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Medical science and the Cruelty to Animals Act 1876: A re-examination of anti-vivisectionism in provincial Britain

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ABSTRACT

The Cruelty to Animals Act 1876 was an important but ambiguous piece of legislation. For researchers it stymied British science, yet ensured that vivisection could continue under certain restrictions. For anti-vivisection protestors it was positive proof of the influence of their campaigns, yet overly deferent to Britain's scientific elite. In previous accounts of the Act and the rise of anti-vivisectionism, scientific medicine central to these debates has been treated as monolithic rather than a heterogeneous mix of approaches; and this has gone hand-in-hand with the marginalizing of provincial practices, as scholarship has focused largely on the 'Golden Triangle' of London, Oxford and Cambridge. We look instead at provincial research: brain studies from Wakefield and anthrax investigations in Bradford. The former case elucidates a key role for specific medical science in informing the anti-vivisection movement, whilst the latter demonstrates how the Act affected the particular practices of provincial medical scientists. It will be seen, therefore, how provincial medical practices were both influential upon, and profoundly affected by, the growth of anti-vivisectionism and the passing of the Act. This paper emphasises how regional and varied medico-scientific practices were central to the story of the creation and impact of the Cruelty to Animals Act.

1. Introduction

The anti-vivisection movement in Victorian Britain had a discernable and long-lasting impact on British medical science. A dynamic exchange of influence existed between the politically-charged, social movement of anti-vivisectionism, and the scientific theories, practices and people it sought to curb. As several authors have highlighted, the movement was catholic in its affiliations, driven by a number of different factors.[1] Class divisions, xenophobia, a sentimental attachment to pets, evangelical and moral crusading, disquiet over the development of medicine down an increasingly scientific and experimental path: these and several other deeply-embedded social issues lay behind a heterogeneous movement of concerns and variously motivated individuals. Anti-vivisection sentiments did not spring from nowhere, but rather crystallized in the 1870s in reaction to professional and educational developments in British physiology and other biological disciplines that ostensibly necessitated the practice of vivisection for their increasingly experimental inquiry.

As Richard French has made clear, a long-held fear amongst campaigners that Britain would follow the barbarous route of German and French physiology was made real by John Burdon-Sanderson's 1873 *Handbook for the Physiological Laboratory*, which specified dozens of classical animal experiments to be repeated endlessly by students.[2] A barrage of petitioning and canvassing tactics followed, which saw success when the protestors forced a

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[1] The authoritative text on the antivivisection movement in Britain is: French (1975). For further perspectives on British anti-vivisectionism, see: Mayer (2008); Miller (2009); Preece (2003); Richards (1986); Rupke (1987); White (2006); Turner (1980); Kean (1995).

[2] Burdon-Sanderson (1873). Details taken from: French (1975), pp. 42–50.

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Royal Commission in 1875, leading, in 1876, to the Cruelty to Animals Act. Under the Act, vivisection could be conducted only for original, useful purposes, with a license from the Home Secretary. Laboratories used for such experiments needed prior approval, and animals could be kept alive, tested without anaesthetic or used for demonstration only with special dispensation from the Home Office. Amongst those who supported vivisection, it was commonly complained that British experimental medicine, already seen as backwards compared to its continental neighbours in France and Germany, was greatly hampered by the 1876 Act. British physiology had no sooner risen from its mid-century hiatus than its practitioners felt they were being hamstrung by severe experimental restrictions.[3] Anti-vivisection supporters, however, generally regarded the Act as a concession to the scientific lobby, and continued to campaign against all forms of animal testing, especially for teaching purposes. Both groups therefore regarded the Act as an unsatisfactory irritation: it was either too restrictive or too lenient.

In this paper, we return to events surrounding the 1876 Act, to further investigate some of the forces that shaped it and to question how it in turn affected medical and scientific practices in Britain. This is done through an analysis of two particular areas of medical study that became a part of the anti-vivisection debates: research into the brain, and research into anthrax. In looking at the first case—physiological brain research in the 1870s—we argue that it was not just animal experimentation but the particular theories that developed from such experimentation, and even the place in which these theories were conceived, that attracted the opprobrium of anti-vivisection campaigners and in turn influenced the creation of the 1876 Act. Then in the second case, of medical investigation conducted into anthrax between the late 1870s and the early-twentieth century, we illustrate the enormous impact that the 1876 Act had on research, and thus how, in conjunction with medico-scientific developments elsewhere, it shaped medical understanding of a much-feared illness. Considered together, these two episodes show how there existed a dynamic relationship between anti-vivisectionism and scientific theories and practices. On the one hand, the anti-vivisection movement was galvanised and inspired in response to the physiological methods and findings of individuals such as David Ferrier, the leader of experimental brain research in the period; whilst on the other, legislation regulating vivisection had a discernable and significant impact on the character and findings of local research into anthrax from the late 1870s onwards. Medical science was no monolith, but a mixture of different ideas and practices which interacted in various ways, and places, with the anti-vivisection movement.

Although these two areas of research represent endeavours in quite different fields of enquiry, they are linked not only by their relationship to the anti-vivisection movement but also by their geographical proximity, with both originating in the West Riding of Yorkshire in Northern England. The brain localization studies conducted by David Ferrier began at, and remained associated with, the West Riding Lunatic Asylum in Wakefield, whilst fifteen miles-away Bradford, an industrial town at the heart of the textile industry and already widely-known for scientific enterprise, became a centre for studies of anthrax.[4] There is some symmetry here; a pathway of cause and effect from one town to the other. The study of specific medical scientific theories which began in Wakefield shaped the creation of the 1876 Act, and the Act in turn shaped specific scientific medical theories in Bradford. However, whilst the influence of developments in Wakefield was unique, the effects in Bradford could, at least in principle, be found in towns across Britain. This paper therefore invites scholars to look with fresh eyes at the influence which the Act had outside of the metropole. Indeed, provincial medical practices in nineteenth century Britain, though the subject of some study, have been little considered in relation to the anti-vivisection movement.[5] Rather, attention has been concentrated on experimental practices in the 'Golden Triangle' of London, Oxford and Cambridge, where vivisection licences could be obtained with relative ease. Current literature shows that British medical practice and theories developed along different lines to those of Continental Europe during the nineteenth century, at least partly as a result of different relationships between provinces and metropole.[6] In this paper we refine this idea of the uniqueness of British medicine, and ground it in specific institutional practices, many of which informed, and were informed by, anti-vivisection sentiment and legislation.

From early beginnings in animal dissection in the ancient world, through to the revival of human anatomical investigations in the sixteenth century and beyond, the role of animals in producing medical knowledge has been in flux. In the nineteenth century a focus on physiological processes in action, and the advent of germ theories of disease and their claims to universality for disease causation, led to renewed interest in extrapolating from animal models to understand human physiology and pathology. Despite the increased use of animals in medical study, however, histories of medical institutions in provincial Britain in the Victorian period have tended to marginalise the importance of both vivisection as a practice and anti-vivisectionism as a movement.[7] Meanwhile accounts of dissection-based teaching in nineteenth-century Britain have principally explored the trade in bodies in order to demonstrate Victorian uneasiness with the use of such methods.[8] These studies have likewise taken the Golden Triangle as their main focus. Amongst these, Elizabeth Hurren is noteworthy in moving focus away from examining London, Oxford and Cambridge in isolation to instead consider the role of Manchester and other provincial towns in the availability and use of bodies and body parts in medical education.[9] These accounts offer important insights into the place of both provincial medical practices and attitudes towards dissection in the nineteenth century. However, despite resonating very closely with these themes, vivisection and anti-vivisectionism are notably absent from such scholarship.

This paper therefore invites historians of science and medicine to re-examine not only the early development of the anti-vivisection movement, but also the influence which the 1876 Act had on medical science more widely, provincial or otherwise. Moving beyond the 'Golden Triangle,' it adds to previous studies of the anti-vivisection movement in Victorian Britain by, firstly, expanding upon the movement's links with debates over materialism and neurological and psychiatric practice, and secondly, by showing that outside of the circle of prestigious physiologists that are most often considered, the 1876 Act had a very real effect in changing the path of anthrax research in provincial Britain. The relationship between animals and humans in Victorian science is a source of rich material: here we seek to understand some of the

[3] Geison (1978), pp. 18–23.

[4] Morrell (1985).

[5] For studies of medicine in Victorian Yorkshire see: Brown (2011); Marland (1987).

[6] For the case of bacteriology in Britain in this period, particularly in relation to continental Europe, see: Worboys (2000).

[7] See, for example: Reinarz (2009); Pickstone (1985).

[8] Richardson (1988).

[9] Hurren does include a case study on Manchester, but this is seen largely through the lens of practices in Oxbridge and London. Hurren (2012a,b).