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Howled out of the Country:
Wilkie Collins and H.G. Wells
Retry David Ferrier

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On 17 November 1881, physiologist David Ferrier appeared in Bow Street Police Court, charged with “perform[ing] experiments, calculated to give pain to two monkeys, in violation of the restrictions imposed by the Vivisection Act.” Since 1873, Ferrier had been stimulating the brains of live animals, noting any correlation between the cortical area to which he applied electricity and the resulting movement of the animal. In 1876, Ferrier’s maps of dogs’ motor cortices had won him election to the Royal Society. But according to the Home Secretary, Ferrier had broken the law. He had experimented on monkeys—displaying them at a major scientific conference—after they had recovered from anesthesia, but he had not applied for a Certificate B.

Ferrier’s trial became a crucial test case of the 1876 Anti-vivisection Act, an experiment performed on a highly renowned scientist. Reflecting on Gustave Flaubert’s trial in 1857, Dominick LaCapra writes, “trials . . . are . . . noteworthy instances of the social reception of cultural phenomena. They attest to the way these phenomena are read or interpreted in a decisive social institution and to the hermeneutic conventions operative therein. . . . A trial enables one to be somewhat more precise in investigating a ‘mentalité’ or ‘climate of opinion.’” Like Flaubert, who had written *Madame Bovary*, the electrophysiologist Ferrier was believed to have committed an outrage against public morals. In Ferrier’s short but widely reported trial, his work was narrated and interpreted, both by experts and those outside of physiology. Scientists and their critics wanted to learn once and for all whether public resistance could stop the spread of animal experiments.

As anti-vivisectionists, physiologists, and neurologists struggled for power during the 1880s and 90s, two novelists formed fictional worlds that recreated the debates of Ferrier’s trial in new settings. Wilkie
Collins's *Heart and Science* (1883) and H.G. Wells's *The Island of Dr. Moreau* (1896) offer critiques of science far more complex and insightful than those of Ferrier's prosecutors. The novels differ in artistic quality, but both invoke Ferrier's research and the public's emotional response. Collins, an outspoken opponent of vivisection, created a propagandistic story that rises above its demonization of experimentalists only in a few reflective moments. Wells, a cautious supporter of animal experiments, offered a terrifying look at the implications of Ferrier's findings. When assessing neurophysiology and anti-vivisection as cultural movements, it is crucial to read these fictional representations in parallel with the public record. Unrestricted by legal codes and procedures, these literary trials challenge the values of science in ways that no actual trial ever could.

**Dr. Ferrier's researches**

In the 1820s, the French physiologist Pierre Flourens had removed large portions of animals' brains and discovered that the creatures could still move, although they were reduced to "complex machines." Flourens had concluded that although the cortex must play a role in sensory perception and willful movement, it was not necessary for the production of motion. Mental faculties could not be assigned to any particular loci in the cortex, whose substance was everywhere alike and a small portion of which sufficed to carry out mental functions. Ferrier doubted Flourens's findings. The French scientist had worked mainly with birds and lower mammals, and for a neuroanatomist, he had been distressingly vague about which portions of the brains he had cut out. To Ferrier, a specialist in forensic medicine at King's College Hospital, these experiments, which had impressed physiologists five decades earlier, represented sloppy thinking.

The aim of Ferrier's studies, begun at the West Riding Lunatic Asylum in 1873, was to determine "whether the cerebrum, as a whole and in each and every part, contains within itself, in some mysterious manner inexplicable by experimental research, the possibilities of every variety of mental activity, or whether certain parts of the brain have determinate functions." His wording makes his convictions clear. For Ferrier, knowledge of the brain meant knowledge of what its parts did. If those parts could not be structurally or functionally differentiated, scientists would never learn anything significant about the brain. Denial of localization suggested not just mysticism but insidious laziness, a desire not to know.

In the quest to prove that specific regions of the cortex controlled particular zones of the body, Ferrier was not the first to have thought of electrically stimulating the brains of live animals. In 1870, the Berlin