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Dominik Perler

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Reflection

Faculties and Phrenology

Rebekka Hufendiek

Markus Wild

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Abstract and Keywords

This Reflection considers how the science of phrenology relates to the notion of faculty. It asks: why is phrenology so appealing? It illustrates this with reference to modern culture. Firstly, the Reflection argues, phrenology relies on an easy line of reasoning: moral and mental faculties are found in specific areas of the brain. The more persistently such faculties prevail, the bigger the respective part of the brain. Secondly, phrenology produces easy visible evidence. You can read the mental makeup of someone by looking and feeling the lumps in their head. The Reflection goes on to look at the history of phrenology and relate it to issues of race.

Keywords: phrenology, brain, race, head, history of phrenology

In Quentin Tarantino's western *Django Unchained* (2012), the southern slave owner Calvin Candie, played by Leonardo DiCaprio, explains to his guests the unwillingness of slaves to rise up and take revenge by putting the skull of a recently deceased slave on the dinner table. "The science of phrenology," Candie candidly explains, "is crucial to understanding the separation of our two species." After partly sawing off the back of the skull, he points to what looks like a sizable cavity and clarifies that this part of the brain associated with "submissiveness" is significantly enlarged in black people. It seems that they are naturally submissive and therefore born to be ruled by white men. The science of phrenology explains and justifies slavery, or so the Europhile Candie points out with a grand illustrative gesture. Candie is neither a learned man nor very intelligent. He is a talkative, clever, emotionless, ruthless, and sadistic egoist who is fond of imitating European high culture. Phrenology appeals to this man not only because it justifies his way of life and his existence but also because it lends itself to visual corroboration and public display.

Why is phrenology so appealing? First, it rests on an easy line of reasoning: moral and mental faculties are to be found in specific organs of the brain, just as the perceptual faculties are connected **(p.248)** with special organs (sight with the eyes, hearing with the ears, and so on). The more persistently such faculties prevail, the bigger the respective organ; the altered size of the organs leaves its imprint directly on the skull. You can literally read the mental makeup of individuals or groups from the bumps in their skull. Second, phrenology produces easy visual evidence. You are immediately able to see the intellectual abilities, emotional dispositions, and character traits in a person's skull. This powerful visible concreteness, extensively exploited by the advocates of phrenology in the nineteenth century, is what appeals to a man like Calvin Candie.¹

What is the "science of phrenology"? Around 1800 the neuroanatomist Franz Joseph Gall (1758–1828) developed a research method he called *Schädellehre*, which came to be known (only later on) as "phrenology." The program was based on the idea that the mind consists of several independent mental faculties that can be located in different parts or "organs" of the brain.² Gall distinguished nineteen brain organs common to man and animals, and eight organs specific

to the human brain. Among the first class, we find such powers as the instinct of reproduction; the instinct of self-defense; the carnivorous instinct; cleverness; pride; ambition; memory of things, facts, words, and people; the sense of place, colors, and sounds; and the architectural sense. The second class involves the sense for metaphysics; witticism; poetical talent; a moral sense; the faculty for imitation; the organ of religion; and, finally, steadfastness of purpose.

The main goal of phrenology is to establish a correlation between intellectual faculties and personal character traits on the **(p.249)** one hand and cranial morphology on the other. Phrenology therefore amounts to reading character traits and mental abilities from the bumps in the skull. According to Gall, mental faculties and character traits reflect innate dispositions localized in specific areas or “organs” of the cerebral cortex. The development and prominence of these traits and faculties are different in each individual. Most important, they are expressed in the activity and hence the size of the respective cortical organ. Moreover, the size and potency of each cortical organ is reflected in the indentations and cavities of the overlying skull. A careful description of individual skull morphology could therefore systematically reveal its owner’s intellectual and personal profile.

To develop and prove his theory, Gall (later joined by his assistant Johann Gaspar Spurzheim, 1776–1832) began to collect human and animal skulls and prepare colored wax molds of brains and plaster casts of heads. This collection and the public lectures that Gall gave in Vienna turned him into a local celebrity—hence “the man of skulls.”³ Between 1805 and 1807 Gall and Spurzheim traveled Europe for a lecture tour. Gall lectured on his organology while Spurzheim presented skulls or carried out dissections in front of huge audiences. At the same time Gall inspected local prisons and asylums in the cities he visited in order to further his research. Gall’s unorthodox practices of collecting evidence and presenting his work in visually impressive ways to lay audiences were described by his critics as the mark of a charlatan.⁴ Gall himself, however, claimed that his work could do away with metaphysical speculation about human nature and replace it with empirically founded claims about human psychology.

(p.250) Gall's problematic set of ideas (that the activity of a cerebral organ varies with its size and the cranium reflects the organic structure of the underlying brain) was soon popularized in the pseudoscience of "craniology" or "phrenology." Its leading popularizers were Spurzheim, who gave a set of immensely influential lectures in Europe and the United States after Gall's departure, and George Combe (1788–1858), who published the enormously successful *System of Phrenology* (1824) and *The Constitution of Man* (1828).⁵ At its high mark of popularization, the theoretical individualism of Gall's account was completely forgotten and phrenology had laid itself wide open for ideological interpretations in questions of gender, race, mental health, and criminology.

Phrenology was very influential in the nineteenth century despite the devastating criticism directed against it right from its very beginnings. Severe scientific blows were delivered in the works of William Hamilton (1827), Pierre Flourens (1845), and Paul Broca (1861). Phrenology was certainly not deemed by respected scientists to be a respectable science. Nonetheless, it achieved a status roughly comparable to that of psychoanalysis in the twentieth century, and, like psychoanalysis, continued to find a considerable audience even after serious science had refuted many of its central claims. Roger Cooter demonstrated in *The Popular Meaning of Science* (1986) that, in Great Britain, phrenology attracted, inspired, and reoriented social activists, reformers, and a large portion of the middle as well as working classes. Phrenology was in the air.

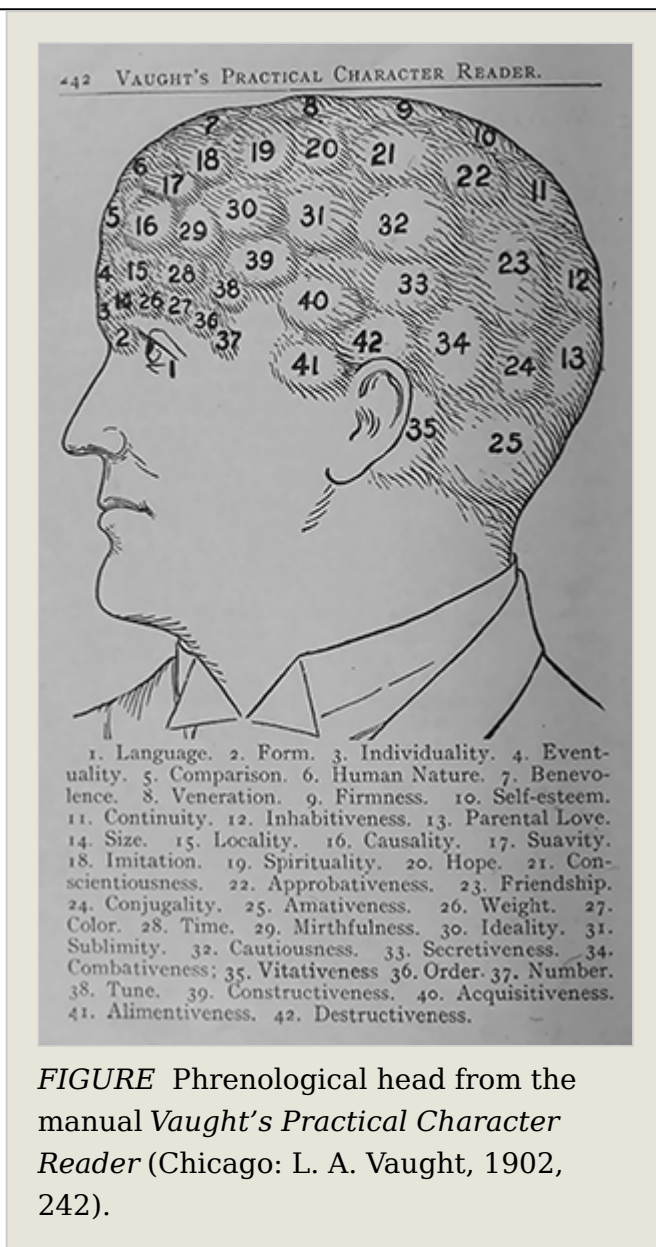
(p.251) In the early decades of the nineteenth century, phrenology took America by storm. After Charles Caldwell's (1772–1853) *Elements of Phrenology* (1824), Johann Gaspar Spurzheim's lecture tour of 1832 and George Combe's tour of 1838–1840, phrenological societies sprang up all over the country. Despite the common tale that phrenology, after a very short period of respectability, turned into lowbrow entertainment and a pastime for scientific mavericks during the mid-1840s, phrenology was in fact highly influential also in the United States in the nineteenth century. As Norman Davies has argued, phrenology laid the foundations for psychology, criminology, health reform, neurology, and racial taxonomy, and provided a characterology and moral philosophy that was widely influential in mid-nineteenth-century literature, especially in the works of Edgar Allen Poe and Walt Whitman.⁶

As an authoritative vocabulary of characterological descriptions, phrenology continued to be deployed for many decades by novelists, theologians, and artists (see also fig. 5a. 1).⁷

Calvin Candie, the slave owner in Tarantino's last movie, is modeled on real-life historical figures, including the physician Charles Caldwell from Kentucky. Caldwell was one of the earliest experts in phrenology in the United States. In 1824 he published *Elements of Phrenology*, a book with a racist agenda. Between 1820 and 1851 the physician Samuel George Morton collected thousands of skulls. In *Crania Americana. A Comparative View of the Skulls of Various Aboriginal Nations of North and South America* (1839), Morton claimed that the races descended in natural mental worth in the following order: Caucasians, Asians, Native Americans, and, finally, Africans.⁸ Not being a phrenologist himself, Morton was **(p. 252)**

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nonetheless eager to emphasize the compatibility of craniometrical and



anthropological work with phrenology. Scientific racism and phrenology were ready to go hand in hand with the slave owner's agenda.

However, it has to be pointed out that a majority of phrenologists were opposed to slavery, and in fact they used phrenology in order to promote their opposing stance. George Combe, himself an antislavery campaigner, explained that the very same faculties that make the slaves submit to their owners will guarantee that, once emancipated, they will not shed blood. Thus, their assumed submissiveness was used to counter fears that they would take revenge. Calvin Candie's argument cut both ways: because of the unwillingness to rise up and take revenge, the Africans could be set free without any danger to social stability. The premise, however, is still the

same: the African is inferior to the Caucasian race in moral and mental abilities. However, according to Caldwell, the African is more suited for civilization than the Indian. Therefore, he might be partly liberated under the protection of the superior white race. It is clear, therefore, that scientific racism and antislavery campaigning were not mutually exclusive. On the contrary: the discourse of phrenology established a set of background beliefs about racial differences that came to figure in pro- and antislavery arguments alike.

Notes:

(¹) Roger Cooter, *The Cultural Meaning of Popular Science: Phrenology and the Organization of Consent in Nineteenth-Century Britain* (Cambridge: Cambridge University Press, 1984).

(²) Franz Joseph Gall, "Des Herrn Dr. F. J. Gall Schreiben ueber seinen geendigten Prodromus ueber die Verrichtungen des Gehirns der Menschen und der Thiere, an Herrn Jos. Fr. von Retzer," *Wielands Neuer Teutscher Merkur* 12 (1798): 311-35.

(³) John Van Wyhe, *Phrenology and the Origins of Victorian Scientific Naturalism* (Burlington, VT: Ashgate, 2004), 24.

(⁴) John Van Wyhe, *Phrenology and the Origins of Victorian Scientific Naturalism* (Burlington, VT: Ashgate, 2004), 72-95.

(⁵) See Robert M. Young, *Mind, Brain and Adaptation in the Nineteenth Century: Cerebral Localization and Its Biological Context from Gall to Ferrier* (Oxford: Clarendon Press, 1970); Roger Cooter, *The Cultural Meaning of Popular Science: Phrenology and the Organization of Consent in Nineteenth-Century Britain* (Cambridge: Cambridge University Press, 1984); Edwin Clarke and L. S. Jacyna, *Nineteenth-Century Origins of Neuroscientific Concepts* (Berkeley: University of California Press, 1987); Michael Hagner, *Homo cereбрalis: Der Wandel vom Seelenorgan zum Gehirn* (Frankfurt: Suhrkamp, 1992).

(⁶) See John Dunn Davies, *Phrenology: Fad and Science: A 19th-Century American Crusade* (New Haven: Yale University Press, 1955).

(⁷) See Charles Colbert, *A Measure of Perfection: Phrenology and the Fine Arts in America* (Chapel Hill: University of North Carolina Press, 1997).

(⁸) See Samuel G. Morton, *Crania Americana: A Comparative View of the Skulls of Various Aboriginal Nations of North and South America* (Philadelphia: J. Dobson, 1939).



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