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Pratik Chakrabarti, *Bacteriology in British India: Laboratory Medicine and the Tropics* (Rochester, NY: University of Rochester Press, 2012), pp. xi + 304, \$90.00, hardback, ISBN: 9781580464086.

When, at 13, I faced a stark choice in my home, 'it's either those white mice or me' (I politically opted for the 'me', in this case, my mother), I had no inkling that three decades on from my reluctant returning of the cute murids to their source of immediate supply, a classmate's father working at the Pasteur Institute in my then hometown of Coonoor in the Nilgiri hills of southern India, I would be reviewing a book that deals in significant part with the origins and *raison d'être* of just that institution and its like in other parts of the country. One knew little of the Pasteur Institute in those days, just that it was there, its workings largely opaque to the humdrum of activity that marked the quotidian hours of the little hill station serving as its point of domicile. The opacity in question, author Pratik Chakrabarti tells us, was characteristic, engendered in elitism a century before, a laboratory at considerable remove from the colonial conurbations in the plains where the need for medical relief was disproportionately greater, subject only to the whims of medical officers and researchers who claimed a moral imperative in developing cures for diseases that were seen as both tropical and of a potentially epidemic nature.

An account of the Pasteur Institutes in India (Chapter 2) is however, only part of a comprehensive story situated in the main between the 1890s and 1940s that Chakrabarti spells out for us in relation to the making of bacteriology in British India. In so doing, he leads us in considerable depth through six chapters that deal at heart with the nature of tropical bacteriology and its moral underpinnings (see especially Chapters 1 and 2), cast in a Pasteurian paradigm while all the while inflected by British medical practice, replete with biases relating to vaccination and insalubrious environmental conditions, while holding at some distance an approach that emerged from traditional rival France, attended by a dismaying preoccupation with animal experimentation (Chapter 3, I shudder to think what became of my white mice), the reason that Pasteur Institutes failed to be established in Britain, yet paradoxically, given the nature of tropical experience in India, were eventually introduced there and in significant numbers, ranging from Coonoor to Kasauli (in northern India), Calcutta to Rangoon. Yet the book does not take for its remit a mere description of dalliances and discords between scientific potentate nations on either side of the English Channel. Rather it explores what the making of bacteriology implied in its colonial context within India. As Chakrabarti puts it, 'The subliminality of tropical bacteriology is (...) engendered in the fact that it was situated between two established medical traditions, bacteriology and tropical medicine'.

What emerges in the story? At the outset, the familiar return to a tropical land of challenge characteristically beset by poverty, uncleanliness, disease and teeming millions, perpetually comported in civilisational childishness and requiring paternalistic

¹ It is interesting that the issue of animal experimentation is chiefly laid at Pasteur's door in Chakrabarti's account. It was far more rampant across France: the nineteenth century physiologist Claude Bernard was an unapologetic advocate of the subject, even to the extent of countenancing the horrified departure of his wife and daughter in view of his experimental excesses.

colonial care. How this care was meted out, however, is much of the substance of this largely corrective narrative, where the control of wild animals (particularly snakes) and the production of anti-venom (the account regarding the antivenene of the French bacteriologist of BCG vaccine fame Albert Calmette (1863-1933) and its deployment among other options makes for riveting reading in Chapter 4) is as integral to the book as the development of various vaccines (as equally compelling a story in the debates as to whether live, dead or attenuated forms should best be employed in the tropics as described in Chapter 5) and the role of pathogens in India, specifically cholera as an 'archetypal tropical disease' (Chapter 6). But even as debates raged between practitioners in European metropoles (conveniently located in temperate zones) and their tropical colonial holdings, other issues came to bear: the response of native charges to the seeming largesse of their colonial 'caretakers' who conducted large-scale vaccinations (Chakrabarti shows persuasively that counter to stated wisdom on the subject, locals did not revolt en masse to the process) while they themselves were equivocally regarded (save by a few British scientists) when those of their medically educated number had profoundly significant results to show for their regional circumstances (see pages 53-5 for the plague research conducted by Nusservanji H. Choksy (1861–1939); ironically another researcher, this time in independent India, Sambhu Nath De (1915-1985), who suggested that cholera was a local infection was suitably marginalised within his own country apart from everywhere else). The balance between treatment and research is ever evident in the play-out of events, the precarious precipice where the patient is also experimental subject, a set of circumstances where it is more likely in spirit to see Sinclair Lewis locate the eponymous protagonist of his Arrowsmith than Amitav Ghosh subvert the narrative with his Indian interventionists during the turn of the century episodes of The Calcutta Chromosome the appeal of the latter notwithstanding.

So is this just a familiar return, then? For all of the recognisability of features of the account, Chakrabarti is doing something extraordinarily important. He is questioning the uncritical reductionism of both the laboratory and the field, suggesting that the notion of holistic research when one leaves the former for the latter is problematic. Significantly, he takes on the social construction of the term 'colonial medicine' as identified as a twentieth century phenomenon by the British historian of medicine Michael Worboys in suggesting that it was rather a long nineteenth century tradition that through further international expansion became much more an imperial concern. He also makes a critical distinction between colonial society as a historical category versus a sociological one (as developed by the French anthropologist and sociologist of science, Bruno Latour), indicating that a conflation, which simply places colonial bodies into medical categories, 'overlooks the complex historical processes from the eighteenth century by which the colonial regime had used science, maps, legislation, anthropology and language to categorise and classify the colonial subject'. Chakrabarti, in other words, is placing the seemingly benign paternalism of the colonial powers squarely and uncomfortably into relief. To this end, he is continuing a laudable trend in his own writing that relentlessly investigates the claims made about 'improvement' in the colonial crucibles of experimentation. As such, this is an essential contribution to the literature of the history of medicine in India. The research is painstaking, methodical and exhaustive and the result is for the most part salutary. While parts of the book suffer for the repetition of facts in certain cases or lack of information

458 Book Reviews

in others (for instance, names are suddenly introduced with no helpful antecedent for the uninitiated reader, such as Netley, site of the large nineteenth to mid-twentieth century medical hospital in Hampshire, England) and the blight of spelling errors is occasionally manifest, leaving this reviewer with a sense that perhaps one more editing lick might have converted a highly polished penultimate draft into a ready-to-publish version, the criticism is ultimately venial and should not detract from the urgency of this effort. An earlier review I had provided of another book by the same author for this journal suggested that he had written a simmering book, one of controlled anger against the excesses of empire. *Bacteriology in British India* is likewise a powder keg of a publication in that vein, a tightly argued, cogent and sustained interrogation of that empire whose heart was British India.

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Rhodri Hayward, *The Transformation of the Psyche in British Primary Care*, *1880–1970* (London and New York: Bloomsbury Academic, 2014), pp. xiv, 268, £65.00, hardback, ISBN: 978-1-780-93726-7.

Rhodri Hayward's *The Transformation of the Psyche in British Primary Care, 1800–1970* provides an illuminating insight into the development of psychological models of selfhood that are relatively central to modern debates about medicine and health. It explores the historical connections formed between health, identity and personal history, investigates shifting conceptions of the psyche in modern Britain and probes into the changing interactions between doctors and patients as researchers constantly reconfigured the concept of psychological distress. In adopting this approach, Hayward provides an important contribution to a growing body of historical research into the development of modern psychological thought and its influence in individual, social and political domains.

In his first chapter, Hayward makes a subtle but important point that complicates standard interpretations of turn-of-the-century psychological thought. He maintains that the unconscious was understood in diverse ways as it became fashioned by a plethora of expert and lay individuals from the late eighteenth century onwards. In adopting this line of argument, Hayward makes a convincing case for reconsidering commonly accepted narratives of the Freudian discovery of the unconscious and the First World War as important watersheds. On the contrary, the unconscious emerges from Hayward's analysis as a contested, somewhat uncertain, space that became known through the activities of French hypnotists, the support of individuals in Britain including Frederic and Arthur Myers and a growing interest among health reformers. Yet psychological concepts took on diverse meanings. For occultists, the unconscious extended beyond the body as opposed to being firmly enclosed in the physical space of the body.

Hayward proceeds by positing that the new psychology was in many ways born through the intimate administrative workings of schemes such as the Workmen's Compensation