

DOUGLAS A. LORIMER, *Science, Race Relations and Resistance: Britain, 1870–1914*. Manchester: Manchester University Press, 2013. Pp. xi + 344. ISBN 978-0-7190-3357-5. £80.00 (hardback). doi:10.1017/S0007087415000163

In recent years there has been a revival in studies of nineteenth-century British race science. After the publication of George Stocking's famous book *Victorian Anthropology* (1987), there was some stagnation in the secondary literature. This has now changed, and over the past few years there have been several new important works on the history of British race science that have generated a vibrant scholarly discourse. Douglas Lorimer's book *Science, Race Relations and Resistance* is part of this historiographical dialogue. Underscoring his analysis is an admission that nineteenth-century British science had a detrimental impact on race relations, and the consequences of this negative influence continued right into the twentieth and twenty-first centuries, shaping much of the racist rhetoric we see in the English-speaking world today.

Lorimer's focus is primarily on metropolitan culture in the latter half of the nineteenth-century between 1870 and 1914, and the book is divided into three main sections. Part One looks at British race science in overview, and discusses how racial typologies were formed in ethnology and anthropology. Part Two looks at some of the ways in which cultural understandings of race relations were constructed, justified and asserted throughout the British Empire. In the final section, Lorimer shifts his attention to the issue of resistance and he argues that most of the opposition to Britain's oppressive imperial regime – and the rhetoric of racial inequality associated with it – was enacted by extra-Europeans living in colonized territories, though he does mention that some Europeans were sensitive to these issues. As a whole, the book's aim is both important and interesting, but its execution falls a little flat.

There is no denying Lorimer's mastery of the historiography on race and empire. The same cannot be said about his knowledge of the history of nineteenth-century British science. The biggest problem with the book is Lorimer's lack of engagement with some of the major historiographical discussions on Victorian science from the past decade. One of the best examples is in his treatment of the role of the British periodical press in shaping nineteenth-century scientific understandings of race. There has been very little work done on this topic and a detailed analysis of how nineteenth-century print culture shaped ideas about human diversity would be a major contribution to the research field. In his analysis, Lorimer looks at both specialist periodicals such as the *Journal of the Anthropological Institute*, and non-specialist periodicals such as *Nature*. He argues that even though the presentation style of periodical entries differed depending on the publication, the underlying assumptions about racial diversity remained the same – that extra-European peoples were seen as inferior to Europeans. All of this is fascinating; however, because of his lack of engagement with the secondary literature on Victorian science and print culture, Lorimer's examination of the periodical press lacks sophistication. There is no sense, for instance, of how knowledge about race was formed and communicated. He does not consider any of the communication models from the historiography, or the full network of actors – including authors, editors, reviewers and readers – who contributed to race discourses.

Over the past few years historians of science interested in empire have argued for a theoretical framework that emphasizes the multidirectional nature of the traffic of ideas between researchers living throughout the world. It was a collaborative pursuit constructing racial identities, and these categories were continually redefined based on the vastly different experiences of actors living in various regions of the globe. However, Lorimer's analysis seems to be adopting a centre-periphery model where ideas about race were formed in the metropole and imposed on different colonial settlements. The result is a rather skewed and overly simplistic perspective that confutes metropolitan ideas of race as being representative of all colonial subjects' views, regardless of location in the empire. Another problem in Lorimer's book has to do with his characterization of 'professional science' versus 'amateur science'. He constructs a rigid binary between these two categories, and

he seems unaware of the vast amount of literature that has argued for a much more fluid division between these two groups.

The most significant contribution of the book is its examination of popularizers of race science. Lorimer argues that far too much attention in the secondary literature has focused on the role of famous historical actors such as the anatomist Robert Knox (1791–1862) and the scientific naturalist Thomas Huxley (1825–1895) in shaping the research programme of British race science. However, popular writers such as John G. Wood (1827–1889) and Edward Clodd (1840–1930) had much larger readerships, and therefore likely had a larger influence on Victorians' notions of race. Although this is an important historiographical point, it would have been helpful to see more examples of these popularizers' writings. Overviews of various figures are provided, but there are few illustrative examples of their ideas from the primary texts. Nevertheless, despite these criticisms, Lorimer raises some interesting issues regarding the conception of race science and race relations in Victorian Britain, and his book is a welcome contribution to the secondary literature.

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MICHEL JANSSEN and CHRISTOPH LEHNER (eds.), *The Cambridge Companion to Einstein*. New York: Cambridge University Press, 2014. Pp. xvi + 562. ISBN 978-0-521-82834-5. £65.00 (hardback). doi:10.1017/S0007087415000175

This book brings together fourteen essays by philosophers of science and historians on various aspects of the writings of Albert Einstein. The first ten essays deal with Einstein's contributions to physics, and with various philosophical implications of them. The next three address some of Einstein's more directly philosophical writings and the impact of his work on the twentieth-century philosophy of science. The final essay is on Einstein's political writings. In the introduction, Michel Janssen and Christoph Lehner give a brief overview of Einstein's life and career to provide some context for this collection of essays, and highlight some themes addressed more fully in the individual contributions.

In the first chapter Jürgen Renn and Robert Rynasiewicz discuss Einstein's 'Copernican revolution'. They argue that Copernicus laid the basis for a complete overhaul of the traditional astronomical world view, and that Einstein's achievements during 1905 can be described in terms of such revolutionary Copernican processes. Next, John D. Norton, in a chapter entitled 'Einstein's special theory of relativity and the problems in the electrodynamics of moving bodies that led him to it', points out that modern readers turning to Einstein's famous 1905 paper on special relativity may not find what they expect. The title, 'On the electrodynamics of moving bodies', gave no inkling that it would develop an account of space and time that would topple Newton's system. It contains Einstein's analysis of simultaneity, probably the most celebrated conceptual analysis of the century. Norton points out that this approach leaves us with the curious idea that special relativity arrived because Einstein took the trouble to think hard enough about what it means to be simultaneous. It explains how Einstein extracted the theory from electrodynamics, indicating the subsidiary roles played by both experiments and Einstein's conceptual analysis of simultaneity.

A.J. Kox writes about 'Einstein on statistical physics'. He points out that Einstein's work in this area was guided by a strong conviction that atoms really exist, and by the insight that the study of fluctuations of physical quantities can lead to valuable new knowledge. Michel Janssen's chapter is entitled 'No success like failure ...' and deals with Einstein's quest for general relativity, from 1907 to 1920. He indicates that Einstein was ready to extend the principle to arbitrary motion. He felt strongly that there can only be relative motion, as is evidenced by his opening remarks in a series of lectures in Princeton in 1921, published in heavily revised form the following year. Janssen quotes Einstein's explanation that we can only conceive of motion as relative motion; as far as purely geometrical acceleration is concerned, it does not matter from the point of view of which body we talk about it. Christopher Smeenk, in 'Einstein's role in the creation of relativistic cosmology', highlights