

Essay review

Science, medicine and new imperial histories

Pratik Chakrabarti, *Materials and Medicine: Trade, Conquest and Therapeutics in the Eighteenth Century*. Manchester: Manchester University Press, 2010. Pp. xi + 259. ISBN 978-0-7190-8312-9. £60.00 (hardback).

Mark Harrison, *Medicine in an Age of Commerce and Empire: Britain and Its Tropical Colonies 1660–1830*. Oxford: Oxford University Press, 2010. Pp. x + 353. ISBN 978-0-19-95773-6. £65.00 (hardback).

‘New imperial histories’ are now almost over a decade old. Yet they seem more relevant than ever before. Edited books, historiographical essays, monographs and undergraduate history syllabi dedicated to critically evaluating them have continued to thrive over the past decade.¹ We now know with reasonable clarity how recent ‘critical imperial studies’ have combined insights from postcolonial theory, anthropology, subaltern studies, feminist theory and literary criticism.² Colonial cultures and imperial visions are now considered integral to shaping the domestic histories of modern Britain. The works of Ann Laura Stoler and Fredrick Cooper, Catherine Hall, Kathleen Wilson and others have established the colonies and the metropole as co-constitutive and interconnected analytic fields, rather than mutually exclusive domains.³ Others have reconceptualized nineteenth-century empires as webbed networks of exchange, or constellations of

1 Kathleen Wilson (ed.), *A New Imperial History: Culture, Identity and Modernity in Britain and the Empire, 1660–1840*, Cambridge: Cambridge University Press, 2004; Stephen Howe (ed.), *The New Imperial Histories Reader*, London: Routledge, 2008; James Thompson, ‘Modern Britain and new imperial history’, *History Compass* (2007) 5, pp. 455–462; Tony Ballantyne, ‘The changing shape of the modern British Empire and its historiography’, *Historical Journal* (2010) 53, pp. 429–452; Andrew Sartori, ‘The British Empire and its liberal mission’, *Journal of Modern History* (2006) 78, pp. 623–642.

2 Kathleen Wilson, ‘Old imperialisms and new imperial histories: rethinking the history of the present’, *Radical History Review* (2006) 95, pp. 211–234, 214.

3 Ann Laura Stoler and Fredrick Cooper, ‘Between metropole and colony: rethinking a research agenda’, in Ann Laura Stoler and Fredrick Cooper (eds.), *Tensions of Empire: Colonial Cultures in a Bourgeois World*, Berkeley, Los Angeles and London: University of California Press, 1997, pp. 1–40; Catherine Hall, ‘Thinking the postcolonial, thinking the empire’, in *idem* (ed.), *Cultures of Empire: Colonizers in Britain and the Empire in the Nineteenth and Twentieth Centuries: A Reader*, Manchester: Manchester University Press, 2000, pp. 9–27; Kathleen Wilson, *The Island Race: Englishness, Empire and Gender in the Eighteenth Century*, London: Routledge, 2003.

disparate interregional and global connections between and beyond the dispersed colonial possessions of Britain.⁴ The imperialist propensities of liberal thought, as well as the contours of imperial sexual politics, have been widely explored.⁵ ‘New imperial histories’ have redefined empire as a cluster of processes perennially in the making rather than an inflexible, preordained, monolithic institutional framework.

Edited volumes like *The Brokered World*; monographs by Kapil Raj and David Arnold on South Asia; Neil Safier on South America; Londa Schiebinger on the Caribbean; Sujit Sivasundaram on the Pacific; Richard Drayton, Rod Edmund and Hal Cook on variously interconnected colonial locations exemplify the ways in which historians of modern science and medicine have drawn upon and contributed to these insights.⁶ These ‘multi-sited histories’ have revised variously the received imperial and nationalist geographies of scientific and medical knowledge formation.⁷ Over the past decade these histories have revealed patterns of connection and correspondence between colonies held by various European imperial states. The salience of nationally bounded histories has been questioned by historians who have commented on processes of circulation. In so doing, narcissistic and Eurocentric narratives of triumphalism, progress and unilateral diffusion of scientific knowledge from Europe to the rest of the world have been discarded. There have been attempts to examine European, colonial and vernacular sources simultaneously in the same analytic field. This has led to an emerging consensus about how colonial entanglements have contributed to the making of modern European

4 See especially Tony Ballantyne, *Orientalism and Race: Aryanism in the British Empire*, Basingstoke: Palgrave Macmillan, 2001; C.A. Bayly, *The Birth of the Modern World, 1780–1914: Global Connections and Comparisons*, Oxford: Wiley-Blackwell, 2004.

5 For the links between liberalism and empire see, for instance, Uday Singh Mehta, *Liberalism and Empire: A Study in Nineteenth-Century British Liberal Thought*, Chicago and London: The University of Chicago Press, 1999; Jennifer Pitts, *A Turn to Empire: The Rise of Imperial Liberalism in Britain and France*, Princeton: Princeton University Press, 2005. For the relationships between empire and gender see Durba Ghosh, *Sex and the Family in Colonial India: The Making of Empire*, Cambridge: Cambridge University Press, 2006; Philippa Levine (ed.), *Gender and Empire*, Oxford: Oxford University Press, 2004; Ann Laura Stoler, *Carnal Knowledge and Imperial Power: Race and the Intimate in Colonial Rule*, Berkeley: University of California Press, 2002.

6 Simon Schaffer *et al.* (eds.), *The Brokered World: Go-Between and Global Intelligence, 1770–1820*, Sagamore Beach, MA: Science History Publications, 2009; Kapil Raj, *Relocating Modern Science: Circulation and Construction of Knowledge in South Asia and Europe, 1650–1900*, Houndmills and New York: Palgrave Macmillan, 2007; David Arnold, *The Tropics and the Travelling Gaze: India, Landscape and Science, 1800–1856*, Seattle: University of Washington Press, 2006; Neil Safier, *Measuring the New World: Enlightenment Science and South America*, Chicago and London: The University of Chicago Press, 2008; Londa Schiebinger, *Plants and Empire: Colonial Bioprospecting in the Atlantic World*, Cambridge, MA: Harvard University Press, 2004; Sujit Sivasundaram, *Nature and the Godly Empire: Science and the Evangelical Mission in the Pacific*, Cambridge and New York: Cambridge University Press, 2005; Richard Drayton, *Nature’s Government: Science, Imperial Britain and the ‘Improvement’ of the World*, New Haven: Yale University Press, 2000; Rod Edmund, *Leprosy and Empire: A Medical and Cultural History*, Cambridge: Cambridge University Press, 2007; Harold J. Cook, *Matters of Exchange: Commerce, Medicine and Science in the Dutch Golden Age*, New Haven: Yale University Press, 2007.

7 For the phrase ‘multi-sited histories’ see Warwick Anderson, ‘Postcolonial histories of medicine’, in Frank Huisman and John Harley Warner (eds.), *Locating Medical History: The Stories and Their Meanings*, Baltimore and London: Johns Hopkins University Press, 2004, 287.

science. The indigenous, the vernacular, translations, go-betweens, contact zones, travels, peripatetic officials, bio-prospectors, dialogue, exchange, collaboration, networks, webs, connections, circulation and capital have emerged as crucial categories in understanding the making of modern science. These recent works have built upon earlier engagements of histories of science and medicine with postcolonial thought. Like the works of Mary Louise Pratt, David Arnold, Megan Vaughan, Warwick Anderson and Gyan Prakash in the 1990s, these recent projects have continued to reveal how modern scientific knowledge was engendered by the apparatus and exigencies of imperial rule.⁸ Ishita Pande's recent book, for instance, has highlighted the intertwined careers of race, liberalism, vernacular print and medicine in nineteenth-century colonial Bengal.⁹

This essay focuses on two most recent books published in 2010 on the theme of medicine and empire. Mark Harrison and Pratik Chakrabarti are both experts of long-standing repute in the overlapping histories of science, medicine and colonialism. Deviating from the predominant emphasis on the nineteenth century in the existing histories of colonial medicine, these books revolve primarily around the eighteenth century. Harrison and Chakrabarti celebrate as well as critique certain enduring assumptions associated with 'new imperial histories'. This essay identifies some of the themes which feature most recurrently in these two books. Our task here is to situate these themes within the persisting conversations between 'new imperial histories' and histories of science and medicine. In so doing we hope to be able to locate the extent to which these books transgress the set contours of the existing literature.

Both these books grapple extensively with the themes of circulation and connection. Histories of connection acquire various forms. Although hesitant to describe his book as a work in connected or comparative history (p. 15), Chakrabarti provides a pioneering account of the ways in which Coromandel (in the East Indies) and Jamaica (in the West Indies) were bound intimately by the whims and demands of colonial medicine. He explores the ways in which the histories of Jamaican bathing waters and Tanjore pills, Jamaica simples and South Indian country medicine, can be written in relation to one another. Chakrabarti connects the histories of slavery, mining, plantations and colonialism to situate the eighteenth-century West Indies as an arena of cross-cultural exchange between Europeans, Africans and Amerindians. He traces the chequered paths through which the followers of Pietism, Moravians and Orientalists, among other

8 Mary Louise Pratt, *Imperial Eyes: Studies in Travel Writing and Transculturation*, London: Routledge, 1992; David Arnold, *Colonizing the Body: State Medicine and Epidemic Disease in Nineteenth-Century India*, Berkeley, Los Angeles and London: University of California Press, 1993; Megan Vaughan, *Curing Their Ills: Colonial Power and African Illness*, Cambridge: Polity Press, 1991; Warwick Anderson, *Colonial Pathologies: American Tropical Medicine, Race, and Hygiene in the Philippines*, Durham, NC and London: Duke University Press, 2006; Gyan Prakash, *Another Reason: Science and the Imagination of Modern India*, Princeton: Princeton University Press, 1999.

9 Ishita Pande, *Medicine, Race and Liberalism in British Bengal: Symptoms of Empire*, London and New York: Routledge, 2010.

groups, circulated from the middle of the eighteenth century across the West Indies, Greenland, continental Europe and Asia.

Following the tracks of historians like Catherine Hall, Kathleen Wilson and Linda Colley, Harrison in turn examines the symbiotic interconnections between Europe and its colonial outposts. He interrogates historical narratives which have long emphasized the diffusion of scientific knowledge from the west to the rest of the world. He explores instead, for instance, how modern British medicine was itself informed by Britain's overseas imperial entanglements. He explains the indebtedness of British medicine to colonial practices like meticulous record keeping, clinical trials, dissection of the body, post mortems, mercurial therapy and so on. The return of soldiers, sailors and merchants to Britain from India, the West Indies, the Mediterranean, North America and the coastal settlements of Africa stoked fears about contagion and the importation of colonial diseases. Physicians employed by the Army, the Navy and the East India Company brought back with them newer skills of dealing with fevers, dysentery and hepatitis. They refashioned themselves as particularly equipped to treat the 'tropical invalids' who returned home from the colonies. Imperial rule thus exposed British medicine to newer opportunities, to solutions as well as to challenges. The diseases of tropical and hot climates began to be viewed in the eighteenth century as a distinct branch of medical specialism in Britain. Arguing that the distinctiveness of colonial medical discourse informed the peculiarities in colonial therapeutic practices, Harrison shows how these practices in turn informed British medical culture.

At the same time, both books caution against glorifying the reality of historical connectedness. They are aware of the implications of unbridled celebration of liberal models of exchange and globalized networks. Similar concerns have been reflected in the writings of Sarah Hodges, Shruti Kapila and Sujit Sivasundaram, who have recently critiqued the so-called 'global histories' of science and medicine.¹⁰ The centrality of processes of circulation, exchange and connections to the unfurling of global capital and colonialism has been hinted at by Mrinalini Sinha, and elaborated succinctly by Lisa Lowe.¹¹ While detailing the co-constitutive dialogical interactions between European states and their colonies, both Chakrabarti and Harrison refrain from entrenching connected histories as the most recent and cherished orthodoxy in 'critical imperial studies'. This is achieved variously. First, both books analyse cases where models concerning the easy assimilation of colonial practices and cultures in Europe do not necessarily work. For example, while the colonial therapeutic uses of mercury,

10 Sarah Hodges, 'The global menace', *Social History of Medicine*, forthcoming; Shruti Kapila, 'The enchantment of science in India', *Isis* (2010) 101, pp. 120–132; Sujit Sivasundaram, 'Sciences and the global: on methods, questions and theory', *Isis* (2010) 101, pp. 146–158. See also Michael Hardt and Antonio Negri, *Empire*, Cambridge, MA and London: Harvard University Press, 2000, pp. 150–156.

11 Lisa Lowe, 'The intimacy of four continents', in Ann Laura Stoler (ed.), *Haunted by Empire: Geographies of Intimacy in North American History*, Durham, NC: Duke University Press, 2006, pp. 191–212; Mrinalini Sinha, *Specters of Mother India: The Global Restructuring of an Empire*, Durham, NC: Duke University Press, 2006, pp. 23–106, 266.

'Goa stone' and camphire affected British medicine itself, bleeding or antiphlogistic practices, nitric acid therapy, Tanjore pills and *Swietenia* barks were either eventually discredited, abandoned or used in a considerably discriminating way. Second, Chapter 5 in Chakrabarti's book is particularly strong in detailing how exchange and exploitation, dialogical practices and penal cultures, assimilation and marginalization (of practices associated with *dubhashes*, black doctors and slaves) went on simultaneously. In Chapter 6, Chakrabarti shows the ways in which colonial associations were effaced deliberately when therapeutic substances circulated from the colonies to Europe. These substances often resurfaced in Europe as objects without history. In Europe, colonial therapeutic cultures were frequently denied the status of respectable scientific practice. They were instead projected as clusters of information or raw materials which would be judged, processed, filtered and repackaged, as components of metropolitan knowledge at the 'centres of calculation' in Europe. Finally, both books warn that overemphasizing the themes of connection and circulation might convey the illusion of an analytically flat world. The challenge pursued by them is to reveal the hierarchies and differences between Europe and its colonies, and among the colonies, while tracing networks of contact and correspondence.

Chakrabarti and Harrison should be lauded for reintroducing, in various degrees, questions concerning materials and materialism to the histories of colonial medicine. Harrison's narrative is dotted with a series of substances ranging from air, the 'root of the Mezereon', Peruvian barks, mercury and nitric acid to Tanjore pills, Goa stone and camphire. However, Chakrabarti situates the question of materialism as a more fundamental problematic in explaining the trajectories of colonial therapeutics. Like Richard Drayton's recent article on imperial maritime travel, the emphasis on materialism enables Chakrabarti's work to go beyond the methodological confines of discourse analysis and history of ideas.¹² The word 'material' figures in Chakrabarti's book in two different ways. At one level, it is a euphemism for the existential. He argues, for instance, that colonial therapeutics was necessitated by the existential quest for survival (and the mitigation of wounds, diseases, estrangement and so on) in the relatively uncharted depths of colonial landscapes. At another level, the word 'material' is explicated by detailing a series of overlapping practices indispensable to commercial profit, natural-historical knowledge and military conquest. He shows how the ingredients of colonial therapeutics were derived from a myriad of cosmopolitan contacts established by Europeans in the colonial plantations, fortresses, gardens, bazaars, ports, hinterlands and hospitals. For Chakrabarti, materialism was not an unchanging, self-evident reality which existed perennially but was instead a product of interactions between vernacular translators, Indian trading agents, British surgeons, German missionaries, Tamil texts, local medicinal herbs, pirates, minerals, bullion, bazaars, spices, recalcitrant Maroons, coolies, *obeahs*, *doolies*, *dubhash*, displaced slaves and

12 Richard Drayton, 'Maritime networks and the making of knowledge', in David Cannadine (ed.), *Empire, the Sea and Global History: Britain's Maritime World, c.1763–c.1840*, Basingstoke: Palgrave Macmillan, 2007, pp. 72–82.

transplanted plants. The admiring reader would, however, have appreciated a deeper exploration of the links between histories of materialism and capital, which are hinted at subtly throughout the work. This book could have benefitted further from engaging with the works of Andrew Pickering, Frank Trentmann, Scott Kirsch and Don Mitchell, who have hinted variously at the co-production of the social and the material.¹³ Subsequent works on colonial therapeutics would perhaps build upon the ground opened up by these books to examine critically the burgeoning literature in sociology, anthropology and science studies about the careers of things, objects and actants.¹⁴ How imperial structures would look once the vitality of objects has been acknowledged is a question worth pursuing in future research.

Implicit in these books is an effort to disaggregate the various processes through which the category 'medical' was framed over time. Often reified now as a discipline-defining category, the 'medical' was hardly considered a preordained entity in the eighteenth century. Both Harrison and Chakrabarti are at their best while revealing the concatenation of practices and discourses associated with commerce, politics, dissenters, missionaries, natural history, war, settlement, plantation, the Navy and the Army in constituting the 'medical'. They show elaborately how a range of therapeutic substances were extracted from various sources through exploitative colonial practices. Both books are hesitant, however, to subject the self-evidence of therapeutic efficacy to scrutiny under a constructivist lens. Besides enabling Europeans to access eclectic curative resources, colonial politics were also instrumental in shaping shifting perceptions of diseases. Apart from Harrison's masterful account regarding debates about the contagious character of yellow fever, these two books have relatively little to offer on these questions.

Harrison and Chakrabarti explore imperial history to pursue distinct but overlapping historiographical concerns. Harrison argues that colonial medicine in British India was engendered by Englishmen who were denied opportunities and exclusivist privileges at home. Overseas imperial projects, he shows, were driven by idealism for reform in religion, commerce and politics, which the establishments in England had long resisted. Harrison conceptualizes empire as a network of dissenters. These 'dissenters' included members of the so called 'Celtic fringe', Presbyterians, Quakers and Unitarians who formed alliances in the colonies with followers of Pietism and Moravian missionaries

13 Frank Trentmann, 'Materiality in the future of history: things, practices and politics', *Journal of British Studies* (2009) 48, pp. 283–307, 297–300; Scott Kirsch and Don Mitchell, 'The nature of things: dead labor, nonhuman actors, and the persistence of Marxism', *Antipode* (2004) 36, pp. 687–705, 688; Andrew Pickering, 'The mangle of practice: agency and emergence in the sociology of science', *American Journal of Sociology* (1993) 99, pp. 559–589, 559–576.

14 Wim van Binsbergen, 'Things, agency, and identities: introduction', in Wim van Binsbergen and Peter Geschiere (eds.), *Commodification: Things, Agency and Identities: The Social Life of Things Revisited*, Berlin, Münster, Vienna and London: LIT Verlag, 2005, pp. 9–51; Nicholas Thomas, *Entangled Objects: Exchange, Material Culture and Colonialism in the Pacific*, Cambridge, MA: Harvard University Press, 1991. For her explication of 'materio-semiotic actors' see Donna Haraway, 'Situated knowledges: the science question in feminism and the privilege of partial perspective', in Mario Biagioli (ed.), *The Science Studies Reader*, London: Routledge, 1999, pp. 172–188.

from northern Europe and America. Empire, at least initially, was meant to question the status quos of the established regimes at home, while asserting newer orthodoxies abroad. Here Harrison seems inspired, in part, by the caution of ‘new imperial histories’ (particularly Stoler and Cooper’s) against the conception of a monolithic imperial Europe collectively asserting hegemony over the colonial world.¹⁵ Chakrabarti’s narrative, on the other hand, analyses the aggravating dichotomies between European centres and the colonies, between the imperial core and the peripheries. Chakrabarti focuses on how imperial medical men were propelled by the desire for profit, violence and conquest. His book details the ways in which empire was predicated on cultures of exploitation, extraction and alienation. Imperial processes, he argues, oversaw the transformation of colonial ‘localities’ into ‘hinterlands ... to provide tributes to an increasingly insatiable centre’ (p. 206). In so doing, he tends to inherit the analytical binaries (that is, East–West, core–periphery) evident in the works of Marxist scholars such as the proponents of dependency theory.

Interactions between ‘new imperial histories’ and histories of science and medicine have yielded various methodological questions. Read together, these two books reveal some of these conceptual concerns. First, what are the ways of critiquing empire without necessarily augmenting it as omnipotent or homogeneous? How can histories of inequality and exploitation be written while acknowledging dialogical exchanges between disparate groups of people? Where could one locate narratives of imperial violence and extraction beyond predictable structural binaries like West versus East, core versus periphery, Europe versus colonies? Some historians have addressed these questions since the mid-1990s by decentering a notion of power which tends to polarize the omnipotent and the vulnerable, the prowling European imperialist agent and the hapless colonial victim, the core and the periphery. One needs perhaps to re-emphasize the merits of Foucauldian treatments of power (as decentralized, intimately dispersed, repressive and yet productive of subjectivities) in unravelling the textures of empire.¹⁶ Given the relevance of categories like the corporeal, the biological and the animal in recent critiques of biopolitics (particularly Giorgio Agamben and Roberto Esposito), historians of medicine, science and natural history could have a great deal more to contribute. Second, what are the ways to construct symmetrical, irreducible yet interconnected histories of colonial materials, medical knowledge, and imperial power? Here one could hope for deeper engagement of forthcoming histories of empire with assemblage theory, object histories and debates between actor-network theory and social constructivism. Finally, how can differences and incommensurability across cross-cultural, interlingual contexts be emphasized without stereotyping and exoticizing the ‘other’? This inspires detailed exploration of the ways in which labels like

15 Stoler and Cooper, ‘Between metropole and colony’, op. cit. (3).

16 See especially Ann Laura Stoler, *Race and the Education of Desire: Foucault’s History of Sexuality and the Colonial Order of Things*, Durham, NC and London: Duke University Press, 1995; Anne McClintock, *Imperial Leather: Race, Gender and Sexuality in the Colonial Conquest*, London: Routledge, 1995; Timothy Burke, *Lifebuoy Men, Lux Women: Commodification, Consumption and Cleanliness in Modern Zimbabwe*, Durham, NC: Duke University Press, 1996.

'vernacular', 'indigenous' and 'local' are constructed, imposed, internalized, resisted and inhabited.¹⁷ Alongside narratives of victimization and marginalization, historians should therefore continue to explore cultures of translation, consumption, resistance and reappropriation.¹⁸

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17 On the theme of locality in science studies see David Wade Chambers and Richard Gillespie, 'Locality in the history of science: colonial science, technoscience and indigenous knowledge', *Osiris* (2000) 15, pp. 221–240; For a recent summary see Kapil Raj, 'Introduction: circulation and locality in early modern science', *BJHS* (2010) 43, pp. 513–517. On the politics of the vernacular in colonial medicine see Projit Bihari Mukharji, *Nationalizing the Body: The Medical Market, Print and Daktari Medicine*, London and New York: Anthem Press, 2009.

18 For an analysis of recalcitrant 'tactics' of consumption see Michel de Certeau, *The Practice of Everyday Life*, Los Angeles and London: University of California Press, 1984.