 1835), ix.

⁹⁶ Griffin and Griffin, *op. cit.* (note 94), 5.

⁹⁷ *Ibid.*, 4.

⁹⁸ On Prichard see Roger Smith, *Trial by Medicine: Insanity and Responsibility in Victorian Trials* (Edinburgh: Edinburgh University Press, 1981), 113–23.

⁹⁹ James Prichard, ‘Hypochondriasis’, in Forbes, Tweedie and Conolly (eds), *Cyclopaedia of Practical Medicine*, Vol. 2 (London: Sherwood, Gilbert and Piper, and Baldwin and Cradock, 1833), 555.

¹⁰⁰ *Ibid.*, 553.

Physicians and surgeons were using a conception of the body which they had supposedly left behind.

Discussion

From the account given here, it may seem that British physicians in the 1830s were little different from their colleagues in the 1760s: unable to distinguish the myriad of nervous ailments which they faced in medical practice, and fully aware that the conceptual tools at their disposal were unfit for the task. But while there is an element of truth in this judgement, neither is it the full story, nor the most interesting aspect of this history. This particular laurel must go to the changing reputation of William Cullen.

Of course, Cullen is not the only figure in the history of science and medicine who has been praised or criticised according to the fashions of a later time. The names of Isaac Newton and Hippocrates, to name only two, have been frequently evoked by later writers for their own purposes.¹⁰¹ Perhaps more notable in Cullen's case was the speed with which his reputation was darkened and the single issue on which it turned: pathological anatomy. This was what lay between Cullen and the *Cyclopaedists*. But with the dream of a new scientific medicine came new expectations and demands: to identify an exact site of disease, to explain how a diseased organ could affect the rest of the body. Pathological anatomy erased the boundaries between physiology and medicine only to chart its own, between a handful of diseases and a mountain of nervous ailments. As a result, 'sympathy', once regarded as a mysterious occult power, returned to medical orthodoxy. At the same time that pathological anatomy promised a new medicine, physicians were forgetting the dilemmas of their ancestors. Neither should these two developments be considered independent. With a bright new future ahead, there was no reason for physicians to regard the past which, by happenstance, included William Cullen.

But while the rise of pathological anatomy may account for how Cullen's physiological and medical theories fell, it does not fully explain how his reputation was blackened. This occurred in the 1830s, when the disappointment of pathological anatomy was matched only by the excitement that physicians and surgeons had felt for it in the 1820s. The answer was to announce the arrival of a scientific medicine again, or so the editors of the *Cyclopaedia* thought. But what was once proclaimed with hope now had the air of desperation. Hailing pathological anatomy once more entailed ignoring the most recent medical works and even one of their more distinguished contributors. Now a shadow of his former self, Cullen became a projection of everything physicians feared was wrong with 1830s medicine.

It is this flattened version of Cullen's medicine which has survived to the present, even though his reputation has been somewhat repaired. It has been adopted by historians of medicine and persists today. To a certain degree, it is the reputation which is being revived in this article and will no doubt be revised again in the future. After all, what has been presented in this article is only one aspect of Cullen's work, one perspective on medicine in the eighteenth and nineteenth centuries. Both subjects have not exhausted their historical interest. However, the version of Cullen presented here remains significant today for the warning it provides against reductionisms, both physiological and historiographical. Cullen was not the father of neurosis, if this simply means a precursor to any contemporary

¹⁰¹ See, for example, Patricia Fara, *Newton: The Making of Genius* (London: Macmillan, 2002); David Cantor (ed.), *Reinventing Hippocrates* (Aldershot: Ashgate, 2002).

medical theory. He was an astute physiological and medical thinker, as well as a remarkably influential nerve doctor. Most importantly, he recognised what happens when a single constituent of the body is given unlimited control over the rest: that the simplicity which such theories exude is an illusion, creating deeper problems than those it tries to solve. But as we have seen, many have fallen into this trap. It was as much a problem with Whytt's nervous physiology before Cullen as it was with pathological anatomy after him. It remains to be seen how many have fallen – or will continue to fall – for such simplicity.