



RESEARCH ARTICLE

When Scottish medicine hospitalized Indian magic: Dr James Esdaile's mesmeric surgery in mid-nineteenthcentury Bengal

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Abstract

In order to explore the ways knowledge travels across spatial and cultural boundaries, this article focuses on the intriguing case of the Edinburgh-trained Scottish surgeon James Esdaile (1808–59), who, after practising conventional surgery for almost fifteen years in British colonial India, quite unexpectedly turned to mesmeric anaesthesia in the last five years of his service. By following his career and his mesmeric turn, the article describes Esdaile's subsequent public experiments in mesmeric anaesthesia in collaboration with indigenous practices and practitioners of trance induction in the 1840s which led to the creation of a special mesmeric hospital in Calcutta. Although very successful, it eventually ceased to function, apparently victim to new and cheaper chemical anaesthetics. Mobilizing the insights of science studies scholarship into the processes of scientific experimentation, this article seeks to shed new light on the necessary professional, social and political investments for the making and mobility of scientific knowledge across social and cultural boundaries in a colonial setting.

If history creates complexities, let us not try to simplify them.

Salman Rushdie¹

Hooghly, 4 April 1845: the humdrum of a normal day in the erstwhile capital of Mughal Bengal – and at the time the district headquarters of the British colonial administration, about forty kilometres upstream of Calcutta – was broken by an unusual happening at a local hospital. Having spent fourteen years as a medic in colonial India and without any previous knowledge of the technique, Doctor James Esdaile, the civil surgeon, was attempting to mesmerize a local prisoner writhing in pain from a double scrotal hydrocele before operating on him – a first in any hospital setting in India, and, at any rate, not a common procedure at the time anywhere in the world. Furthermore, as if this were not unique enough, almost exactly two months later, on the evening of 9 June, the same James Esdaile arranged to meet with an indigenous magician, a practitioner in the art of assuaging pain in patients suffering from various ailments, to compare their respective procedures. It is worth citing in full his account of this meeting as he recorded it in his journal:

¹ Salman Rushdie, Imaginary Homelands: Essays in Criticism, 1981-1991, London: Granta, 1991, p. 65.

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I had to-day the honour of being introduced to one of the most famous magicians in Bengal, who enjoys a high reputation for his successful treatment of hysteria, and had been sent for to prescribe for my patient (whose case will be afterwards given), but came too late; the success of my charm, Mesmerism, having left him nothing to do. Baboo Essanchunder Ghoshaul, deputy magistrate of Hooghly, at my request introduced me to him as a brother magician, who had studied the art of magic in different parts of the world, but particularly in Egypt, where I had learned the secret of the great Sooleymann, from the moollahs and fuqueers, and that I had a great desire to ascertain whether our charms were the same, as the hakeems of Europe held the wise men of the East in high estimation, knowing that all knowledge had come from that quarter. I proposed that we should show each other our respective charms, and, after much persuasion, he agreed to show me his process of assuaging pain. He sent for a brass pot, containing water, and a twig with two or three leaves upon it, and commenced muttering his charms, at arm's length from the patient. In a short time he dipped his fore-finger into the water, and, with the help of his thumb, flirted it into the patient's face; he then took the leaves, and commenced stroking the person from the crown of the head to the toes, with a slow drawing motion. The knuckles almost touched the body, and he said he would continue the process for an hour, or longer, if necessary; and it convinced me that, if these charmers ever do good by such means, it is by the Mesmeric influence, probably unknown to themselves. I said that I was convinced of the great efficacy of his charm, and would now show him mine; but that he would understand it better if performed on his own person. After some difficulty, we got him to lie down, and, to give due solemnity to my proceedings, I chaunted, as an invocation, the chorus of 'King of the Cannibal Islands!^[2] I desired him to shut his eyes, and he clenched his eyelids firmly, that I might find no entrance to the brain by that inlet. In a quarter of an hour he jumped up, and said he felt something disagreeable coming over him, and wished to make his escape. He was over-persuaded to lie down again, however, and I soon saw the muscles around his eye beginning to relax, and his face became perfectly smooth and calm. I was sure that I had caught my brother magician napping, but, in a few minutes, he bolted up suddenly, clapped his hands to his head, cried he felt drunk, and nothing could induce him to lie down again; 'abiit, excessit, evasit, erupit!'.[3] Next day I saw him, and said, 'Well, you were too strong for my charm last night, I could not put you to sleep.' 'Oh! yes, Sahib,' he answered, 'you did; I allow it; it is allowed that you put me to sleep.'4

A very strange meeting indeed, a real outlier when compared with most intercultural encounters in the South Asian context, but one that was highly publicized through the writings of Esdaile himself as well as through the attention he garnered for his surgical operations under the influence of mesmerism – several hundred in Hooghly and later in Calcutta between 1845 and 1851. He even succeeded in running a hospital in Calcutta for a few years entirely dedicated to mesmeric surgery, the only one of its kind in the British Empire and a rare occurrence anywhere in the world. Although

² 'The King of the Cannibal Islands' was a popular broadside ballad in mid-nineteenth-century Scotland, a telling illustration of superior British attitudes which portrayed non-Europeans as polygamous cannibals with little regard to European mores. The chorus goes, 'Hokee pokee wonkee fum, / Puttee po pee kaihula cum, /Tongaree, wougaree, ching ring wum, / The King of the Cannibal Islands.'

³ This quotation from Cicero, *In Catilinam (c.*63 BC), Speech 2, #1, translates literally as 'He left, withdrew, escaped, disappeared!'

⁴ James Esdaile, Mesmerism in India, and Its Practical Application in Surgery and Medicine, London: Longman, Brown, Green and Longmans, 1846, pp. 21–3.

overlooked by most historians of science and medicine in colonial India, this episode has not escaped the attention of recent postcolonial scholarship. Arguing that the same violent processes that produced colonial power also produced scientific knowledge, these scholars have framed the encounter described above along with James Esdaile's whole mesmeric project as a theatrical performance, an instance of Western science's condescending attitudes towards traditional medical practices in its drive to 'colonize' Indian bodies.⁵ A similar line is also followed by Alison Winter, the one historian of science who in recent years has studied Esdaile in some detail.⁶ And, indeed, a prima facie reading of the above passage might lend some credence to this interpretation. We shall return to this aspect in some detail in the discussion later.

However, let us first consider some of the questions this extraordinary passage raises for the historian of science and medicine. For instance, given the sense of superiority commonly recognized amongst Europeans in general and colonial administrators and technical personnel in particular, we should not expect Esdaile to seek out an indigenous magician – introducing himself in fraternal terms, to boot – to compare their respective knowledges and practices. In the first place, what would have attracted an Edinburgh-trained senior surgeon in the colonial administration in India to mesmerism, a phenomenon of questionable reputation amongst many in the medical establishment in both Britain and its colonies? How did Esdaile learn about mesmerism thousands of miles away from its place of elaboration, especially the exact procedures to perform it without the ability to witness them directly? How did he then try and replicate these procedures in the distant tropics and what did it take for him to succeed? How did his unorthodox practices go down with the indigenous population, with his colleagues in the colonial medical establishment, with the colonial authorities and with the world beyond?

These, and other related questions, take on a special interest in light of the abiding problem faced in recent years by historians of science and science studies scholars: how do knowledge and knowledge practices move from their place of elaboration to other locations and what sorts of investment need to be made in order for them to successfully take root elsewhere?⁷ Indeed, as the positivist foundations of the history of science weakened in the 1970s and 1980s, attention radically shifted from recounting its inexorable progress, which was grounded in a perception of knowledge as being disembodied and universal – an 'everywhere-and-nowhere' view – to demonstrating the crucial importance of the historical, cultural, social, gendered and geographical contexts of its production.⁸ Contingencies of place thus came to acquire key importance in recent sociological and historical studies of science.⁹ In this post-positivist view, the primacy of universality over locality has been reversed: the question of science's claim to universality – the process of the spread of ideas, texts, practices, norms, instruments, procedures and

⁵ See Chandak Sengoopta, 'Treacherous minds, submissive bodies: corporeal technologies and human experimentation in colonial India', in Rohan Deb Roy and Guy Attewell (eds.), *Locating the Medical: Explorations in South Asian History*, Oxford: Oxford University Press, 2017, pp. 47–70; and Gyan Prakash, 'Science "gone native" in colonial India', *Representations* (1992) 40, pp. 153–78.

⁶ Alison Winter, *Mesmerized: Powers of Mind in Victorian Britain*, Chicago: University of Chicago Press, 1998, pp. 187–212.

⁷ Steven Shapin and Simon Schaffer, Leviathan and the Air-Pump: Hobbes, Boyle, and the Experimental Life, Princeton, NJ, Princeton University Press, 1985, Chapter 6, 'Replication and its troubles', pp. 225–82.

⁸ Steven Shapin, 'Placing the view from nowhere: historical and sociological problems in the location of science', *Transactions of the Institute of British Geographers* (1998) 23, pp. 5–12; Donna Haraway, 'Situated knowledges: the science question in feminism and the privilege of partial perspective', *Feminist Studies* (1988) 14, pp. 575–99.

⁹ Jan Golinski, Making Natural Knowledge: Constructivism and the History of Science, Cambridge: Cambridge University Press, 1998; David Livingstone, Putting Science in Its Place: Geographies of Scientific Knowledge, Chicago: University of Chicago Press, 2003; Charles W. Withers, Placing the Enlightenment: Thinking Geographically about the Age of Reason, Chicago: University of Chicago Press, 2007.

protocols from their site of invention – has been reformulated and has itself become an object of historical, social and political inquiry. Circulation has thus become a crucial problematic. Science is then not simply diffused thanks to its universal nature, but is locally created, and only subsequently, through a series of investments and deliberate strategies, does it become mobile and circulate beyond its site of elaboration. These have been variously identified in literary technologies of dissemination, the standardization of measurement, corporeal discipline and centres of calculation.¹⁰

However, there are two caveats to bear in mind here. First, these mechanisms are said to apply to those knowledges and practices that are already standardized before they can move beyond their place(s) of elaboration. However, in the case of mesmerism there was no standardized, disciplined practice prior to its circulation, at least during the period under consideration here. Like several other 'open-air' scientific practices, it was elaborated, as we shall see, through process of circulation and interaction with practices specific to the respective localities where it was used.¹¹

Second, these mechanisms of dissemination have until recently been studied within the limits of what is intuitively labelled 'Western science'. Beyond these frontiers, Western science is supposed either to freely spread and be received purely because of its universal validity, or else to suddenly hit the glass wall of 'traditional' or 'indigenous' knowledges of non-Western societies. Intercultural knowledge encounters in history are thus preponderantly conceived in agonistic terms: of hegemonic (imperial-colonial) domination, of resistance by local cultures, or again of mimicry or 'hybridized' capitulation.¹² As such they have rarely been addressed by STS scholars, instead left largely to classical colonial and postcolonial social, cultural and political historians. However, there has been a growing trend amongst historians of twentieth-century science to move away from the traditional national or civilizational categories towards transnational, transregional and global perspectives.¹³ Equally, renewed scholarship on colonial intercultural encounters in the early modern and modern periods has convincingly argued that the very categories of colonizer and colonized are not clearly delineated in history. Instead, they were shaped and patterned through a complex saga of collisions, compromises and comings together of European societies and the many world regions they came to dominate.¹⁴

¹⁰ Steven Shapin, 'Pump and circumstance: Robert Boyle's literary technology', *Social Studies of Science* (1984) 14, pp. 481–520; Harry M. Collins, *Changing Order: Replication and Induction in Scientific Practice*, London: Sage, 1985; Bruno Latour, *Science in Action: How to Follow Engineers through Society*, Milton Keynes: Open University Press, 1987, Chapter 6, 'Centres of calculation', pp. 215–57; Simon Schaffer, 'Astronomers mark time: discipline and the personal equation', *Science in Context* (1988) 2, pp. 115–45.

¹¹ For 'open-air' science see Michel Callon, Pierre Lascoumes and Yannick Barthe, *Agir dans un monde incertain*, Paris: Le Seuil, 2001; Kapil Raj, *Relocating Modern Science: Circulation and the Construction of Knowledge in South Asia and Europe*, *1650-1900*, Basingstoke: Palgrave Macmillan, 2007. See also Raj, 'Introduction: circulation and locality in early modern science', *BJHS* (2010) 43, pp. 513–17; Raj, 'Beyond postcolonialism ... and postpositivism: circulation and the global history of science', *Isis* (2013) 104, pp. 337–47; Matheus Alves Duarte da Silva, Thomás A.S. Haddad and Kapil Raj (eds.), *Beyond Science and Empire: Circulation of Knowledge in an Age of Global Empires*, *1750–1945*, London: Routledge, 2024.

¹² The bibliography here is too vast, but see Deepak Kumar, *Science and the Raj*, New Delhi: Oxford University Press, 1995; David Hardiman and Projit Bihari Mukharji (eds.), *Medical Marginality in South Asia: Situating Subaltern Therapeutics*, London: Routledge, 2012; Gyan Prakash, *Another Reason: Science and the Imagination of Modern India*, Princeton, NJ: Princeton University Press, 1999.

¹³ Simone Turchetti, Nestor Herran and Soraya Boudia, 'Have we ever been "transnational"? Towards a history of science across and beyond borders', *BJHS* (2012) 45, pp. 319–36; John Krige (ed.), *Knowledge Flows in a Global Age: A Transnational Approach*, Chicago: University of Chicago Press, 2022.

¹⁴ Christopher A. Bayly, Imperial Meridian: The British Empire and the World, London: Longman, 1989; Stuart B. Schwartz (ed.), Implicit Understandings: Observing, Reporting, and Reflecting on the Encounters between Europeans and Other Peoples in the Early Modern Era, Cambridge: Cambridge University Press, 1994; Frederick Cooper and

Foregrounding these observations, this article focuses on the investments required for knowledge and attendant practices to travel across different cultures – and the mutations they thus undergo - in a colonial setting. It is informed by recent social studies of science as well as by renewed scholarship on colonial intercultural encounters, and deploys both scientific knowledge and colonialism as resources rather than as static structuralist categories. We start by presenting what we know of Esdaile's early experiences in India and his turn to mesmeric anaesthesia in surgery. We consider how this became institutionalized in Calcutta between 1845 and 1850 through both long- and short-range circulations of ideas and practices, as well as the reactions and controversies to which it gave rise. We then go on to demonstrate the limitations inherent in the models of knowledge diffusion presented by the recent postcolonial scholars and historians of science discussed above. In their stead, and inspired by recent reflections on the role of public performance in the making of scientific knowledge, we suggest an alternative understanding of Esdaile's encounter with indigenous magic. We thus hope to provide a meaningful narrative of the making and mobility of science through processes of circulation and intercultural encounter, as well as the dynamic role of the asymmetries of the colonial situation.

A Scottish surgeon in colonial India ...

The eldest son of a Church of Scotland minister, James Esdaile was born in Montrose in 1808. He studied medicine at the University of Edinburgh, obtaining an MD in 1829 with a dissertation on narcotics.¹⁵ As he suffered from chronic bronchitis and asthma, he was advised to live in a tropical climate. Through his various contacts he was successful in securing a junior, but nonetheless lucrative, position in the medical services of the British East India Company as assistant surgeon in 1831. Apart from the fact that he served in Azamgarh in central north India, little is known of those early years, which seem to have passed uneventfully. However, continued ill health forced him to take long leave for three years, from 1836 to the end of 1838. During this period, he travelled back to Britain, using the sea-cum-land route via Egypt and continental Europe.¹⁶

Soon after his return to India, Esdaile was posted as civil surgeon at Hooghly in early 1839.¹⁷ In addition to his duties, which included running the hospital attached to the town's jail, he also oversaw the functioning of the Imambarah Hospital and College – created by prominent Bengali Shi'a Muslim philanthropist Muhammad Mohsin (1732–1812), and managed by the East India Company – which was at the time under the charge of Dr Badan Chander Chaudhari, a graduate of the Calcutta Medical College.¹⁸ Esdaile's first years at Hooghly seem to have been as uneventful as his earlier stint in upper India, his activities having left few traces other than three letters written in

Ann Laura Stoler (eds.), *Tensions of Empire: Colonial Cultures in a Bourgeois World*, Berkeley: University of California Press, 1997.

¹⁵ University of Edinburgh, List of the Graduates in Medicine in the University of Edinburgh from MDCCV to MDCCCLXVI, Edinburgh, 1867, p. 87.

¹⁶ On returning to India, he published his voyage circumnavigating India to the Red Sea and his onward journey through Egypt, Italy, Switzerland and the Rhine valley in epistolary form. See James Esdaile, *Letters from the Red Sea, Egypt and the Continent*, Calcutta: Medical Journal Press, 1939.

¹⁷ Calcutta Gazette, 7 February 1839, sourced from Dirom Grey Crawford, 'James Esdaile', *Bengal Past and Present* (1910) 5, pp. 52–65, 52. For a history of the town and district of Hooghly see Crawford, *A Brief History of the Hughli District*, Calcutta: Bengal Secretariat Press, 1902; for the medical topography of Hooghly see Crawford, *Hughli Medical Gazetteer*, Calcutta: Bengal Secretariat Press, 1903.

¹⁸ Crawford, Hughli Medical Gazetteer, op. cit. (17), p. 308. For Imambarah Hospital, see ibid., pp. 306–16.

1844 from Hooghly to his senior colleague and friend, Dr John Grant (1794-1862), superintending surgeon of Bengal, then on leave in Britain. The letters show him to be a well-read man with a wry sense of humour, at ease in French and Latin. We learn he had his eyes set on a more important medical appointment in Calcutta – a professorship at the Calcutta Medical College, for example - anything to get him away from what he called 'the wretched and obscure village' of Hooghly.¹⁹ We know from his earlier writings, especially from his travelogue, that he found the summer heat unbearable and life in provincial India torpid and monotonous amid largely self-indulgent and irresponsible colleagues. And while he reckoned that Indians 'have great quickness of apprehension, wonderful application, retentive memories ... are very curious, and [can] make rapid progress in our language, and knowledge', they were 'exclude[ed] from places of trust, and emolument', by the heavy exactions of irresponsible government 'and by the grinding of the poor by the rich'. Also, he found the Indian lower classes 'hideous', but attributed this to 'hard work, exposure and bad food'. Nevertheless, he staunchly believed in the long-term civilizing benefits of the British colonial enterprise as long as it was based on 'general education, and the introduction of our arts and sciences'.²⁰

Nothing out of the ordinary can be gleaned from Esdaile's professional activity in these early years. We learn from an article he published in 1845 in the Indian Medical Journal – reprinted soon after in the Boston Medical and Surgical Journal – that he had treated two cases of European patients suffering from non-secretion of bile using innovative, yet conventional, remedies.²¹ In another reprint in the same issue of the Boston journal, he relates a remarkable case of aneurism by anastomosis where he was led as a last resort to operate on a prisoner for a tumour on his head in order to save his life. If the operation itself was particularly daring, long and complicated, the procedure and post-operative medical care were yet again conventional.22 And although he makes no mention of pain in either report, we learn from some of his other writings that he had to perform many operations in which the patients suffered from intense pain and, often, fatal postoperative trauma, eventually leading to a very high mortality rate – around 50 per cent – common for operations of this importance.²³ Esdaile describes one such case soon after his arrival in Hooghly: 'a peasant was brought to the hospital with a prolapsus ani, the size of a pint bottle, that had been down for several days. Cold and astringent lotions were applied to the part for many hours, and he was suspended by the heels as long as he could bear it, before an attempt was made to return the protruded part. The most persevering efforts at reduction were continued for two days in vain, and the man was carried home by his friends to die miserably'.²⁴

¹⁹ The three letters are reproduced in Crawford, 'James Esdaile', op. cit. (17), pp. 58–65. On the allusion to the Calcutta Medical College see Letter 2 in ibid., p. 61. Quote from Crawford, *Hughli Medical Gazetteer*, op. cit. (17), p. 200.

²⁰ Esdaile, op. cit. (16), pp. 23, 24, 28.

²¹ James Esdaile, 'Non-secretion of bile for a long period', Boston Medical and Surgical Journal (1845) 32, pp. 221-2.

²² James Esdaile, 'Aneurism by anastomosis', Boston Medical and Surgical Journal (1845) 32, pp. 222-3.

²³ The statistics concerning post-operative mortality are telling: 'We learn that among five patients, four of whom underwent primary amputation, three died.' Charles Alexander Gordon, *Experiences of an Army Surgeon in India*, London: Baillière, Tindall, and Cox, 1872, p. 9. And even though one might want to take Esdaile's self-stated spectacular decrease in mortality with a pinch of salt, there was broad agreement on the substantial low-ering of post-operative deaths in the Mesmeric Hospital.

²⁴ James Esdaile, The Introduction of Mesmerism, as a Curative and Anaesthetic Agent, into the Hospitals of India, Perth: Dewar and Son, 1852, p. 33.

... Turns magnetic ...

It was the search for a means 'of alleviating ... suffering among the natives of Bengal' that brought Esdaile's attention to mesmerism through the writings of Dr John Elliotson (1791–1868), professor of the principles and practice of medicine at University College London and senior physician at the University College Hospital.²⁵ A brilliant physician and teacher whose life was hallmarked by unorthodox tendencies, Elliotson had a vast public following, including among contemporary literati - Wilkie Collins, Charles Dickens, George Eliot, Harriet Martineau and Edgar Allan Poe, to name some. A champion of phrenology – having founded the London Phrenological Society in 1823 – he was also one of the earliest to introduce the stethoscope in Britain. Elliotson's tryst with mesmerism dated from the autumn of 1837 when, on closely observing the demonstrations in London of the Frenchman Jules Denis Dupotet (1796–1881), he began using it to relieve his patients of pain in surgery.²⁶ However, his penchant for public spectacle which attracted huge audiences, including celebrities and royalty, led to a series of serious controversies with his colleagues. A lasting antagonism towards mesmerism from the Lancet's founder-editor, Thomas Wakley (1795-1862), exacerbated the hostility of a naturally conservative medical establishment, and culminated in an eventual ban on practising mesmerism in the hospital's wards. Undaunted, Elliotson continued using it in his private practice and spent his personal fortune to launch and edit *The Zoist*, a widely read quarterly periodical, published between 1843 and 1855 and devoted to phrenology and mesmerism. It carried contributions from Herbert Spencer and Sir Richard Burton, among others.

In his wide readings around mesmerism and its history going back to the French Commission of 1784, Esdaile was particularly struck by a recent request from the Archbishop of Lausanne and Geneva to the Pope asking whether Rome would permit the generalized use of animal magnetism in his diocese. He remarked that while Rome summarily rejected the request, the judgment did not contest the facts – that is, the reality of mesmeric or magnetic phenomena – rather it was based purely on the dread that it was 'probably of diabolic origin'.²⁷

Esdaile began to understand mesmerism as not 'a new and unnatural art', concluding,

there is every reason to believe that it is the oldest and most natural mode of curing many of the severe, uncomplicated diseases of the human race ... Like other animals who instinctively rely on natural surroundings to find cures for their ailments, Man too had probably some instinct by which he was directed to a natural medicine of sovereign virtue ... If the Mumbo Jumbo men of Africa, the medicine men of America, and the charmers of this country, ever succeed in relieving their patients (and [in India] they do), I am disposed to think that it is generally in cases curable by Mesmerism ... Mesmerism is actually practised in [India], and has probably been so since time immemorial, like every other custom in this immutable society.²⁸

 $^{^{25}}$ Letter dated 1 February 1846, from James Esdaile to his father, the Reverend James Esdaile, reprinted in Esdaile, op. cit. (4), p. v; the quote is on p. 40.

²⁶ Elliotson was not the first to use mesmerism as an anaesthetic in surgery. The French surgeon Jules Germain Cloquet (1790–1883) had already used it to remove a woman's cancerous breast in Paris in 1829. Cf. Jules Germain Cloquet, 'Ablation d'un cancer du sein pendant un sommeil magnétique', *Archive générale de médecine*, série 1 (1829) 20, pp. 131–4.

²⁷ Esdaile, op. cit. (4), pp. 35–40, quote on p. 40. On Rome's position see David Armando, 'The 19th century debate on animal magnetism viewed from Rome: the Holy Office's decrees', *Laboratorio del'ISPF* (2022) 19(11), pp. 1–56.

²⁸ Esdaile, op. cit. (4), pp. 17–21. Esdaile was not alone, nor the first, in believing in the universality of mesmeric phenomena. The belief in the equivalence between animal magnetism and magical practices everywhere, including the past, since at least the 1780s was widely shared: Jacques Cambry, *La vision contenant l'explication de*

While eschewing all theoretical speculation about what he called the 'metaphysics of mesmerism', he reckoned that the body's 'vital powers' 'of one person can be poured into the system of another', contrary to the widespread belief amongst most European medics of their being confined within the body's limits.²⁹ The medic's role, 'instead of doubting or dogmatising about Mesmerism', was, then, to put his convictions to the test – 'for it is a thing to be *done*, and not talked of only'. The subject needed to be taken up experimentally, 'without previous knowledge of it, and having no theories to make or defend, that the truth or falsehood of Mesmerism may be speedily decided'.³⁰

Conscious of the hostility of his own medical hierarchy in Britain, and even amongst his colleagues in India, Esdaile resolved to find out the truth for himself on the first favourable opportunity – which, in order to avoid any suspicion of contrivance and complicity between him and the patient, entailed finding a patient who would fulfil at least the following five conditions:

I. The purely accidental and unpremeditated nature of the experiment.

II. All want of consent between the parties.

III. The operator's want of belief in his own power; for I had never seen mesmerism, and all I knew about it was from scraps in the newspapers.

IV. The absolute ignorance of the patient; it being impossible that he should ever have heard of Mesmerism.

V. The impossibility, therefore, of imitating the mesmeric phenomena.³¹

The opportunity presented itself on 4 April 1845. Madhab Kaura, a low-caste, illiterate and 'ignorant' felon condemned to seven years' rigorous imprisonment in the Hooghly jail afflicted with double scrotal hydrocele, was brought to the Imambarah Hospital, where Esdaile immediately drained some of the liquid and disinfected the incision with corrosive sublimate (bichloride of mercury). Seeing the man nonetheless continue to suffer from acute pain, he decided to operate upon him under mesmerism with the help of Dr Chaudhari, who was in charge of the hospital (Figure 1). He reckoned that Kaura – 'the very worst specimen of humanity, *theoretically considered*' – provided an ideal subject for his experiment as he could never have heard of mesmerism, thus eliminating all risk of collusion between operator and subject. In addition, he fulfilled the other four conditions mentioned above.³² However, never himself having witnessed mesmerism at first hand, learning that Dr Chaudhuri had only seen it practised once 'but without effect' while a student at the Calcutta Medical College, and unable to reach the Bengali magician he was only to meet a couple of months later, he devised his own technique:

l'écrit intitulé: Traces du magnétisme, et la théorie des vrais sages, Paris: Chez Couturier, 1784; Joseph Ennemoser, Der Magnetismus nach der allseitigen Beziehung seines Wesens, seiner Erscheinungen, Anwendung und Enträthselung in einer geschichtlichen Entwicklung von allen Zeiten und bei allen Völkern wissenschaftlich dargestellt, Leipzig: F.A. Brockhaus, 1819; and Aubin Gauthier, Introduction au magnétisme: Examen de son existence depuis les Indiens jusqu'à l'époque actuelle, sa théorie, sa pratique, ses avantages, ses dangers et la nécessité de son concours avec la médecine, Paris: Dentu, 1840. Also Arthur Schopenhauer, Über den Willen in der Natur, Frankfurt-am-Main: Siegmund Schmerber, 1836. Ironically, these very similarities noticed amongst slaves, notably in the French colony of Saint Domingue, also motivated strong anti-mesmeric reactions. Cf. Kieran M. Murphy, 'The occult Atlantic: Franklin, Mesmer, and the Haitian roots of modernity', in Elizabeth Maddox Dillon and Michael J. Drexler (eds.), The Haitian Revolution and the Early United States: Histories, Textualities, Geographies, Philadelphia: University of Pennsylvania Press, 2016, pp. 145–61.

²⁹ Esdaile, op. cit. (4), p. 3.

 $^{^{\}rm 30}$ Esdaile, op. cit. (4), p. 9, original emphasis.

³¹ Esdaile, op. cit. (4), p. 41.

³² Esdaile, op. cit. (4), p. 40, added emphasis.

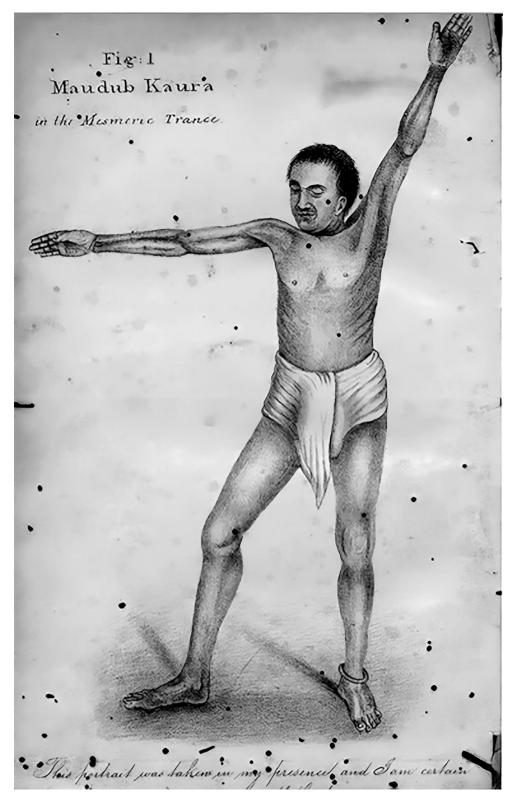


Figure 1. Madhab Kaura in a trance on 4 April 1845, as depicted in the presence of a witness who seems to have certified it (at the bottom of the page, unfortunately cut). James Esdaile, *Mesmeric Facts*, Calcutta: Ostell and Lepage, 1845 (British Library), frontispiece.

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I placed his knees between mine, and began to pass my hands slowly over his face, at the distance of an inch, and carried them down to the pit of his stomach. This was continued for half an hour before he was spoken to, and when questioned at the end of this time, his answers were quite coherent. He was ordered to remain quiet, and the passes were continued for an hour longer – still no sensible effect. Being now tired, I gave it up in despair, and declared it to be a failure.³³

Just then the man began to show signs of falling into a trance.

Esdaile lost no time in contacting the district judge and a senior tax official, who, along with his indigenous medical staff, were invited to witness the experiment, which he carried out in stages over the next eight days, each time in the presence of eyewitnesses, both European and Indian, who were to furnish written testimonies. The water having been completely and painlessly removed from the scrotum, Kaura was relieved and recovered effortlessly in a matter of days.³⁴

With tens of affidavits from reliable eyewitnesses under his arm, along with attested illustrations of the patients (such as those reproduced here), closely followed by the meeting with the local magician, Esdaile could now triumphantly declare that his experiment was a total success. In the months that followed, Esdaile successfully performed a total of seventy-three major surgical operations, including fourteen for massive scrotal tumours weighing between four and fifty kilos (Figure 2).

Indeed, 'these singular and prodigious tumours are so common in Bengal', observed Esdaile, 'that they may be considered as an endemic curse of the climate, the disease [being largely] confined to the sea-board of India'.³⁵ His technique was all the more striking when compared with what he referred to as the 'worse than useless' native treatment, which

is to make deep eschars in the tumor *sic* with red-hot charcoal balls, which often brings on an intense inflammation, deep sloughing, and fatal haemorrhage, and never, as far as I know, causing a resolution of the tumor. On the contrary, I am convinced that it accelerates its growth by the local irritation; and it causes a most vexatious complication of the case to the surgeon operating, as the testes are always adherent to these cicatrices, and often completely involved in them ... The operation for the removal of scrotal tumors, till of late, was considered so formidable, that few surgeons cared to deal with large cases.³⁶

As news of his painless method spread, Esdaile's other mesmeric operations in these first months included drainage of hydrocele, excision of tumours, amputation of limbs, mastectomies, penectomies and the occasional extraction of teeth. He also sometimes used mesmerism in medicine to treat pathologies such as headaches, tic douloureux, colic, rheumatism and eye inflammation.³⁷

³³ Esdaile, op. cit. (4), pp. 43-4.

³⁴ See, however, the independent testimony of Esdaile's colleague Dr Badan Chunder Chaudhuri printed in George Toynbee, A Sketch of the Hooghly District from 1795 to 1845 with Some Account of the Early English, Portuguese, Dutch, French and Danish Settlements, Calcutta: Bengal Secretariat Press, 1888, pp. 174–7, esp. 175. Importantly, Chaudhuri largely corroborates Esdaile's account above, but specifies that the surgery was performed by both men in tandem.

³⁵ James Esdaile, 'On the operation for the removal of scrotal tumors and c. The effects of mesmerism and chloroform compared', *London Medical Gazette*, NS (1850) 11, pp. 449–54, on 449.

³⁶ Esdaile, op. cit. (35), pp. 449–50.

³⁷ For a complete list of surgical and medical cases using mesmerism treated by Esdaile see Esdaile, op. cit. (4), pp. xxii-xxiii.



Figure 2. Hurronundo Saha, a twenty-seven-year-old patient with a scrotal tumour as large and, at fifty-three kilograms, almost as heavy, as his whole body, operated on on 14 October 1846 in the presence of Dr Duncan Stewart, Presidency surgeon and professor of midwifery at the Calcutta Medical College, whose eyewitness account of the operation appears in James Esdaile, *Introduction of Mesmerism into the Public Hospitals of India*, 2nd edn, London: W. Kent and Co., 1856, pp. 22–3. From ibid., Appendix.

Importantly, however, Esdaile performed few mesmeric manipulations himself as he was rarely successful in going beyond attaining a state of somnolence in his patients. He attributed this to the disproportional effort he had to put in given his weak health and chronic pulmonary problems.³⁸ Saving his own strength for the performance of surgery, he employed a battery of about a dozen indigenous Hindu and Muslim mesmerizers aged between fourteen and thirty years, most of them compounders and dressers from the Hooghly Hospital:

Healthy young persons, who are tractable and patient, and who will give the necessary degree of attention, can be made to work out our intentions in the most efficient manner; and I hope to make it appear that the mesmeric is a far more general gift of nature than has hitherto been supposed.³⁹

He also taught and employed some of his recovered patients as mesmerizers.⁴⁰

A separate operator was assigned to each patient. They worked in silence in darkened rooms on individual patients who, like their mesmerizers, were bare-bodied, wearing only a loincloth to cover the midriff. The operator sat behind them, leaning over and nearly in

³⁸ Esdaile, op. cit. (4), p. 10.

³⁹ Report of the Committee Appointed by Government to Observe and Report upon Surgical Operations by Dr. J. Esdaile, upon Patients under the Influence of Alleged Mesmeric Agency, Calcutta: Military Orphan Press, 1846, pp. 7, 11–12.

⁴⁰ James Esdaile, 'Second half-yearly report of the Calcutta Mesmeric Hospital, from 1st March to 1st September 1849', reprinted in John Elliotson (ed.), *Mesmerism in India, etc.*, London: Hippolyte Baillière, 1850, pp. 3–13, 11–12.

contact with their face, and made passes from the back of the head to the pit of the stomach, dwelling mainly over the eyes, nose and mouth. Although Esdaile was aware of individual variations, these were not really of concern to him.⁴¹ Indeed, as mentioned earlier, he firmly believed that beneath this plurality of techniques lay a common phenomenon known to Europeans as mesmerism. He held that while there was a considerable degree of homogeneity in the techniques that he shared with his collaborators, these contrasted to what he referred to as the 'European method', a distinction he dwelt on in some detail in his writings.⁴² What mattered to him was that the same effects be produced 'on the banks of the Thames, and the Seine, the Rhine, and the Hooghly'. Climatic differences were irrelevant: 'It is not supposed that the truth is affected by degrees of latitude', as he summarily put it.⁴³ For Esdaile, local practices, those in Europe included, were then to be conceived of as distinct and yet mutually translatable.⁴⁴ Furthermore, as he believed that mesmeric phenomena were produced through the movement of certain 'vital powers' between operator and patient, the nature of the actual rituals used or spells chanted mattered little - hence his own provocative chanting of the 'King of the Cannibal Islands' during his encounter with the magician referred to in the introduction above.

All the while, he painstakingly accumulated affidavits from eyewitnesses whom he had invited from a wide section of society in and around Hooghly, as well as from Calcutta, to attend almost all his mesmeric operations. These took place in a specially constructed operating theatre with separate spaces for trance induction and for surgery, both open to view by the invited witnesses. They included his European and Indian medical colleagues and subordinates in Hooghly, colonial civil servants, the principal of the Hooghly College and various teachers, but also physicians and surgeons from Calcutta, professors from the Calcutta Medical College, the French governor of Chandernagore, the archdeacon of Calcutta and a number of clergymen, as well as members of the Bengali elite, the *bhadralok*. As he put it,

European gentlemen, sceptical and critical, or so strong in disbelief that they would reason themselves out of the evidence of their senses, if they could; ignorant Hindus and Musulmans, who simply used their eyes and ears without an attempt at reflection, will all be found by their separate and independent reports bearing testimony to the same series of phenomena.⁴⁵

On 29 July 1845, a public exhibition was arranged at the district and jail hospitals at Hooghly, the account of which was published in the form of a letter in *The Englishman*, a Calcutta newspaper: 'The party was very numerous, two steamers having brought the curious from Barrackpore [a British military cantonment] and Calcutta', it read, 'and there was a large assemblage of the European and Native residents of Hoogly and Chinsurah [the one-time Dutch township nearby]'.⁴⁶ In a separate account, Esdaile himself mentioned that 'six medical men were of the party, and one of them publicly acknowledged the faithfulness of the report sent to the newspapers'.⁴⁷

Esdaile reported his early results in the *India Journal of Medical and Physical Science*. He simultaneously published them in a small booklet for the general public entitled *Mesmeric Facts*, warning his readers, however, that they would not find in it 'the most efficacious

⁴¹ Report of the Committee, op. cit. (39), p. 2. See also Esdaile, op. cit. (4), pp. 145-6.

⁴² James Esdaile, Natural and Mesmeric Clairvoyance, with the Practical Application of Mesmerism in Surgery and Medicine, London: Hippolyte Baillière, 1852, pp. 138–44.

⁴³ Esdaile, op. cit. (4), pp. 60–1.

⁴⁴ On translation see Michel Serres, Hermes III: La traduction, Paris: Éditions de Minuit, 1974.

⁴⁵ James Esdaile, *Mesmeric Facts*, Calcutta: Ostell and Lepage, 1845 (British Library), p. 7.

⁴⁶ 'Letter to the editor of *The Englishman*', reprinted in Esdaile, op. cit. (4), pp. 253-62.

⁴⁷ Esdaile, op. cit. (4), p. 252.

processes for exciting the mesmeric action in the system, because I should be sorry to be instrumental in making mesmerism easy to the unprofessional Public'.⁴⁸ He also immediately started a correspondence with the figureheads of mesmerism in Britain, notably Elliotson, who lost no time in reprinting Esdaile's correspondence and reports in *The Zoist*, and he published in the *Calcutta Medical Journal*, the *India Register of Medical Science* and the major local newspapers, notably the *Englishman and Military Chronicle* and the *Bengal Hurkaru*. Many of them, including the newspaper articles, were also almost immediately reprinted in medical journals such as the *Boston Medical and Surgical Journal* and the (Boston) *Medical Times*. And newspapers in Bombay, Madras and Delhi, as well in Britain, Australia and the United States, were quick to report on Esdaile's achievements. However, many of his colleagues, especially members of the influential Medical Board in Calcutta, showed hostility to mesmerism.

In February 1846 Esdaile received orders to join the Company's armed campaign against the Sikh kingdom of Punjab. Before leaving, he addressed a detailed report of all his operations to the Medical Board, which it 'did not condescend even to notice'. ⁴⁹ He also hurriedly mailed a manuscript containing a detailed account of his mesmeric experiences as a working surgeon and the path that led him to them to his father in Scotland. The latter, with the help of his younger son and fellow clergyman, David Esdaile (1811–80), succeeded in getting the book published in London under the title *Mesmerism in India, and Its Practical Application in Surgery and Medicine* the very same year. Based on factual and certified evidence and seeking to distance itself from the plethora of cynical manipulators and false priests of mesmerism, the book was an appeal to metropolitan colleagues and the lay public to pressure the conservative medical establishment in favour of mesmeric anaesthesia. 'From the moment I witnessed the extreme degrees of Mesmerism,' Esdaile declared in the text,

I became deeply impressed with a conviction of its power for evil as well as good; and I have driven it thus far in the hope of rousing the public mind to a sense of the dangers, as well as benefits, that may be expected from it; and I trust the day is not distant, when public opinion will strongly condemn all those who practise the art, except for philosophic and medical purposes.⁵⁰

The book was an instant success, with a US edition appearing within a year, in 1847, with a reprint in 1850.

... And mesmerizes Calcutta

On his return from military service later that year, Esdaile addressed a detailed report of the seventy-three cases with eyewitness reports directly to the government, bypassing the Medical Board. The deputy governor of Bengal, Sir Herbert Maddock, reacted promptly, ordering further experiments to be conducted. For this purpose, a room with accommodation for ten patients was allotted in the Calcutta Native Hospital for the admission of patients willing to submit to operation under mesmerism, and a committee appointed by government to watch and to report upon the experiments carried out by Esdaile. The committee consisted of three doctors, three European lay members and four members of the indigenous elite. Despite some scepticism on the part of certain members – notably its secretary, William Brooke O'Shaughnessy (1809–89), already well known for his pioneering work on galvanism and telegraphy, who was at the time

⁴⁸ Esdaile, op. cit. (45), p. x.

⁴⁹ Esdaile, op. cit. (24), p. 24.

⁵⁰ Esdaile, op. cit. (4), pp. 93–4.

professor of chemistry and materia medica in the Calcutta Medical College and lobbyist for cannabis – their report was on the whole positive, and in November 1846 the governor general of India, Lord Hardinge, sanctioned a small hospital in Calcutta to be put at his disposal.⁵¹ By 1848, a mesmeric hospital supported entirely by public subscription was opened in Mott's Lane in central Calcutta especially for Esdaile's work. This provided him the opportunity to expand his clientele, which now included well-off Indians and also a small number of Europeans.⁵² However, it was closed eighteen months later, ether and chloroform having won the day over 'magnetism'. Chemical anaesthetic agents, it was argued, were incomparably cheaper than the wages of dozens of human mesmeric operators and much quicker to act than the many hours, and sometimes days, it took for the latter to effectively put their patients to sleep. The economic argument, in addition to pressure from a hostile medical establishment back in Britain, seems to have won the day: the East India Company authorities were always on the lookout to limit expenditure.

However, thanks to the local press and protests from a large and influential section of 'the native community' expressing their faith in 'a science, the value of which, if not as yet fully known, they have learnt to appreciate from the evidence of their own senses', the Mesmeric Hospital reopened in the Sukeas' Lane Dispensary in September 1849.⁵³ Although far removed from the city centre of Calcutta and thus less visible, it still attracted patients – and attention. It was even visited by foreign dignitaries, for instance by Jan Jacob Rochussen (1797–1871), the Dutch governor general of Java, who even resolved to set up a similar hospital on his return to Batavia.⁵⁴ And Dupotet reported on the mesmeric activities in Calcutta in his Parisian *Journal du magnétisme*.⁵⁵ At the same time, news of Esdaile's success spread within British India, leading medical establishment notwithstanding.⁵⁶ One Dr Charles Davidson, a Company surgeon, communicated with Esdaile on his observations of indigenous trance-inducing techniques known in north India as *jhar-phoonk*, and later communicated with Elliotson on such practices all over the subcontinent.⁵⁷

In 1848, the new governor general of Bengal and fellow Scotsman, Lord Dalhousie (1812-60), demonstrated his esteem for Esdaile and his work by appointing him to the

⁵¹ Report of the Committee, op. cit. (39). This was not world-first, a 'magnetical' clinic having been set up near Moscow in the late 1810s: Charles Poyen, 'Introduction', in *Report on the Magnetical Experiments Made by the Commission of the Royal Academy of Medicine, of Paris*, Boston, MA: Hitchcock, 1836, p. lxx. For O'Shaughnessy on cannabis see his 'On the preparations of the Indian hemp, or gunjah', *Provincial Medical Journal* (1843) 123, pp. 363–9.

⁵² See, for instance, the reduction of enlarged lymphatic glands in one Miss Gordon described in 'Report by Dr. Elliotson on "A record of cases treated in the Mesmeric Hospital", *The Zoist* (1848) 6, p. 32.

⁵³ 'Petition to the Rt. Hon. The Earl of Dalhousie, Governor-General of India for the continuance of the Mesmeric Hospital', *The Zoist* (1848) 6, pp. 119–120, 119. It was signed by over three hundred 'principal Native gentlemen of Calcutta', with the names of over thirty of the most prominent appearing at the end on p. 120, many of whom were members of the Asiatic Society of Bengal (cf. 'List of members', *Journal of the Asiatic Society of Bengal* (1844) 13, pp. i–ii). For some of the newspaper reports from Calcutta see Elliotson, 'Triumph and reward of Dr. Esdaile', in *The Zoist* (1848) 6, pp. 113–20.

⁵⁴ 'Report of the Government Sukeas' Lane Dispensary and Mesmeric Hospital. From May to December 1851, drawn up by the native sub-assistant surgeon at the request of Dr. Allan Web, surgeon superintendent, Calcutta', *The Zoist* (1851) 10(39), pp. 281–6; and 'A visit to the Mesmeric Hospital, by a fellow of Caius College, Cambridge', *The Zoist* (1851) 10(39), pp. 286–90.

⁵⁵ Journal du magnétisme (1949) 8, pp. 78 et passim.

⁵⁶ See Joseph William Turner Johnstone, Notes of a Case of a Painless Surgical Operation Performed while the Patient was under the Influence of Mesmeric Agency, Madras: The Christian Knowledge Society Press, 1847; John Elliotson, 'Mesmerism in the East', The Zoist (1849-50) 7, pp. 121-37.

⁵⁷ Esdaile, op. cit. (40), pp. 11–12; C.J.E. Davidson, 'Mesmerism in the native human and brute inhabitants of India', *The Zoist* (1851–2) 9, pp. 1–10. Also M.E. Bagnold, 'Mesmerism in India forty years ago', *The Zoist* (1848–9) 6, pp. 250–4.

position of Presidency surgeon and, whilst not supporting the continuation of the mesmeric hospital in Calcutta, in the following year gave Esdaile the position of marine surgeon, the highest and most lucrative post in the civilian medical service in Bengal. Having completed his full tenure of twenty years' service with the East India Company, conducting 260 operations under the influence of mesmerism during his last six years in India, with a death rate down from 50 per cent to 5 per cent, Esdaile returned to Britain in 1851.⁵⁸ Although he retired from the EIC's service in 1853, he actively continued to work and write for the cause of mesmerism. And he could count on the unfailing support of Lord Dalhousie, who even wrote a testimonial certifying the veracity of Esdaile's account of his mesmeric work in India.⁵⁹

As for the continuation of his work in India, 'After the departure of Dr. Esdaile to England mesmerism received no encouragement owing to a majority of medical men giving preference to chloroform in operative surgery', wrote Dr Badan Chunder Chaudhuri, the medical officer in charge of the Imambarah Hospital and Esdaile's collaborator in his early experiments.⁶⁰ However, even though the use of mesmerism disappeared from the repertoire of colonial surgeons with Esdaile's retirement, we might still ask whether his numerous indigenous assistants did not continue to practise it. We do know that the three original mesmerizers at the Imambarah Hospital in Hooghly remained on the staff until 1863. A report by Dr James Elliot, then the civil surgeon at Hooghly, dated 19 June of that year, further noted that two of them, who were well qualified, had recently obtained employment as native doctors, while the third was carrying on as compounder at the city's jail.⁶¹

By the time of Esdaile's return, several hospitals dedicated to mesmerism had mushroomed across the British Isles, including in Bristol, Dublin and Exeter.⁶² Esdaile himself was active in setting up the Scottish Curative Mesmeric Society and in the administration of Elliotson's London Mesmeric Infirmary. He continued to write and campaign for the globalization of mesmerism as an effective anaesthetic – in *The Zoist*, but also in pamphlets addressed both to his medical colleagues and to the general public. In one work he pleaded that, even if

the *natives of India* were alone concerned, is it of no interest to the surgeon, the physician, the physiologist, and natural philosopher, to know that the one hundred and twenty millions of our Eastern subjects and fellow-men (one would suppose they were monkeys) are so susceptible of the mesmeric influence, that painless surgical operations, and other medical benefits from mesmerism, are their natural birthright?⁶³

He also corresponded with one of the pioneers of mesmeric surgery in Britain, James Braid (1795–1860), distinguishing his own techniques and fundamental conceptions from the latter's hypnotic technique of 'neurypnology'.⁶⁴ Braid had developed this

⁵⁸ Esdaile, op. cit. (24), pp. 27–8.

⁵⁹ James Esdaile, *The Introduction of Mesmerism* (with the Sanction of the Government) into the Public Hospitals of India, 2nd edn, London: W. Kent and Co., 1856, p. 4. Esdaile spared little effort to cultivate his relationship with Dalhousie, having dedicated to him his *Natural and Mesmeric Clairvoyance*, London: Hippolyte Baillière, 1852: see pp. iii-iv.

⁶⁰ Toynbee, op. cit. (34), p. 76.

⁶¹ Crawford, Hughli Medical Gazetteer, op. cit. (17), p. 309.

⁶² C.D.T. James, 'Mesmerism: a prelude to anaesthesia', *Proceedings of the Royal Society of Medicine* (1975) 68, pp. 446–7.

⁶³ Esdaile, op. cit. (24), p. 7, original emphasis.

⁶⁴ James Braid, Magic, Witchcraft, Animal Magnetism, Hypnotism, and Electro-biology, London: John Churchill, 1852, pp. 77–82.

procedure after being introduced to magnetism through the Frenchman Charles Lafontaine's (1803–1892) demonstrations during his English tour in 1841.

Despite his unshaken belief in mesmeric anaesthesia, Esdaile was careful not to be identified as a militant for the mesmeric cause a la Elliotson. 'I beg the reader not to do me the injustice to think me a Mesmeric doctor', he pleaded in his book,

For it would be as true to call me a rhubarb, jalap, or castor-oil physician. Mesmerism often comes to the aid of my patients, when all the resources of medicine are exhausted, and all the drugs of Arabia useless; and therefore, I consider it to be my duty to benefit them by it, and to assist in making it known for the advantage of mankind.⁶⁵

He was also open to comparing chemical anaesthetic agents with mesmerism. While he conceded that chloroform could be as successful with moderate-sized tumours, amputations, and so on, it would, he claimed, be fatal in the removal of larger tumours:

We all now know that chloroform has a tendency to paralyse the heart, lungs, and brain, and it requires no doctor's learning to be convinced that such exhausting operations can only he performed with a chance of success in cases where the vital powers are intact. When these tumors weigh above forty pounds, the loss of blood is so profuse that the pulse is usually extinguished on the spot, and it takes a considerable time to revive it; the brain is so exhausted by the sudden withdrawal of blood, that the patient generally faints, and awakes in a half delirious state, and, the stomach sympathising, vomiting also takes place, and hours elapse before the equilibrium of the sanguineous and nervous systems is re-established.⁶⁶

Esdaile died in London in early 1859. Although his 'magnetic crusade' was soon forgotten and his experiments were swept into oblivion in European and colonial medical establishments in the latter half of the nineteenth century, his experience has been kept alive in other quarters, notably amongst practitioner–historians of medicine in the United States, and parapsychologists in Britain.⁶⁷ As for the occult healing practices which Esdaile came into contact with and incorporated in his own surgical procedures, they continued to enjoy a vigorous life in Bengal and even experienced a renewal towards the turn of the twentieth century, incorporating hypnotism and mesmerism into 'traditional' tantrism.⁶⁸

⁶⁸ See Runa Das Chaudhuri, 'Enchantingly modern: whispers of the occult in popular psychic healing practices of early 20th-century Bengal', *Oriental Anthropologist* (2021) 21, pp. 86–103.

⁶⁵ Esdaile, op. cit. (4), p. 29.

⁶⁶ Esdaile, op. cit. (35), p. 453.

⁶⁷ For the United States see George Rosen, 'Mesmerism and surgery: a strange chapter in the history of anesthesia', *Journal of the History of Medicine and Allied Sciences* (1946) 1, 527–50; Jerome Schneck, 'James Esdaile, hypnotic dreams, and hypnoanalysis', *Journal of the History of Medicine* (1951) 6, pp. 491–5; Lee Pulos, 'Mesmerism revisited: the effectiveness of Esdaile's techniques in the production of deep hypnosis and total body hypnoanaesthesia', *American Journal of Clinical Hypnosis* (1980) 22, pp. 206–11; D. Croydon Hammond, 'A review of the history of hypnosis through the late 19th century', *American Journal of Clinical Hypnosis* (2013) 56, pp. 174–91. For Britain see Frank Podmore, *Modern Spiritualism: A History and a Criticism*, 2 vols., London: Methuen, 1902, vol. 1, p. 125; Alan Gauld, *A History of Hypnotism*, Cambridge: Cambridge University Press, 1992, esp. pp. 221–6. The term 'magnetic crusade' is a nod to the near-contemporary movement to collect and interpret masses of geomagnetic data in the 1830s. John Cawood, 'The magnetic crusade: science and politics in early Victorian Britain', *Isis* (1979) 70, pp. 492–518.

Hospitalizing magic, globalizing mesmerism

It is clear, then, that Esdaile's mesmeric enterprise cannot possibly be understood within the diffusionist model, which has all too often been mobilized to explain the global spread of knowledge, techniques and practices that are deemed to originate in Europe.⁶⁹ Nor can it be understood as a case of knowledge transfer, by reducing James Esdaile to a simple passeur (no pun intended), a cog in the wheel of a - one-sided - intercultural transmission.⁷⁰ Indeed, Esdaile's enterprise bears little relation to the animal-magnetic movements that had stirred continental Europe since the last decades of the eighteenth century, which were more concerned with the operator controlling the subject's will and senses than with its use as an anaesthetic. Nor does it bear much resemblance to the export and practice of mesmerism in the French colony of Saint Domingue half a century earlier and its eventual appropriation by the island's enslaved population, for whom syncretic forms of Vodou and mesmerism 'offered freedom from established medicine and ... from the authority of the white master'.⁷¹ Quite to the contrary, as we have already seen, the flow in Esdaile's case is in the opposite direction, with a Scotsman in colonial Bengal arranging for a meeting between mesmerism and indigenous magic, seeking thereby to establish an equivalence between the two for use in surgery. Yet there is also evidence that traditional magical practitioners in India did begin to help themselves opportunistically to European mesmerism later in the century to create a market for 'modern' occult therapies.⁷² Furthermore, there seems to have been little or no evidence of aversion on the part of the colonial medical establishment in India to establishing similarities for fear of threatening colonial and scientific authority.

In recent decades, there has been a renewed interest in Esdaile amongst some social and cultural historians of science and medicine. For instance, Waltraud Ernst, while giving a balanced account of Esdaile's mesmeric experience, is, however, primarily interested in the reasons for its eventual failure – principally, she belives, because of his unshakeable belief in the existence of a mesmeric fluid which obeyed the laws of Newtonian physics and his reliance on native Indian testimonies and experiences which she claims lacked credibility in the eyes of the British medical establishment.⁷³

However, much of this recent interest comes from scholars of postcolonial and subaltern studies who have been quick to denounce Esdaile as a paragon of colonial attitudes to Indians and their 'colonized' bodies. These critiques are largely based on a series of sharp dichotomies: first between scientifically rigorous metropolitan medicine and lax colonial medicine, where the rigorous norms of the metropole are slackened, and where 'scientific' research can be practised that is unthinkable, or not ethically permissible, in the

⁶⁹ For the classic exposition of the diffusionist thesis in science see George Basalla, 'The spread of western science', *Science* (1967) 156(3775), pp. 611-22.

⁷⁰ Michel Espagne and Michael Werner, 'La construction d'une référence culturelle allemande en France: genèse et histoire (1750–1914)', *Annales ESC* (1987) 42e année, pp. 969–92; Scarlett O'Phelan and Carmen Salazar Soler, *Passeurs, mediadores culturales y agentes de la primera globalización en el mundo ibérico*, Lima: Pontificia Universidad Católica de Perú, 2005.

⁷¹ Karol K. Weaver, *Medical Revolutionaries: The Enslaved Healers of Eighteenth-Century Saint-Domingue*, Urbana: University of Illinois Press, 2006, p. 10. Also Murphy, op. cit. (28). Contrast, however, with François Regourd, 'Mesmerism in Saint Domingue: occult knowledge and vodou on the eve of the Haitian Revolution', in James Delbourgo and Nicholas Dew (eds.), *Science and Empire in the Atlantic World*, New York: Routledge, 2008, pp. 311–32. Also Bernard Gainot, 'Des baquets sous les Tropiques: A propos de la diffusion du magnétisme animal à Saint-Domingue en 1784', *Annales historiques de la Révolution française* (2018) 1, pp. 81–104.

⁷² Chaudhuri, op. cit. (68).

⁷³ Waltraud Ernst, "'Under the influence" in British India: James Esdaile's Mesmeric Hospital in Calcutta and its critics', *Psychological Medicine* (1995) 25, pp. 1113–23; Ernst, 'Colonial psychiatry, magic and religion: the case of mesmerism in British India', *History of Psychiatry* (2004) 15, pp. 57–71.

metropole, and second between colonial science and indigenous or traditional science or healing practices, which are based on religion, superstition and/or magic.⁷⁴

Thus, for Chandak Sengoopta, 'human experimentation of dubious kinds [was] not shaped solely by an abstract drive for total classification but also by cultural convictions about the bodies and minds of the colonized ... in the brief second life that "mesmeric surgery", out of favour in the metropole, experienced in colonial Bengal'.⁷⁵ This paper has shown that mesmerism not only was practised on colonial subjects and European elites in India, but also had a considerable following in medical circles in Britain, France and the United States - and, I might add, Russia. Sengoopta goes on to assert that Esdaile considered Bengalis to be an 'ignorant, passive, and mindless' race.⁷⁶ The story is far more complex, for while he did believe that his poor Bengali patients were 'simple, unsophisticated children of nature', others, such as his assistants, members of the colonial administration and the Bengali bhadralok whom he solicited as witnesses and allies, were deemed to be much more sophisticated.⁷⁷ Furthermore, even his 'simple' patients could metamorphose into difficult and complex beings, as in the case of a peasant woman named Lokee who came back for a second operation in October 1845 after an initial tumour in her leg was removed under mesmeric influence some months previously (Figure 3).

This time she could not be influenced as she showed 'excitement of mind'.⁷⁸ Furthermore, the evaluation committee set up by Sir Herbert Maddock (see above) found that out of the ten cases they had witnessed, three did not respond to the mesmeric procedures for want of the required predisposition and had to be discharged.⁷⁹

For another postcolonial critic, Gyan Prakash, 'it was in the public display of its magical effect that mesmerism emerged as a science, perched precariously in between cold scientific scrutiny and superstition in its "widest" and "most absurd forms" – science 'gone native', as he qualifies Esdaile's practices.⁸⁰ Prakash unfortunately ignores a vast body of science studies literature that has convincingly shown that science is essentially native – everywhere – as remarked on in the introduction above.

The best-known of recent critical accounts is perhaps Alison Winter's chapter in her book on Victorian mesmerism, which opens with extracts from the same passage from Esdaile describing his encounter with an Indian magician that I have used here. Interpreting the meeting within the diffusionist framework of the export of 'Victorian mesmerism' to India, Winter sees it as a 'familiar exchange, in which British colonials projected "native superstition" onto Indian culture. Victorian stories of the East', she continues, 'scripted dramas whose Indian players performed the superstition and subordination assigned to them, confirming the power and rationality of their British masters'.⁸¹

Before engaging with the essential arguments of these critics, let me stress that contrary to the trope shared by all three, the distinction between European and 'traditional' Indian medicine was in fact quite blurry and there was a significant porosity between them. British medics relied on a large corps of indigenous assistants who, although often trained at the British-run Calcutta Medical College, were taught from textbooks

⁷⁴ David Arnold, *Colonizing the Body: State Medicine and Epidemic Disease in Nineteenth-Century India*, Berkeley: University of California Press, 1993.

⁷⁵ Sengoopta, op. cit. (5), pp. 47-8.

⁷⁶ Sengoopta, op. cit. (5), p. 61.

⁷⁷ Esdaile, op. cit. (4), p. 14.

⁷⁸ Esdaile, op. cit. (4), pp. 76–7.

⁷⁹ Report of the Committee, op. cit. (39), p. 2.

⁸⁰ Prakash, op. cit. (5), p. 162.

⁸¹ Winter, op. cit. (6), p. 188.

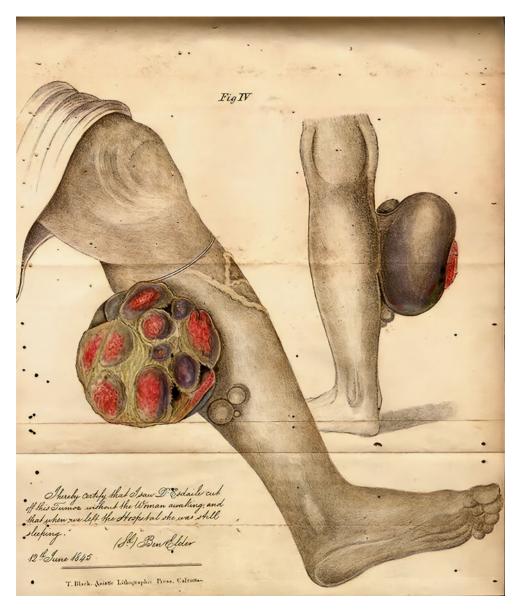


Figure 3. The severely ulcerated tumour on the leg of Lokee, a sixty-year-old peasant woman, as seen and attested by Captain Ben Elder, who witnessed its excision under mesmeric trance on 12 and 13 June 1845. Esdaile, *Mesmeric Facts*, op. cit., facing p. 54.

written by indigenous practitioners which combined principles of European and indigenous medicine almost until the end of the nineteenth century. 82

Coming now to the central claims of these critiques, both Prakash and Winter view Esdaile's project as a public performance, for the former to 'transform the Indian viewer from superstitious to wondrous', and for Winter to 'convert exotic practitioners into

⁸² Christian Hochmuth, 'Patterns of medical culture in colonial Bengal 1835–1880', Bulletin of the History of Medicine (2006) 80, pp. 39–72.

educated medical helpers or discredited superstitious fools'.⁸³ Now, even if their use of performance is metaphorical, in what follows I shall take the performance trope literally. First, because the history of mesmerism is inextricably linked with public performances. Esdaile's story is no exception, albeit his performances served very specific purposes and were very differently configured from those in Europe, for instance. Indeed, he was chary of giving public performances outside the surgical context. For instance, he declined an invitation from students at Hindu College in Calcutta to mesmerize one of them 'because I have made it a rule not to mesmerise, except for philosophical and medical purposes'.⁸⁴ Their location, the arrangement of these spaces for public demonstration and the respective roles of, and interplay between, Esdaile and his mesmerizers on the one hand and the audiences on the other combined to define the efficacy of the mesmeric procedures themselves. However, given its importance, the treatment that this subject rightly deserves is outside the limited scope of the present paper, although one of the roles of Esdaile's audience is discussed below at some length.

Second, while it is true that many of Esdaile's operations were public performances, their aims were quite different from those imputed by Prakash and Winter. From all the evidence available, it is clear that Esdaile did not seek to charm his audience into believing in Victorian science and Western rationality, but conversely to ensure that his own procedures found a legitimate place in the pantheon of Victorian science. To this end, he explicitly and repeatedly expressed the need to publicly demonstrate the efficacity of his anaesthetic techniques. In so doing, he was following well-established strategies developed and honed by men of science since at least the seventeenth century – as 'a way of publicly warranting that the knowledge produced ... was reliable and authentic'.⁸⁵ By the nineteenth century, public performances were very much part of the process of scientific experimentation, Michael Faraday (1791–1867) being one of its best-known proponents.⁸⁶

Yet if public display is one dimension of scientific activity, private experiment is another, earlier, phase of the process.⁸⁷ Again, Esdaile was also very aware of this aspect. 'Great weight,' he wrote,

is very justly attached to *first experiments* in any new subject of investigation, for these are often a voluntary and unexpected evolution of the powers of nature; and when the results surprise the experimenter even, we feel confident that he only relates what he actually saw, and that he is not seduced, by previous theory and prepossession of mind, to interpret appearances in support of a foregone conclusion.⁸⁸

Unlike Faraday, who conducted these experiments in the seclusion of his basement laboratory, Esdaile needed to conduct his early experiments in the presence of a limited set of hand-picked witnesses with the appropriate professional and social credentials to

⁸³ Prakash, op. cit. (5), p. 161; Winter, op. cit. (6), p. 189.

⁸⁴ Esdaile, op. cit. (45), p. 104.

⁸⁵ Steven Shapin, 'The house of experiment in seventeenth-century England', *Isis* (1988) 79, pp. 373–404, 374; Harry M. Collins, 'Public experiments and displays of virtuosity: the core-set revisited', *Social Studies of Science* (1988) 18, pp. 725–48.

⁸⁶ David Gooding, "In nature's school": Faraday as an experimentalist', in David Gooding and Frank A.J.L. James (eds.), *Faraday Rediscovered: Essays on the Life and Work of Michael Faraday, 1791–1867*, Basingstoke: Macmillan Press, 1985, pp. 105–35. Esdaile was not alone in seeking to constitute a motley committee of prominent citizens to witness his operations. The Bostonian medic Robert H. Collyer also did so in 1841. However, in this case the committee refused to commit itself beyond certifying that no collusion existed between the mesmerist and his subjects. Cf. Robert H. Collyer, *Psychography, or the Embodiment of Thought*, Boston, MA: Redding and Co., 1843, p. 38.

⁸⁷ Gooding, op. cit. (86).

⁸⁸ Esdaile, op. cit. (4), pp. 58–9, original emphasis.

testify that '[n]o "*hocus pocus*", no pretensions to exclusive powers, no attempts at concealment, are resorted to'.⁸⁹ It is important to point out here that these audiences were not composed purely of 'Indian viewers', as his postcolonial critics imply. On the contrary they were mixed, picked each time from amongst his European and South Asian medical colleagues, colonial administrators, European missionaries and the Bengali elite – in short, the upper echelons of the population on both sides of the colonial divide.

But what of the 'work meeting' with the Bengali magician which this paper began with - which again was overseen by a witness of legal standing, the deputy magistrate of Hooghly, Baboo Essanchunder Ghoshaul? To make sense of this meeting, it is necessary to remind the reader that although Esdaile learned about mesmeric phenomena purely through reading about it, and that too rather late in his Indian career, he had no firsthand knowledge of the material operations and gestures necessary to induce a trance. Nor did he have any mesmeric practitioners whom he could directly watch to learn its techniques, unlike Braid and Elliotson, who, as already mentioned, were introduced to mesmerism by directly watching French demonstrators - Dupotet and Lafontaine respectively. Esdaile thus had to reconstitute all the gestures and the entire procedure by imagining them purely from published reports. And even though there was at least one practical manual for the purpose - Joseph Philippe François Deleuze's Instruction pratique sur le magnétisme animal (1825) - he himself 'had never seen anyone mesmerised, nor read a mesmeric book'.⁹⁰ Even if he did, it is doubtful that he would have been able to successfully translate the instructions effectively. Indeed, an influential body of scholarly literature has convincingly shown the limits of transmission of knowledge through the written word alone. Thus the tacit and gestural knowledge or skill sets needed to make knowledge operational in many cases are not exclusively verbal and necessitate sensorial communication through the presence of a skilled person.⁹¹ Esdaile's 'work meeting' with the Bengali magician is, then, to be understood as a private, or 'backstage', encounter, prior to both the 'frontstage' public performance and the 'first experiment'. It was a means of certification, again in the presence of a judicial witness, of the do-it-yourself procedures that Esdaile had laboriously worked out during his initial experiments. Since he was convinced of 'the identity of the two processes', the success of this comparison and the model of translatability on which it was premised would, among other things, legitimize the interoperability of mesmerizers he was to use in his surgery.⁹² Indian magic could now be justifiably hospitalized.

However, Esdaile was not only seeking to establish his procedure and equivalence as valid knowledge. Indeed, by gathering as many witnesses as possible from both sides of the colonial divide, and publishing his accounts in professional medical journals as well as in those specializing in mesmerism, in the Indian and British press and in pamphlets and books for the British public, Esdaile was simultaneously attempting to breach the medical establishment's exclusive authority on deciding what counted as legitimate in

⁸⁹ Esdaile, op. cit. (4), p. 7, original italics.

⁹⁰ Joseph Philippe François Deleuze, Instruction pratique sur le magnétisme animale, Paris: Dentu, 1825; English translation *Practical Instruction in Animal Magnetism, or Mesmerism*, London: J. Cleave, 1845. Quote from Esdaile, op. cit. (24), p. 13.

⁹¹ Michael Polanyi, *Personal Knowledge*, London: Routledge, 1958; H. Otto Sibum, 'Les gestes de la mesure: Joule, les pratiques de la brasserie et la science', *Annales: Histoire, sciences sociales* (1998) 53e année, pp. 745–74; Harry M. Collins, *Tacit and Explicit Knowledge*, Chicago: University of Chicago Press, 2010. On the difficulties of replicating procedures without the presence of their practitioners and the necessity of finding alternatives see Mohammed Abattouy, Jürgen Renn and Paul Weinig, 'Transmission as transformation: the translation movements in the medieval east and west in a comparative perspective', *Science in Context* (2001) 14, pp. 1–12.

⁹² Esdaile, op. cit. (4), p. 23. The terms 'backstage' and 'frontstage' are inspired by Stephen Hilgartner, *Science on Stage: Expert Advice as Public Drama*, Stanford, CA: Stanford University Press, 2000. I thank Kevin Lambert for the reference.

medicine and surgery. He thus sought to mobilize a manifold of heterogeneous allies with a convergent interest in his brand of mesmeric anaesthesia. This involved unsettling established boundaries across a multitude of domains: between practices sanctioned by the medical establishment on the one hand, and mesmerism, superstition and magic on the other; between specialist and general publications; between medics and laypersons; between colonizers and colonized; between tropics and temperate zones; between European and Indian racial identities; between local and universal; and treating patients' subjective accounts and professional expertise on par – a way of reshuffling the pack of entities, both scientific and extra-scientific, in order to create a new set of boundaries. It was for this reason that Esdaile sought to have officials from the judiciary present at every step and invest his witnesses' testimonies with a legal status. This implied adding the dimension of judicialization to public displays of science. Lord Dalhousie's testimonials gave extra weight to the whole.

Esdaile thus hoped to get mesmeric anaesthesia recognized as a global practice, valid as much for 'feeble and ill-nourished' Indians and Africans with a 'depressed state of the nervous system' as for Europeans – on condition that they 'condescend to return for a moment to the feet of their mother Nature'. At times, 'simple, unsophisticated children of nature, neither thinking, questioning or remonstrating', were far superior to Europeans, those 'unnatural children, left to our self-sufficiency and artificial resources'.⁹³ Public performances which mobilized witnesses from both sides of the colonial divide, alongside his concerted efforts at publishing, were also clearly part of his strategy to ensure the circulation of his mesmeric practice beyond colonial India, to the imperial metropole and the empire beyond.

Nonetheless, if Esdaile held an unwavering belief in the anaesthetic powers of mesmerism and its myriad global avatars, and was a passionate proponent of its cause, he was also very much part of the colonial order, and crucially dependent on it for advancing his enterprise, and his career. If at times he disturbed the colonial order, he certainly did not seek to destroy it, believing as he did in the benevolent superiority of Europe. In introducing mesmerism as an anaesthetic, Esdaile also sought to display the genuine concerns that he, as a representative of a colonial power, had for the well-being of its subjects, which in return ensured their submission and respect – a crucial dimension, it must be remembered, of modern science.

These are just some of the many paradoxes and contradictions of this entangled tale. But it was not the asymmetries of power and racial prejudice that confined this knowledge to the colonial margins. On the contrary, these were, as we have seen, conspicuously mobilized by Esdaile in his attempt to bring mesmeric anaesthesia to British-run hospitals in India and into mainstream Victorian science.

To sum up, this article has attempted to show that knowledge flows and the circulation of scientific practices have several different dimensions. First, this movement is not selfevident. It involves investments and consciously crafted strategies by scientific actors to continuously unpack what ostensibly moves as a black box in order to transform and reconfigure it for their own purposes. We see this in Elliotson's and Braid's appropriation of French mesmeric practices, and in Esdaile's adoption of Indian magic (a traditional relief for many ailments and pain) towards their respective anaesthetic ends. By positing deep similarities with magical practices the world over, Esdaile further sought to globalize mesmerism. We saw also that the successful circulation of practices crucially depends on the movement or adaptation of tacit knowledges on which they are based, which can

⁹³ Esdaile, op. cit. (4), p. 15. Also Esdaile, op. cit. (24), p. 7. Esdaile's stance here resonates strikingly with Franz Anton Mesmer's Rousseauist conceptions and would certainly repay closer examination. See Robert Darnton, *Mesmerism and the End of Enlightenment*, Cambridge, MA: Harvard University Press, 1968, pp. 116–24.

potentially be replaced by other tacit knowledges on condition that equivalences be established between them. Finally, public displays can be used not just for certification but, by judicializing them, also to fight a recalcitrant medical establishment in India as well as in Britain. All these dimensions underline the fact that to understand science and its dynamics, we as historians of science cannot simply focus on knowledge practitioners, their texts, instruments and practices, but must also take into account the social, cultural, political and legal dimensions within which their practices are situated. These not only provide a context, a passive backdrop, to scientific activity, but, as we have seen, also are themselves actively mobilized and reconfigured in the construction and circulation of knowledge.

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