Phrenology as neurodiversity: the Fowlers and modern brain disorder

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In *Self-Culture and the Perfection of Character* (1847), the American phrenologist, Orson Fowler, offered phrenology as a remedy for those who ‘are daily and earnestly inquiring – “How can I REMEDY my defects? By what MEANS can I increase my deficient organs, and diminish or regulate those that are too large? ... How can I make my children better?”’¹ Orson and his brother, Lorenzo, founded a phrenological and publishing empire in mid-nineteenth-century America that revitalised and popularised this heterodox medical practice. Phrenology had enjoyed widespread, if controversial, application within Western medicine in the century’s first decades, but by the 1840s, it had been marginalised and largely branded as quackery, as laboratory-based biomedicine increasingly monopolised the medical marketplace.

Phrenology began in the late eighteenth century under the Viennese physician Franz Joseph Gall, who argued that the brain is an aggregate of mental ‘organs’, each with localised and specific functions such as fidelity, ambition, or poetic talent. The larger the organ, the greater the corresponding faculty, which could be measured by the size and shape of the skull. Thus, phrenology could explain the relative strengths and weaknesses of a person’s mind and character. Although phrenology’s claims were not substantiated by experimental scientific method, historians of science have traced the real and lasting impact of Gall’s thinking, from the diffusion of scientific naturalism that prepared the public for Darwinian evolution, to its influence upon fields as diverse as

psychology, physical anthropology, and neuroanatomy.² However, the cultural impact of phrenology is more complicated. Roger Cooter argues that phrenology first gained traction among physicians in the 1820s and 1830s not because of its scientific validity but as a way to gain social power and assert meritocratic values over traditional forms of authority.³ Once bourgeois-liberal thought became dominant, it lost this particular power of social aggrandisement, but took on other roles.⁴ Alternative medical practices such as phrenology gained popularity after 1840 in part because they were more responsive than laboratory-based medicine to nineteenth-century culture and politics. If, as Stanley Finger asserts, phrenology as a science was finished by 1840,⁵ it nevertheless left its mark on 'virtually every cultural province of Victorian life'.⁶ Phrenology was integral to the fabric of mid-century Anglo-American culture, from major literary works such as Charlotte Brontë's *Jane Eyre* (1847) and Walt Whitman's *Leaves of Grass* (1855), to the educational reforms of Horace Mann, and the workings of the criminal justice systems of both countries. If the scientific and intellectual elite were sceptical of phrenology by the mid-century, the 'doctrine served as a cohesive cultural factor',⁷ and in the second half of the nineteenth century, it 'became in many ways more deeply entrenched than ever in everyday thought and expression'.⁸

This chapter will examine how the Fowlers, as entrepreneurial popularisers, revitalised phrenology in the US and, to a lesser degree in Britain, in the mid-nineteenth century, by the masterful dissemination of their ideas and products and their direct appeal to consumer-patients who sought alternatives to mainstream medicine through self-help and self-culture. 'Practical' phrenologists such as the Fowlers responded to the supposed ills of modern, industrialised capitalism by touting progressive self-improvement through phrenological self-knowledge. The Fowlers' 'nonintellectualist' and 'healthean'⁹ brand of phrenology enabled a populist response to perceptions of 'epidemic' health issues and, in particular, to what mainstream medicine considered largely innate and untreatable conditions. It was working-class Victorians who bore the brunt of widespread cultural fears of degeneration and race suicide, while the middle classes were increasingly diagnosed with the 'modern' illnesses of neurasthenia and dyspepsia. The Lamarckism of nineteenth-century practical phrenology, which promised personal

improvement through proper living habits and exercising the faculties, served as a response to the harsh consequences of modernity, Darwinian evolution, and hereditary conditions. The Fowlers' phrenology also prospered from a popular distrust of the newly orthodox laboratory-based medicine. Though dismissed by nineteenth-century intellectuals as pseudoscience or as a 'vulgarisation' of earlier European and British phrenology, its appeal is perhaps less surprising given that working-class patients were disproportionately subject to the experimentation of laboratory-based medicine that often caused more immediate harm than good to their families.¹⁰ The Fowlers' phrenology ultimately sustained the essentialist taxonomies from which it promised to liberate its adherents. Their programme of individualistic self-culture was also a means of self-regulation within a normative social code.

Phrenology has remained an undercurrent in Western medicine and culture, resurfacing recently in relation to diagnosing neurological conditions.¹¹ In the twenty-first-century press, duelling headlines proclaim that the 'Brains of Those with Autism are Not Shaped Differently',¹² and that 'Kids with ADHD Have Some Brain Regions that are Smaller than Normal'.¹³ In response to such studies and the sharp rise in children diagnosed with neurological disorders, the cerebral self-help industry is alive and well with works such as *The Whole-Brain Child* and *Brain Rules for Baby*.¹⁴ After analysing the Fowlers' phrenological practice, this chapter will draw parallels between the Fowlers' phrenology of the nineteenth century, and the twenty-first-century neuro-information campaign which, like practical phrenology, resists orthodox medicine's theories about the mind and brain. Both movements demonstrate the broad public appeal of alternative medical theories and treatments in the face of modernity's 'mass medicine',¹⁵ with its drive toward a normativised body and brain. And both demonstrate the pitfalls as well as the advantages of populist medical movements that respond to cultural exigencies.

Early phrenology

Phrenology in both theory and practice evolved significantly between Gall's initial formulation and the Fowlers' publications in the 1840s. Young calls Gall the 'first modern empirical psychologist of character

and personality' because he rejected the idea of normative mental faculties, an assertion that has been vital to thinking about cognitive difference to the present day.¹⁶ However, Gall was a pre-evolutionary thinker who assumed that organisms, placed within the Great Chain of Being, were static.¹⁷ In contrast, Gall's dissectionist, Johann Gaspar Spurzheim, introduced 'practical phrenology' to Britain in the 1810s, with a new emphasis on training and education as a way to develop positive faculties and support social reform.¹⁸ In an argument that pre-figures the later eugenics movement, Spurzheim regrets that 'the laws of hereditary descent are so much neglected, whilst ... whole nations, might be improved beyond imagination, in figure, stature, complexion, health, talents and moral feelings'.¹⁹ It was Spurzheim's follower, George Combe, a Scottish lawyer and philosopher, who was most responsible for the transformation of phrenology from an 'arcane theory' to a 'socially respectable scientific vehicle of "progressive" ideas'.²⁰ Combe was a 'moralizing popularizer', who combined Spurzheim's phrenology with the social reform of Jeremy Bentham and James Mill.²¹ At mid-century, Combe's *Constitution of Man* was the third most likely text to appear on shelves in English-speaking homes after the *Bible* and *Pilgrim's Progress*.²² Because, like Spurzheim, Combe believed the size and shape of the phrenological organs were inherited, he perpetuated race and class prejudices in pseudo-scientific language, for instance asserting that working-class and racially 'primitive' women feel less pain in childbirth than middle- and upper-class white women.²³ A 'practical' benefit of phrenological knowledge was the ability to choose appropriate servants.²⁴ At the same time, Combe advocated a phrenological Larmarckism that encouraged self-improvement and protected against transmitting negative traits to offspring through the proper application of the 'Natural Laws' as established by the Creator and revealed through phrenology.²⁵ Under the guidance of the phrenologically knowledgeable, inherited faculties would be directed to 'proper objects' and their 'action [would] become good'.²⁶ Cooter reads *Constitution of Man* as a 'secular revival' of Scottish Calvinism, 'sacralizing the social norms and values most appropriate to the industrially modified and modifying economic order'.²⁷ Spurzheim and Combe brought practical phrenology, with its promise of personal and social betterment, to the United States in the 1820s, where it soon became even more popular under the Fowlers.

The Fowlers' practical phrenology

The Fowler family – led by the brothers Orson and Lorenzo, their sister Charlotte, and her husband, Samuel Wells – were among the first fully to exploit the potential of phrenology as practical self-help (or ‘self-culture’). Their motto was ‘self-made or never made.’²⁸ Heeding their own advice, they built an empire of phrenological lecture tours, publishing, and therapeutics that kept phrenology, broadly defined, profitable and in the public eye into the twentieth century. Orson and Lorenzo Fowler, like George Combe, were not medical men by training but they saw in phrenology a way to combine their oratorical skills with their commitment to progressive reform. The brothers began as itinerant phrenologists in the 1830s, lecturing and giving demonstrations on the heads of audience members and taking plaster casts of the prominent or interesting. Sometimes performing blindfolded or giving ‘double-test’ examinations, the theatrical brothers thrived in front of local audiences, pronouncing noted painters as possessing ‘small Color’ or well-loved clergymen as having ‘an utter absence of Conscientiousness.’²⁹ The brothers defended ‘the science’ and their readings, even when local audiences disagreed with them, revelling especially when some secret life or bad behaviour was revealed to confirm an earlier diagnosis. By the late 1830s, Orson had established an office and examination room in Philadelphia, which housed many of the busts and their *Phrenological Journal*, which ran from 1838 to 1911.³⁰ Meanwhile, Lorenzo opened offices in New York, where Orson and the bust collection joined him in 1842. This Phrenological Depot became the centre of the Fowler empire. There they offered private examinations and clinical instruction, sold books, charts, porcelain busts, and other phrenological paraphernalia, and ran a large publishing house that printed not only the Fowlers’ own tracts but works by many ancillary progressive health and social reformers. These publications were widely disseminated in Britain as well through the Fowlers’ agent in London.³¹ In the 1860s, Samuel Wells, Lorenzo Fowler, and Fowler’s wife, Lydia Folger Fowler, exported their American style of practical phrenology directly to Britain with highly successful lecture tours; in London, they opened the Fowler Phrenological Institute, published *The Phrenologist*, and founded the British Phrenological Society which remained active until 1967.³²

At least some of the Fowlers' great success must be attributed to how much their programme of self-study and exertion was in keeping with the mind-set of the mid-nineteenth century. The idea of self-improvement was foundational to the American republic, with Benjamin Franklin – Lydia's cousin through the Folger line³³ – a much cited exemplar.³⁴ However, the phrase 'self-made man', which the Fowlers appropriated for their motto, is generally attributed to US senator, Henry Clay, who, in 1832, used it explicitly in the context of entrepreneurial capitalism.³⁵ By the 1830s, the pressures of new urban populations, market capitalism, and abolitionist rhetoric saw the liberalism of the Enlightenment give way to an emphasis on differences and hierarchies within the social body. '[N]ew statistical practices' in science and social science 'divided society into masses of standardized or deviant individual bodies', with the aim of creating a 'fit' citizenry; the rhetoric of natural rights was replaced by an emphasis on natural laws that must be understood and followed for the good of the self and the nation.³⁶ In the United States, antebellum reform movements promised the 'moral transformation' of the individual and thus the nation.³⁷ Cynthia Eagle Russett cites phrenology as an example of a new scientific practice that nevertheless served social reform, at least for a time.³⁸ She singles out the Fowlers' phrenology, in particular, as the 'crescendo' of American optimism in scientific reform before the rise of physical anthropology with its explicit emphases on biological differences and human limitations rather than aptitudes and possibilities.³⁹ Within the Fowlers' programme, the entrepreneurial capitalism of being 'self-made' was in tension with the religious idea of 'self-culture', introduced to the American public by the Unitarian theologian William Ellery Channing and then spread through the writings of nineteenth-century transcendentalists and progressives, such as Ralph Waldo Emerson and James Russell Lowell. Channing defined self-culture as the 'care which every man owes to himself, to the unfolding and perfecting of his nature', and noted that Americans held the 'means of improvement, of self-culture, possessed no where else'.⁴⁰ Nevertheless, the Fowlers managed to persuade many in Britain that they, too, had the means and the duty of phrenological self-culture. In 'A Farewell Entertainment to Mr and Mrs Fowler' during their Scottish lecture tour in 1863, a working man from Glasgow explained that in contrast to earlier, British phrenologists, Lorenzo Fowler 'gives us higher and more ennobling views of the mission and destiny of the human race[N]ot only are we privileged,

but it is our duty, so to use them [mental faculties] for the purpose of raising ourselves mentally and morally.⁴¹

In contrast to their European and British counterparts, and very much in keeping with mid-nineteenth-century American thought, the Fowlers' phrenological programme was self-directed and, with notable exceptions, largely egalitarian. Whereas Combe denied that 'original propensities can be *eradicated* by education and other means' and trusted only the most morally and intellectually virtuous to guide their own phrenological improvement,⁴² the Fowlers promised 'self-improvement' to 'every individual' with publications such as *The Illustrated Self-Instructor in Phrenology and Physiology* (1857) and *Education and Self-Improvement, Founded on Physiology and Phrenology* (1843).⁴³ The Fowlers were not unique among phrenologists in advocating a self-help doctrine, but they were certainly the most successful. Historian Mary Miles credits this achievement to the Fowlers' drive to commodify phrenology via public lectures and their publishing house.⁴⁴ For the Fowlers, 'self-made' meant body and mind, but it also meant an unapologetic entrepreneurialism. Orson Fowler's preface to the first edition of *Education and Self-Improvement* champions the Fowler programme over that of earlier phrenologists: 'Too long ... have Phrenologists been content with *knowing* themselves by this science. It is now high time for them to *apply* it to their own mental cultivation, and to the intellectual and moral improvement of mankind.'⁴⁵ To that end, the Fowlers' self-help texts often include tables listing the phrenological organs keyed to their full descriptions in the text and with space for charting family members. The Fowlers translated complex scientific language and a physical examination into simple images on the page (see figures 4.1 and 4.2)⁴⁶ and adopted the language of an accessible photorealism to win their audience: phrenology was 'the camera through which we may look at ourselves', wrote Samuel Wells.⁴⁷ Ironically, this accessibility, which purported to bring the mental and moral self to the easily readable surface, made categorising and discriminating against groups and individuals a simpler process. Allan Sekula has argued that the conjunction of photography and phrenology in the nineteenth century 'contributed to the ideological hegemony of capitalism' by their 'taxonomic ordering'.⁴⁸

Combe and phrenologists who aspired to scientific acceptance were cautious about making claims for phrenology's ability to alter the brain physically. Orson Fowler, however, asserts unequivocally that one may

Figure 4.1 'Numbering and Definition of the Organs', O. S. Fowler and L. N. Fowler, *The Illustrated Self-Instructor in Phrenology and Physiology with over One Hundred Engravings*.

Figure 4.2 'Parental Love', O. S. Fowler and L. N. Fowler, *The Illustrated Self-Instructor in Phrenology and Physiology with over One Hundred Engravings*.

change not just the character of the faculties but their literal, physical size through their exercise or disuse.⁴⁹ As proof, Orson cites the 'decided increase of the whole intellectual lobe' of the plaster casts of the Reverend John Pierpont taken in 1835 and then in 1841, an increase attributed to Pierpont's 'almost continual *exercise* of his intellectual faculties' in the composition of poetry, temperance lectures, and debate with 'rum-sellers of his congregation'.⁵⁰ This example demonstrates the connection that the firm made between phrenological health and other progressive reform movements. At times, the Fowlers' politics clearly ran ahead of their science, for instance, when enumerating the cranial distinctions among members of various Christian denominations: strict Calvinists have heads that are 'tolerably wide' and rise 'rapidly from the intellectual organs' in contrast to the more balanced heads of Episcopalians, Unitarians, and Congregationalists.⁵¹ Not surprisingly, the Fowlers were Congregationalists. These sorts of claims not only alienated scientists, but led to followers of Spurzheim and Combe criticising the Fowlers for their 'many inaccuracies' and 'Yankee go-a-head

principle' that took coincidences for 'causations'.⁵² Far from being intimidated by charges of popularisation, however, Orson shot back that British phrenology was 'rather too anxious to place phrenology on a *scientific* and *philosophical* basis, to the neglect of the *practical* examinations. Mere theorizing and abstract reasoning will never advance the interest of phrenology'.⁵³ Orson Fowler's easy dismissal of the scientific basis of phrenology suggests to what degree its scientific pretensions were waning even as its cultural relevance continued.

The Fowlers laid claim to the scientific when it suited them, but distancing phrenology from the scientific was, in fact, a shrewd rhetorical strategy, not uncommon in populist political and social movements that eschew expertise in favour of 'common sense' or the 'natural'. From the mid-nineteenth century, medicine became increasingly regularised as a profession and practice; using modern industrial and business models, it promised a new uniformity and efficiency in providing a healthy citizenry.⁵⁴ Biomedicine modernised itself by way of new technologies and laboratory-based experimentation, and sought to monopolise the market in response to a host of heterodox medicines that threatened its new power as a profession.⁵⁵ But as orthodox practitioners claimed greater authority to read and control the bodies of the public, the public themselves were drawn to heterodox practices, such as practical phrenology and homeopathy, which promised more patient control. The public resistance engendered by nineteenth-century health campaigns such as the Contagious Diseases Acts and compulsory vaccination suggest the degree to which the new biomedicine was distrusted.⁵⁶ Roberta Bivins argues that heterodox medical practices were and continue to be attractive alternatives to orthodox biomedicine insofar as they place patients' somatic experience 'at the centre of the therapeutic encounter', individualise that experience, and assume a 'dynamic relationship between bodies and their social and physical environments',⁵⁷ all characteristics of the Fowlers' practical phrenology. Moreover, 'scientificity', asserts Bivins, 'was no more the sole criterion of nineteenth-century consumers than it is today'.⁵⁸ Cooter remarks that the 'standard historical emphasis' on orthodox medicine's abandonment of phrenology is 'misplaced'.⁵⁹ Phrenology and other heterodox and self-help medical practices were, 'curatively speaking', as likely to 'deliver the goods' as orthodox medicine, given the limitations of orthodox medicine at the time.⁶⁰

Dr Lydia Fowler and health reform

It is misguided, then, to characterise the Fowlers as charlatans. Following Combe, who was 'driven by a genuine religious commitment to improve the physiological condition of humankind',⁶¹ the Fowlers turned phrenology into a popular and self-guided practice allied to hydropathy, dietetics, vegetarianism, dress reform, and temperance – all movements that contributed to a more health-conscious population. Practical phrenologists often achieved positive ends despite unscientific and occasionally laughable claims, and the Fowlers' facility with marketing and publishing made them particularly influential. They helped reform the treatment of criminals and the insane, were pioneers of American sex education and marriage counselling, and promoted educational ideas that were 'startling in their modernity' including promoting educational rights for children with physical and cognitive disabilities.⁶² Moreover, though the brothers were not medically trained, the extended Fowler family contained several medical doctors, albeit with heterodox leanings, who practised in both phrenological and mainstream medical contexts. The Fowlers' younger half-sister, Almira Fowler Ormsbee Breakspear, received her MD in 1853 from the Female Medical College in Philadelphia, and then served on its faculty as a demonstrator of anatomy and chemistry.⁶³ And their younger half-brother, Edward Payson Fowler, received an MD from New York Medical College in 1855; deeply interested in spiritualism, mesmerism, and the 'phenomena of the mind', Edward set up a successful practice in New York with two homeopathic physicians.⁶⁴

Most importantly, Lorenzo's wife, Lydia Folger Fowler, became in 1850 the second woman in the United States after Elizabeth Blackwell to receive an accredited medical degree, and the first woman professor of medicine in the country.⁶⁵ Madeleine Stern comments that 'by the mid-1850s', Lydia had 'not only exerted an influence upon the interests and publications of her husband's firm but made a niche for herself in the history of American medicine.'⁶⁶ Lydia practiced 'eclectic' medicine, 'accepting the best of the homeopathic and even a modicum of the drug-ridden allopathic system.'⁶⁷ Although allopathy became orthodox medicine in the twentieth century, eclectic practice was entirely respectable and probably the least harmful medical approach in the 1850s; it embraced all manner of health reforms from the truly efficacious to

the merely faddish. Thus, the Fowlers' marriage of phrenology and medicine was mutually supportive and beneficial. Lydia accompanied her husband on his popular lecture tours across the United States, Canada, and Britain, where she preached the physiological benefits of temperance, hydropathy, and hygiene to great success. Lydia earned 'handsome sum[s] of money' and received accolades from lecture attendees as a 'true benefactress' who relieved the 'woes of the suffering' by 'her knowledge and skill in the medical profession.'⁶⁸ When at home in New York, Lydia kept daily appointments at her own office and at the Fowler Phrenological Depot, and taught medical courses at the Metropolitan Medical College and the New York Hydropathic and Physiological School.⁶⁹ After she and Lorenzo moved to London in the 1860s, Lydia continued her work as a health lecturer and district visitor; she furthered her medical studies in Paris and served three months in charge of the obstetrical department at the London Marylebone Road Hospital.⁷⁰ The early feminist periodical, *The Englishwoman's Review*, noted that the 'largest halls in England have not infrequently been filled' to hear Lydia's lectures, which encouraged women to 'study for themselves' the laws of life and health.⁷¹ Lydia herself estimated that some '200,000 women in English-speaking countries had attended her lectures.'⁷²

Lydia Folger Fowler's accomplishments place her at the forefront of early women doctors in Britain and America, alongside Elizabeth Blackwell, Elizabeth Garrett Anderson, Sophia Jex-Blake, and Mary Putnam Jacobi. Compared to these women, however, Lydia has received very little scholarly attention.⁷³ In part, this neglect stems from the energy with which physicians, including Blackwell and Jacobi, worked to discredit graduates of 'irregular' medical schools and practitioners such as eclectics and homeopaths.⁷⁴ This is true even when their practices were quite similar; for example, Lovejoy notes that in the 1870s, Elizabeth Blackwell and Lydia Fowler were both living and working in England as 'writers and lecturers on medicosocial subjects, and both were calling attention to the influence of the mind upon bodily ailments.'⁷⁵ That Blackwell was allowed on the Medical Register in England and Lydia was not was due to a loophole in the Medical Act of 1858 rather than because her credentials or her practice were superior. Eve Fine and others have shown that eclectic credentials did not necessarily disqualify physicians, and especially women, from professional consideration.⁷⁶

Lovejoy suggests that Lydia's association with phrenology was as important – I would argue more important – as her eclecticism to her 'disadvantage' in the 'general eulogy of pioneer medical women.'⁷⁷ Most pointedly, when Lydia is mentioned in histories of women and medicine, her marriage to the 'phrenologist publisher' Lorenzo often precedes mention of her medical degree.⁷⁸

That Lydia's historical neglect stems from her association with phrenology is ironic since phrenology prompted her medical studies and allowed her to develop a successful career and inspire other women to study medicine. Moreover, the Fowlers championed medical women enthusiastically and extended their reform activities to the woman's movement generally. 'The bridge was short', writes Stern, 'between the rights of women to water cure, dress reform, and health, and the rights of women to extended employment, equal pay for equal work, and full suffrage.'⁷⁹ In both the United States and Britain, Lydia was a leader in women's organisations, including her role as secretary at the Seneca Falls convention, where she won the admiration of Elizabeth Cady Stanton, and as honorary secretary of the Woman's British Temperance Society.⁸⁰ Lydia's combination of feminist politics and medicine was not unique – Elizabeth Garrett Anderson and Sophia Jex-Blake were both active suffragists, for instance. But as part of the Fowler enterprise, her feminist views received widespread publicity and were allied to more general and very popular reform movements. Of all the Fowlers, Lydia forces us to acknowledge that phrenology, however misguided as science, was integral to legitimate health and social reform of the nineteenth century. Her work also offers an example of how difficult it could be to distinguish between what we now consider heterodox and orthodox medicine. As Bivins and others have argued, the ascendancy of biomedicine was neither smooth nor inevitable. The Fowlers' phrenological theory partook of and contributed to the discourses surrounding modern disorders such as neurasthenia and dyspepsia and to the fears of racial degeneration. But their holistic practice, with its emphasis on education, self-help, and especially brain plasticity also offered the public ways to transcend the determinism of those discourses.

As did most other early women physicians, Lydia Fowler treated women and children; therefore, her publications, which included a temperance novel and volume of poetry as well as self-help medical tracts, brought phrenology and eclectic medical ideas to that audience. Her

writings demonstrate the degree to which she both participated in and resisted the new medical orthodoxy that sought to organise bodies for modern society. Lydia's most widely read publication, the two-volume *Familiar Lessons on Physiology and Phrenology*, was specifically 'designed for the use of children and youth in schools and families'.⁸¹ In her preface to this popular volume, Lydia writes to parents and teachers that physiology and phrenology should be studied together because they are 'absolutely necessary to a full understanding of the mind'.⁸² She 'cheerfully' recommends that parents and teachers place her *Familiar Lessons* 'into the hands of their children as a guide to self-knowledge'.⁸³ From the 1830s, American physiology textbooks promoted the better health of the individual and the nation,⁸⁴ and the 1840s 'saw an extraordinary flowering of the literature of child development'.⁸⁵ The Fowlers come out of this tradition of self-help medicine and hygiene; their addition of phrenology to 'right living' brought currency to the tradition. And *Familiar Lessons* contains the sort of pious advice that one would expect from a mid-nineteenth-century text for children: 'Children, if we cultivate [the social and domestic organs] properly, life will be a source of joy and happiness' for 'we can all ... enjoy the sweets of a quiet home'.⁸⁶ Characteristic of heterodox medicine, it insists that mind and body work together: 'The body must be in a healthy condition for the mind to act freely and vigorously'.⁸⁷

However, despite its generic familiarity, *Familiar Lessons on Physiology and Phrenology* is surprising. First, in keeping with the Fowler belief in self-culture, it directs advanced medical information toward its audience of children – for instance, a detailed discussion of the nerves of the brain illustrated in cross-section.⁸⁸ Though some physiology textbooks in this period targeted students,⁸⁹ the degree of specialised information directed at young children is unusual and striking. Interestingly, the familiar phrenological skull appears only on the title-page, whereas the brains within the text appear as standard anatomical illustrations, emphasising the scientificity of Lydia's phrenological theory. Secondly, Lydia asserts the social and evolutionary advantages even of negative traits, and that phrenological organs can be resized to better advantage. Combativeness and Destructiveness, for instance, 'if rightly exercised, produce spirit, force, and energy of character'.⁹⁰ Third, *Familiar Lessons* shows awareness of how children's strengths and weaknesses exist on a spectrum. Lydia recounts how, in developing phrenology as a young

man, Gall had noticed that some of his schoolmates ‘were very generous and amiable, some selfish, some obstinate and cruel ... He found that one liked the study of arithmetic, another could commit to memory, and so on ... He became convinced that there must be a cause why he could not recite his lessons as rapidly and as freely as some of the other boys.’⁹¹ In other words, the text eschews a normative model of child development in favour of one that allows for neurological diversity.

Phrenology and neurodiversity

Although *Familiar Lessons on Physiology and Phrenology* resists normalising children and their development, and though Lydia is writing here about all children, both what we would call neurotypical and atypical, her phrenological descriptions bear a striking resemblance to how doctors and scientists have worked to define children with neurological disorders since the nineteenth century. For instance, the passage that Lydia recounts above from Gall resembles Hans Asperger’s descriptions of the autistic children he studied in the 1930s at the Children’s Clinic in Vienna. Asperger has been applauded for his treatment of autistic children as ‘unique personalit[ies]’, whose conditions are a matter of ‘degree’, often with remarkable intelligence.⁹² Asperger resisted normative neurological descriptions much as Lydia had in *Familiar Lessons*. As did phrenologists and other physiognomists, Asperger assumed correlation between mental make-up and appearance, generalising that ‘Autistic children lose their baby features very quickly ... Their early thoughtfulness has formed their faces.’⁹³ In his thesis on “‘Autistic Psychopathy’ in Childhood” (1944), Asperger praises psychotherapist Ernst Kretschmer for developing an accurate typology that matched ‘in feine Einzelheiten’ (‘in fine detail’) the physical to the psychological constitution – an idea embraced by ‘der alten Physiognomik und der Phrenologie’.⁹⁴ Also like phrenologists, Asperger accepted as functionally useful a range of abilities, personalities, and behaviours. As opposed to most autism researchers of the mid-twentieth century, who thought institutionalisation was the best option for autistic children – and in contradiction to the Nazi regime under which he worked – Asperger asserted that ‘autistic people have their place in the organism of the social community’, particularly in fields that require single-minded focus and originality.⁹⁵ Still, Asperger and his colleagues were

working to identify 'typical characteristics' of this 'highly distinctive' personality. Phrenologists claimed to read character quickly from facial features and the shape of the skull; Asperger claimed that 'Once one has properly recognised an autistic individual one can spot such children instantly'.⁹⁶

As Edith Sheffer has shown in persuasive detail, Asperger's example demonstrates how categorising children – even with the most humane intentions – creates opportunities for systematic pathologising and discrimination of the kind discussed by Steven Taylor in the previous chapter.⁹⁷ Asperger's clinic grew out of the progressive and interventionist medical policies of socialist Vienna in the 1920s. But in the 1930s, Austrofascism and then the Nazi Anschluss saw Asperger's clinic move to the far right and participate in Nazi directives to sterilise, forcibly institutionalise, and murder children deemed socially unfit. Asperger himself, who had previously resisted pathologising children in his clinic, introduced the idea of autism as a 'psychopathy'.⁹⁸ Though not as extreme as the 'diagnosis regime' of the Third Reich, Anglo-American culture since the Victorian period offers plenty of examples of such phenomena, from Francis Galton's anthropometric laboratories, which collected anatomical data from thousands of students in public schools⁹⁹ to the ways in which intelligence testing in US schools confirmed 'nativist, racist, and antisocialist political programs'.¹⁰⁰

It is important to acknowledge, then, that the relative social and neurological progressivism of the Fowlers' phrenology, like these later examples of measuring and categorising minds, is haunted by those who were excluded or diminished by its theory. With its evolutionary underpinnings and influence on physical anthropology, phrenology has been tied to the racial science that inspired the eugenics movement, even as it fostered certain forms of progressivism. Carla Bittel, for instance, has noted that although phrenology could be adapted to 'women's rights causes', it also helped white, middle-class women to distinguish themselves from 'others' and to 'naturalize their own positive qualities' and 'further engrained scientific racism in American culture'.¹⁰¹ Phrenology remained implicated in and hampered by the taxonomic hierarchies of its times. Yet the Fowlers' adherence to non-normative theories of the brain and human behaviour, belief in the efficacy of education and the possibility of full social integration, and the

commitment to broad access of their ideas also contributed to their appeal and legacy.

The Fowlers' ambiguous legacy finds a parallel in the contradictions of the neuro-information campaigns of the twenty-first century and the populist political movements that resist mainstream medicine's treatment of those diagnosed with neurological conditions. These campaigns, which are driven largely by new media and in response to rising rates of diagnoses of neurological conditions, include positions that are both deeply sceptical of science and that demand cures from researchers, that are both liberationist and reactionary. What they share is a dissatisfaction with mainstream medicine's inability to adequately treat – sometimes even clearly diagnose – certain chronic or innate neurological conditions whose rates of diagnosis are perceived as 'epidemic'. The case of autism is particularly instructive in this regard. Like neurasthenia in the Victorian period, autism is a sort of cultural signpost of the present moment whose prevalence has been blamed variously upon genetics; twenty-first-century mating practices, and especially those tied to women's greater education and career advancement; environmental toxins; poor parenting; or dangerous vaccinations.¹⁰² Regardless of cause, autism, like Victorian disorders of modernity, involves the family and extended social structures such as schools, social services, and healthcare. Similarly, the inability of modern medicine to provide a cure or even definitive therapy regimen for autism has opened the door for heterodox medical solutions and autism's commodification in the medical marketplace.

Just as Lydia Fowler's *Familiar Lessons on Phrenology* found an audience among mothers anxious for their children's brains and futures, the most driven twenty-first-century autism activists have been parents seeking alternatives to the bleak predictions of an autism diagnosis. The success of autism awareness campaigns has been driven by publicity and the broad dissemination of information beyond 'experts' to families and to autistic people themselves. The explosion of books, websites, and blogs published by and for the neurodiverse parallels the explosion of public health information in the nineteenth century, exemplified by the Fowlers' public relations machine, and with similar spectacular results. The Fowlers influenced everything from criminal reforms to sexual education to hygienic house design in the US.¹⁰³ The

neurological information campaign has shaped special education services and products, paediatric practice, and even home design.

On one hand, this explosion of information has exposed families and the neurodiverse to commercial exploitation. In response to medical pronouncements that autism is 'hardwired' and incurable, families pursue expensive and sometimes dangerous alternative therapies of dubious medical value. The lobbies of many autism conferences are filled with vendors selling expensive technology or promoting risky biomedical treatments. Persuaded by faulty research such as Andrew Wakefield's 1998 study that MMR vaccines cause autism, some families have refused to vaccinate their children, despite surges in measles and pertussis. The impact on public health of the anti-vaccination movement of the twenty-first century rivals that of the nineteenth, when anti-vaccination activists argued that state-sanctioned medicine undermined individual civil liberties.¹⁰⁴

An alternative wing of the neuro-information campaign, the emergent neurodiversity movement, offers a more positive and less dangerous response to mainstream medicine's stance on autism as largely untreatable. Though not a 'new phrenology', the neurodiversity movement shares certain features with the Fowlers' practical phrenology, both in theory and methods. Neurodiversity activists pursue alternatives to the 'pathology paradigm' surrounding the rise in neurological disorder diagnoses, and argue that neurodiversity is both a 'natural and a valuable form of human diversity'.¹⁰⁵ Neurodiversity activists argue for greater acceptance of neurological difference, that human brains exist along 'continuums of competence', and for an anthropological view of neurological 'competence' as culturally determined, all notions that were present in practical phrenology.¹⁰⁶ Significantly, as did the Fowlers' phrenology, the neurodiversity paradigm assumes a degree of neuroplasticity by which individuals might develop their brains through therapies, learned strategies, or assistive technologies. This is particularly the case when therapies are begun at an early age, and so children are central to the politics and therapeutics of both. And like the Fowlers, the neurodiversity movement both resists and employs science, in particular, by integrating the difficult issue of heredity/genetics into its paradigm while retaining space for individual development. Practical phrenologists such as the Fowlers found cultural and evolutionary value in certain innate but maligned traits, and neurodiversity activists

use evolutionary arguments in support of their cause. For instance, Ari Ne'eman cites the warning of autism researcher, Simon Baron-Cohen, that testing for autism could 'repeat the history of eugenics' and 'inadvertently "cure" not just autism but the associated talents that are not in need of treatment.'¹⁰⁷

Just as the Fowlers linked health to politics and social reform, the neurodiversity movement is closely allied with disability rights and other civil rights movements that see self-advocacy and representation as key to social justice. Their motto 'nothing about us, without us!' is not far from 'self-made or never made.'¹⁰⁸ However, unlike phrenologists, whose theories lent validity to racist and sexist taxonomies, neurodiversity activists have largely avoided the danger inherent in self-help strategies that ultimately place responsibility upon individuals to fit into a normative system. Cooter contends that Victorian phrenology 'mostly encouraged changing oneself to fit the system' rather than fuelling the social reform that Combes and the Fowlers sought.¹⁰⁹ And Julie Prebel observes that the 'digital body slices' produced by neural imaging technologies are analogous to the invasive taxonomic ordering of nineteenth-century phrenological sketches and photographs; both create 'epistemic changes in the scientific surveillance of the human body'.¹¹⁰ In fact, most autism research and most parent-led autism awareness campaigns continue to emphasise cures and strategies whereby autistic people can adapt themselves to a neurotypical world. In contrast, the more radical and autistic-led neurodiversity movement asserts that our neurotypical-based culture itself needs to change. Neurodiversity activists, disseminating information on the internet, and working through parents and schools are becoming increasingly successful in their efforts to create accommodation for the neurodiverse and to make our culture more 'neurocosmopolitan'.¹¹¹

Both the Fowlers' phrenology and the neuro-information campaigns demonstrate that pressure from the popular front – from parents, schools, and physicians – can push orthodox medical researchers to re-evaluate their assumptions and shift their paradigms. What seems possible to both scientists and the public is socially constructed in many respects. Just as phrenology opened the door for advances in brain science, neurodivergents are increasingly shaping scientific research both as activists and scientists around the lived experience of the patient.¹¹² Similarly, the predictive nature of diagnoses in phrenology

– ‘you are X’ and so will make an excellent ‘Y’ – often resulted in a fulfilled prophecy. Stern argues that Lorenzo Fowler’s analysis of the young Walt Whitman’s head in 1849 exerted ‘a deep influence not only upon his character ... but upon his work’: ‘Leading traits of character appear to be Friendship, Sympathy, Sublimity and Self-Esteem ... and a certain reckless swing of animal will’ wrote Fowler.¹¹³ The American Civil War nurse, Clara Barton, recounted in her memoirs Lorenzo Fowler’s predictive reading of her head when she was fifteen: ‘She will never assert herself for herself – she will suffer wrong first – but for others she will be fearless.’¹¹⁴ The extraordinary popularity of the Fowlers was surely enhanced by the self-fulfilling power of such optimistic readings, just as promises of neuroplasticity or an increasingly neurocosmopolitan society are reassuring to autistic people and their families in the present. In many cases, these promises will prove illusory or incomplete, but without medical cures or demonstrably effective medical therapies, they are preferable to extreme and dangerous therapies.

The Fowlers’ negotiation of medicine and modernity was decidedly uneven. While not denying the diseases of modern life or the evolutionary correlation between progress and pathology, the Fowlers offered a medical paradigm and system of treatments that lessened the weight of modernity upon the individual. They triumphed in the modern arenas of market capitalism and information dissemination, advocating a radical individualism that promised greater agency in modern society through self-determination. At the same time, however, their phrenological theory reinforced neurological taxonomies of class, race, and gender that undergirded a white middle-class society. The Fowlers’ medical eclecticism offers a path for postmodern consumers who can and do choose among a variety of orthodox and heterodox medical therapies – from acupuncture to chiropractic, herbalism to energy medicine – to pursue their ‘healthan’ goals. Their example also offers a warning not to ignore the socio-political implications of those choices and goals.

Notes

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