

“The greatest discovery ever communicated to mankind”¹: George Combe and the growth of phrenology in early nineteenth-century England

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George Combe (1788–1858) is little known today, even to specialists in nineteenth-century British history. Indeed, his prolific published output – which includes one work, *The Constitution of Man* (1828), reputed to have sold more copies in the thirty years after its publication than Darwin’s *On the Origin of Species* – is rarely cited outside that sub-sub-field of the discipline devoted to the emergence, rise and fall of the British phrenology movement during the period 1810–1850. That story is remarkable enough, as we shall see presently, but Combe’s association with the quickly-discredited science of phrenology has tended to divert attention from his wider intellectual and political project. A case, no doubt, of the tar and the “bumpologist” brush. In reality, phrenology, at least in the Spurzheimian version of the science advocated by Combe and his associates, was anchored in a much broader movement of social and political reform in Georgian and early Victorian Britain, concentrated in the urban middle classes of the country’s industrialising towns and cities. Only by situating the development of British phrenology in this socio-economic, political and religious context, is it possible to grasp its appeal to the “middling sort”; growing in numbers, wealth, cultural self-confidence and political maturity in these years. Only such a context, moreover, explains the involvement of Combe and other British phrenologists in a wide variety of policy debates in this period, ranging from educational reform and criminal justice to the Irish Question and the Empire.

A life-changing encounter

It was in 1815, at the age of twenty-seven, that George Combe discovered phrenology. It would prove a transformative experience. One of seventeen children born in 1788 to an Edinburgh brewer and the daughter of a tenant farmer, Combe grew up in a manufacturing district at the foot of Edinburgh Castle. He received a strict Calvinist education (complete, according to his later account, with the copious use of corporal punishment), and after a period studying humanities at Edinburgh University, his socially-ambitious parents made the necessary arrangements for their son to train for the law. He was articled to a firm of Edinburgh solicitors in 1804, and began to practice in 1812. When his father died in 1815, he also took over for a while the management of the family brewing business. Not unusually for the time, the newly-qualified lawyer also took an interest in medical and other scientific debates (something of an Edinburgh speciality in this period), and indeed his self-education included attending classes at the well-known anatomy school run by John Barclay (Jacyna, 2004).

Like many of his compatriots, Combe first learnt of phrenology by reading an influential refutation of its tenets by John Gordon in the June 1815 issue of the Whig periodical, *The*

¹ Combe (1830: v)

Edinburgh Review. Initially convinced by Gordon's arguments, Combe began to rethink his stance when he was invited to a dinner party also attended by German physician Johann Caspar Spurzheim (1776-1832), who, along with his countryman and medical colleague Franz Joseph Gall (1758-1828), had invented phrenology some fifteen years previously. Spurzheim's dissection of a human brain (brought in a paper bag for the purpose) in front of the assembled guests, and the doctor's accompanying commentary, convinced the young Scot that there was perhaps more to phrenology than he had first thought. According to his own account, however, it was only after undertaking further researches of his own, which had involved "appeal[ing] to Nature by observation", that he had "at last arrived at complete conviction of the truth of Phrenology" (Combe, 1830: 4). His first work on the subject was published in 1817. Combe would play a key role in the creation of the world's first phrenological society, the Edinburgh Phrenological Society, in February 1820, and he was also instrumental in the foundation of the *Phrenological Review* three years later. For the next three decades, Combe would work tirelessly to advance the cause of phrenology: giving public lectures, penning a raft of books, pamphlets and articles, and engaging in lengthy correspondence with both his supporters and critics.

Of faculties, propensities and protuberances

The beginnings of phrenology are relatively easy to date, for they coincide with the publication in 1809 in Paris of what might be considered the new science's foundational text, Gall and Spurzheim's *Recherches sur le Système nerveux* (Gall & Spurzheim, 1809). Three fundamental assumptions lay behind the discipline's claim to scientific truth. *First*, that the exterior conformation of the cranium matched both its interior surface and the conformation of the brain; *second*, that the mind could be analysed in terms of innate psychological functions or "faculties"; and *third*, that the shape and size of protuberances or "bumps" on the outer surface of the cranium reflected the development of those faculties.

Just as the repeated movements of labourers or craftsmen linked to their occupations would lead to the development of particular muscles, so, reasoned the phrenologists, the use of specific mental faculties would prompt an increase in the size of the corresponding organ or "seat" within the brain. As one of Combe's close collaborators James Simpson put it, "The efficiency of the blacksmith's right arm and of the philosopher's brain depends upon the same law" (Simpson, 1836: 91). It was only after establishing the size of each of the twenty-seven organs present on a subject's head – via those giveaway bumps – that the trained phrenologist would be able to construct a psychological profile of the individual in question. The study of skulls or plaster casts offered the possibility to extend these literally hands-on methods to the dead as well as the living.

Phrenology adopted a two-way division of the human mind, differentiating the order of "feelings" from that of "intellectual faculties". Feelings were further divided into two sub-categories: "propensities" and "sentiments". Propensities were those psychological faculties – "Combativeness", "Destructiveness" or "Secretiveness" for example – believed to be shared with animals, and located at the back of the brain. Sentiments, in contrast, including "Veneration", "Firmness" and "Hope", unique to Man, could be found at the top of the brain and were visible by means of bumps on the crown of the head. The order of "intellectual faculties", on the other hand, which included external senses (such as taste and smell), as well as perceptive faculties such as "Language", "Comparison" and "Causality", were placed at the front of the skull, roughly from the hairline to just below the eyes (Van Wyhe, 2004; De Giustino, 1975; Renneville, 2000).

Whether the subject was living or dead (and phrenologists examined both, some of them, like Combe, amassing sizeable collections of skulls and plaster casts), the external configuration of the head was thus seen as capable of generating unequivocal evidence concerning the innermost workings of the human brain. This enabled the specialist to construct a detailed psychological profile of a subject within a matter of minutes. Thus, after examining an eighteen year-old prisoner at Newcastle Gaol in 1835, George Combe arrived at the following diagnosis:

T. S., aged 18. ... Destructiveness is very large; Combativeness, Secretiveness, and Acquisitiveness are large; intellectual organs fairly developed; Amativeness is large; Conscientiousness rather moderate; Benevolence is full, and Veneration rather large. This boy is considerably different from the last. He is more violent in his dispositions; he has probably been committed for assault connected with women. He has also large Secretiveness and Acquisitiveness, and may have stolen, although I think this less probable. He has fair intellectual talents, and is an improveable subject (Combe, 1853: Appendix V, 54).

A new strain of phrenology

Although Gall is usually credited with the invention of phrenology in the years immediately preceding the publication of the 1809 work, it was his younger associate Johann Caspar Spurzheim who brought the new science to Britain in 1814, having permanently fallen out with his former collaborator the previous year. As historian John Van Wyhe has argued, it was thus above all Spurzheim's version of the doctrine, differing in several important respects from that of his erstwhile colleague, which served as the basis for the development of the subject in Britain in the following decades. Indeed, Van Wyhe goes as far as to suggest that "In a sense, phrenology came from the Continent, but it is more accurate to consider [British] phrenology as a new strain that evolved independently [...there] from seeds brought by Gall's wayward disciple, J.C. Spurzheim" (Van Whye, 2004: 23). "Waywardness" is of course a matter of perspective, and Spurzheim regarded his modifications of Gall's system as a decided "improvement" on the original; offering in his words "a more scientific arrangement" and a "more philosophical manner" than preceding versions (quoted Van Whye, 2004: 33-7). New faculties like "Hope" and "Conscientiousness" were added to Gall's original twenty-seven, and others were renamed. Indeed, we have Spurzheim to thank both for the term "phrenology" (Gall had preferred "craniology") and for the use of the standardised phrenological bust, with its familiar patchwork of carefully-delimited numbered zones climbing up the neck and over the crown of the head towards the eye-socket.

More important than these innovations for our purposes, however, was Spurzheim's insistence that for all the apparent fixity of an individual's set of faculties, everyone had the capacity (within certain limits, as we shall see) to *modify* the phrenological cards he or she had been dealt at birth. "Bring men into favourable situations calculated to call forth their feelings", Spurzheim wrote in 1828, "and these will be strengthened" (quoted Rafter, 2005: 12). This message was hammered home in an ambitious programme of lecture tours undertaken by the thirty-year old German anatomist in 1814 and 1815; a gruelling circuit that took in Scotland and Ireland as well as England. Under Spurzheim's influence, British phrenologists were able, as criminologist Nicole Rafter has noted, to combine phrenology's original deterministic focus with an optimistic rehabilitative approach to social problems without a sense of contradiction. Thus, in the case of criminals, for example, she observes that "Conceiving of character traits as heritable but not fixed, they could simultaneously argue that criminals [were] not responsible for their actions, and that with treatment, they [could] be cured of their criminality" (Rafter, 2005: 17-18).

As we shall see in the following section, the same reasoning could be applied to a whole range of social issues. Thus to its supporters, drawn in this period mainly from the aspiring professional and commercial middle-classes, phrenology offered not only a powerful set of tools for individual self-improvement and self-help (keeping one's problematic "propensities" in check was a particular concern), but also the prospect of a set of new, scientifically-proven principles with practical policy applications in such fields as crime prevention, education and mental health (Parssinen, 1974: 3-4; Tomlinson, 2005: ch.5). Tradition and precedent were no longer considered a sure guide to policy-making; a stance with obvious appeal for those in Regency and early-Victorian Britain who felt themselves excluded from the levers of social and political power. And with its principles easily accessible to those without specialised medical training, here was a doctrine, as historian Roger Cooter points out, that offered the enticing prospect of making the intangible world of the emotions tangible; of giving a sense of precision to experience, order to doubt, and logic to contradiction. Cooter compares the attraction of phrenology for the Victorian middle class to that obtained from gazing through the open front of a Victorian doll's house. One is confronted "not only with order and classification par excellence, but also (just as with the actual workings of the middle-class Victorian home) with a clear hierarchy of spaces for specialised functions and duties" (Cooter, 1984: 111). However, for all this apparent neatness and order worthy of a Victorian drawing room, phrenologists believed that powerful subterranean forces were also at work; with propensities like Amativeness, Combativeness and Secretiveness capable, at a stroke, of overturning furniture and soiling carpets.

"The clearest, the most complete, and the best supported system of human nature"

As L.S. Jacyna points out, Combe's *The Constitution of Man* (1828) was both a descriptive account of human nature, and a *prescriptive* text, claiming to offer its readers a comprehensive system not only of personal but also social and political morality. The book thus provided a highly appealing and (to some) convincing "transition from the factual to the normative" (Jacyna, 2004); what Combe confidently described as "the clearest, the most complete, and the best supported system of human nature" (Combe, 1828: viii). Everything followed from his conception of the law-like regularity thought to govern both the natural and the social worlds. Everyone was born with the same twenty-seven cerebral organs, he reasoned, but in differing states of development. This meant that each individual had a unique set of aptitudes at birth, thus creating a "natural" basis of social inequality. This state of affairs might be thought to have condemned individuals to a particular psychological (and social) destiny. As we have noted, however, Spurzheim's meliorist version of the phrenologist's creed allowed Combe to posit the existence of powerful hereditary impulses, while at the same time arguing that with the right combination of education and self-help, individuals could both limit the nefarious impact of their propensities and nurture more positive sentiments and intellectual faculties. In this way, just as physiology demonstrated how to take proper care of the body, phrenology explained how to manage the mind. *The Constitution of Man* claimed to indicate just how that cerebral fine-tuning might be achieved.

It is perfectly logical in this context that Combe should have considered educational reform a key priority. He wrote widely on the subject, was involved in the parliamentary campaign of the 1840s and early '50s to establish a system of national secular education, and even took a personal role in the foundation of the Williams Secular School in Edinburgh in 1848. As historian Stephen Tomlinson has shown, Combe believed that education has two crucial aims: that of providing future citizens with the "positive" knowledge necessary for rational self-government, and ensuring the harmonious development of each child's physical, moral and

intellectual capacities. These principles were given practical application by Combe and his like-minded colleagues at the Williams Secular School:

[T]he curriculum was divided into two basic categories: instruction in instrumental skills such as reading, writing and arithmetic, and the transmission of positive knowledge about the human constitution and relations in the external world. By studying the body in anatomy and physiology, students learned about health, diet, exercise, the proper maintenance of the home and the responsibilities of child care, while in phrenology², they were introduced to the laws of mental life (Tomlinson, 1997: 19).

Where education and rational self-government were not an option, such as for criminals and the mentally-ill, phrenologists saw it as their solemn duty to furnish policy makers and professionals with a range of therapeutic tools derived from incontrovertible scientific principles, “entirely founded”, as Gall had put it, “on observations, experiments, and researches for the thousandth time repeated” (Gall, 1835: vol. 6, 310). The result, phrenologists confidently predicted, would be a new era of enlightened treatment: out-of-control propensities would be identified, understood, and kept in check, and the potential of the cerebrally-challenged to harm themselves and others thereby neutralised. “Improveable” subjects could be treated. For those “irredeemables”, beyond the reach of even the most gifted phrenological practitioner, it was suggested that they be held in specialised institutions where they could be observed and further classified according to the tenets of the new science by appropriately trained experts (Davie, 2005: 40).

Phrenological inequality

For all his emphasis on meliorative social reform, child-centred teaching methods and self-improvement, Combe assumed, like many of those in the liberal circles in which he moved, that even if action was taken (as he and they fervently hoped it would be) to address such social problems as vice, crime, alcoholism and poverty, there were limits to the “improvability” of working class subjects, doomed for eternity to be ruled by their animal-like propensities. Only by entrusting the management of their defective biological inheritance to their benign social superiors could the working poor hope to escape the infernal circle of poverty and degradation. Thus, as Tomlinson cogently argues, Combe

utilized the potent power of nature to scientize middle-class values and gain ideological command of the working poor. Projecting the division of labor encoded in the phrenological head onto society, he defended a hierarchical political order in which classes were defined according to the innate structures of the brain. The working poor would have to accept the laws of political economy. [...] Combe could not promise working men and women equality, but he did offer self-respect and the hope of a brighter future. In return, by accepting secular theology and middle-class values, the masses would have to learn to regulate their own behavior in line with the morals of their new masters (Tomlinson, 2005: 113).

Indeed, more generally, phrenology provided powerful scientific backing for many of the popular class, ethnic and gender stereotypes of Victorian England (Davie, 2012). Thus, in an 1824 article for the *Phrenological Journal*, we find the following assertion from Combe:

When we regard the different quarters of the globe, we are struck with the extreme dissimilarity in the attainments of the men who inhabit them. If we glance over the history of Europe, Asia, Africa and America, we shall find distinct and permanent features of

² This class was taught by Combe himself.

character which strongly indicate *natural* differences in their mental constitutions (Combe, 1824: 1-2).

What follows is a whistle-stop world tour of “particular forms of brain”, based on a study of skulls in the collection of the Edinburgh Phrenological Society. Specimens include (to quote Combe’s nomenclature) the skulls of Hindoos, Charibs, New Hollanders, Negros, Brazilian and American Indians, South Sea Islanders and Ancient Egyptians, as well as Europeans. In each case, craniometric data familiar to contemporary physical anthropologists is combined with generalisations about the characteristic propensities, sentiments and intellectual faculties of each group. In the case of the “Negro” for example, we are told that:

The skull [...] evidently rises in the scale of development of the moral and intellectual organs: the forehead is higher, and the organs of the sentiments bear a larger proportion to those of the propensities, than in the New Hollander. The organs of Philoprogenitiveness and Concentrativeness are largely developed; the former of which produces the love of children, and the latter the concentration of mind which is favourable to settled and sedentary employments. The organs of Veneration and Hope are also considerable in size. The greatest deficiencies lie in Conscientiousness, Cautiousness, Ideality and Reflection (10).

In similar fashion, Combe would argue that women, while possessed of well-developed moral sentiments, had smaller intellectual faculties than men; and even the supposed aggressivity of the French and the Catholicism of the Irish could be explained by larger organs of Combativeness and Veneration respectively (Tomlinson, 1997: 10; Leaney, 2006). Though Combe’s emphasis on “natural differences in mental constitutions” made him highly sceptical as to the value of imperial expansion, and he was also a lifelong opponent of slavery (Davie, 2012), he remained captive of contemporary racial stereotyping, just as he was of class-based prejudice.

Conclusion: A complex legacy

The legacy of phrenology in Britain is difficult to establish with precision. By the time of Combe’s death in 1858, the network of phrenological societies established in the heady expansionist days of the 1820s and ’30s was moribund, and the leading phrenological journals defunct. Most of those who had professed support for the young science earlier in the century had recanted their opinions, and what was left of the movement – if it could still be described as such – was leaderless and riven by factionalism. Indeed, for all but a tiny number of die-hard supporters, phrenology would soon be considered as little more than a harmless fairground attraction, no longer important enough to provoke the ire of Britain’s scientific and medical Establishment (Cooter, 1989: viii-ix).

That being said, there would be reverberations in the decades to come. There are for example clear links between the theories of Combe and his colleagues and the racist theorising of the last third of the nineteenth century. As often, the ethnologists of the 1860s would borrow selectively from their forebears; retaining the craniocentric focus of the phrenologists’ system of racial taxonomy, with its conception of an unchanging hierarchy of unequally-endowed human populations, while ditching its meliorative, anti-colonialist and abolitionist aspects. Although little of this new work could be termed in any sense “phrenological”, it did recognise the pioneering status of the researches conducted by Gall, Spurzheim and Combe (Davie, 2012). Similar selective borrowing can be observed in the work of Britain’s early criminologists in the 1860s and ’70s. Like the phrenologists, and indeed the physiognomists before them, the country’s self-appointed medico-penal Establishment of prison doctors, mentalists and prison officials assumed that the kind of abnormal mental faculties likely to lead to crime were present in some at birth; and, moreover, that that presence was indicated

by a set of specific anatomical and physiological markers, with the face and the head once again the privileged focus of attention (Davie, 2005; 2009). Although none within this group would have admitted to a link between their theories and those of the bumpologists, many of the assumptions underlying their investigations into criminal aetiology in the period were in fact remarkably similar.

Indeed, research in this field in the late 1870s by Francis Galton (1822-1911), commissioned by the Home Office to establish a facial “criminal type” using convict mug-shots (Davie, 2002; 2003), indicates a direct line between the work of Combe and the phrenologists on the one hand, and what would become the eugenics movement on the other. It does not follow of course that Combe and Galton started from similar premises – the latter’s hard-and-fast distinction between the “fit” and the “unfit” (with dramatically different fates reserved for each) would have been anathema to the Edinburgh phrenologist and his meliorist credo of education and social reform – but in both cases the outward form of the body was seen as providing vital clues to psychological development and ultimately to social worth. This casts in a rather different light the familiar image of the phrenological head, with its chequerboard of carefully-delineated esoteric faculties.

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Further reading

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