

CHAPTER II

Aspirations for National Science: Mahendra Lal Sarkar and the Indian Association for the Cultivation of Sciences (IACS)

Introducing Mahendralal Sarkar⁶⁷

The man credited with having initiated and established the first ‘native’ science institution,⁶⁸ the same from where C.V. Raman⁶⁹ bagged the first Noble Prize for physics in India, was an accomplished homoeopath trained as an allopath at the Calcutta Medical College.⁷⁰ In his lifetime he remained a much sought after physician; both the elite and the laity claimed him as their own. Very natural and obvious curiosity would compel anyone to ponder as to why an allopath from the then

⁶⁷ For biographical details of Mahendralal Sarkar, see Sharat Chandra Ghose, *Life of Dr. Mahendralal Sircar*, Calcutta: Hahnemann, 1935; Pratik Chakrabarti, *Western Science in Modern India: Metropolitan Methods, Colonial Practices*, Delhi, Permanent Black, 2004; John Lourduwamy, *Science and National Consciousness in Bengal 1870–1930*, New Delhi, Chennai: Orient Longman, 2004. Also see Arun Kumar Biswas (comp. & ed.), *Collected Works of Mahendralal Sircar, Eugene Lafont and the Science Movement (1860-1910)*, Kolkata: The Asiatic Society, 2003. Also see unpublished thesis by Sumathi Ramanath, ‘Indian Association for the Cultivation of Science: Mahendralal Sircar and his Science, Morality, and Nationalism’, Dissertation presented to The University of Texas at Dallas, May 2018.

⁶⁸ It was around this native institution—the Indian Association for the Cultivation of Science (IACS)—that the first community of Indian scientists was formed. It was inaugurated at 210 Bow Bazar Street, Calcutta on 29th July, 1876 and started functioning from the same address.

⁶⁹ C.V. Raman joined the IACS in August 1907 when he was appointed Deputy Accountant-General in the Indian Finance Department, GOI at Calcutta. It was during his time at Calcutta that Raman joined the IACS and laid the groundwork for his independent research on acoustics and optics. For the IACS, the years from 1907 to 1933 is referred to as the ‘Raman Period’. Raman later won the Nobel Prize in Physics in 1930. See *Indian Scientists: Biographical Sketches, with an Account of their Researches, Discoveries and Inventions*, Madras: G.A. Natesan and Co. Publishers, 1929, pp. 197-201; *A Century: IACS*, (Centenary volume of IACS), Calcutta: IACS, 1976, p. 29.

⁷⁰ The Calcutta Medical College was established in 1835 and was then the only institution where training and practice of science actually took place. See Mel Gorman, ‘Introduction of Western Science into Colonial India: Role of the Calcutta Medical College’, *Proceedings of the American Philosophical Society*, vol. 132, no. 3, 1988, pp. 276-98; Christian Hochmuth, 2006, ‘Patterns of Medical Culture in Colonial Bengal, 1835-1880’, *Bulletin of the History of Medicine*, vol. 80, pp. 39-72. Also see Anil Kumar, *Medicine and the Raj: British Medical Policy in India, 1835-1911*, New Delhi: Sage Publications, 1998.

prestigious Calcutta Medical College of the 1860s abandoned allopathy to embrace homoeopathy? Not only that, why would someone practicing homoeopathy, instead of opening a homoeopathic college or something along similar lines, venture and persevere to establish an institution for ‘cultivating’ science? What were the reasons for a homoeopathic physician, to not only float such an idea, but also go about realising it against all odds? As years rolled on, running the IACS⁷¹ demanded more and more time and energy from Sarkar. He not only lectured at the institution, but was also engaged in nurturing it for more than twenty years despite difficulties posed by his professional calling. What then motivated the doctor to engage with the idea of the ‘cultivation of science’ among natives?

These questions may appear obvious and natural but remain largely unanswered, notwithstanding the fact that the man and the institution founded by him find a prominent place in the variety of histories narrating the story of the inculcation, growth, organisation, and institutionalisation of science in late nineteenth-century colonial India. Is it that these questions are too petty for the methodological rigour and vigour claimed and adopted to relate, refigure, and narrate the story of science and the nation? Petty as they may appear to be, they haunt almost all existing narratives in spite of and despite the literary flourish in which the story of this protagonist and his peers and followers has been rendered.⁷²

The tussle between such petty, odd but natural questions and the existing narratives of various hues and shades which circumvent such trivial questions pushes

⁷¹ The IACS was founded on 29th July, 1876 with Mahendralal Sarkar as its founding and Honorary Secretary. Sarkar was to serve as the Association’s Honorary Secretary until his death in 1904, following which his son Amritlal Sarkar was elected Honorary Secretary and it was during his period that the Association turned a new leaf. See *A Century: IACS*, pp. 27-29.

⁷² Various works till date that have dealt at length with Sarkar and his contribution without any attempt to answer these ‘petty’ questions, such as Deepak Kumar, *Science and the Raj: A Study of British India*, 1995; New Delhi: Oxford University Press, 2006 (2nd edn.); Anil Kumar, *Medicine and the Raj: British Medical Policy in India, 1835-1911*, New Delhi: Sage Publications, 1998; Pratik Chakrabarti, *Western Science in Modern India: Metropolitan Methods, Colonial Practices*, Delhi, Permanent Black, 2004; John Lourdaswamy, *Science and National Consciousness in Bengal 1870-1930*, New Delhi, Chennai: Orient Longman, 2004; David Arnold, *Science, Technology and Medicine in Colonial India*, vol. 5, part 3, [The New Cambridge History of India], Cambridge: Cambridge University Press, 2000; Chittabrata Palit and Subrata Pahari, *Mahendralal Sircar and National Science*, Kolkata: Ratna Prakashan, 2001. Also see *A Century: IACS*, (Centenary volume of IACS), Calcutta: IACS, 1976; Arun Kumar Biswas, *Gleanings of the Past and the Science Movement: In the Diaries of Drs. Mahendralal and Amritlal Sircar*, Calcutta: Asiatic Society, 2000; Arun Kumar Biswas (comp. & ed.), *Collected Works of Mahendralal Sircar, Eugene Lafont and the Science Movement (1860-1910)*, Kolkata: The Asiatic Society, 2003. In most of these works, Sarkar as a physician and a science populariser appears to be two distinct entities. In a few of these works, homoeopathy is made the reference point without contextualising either homoeopathy against the larger medical realm or Sarkar’s appraisal in the context of homoeopathy and its larger role in his evolution as a physician and his quest for science.

us into a grey zone and, precisely because of this, one is challenged to revisit the man and his times. It compels us to reprobe and relook at the set of debates that animated Sarkar's times and the context to which men like him were responding to, allowing us to reassess and reconfigure the assumptions that lay behind them. How were a series of related ideas and ideals consciously invoked and at times unconsciously triggered off? What constellation of circumstances made it happen? The controversies they fostered and novelties they induced, along with the hopes and aspirations they stimulated—all of these aspects, their intimate linkages including their apparent inconsistencies and disjunctions will be recounted to come to terms with those 'petty questions' that often raise their hydra heads. It is easy to draw a linear causal nexus but difficult to account for them, unless ideas and consequent actions are followed in the zigzag or fragmented ways in which they generally emerge and connect to each other either as a nullifying or reinforcing process.

This chapter will try to locate Sarkar in the quadrangular space provided by four intersecting biographies of a disease and the doctor, the protagonist science 'cultivator' and his native institution, and the life of the 'catholic' journal founded by the protagonist to proliferate his ideas about science and medicine. The biography of the journal through which Sarkar articulated his vision and action naturally entwines with the biography of IACS, the institution which he founded, the ideas and vision of which were articulated and disseminated through *The Calcutta Journal of Medicine*. The biographical details of Sarkar's own life as reflected in his diaries juxtaposed to the aforementioned along with the biographical details of cholera—the representative disease of nineteenth-century India⁷³—the concerns of which are littered in his private diaries and public medical writings in *The Calcutta Journal of Medicine*,⁷⁴ will be the composite repository on which we will primarily anchor our narrative. The songs of misery from the cholera archive will help to contextualise the crosscurrents of dissent

⁷³ For the recurrence of cholera in nineteenth-century Bengal, in particular, and India, in general, see Dhrub Kumar Singh, 'Cholera in Nineteenth Century India: Perceptions and Approaches to its Control', Unpublished M.Phil Dissertation, Centre for Historical Studies, Jawaharlal Nehru University, New Delhi, 2002. Also see Dhrub Kumar Singh, 'Choleraic Times and Mahendra Lal Sarkar: The Quest of Homoeopathy as 'Cultivation of Science' in Nineteenth Century India' in *Medizin, Gesellschaft und Geschichte*, no. 24, yearbook of the Institut für Geschichte der Medizin der Robert Bosch Stiftung, Germany, 2005, pp. 207–42.

⁷⁴ Sarkar founded the *Calcutta Journal of Medicine* in 1868 as a mouthpiece to disseminate and popularise his views on medicine, homoeopathy and science. For Sarkar, the journal was a labour of love which he shouldered for more than twenty years as editor.

and debate around disease, drugs, allopathy and homoeopathy. It was from within these crosscurrents that Sarkar charted a distinct path for himself in the medical realm.

Cholera demanded a good amount of his time and attention and in his attempts to grapple with this ‘fell disease’ he generated a good amount of medical literature. Cholera had snatched away his mother in his childhood and even when he matured as a doctor, he could not save many of his friends from this disease. The disease consequently attests conspicuous presence both in his private diaries and in the editorials and articles of *The Calcutta Journal of Medicine*. The challenge posed by cholera—the inscrutable malady to the doctor, the journal through which he debated on this disease in particular and medicine in general, and via which he was to stimulate a conscious perception of an hitherto inarticulate need for the cultivation of science, and the IACS which came into being in 1876 to realise it—will determine the form and content of this chapter. The intimacy of these strands will constitute the central thread in this story. The interweaving of all these strands will demonstrate why one cannot separate any one of them while contextualising Sarkar and his times.

Sarkar’s Background and Education

Sarkar was born at a time when Bengal was ravaged by pestilential cholera and at a time when change and reform were also beginning to impact traditional Bengali society. He was born on November 2, 1833, in Paikapara a small agricultural village about eighteen miles west of Howrah. Born into a ‘family of actual tillers of the soil’⁷⁵ or *Chasa*, his origins were fairly humble with there being nothing remarkable about the family or parents. He belonged to the ‘*Sadgopse*’ caste, an agriculturist caste somewhat akin to any middle order peasant caste today but not at all as powerful as them. The Hindu society is an unequal one with caste being a special feature of the Hindu ethos. A Hindu can change his religion, but he cannot change his or her caste, so goes the saying. The experience of conversion if seen historically was not without the blemish of caste and in some sense ‘caste’ remained an exportable feature across religious boundaries.⁷⁶ Compared to other parts of India, the southern states (‘Kerala is a mad house of castes’) or say in that part of the Bengal Presidency which is now called Bihar or for that matter the United Provinces—caste in Bengal was less

⁷⁵ *Indian Scientists: Biographical Sketches, with an Account of their Researches, Discoveries and Inventions*, Madras: G.A. Natesan and Co. Publishers, 1929, p. 3.

⁷⁶ Sumit Sarkar, ‘Kaliyuga, Chakri and Bhakti: Ramakrishna and His Times’, in *Writing Social History*, New Delhi: Oxford University Press, 1997, pp. 282-357.

conspicuous and rigid. But it will be a travesty of truth if we claim that there was no trace of it in the Bengali Hindu society. Sarkar's caste 'Sadgope' is placed midway between the 'upper castes' and 'lower castes', what in today's parlance is considered the 'other backward castes' or the OBCs.

Generally speaking, in Bengal the 'Bhadralok' or gentlemen, as a class, specifically applies to the dominant castes or so-called upper castes comprising the Brahmins, Kayasthas, and Vaidyas.⁷⁷ Even so, there were hierarchies within the Bhadrlok world; some were less equal than the others in the Orwellian sense of inversion. In fact, they were able to establish themselves through skillful utilisation of a few basic determinants of nineteenth-century middle-class life in Bengal—education, profession and print culture. It was in such a social milieu that Sarkar was to find his vocation and, despite his caste affiliation, was able to make an entry into the Bhadrlok world on the basis of his merit and achievements alone.

While not much is known about Sarkar's parentage, one known fact of importance is that his father was only two or three years elder to his mother and that she gave birth to him at the mature age of twenty-four. Sarkar lost his parents at a relatively early age, losing first his father Taraknath Sarkar even before turning five. There is some discrepancy in the biographical accounts on Sarkar, some noting that he came to Calcutta only after his father had passed away in Paikpara,⁷⁸ while some maintaining that his father was still alive when Sarkar's mother took him and his infant brother of six months to the house of her brothers Babus Iswar Chandra Ghose and Mahesh Chandra Ghosh, in Nebutola, Calcutta, and his father died soon after.⁷⁹ According to the latter version, Sarkar was taken back to the village of his birth on the occasion of his father's *sradh* and returned with his mother to settle at Calcutta at his maternal uncles' place for good. Four years later, at the age of thirty-two, his mother

⁷⁷ Other castes, although lowly ranked, could join the bandwagon, provided they attained certain intellectual or official position, economic status, and some degree of urbanity. So traces of upward mobility in the class hierarchy may be found but the stigma attached to the lower castes remains. Bhadrlok society was equal only in the Orwellian sense and a limited amorphosity among the Bhadrlok no doubt then prevailed. The caste identification was not that strict; one of the definable characteristic and an entry point to the Bhadrlok realm was modern English education and such an education led to few professions.

⁷⁸ *Indian Scientists: Biographical Sketches*, p. 2. Also see S.P. Sen, *Dictionary of National Biography*, vol. IV (S–Z), Calcutta: Institute of Historical Studies, 1974, p. 67.

⁷⁹ 'A Short Account of Dr. Sircar's Life', in Amrita Lal Sircar, *Obituary Notice of Mahendra Lal Sircar, C.I.E., D.L., Compiled from Newspapers and Periodicals*, Calcutta: Anglo-Sanskrit Press, 1905, p. 1. Also see 'The Late Dr. Mahendra Lal Sircar, C.I.E., M.D., D.L., - An Obituary', *The Calcutta Journal of Medicine*, vol. XXIII, no. 2, Feb. 1904, pp. 45-60, in Arun Kumar Biswas (comp. & ed.), *Collected Works of Mahendralal Sircar, Eugene Lafont and the Science Movement (1860-1910)*, pp. 513-23.

followed his father succumbing to cholera and leaving behind an orphaned boy of nine to fend for himself. Sarkar thus began his life journey towards adolescence with this choleraic stamp on his psyche as well as a life of poverty and uncertainty. Young Sarkar had to rely on the kindness of his uncles, and later, on his own academic achievements to survive. Fortunately for him, the eagerness to learn allowed him to bury the sorrow of his losses and move on. Yet, the deep wounds left by cholera on his consciousness never really healed as he continued to encounter the disease's devastating effects time and again in his later life.

Prior to his formal education, Babu Thakurnath Dey, a man who left an indelible impression on Sarkar's formative years, taught him English.⁸⁰ Years later, Sarkar paid glowing tributes to his old master in a letter published in the *Calcutta Journal of Medicine*.⁸¹ After being under Babu Thakurnath Dey for a year, Sarkar's youngest uncle, Babu Mahesh Chandra Ghosh, admitted him to David Hare's School where pupils were taught free.⁸² Sarkar's formal education thus began in David Hare's school under the able guidance to its headmaster Umacharan Mitra, where he studied until 1849.⁸³ In his later years, the memory of David Hare whom Sarkar regarded as the 'father of education in Bengal' continued to bear a very strong impression on him.⁸⁴ Following Hare's death in 1842, Sarkar's schooling suffered a brief break due to illness, but he was readmitted by his kind headmaster and was able to complete his schooling when he scored a junior scholarship and was promoted to the Hindu School.

At the Hindu School, renamed the Presidency College a few years later, Sarkar remained under the able guidance of Mr. Sutcliffe, principal and professor of mathematics, and Mr. Jones, professor of literature and philosophy.⁸⁵ The Hindu School was where Derozio had himself taught and his influence and stamp were still very much alive. The fact that the 'Young Bengal' leader had died of cholera also

⁸⁰ *Indian Scientists: Biographical Sketches*, p. 4.

⁸¹ Sarkar wrote, 'My old master, the late Babu Thakurnath Dey, from whom I received the rudiments of my education, loved me as his own son.' As remarked in the *Indian Scientists*, 'What more compliment is needed for a teacher? What greater reward for Thakurnath Dey?'. Quoted in the *Indian Scientists: Biographical Sketches*, pp. 5-6.

⁸² 'A Short Account of Dr. Sircar's Life', in Amrita Lal Sircar, *Obituary Notice of Mahendra Lal Sircar*, p. 2.

⁸³ It is not incidental that in his later years, Sarkar strove to establish a permanent professorship in David Hare's name at IACS so as to perpetuate his memory, but was not successful. See *Indian Scientists: Biographical Sketches*, pp. 6-7. Also see *A Century: IACS*, pp. 24-25.

⁸⁴ *Indian Scientists: Biographical Sketches*, p. 6.

⁸⁵ S.P. Sen, *Dictionary of National Biography*, vol. IV (S-Z), p. 68.

deeply affected the young Sarkar and reinforced the presence of the disease in his life.⁸⁶ He soon became a favourite of Principal Sutcliffe and Mr. Jones excelling in all subjects. But gradually a change occurred which began to compel the boy trained in the liberal arts to seek an education in medicine.⁸⁷ Sarkar's proclivity to science grew especially after reading Mill's *Logic* and similar books, and he felt the need for a practical study of sciences that could only be fulfilled at the Calcutta Medical College. Sarkar's decision to leave the Presidency College when he still had a year or two for the Calcutta Medical College angered Mr. Sutcliffe, but by the kind intervention of Mr. Jones, he obtained required permission to join the Medical College in 1854.⁸⁸ With the Presidency functioning more with an ethos of a liberal arts college at that time, Sarkar was drawn to the medical college to study life sciences and various aspects of human biology. Moreover, unlike other colleges, the Calcutta Medical College had a good laboratory due to the office of the Chemical Examiner to the Bengal Government being associated with it.⁸⁹

'It was in the laboratories of the Medical College that the real genius of Sircar began to display itself. It seemed as if he had at last found his proper [calling]. He appeared to have realised his own self. He became...the pet of all the professors without a single exception.'⁹⁰ Sarkar was no ordinary medical student and the hard work by which he had made his way to the Calcutta Medical College now manifested itself as academic brilliance. While still only in his second year at the Medical

⁸⁶ Henry Louis Vivian Derozio (18 April 1809 – 26 December 1831): Derozio died due to cholera, but he was a lively icon at the then Hindu College and the Presidency College of later years. Young Bengal symbolised the continuity of his legacy. For Derozio's death due to cholera, see Arun Kumar Biswas, 'Ram Mohan Roy, His Intellectual Compatriots and their Scientific Contributions', *IJHS*, vol. 46, no. 3, 2011, pp. 427-81.

⁸⁷ *Indian Scientists: Biographical Sketches*, p. 10.

⁸⁸ 'A Short Account of Dr. Sircar's Life', in Amrita Lal Sircar, *Obituary Notice of Mahendra Lal Sircar*, pp. 2–3. Also see *Indian Scientists: Biographical Sketches*, p. 12. More light can be had on Sarkar's decision to study medicine from the following reminiscences of Rai Chunnalal Bose:

'My friend, Dr. B.L. Chaudhuri, informs me that it may not be known to many people that **Dr. Mahendralal Sircar originally had no intention to study medicine. He was the brilliant student of the Presidency College and his favourite subject was psychology. There are great many problems involved in the study of psychology, which cannot be well understood without a knowledge of Biology.** He did not get satisfactory explanation of many such points from his professors. He, therefore, decided to join the medical college to study for himself the science of Biology in which he ever afterwards took deep interest and for the study of which, he soon opened a section in the Science Association. This shows what an earnest and devoted student he was, always trying to get to the bottom of everything to find out the truth. This was a turning point in Dr. Sircar's life which transformed an ardent student of Arts into a distinguished physician and a great scientist.'

See J.P. Bose (ed.), *The Scientific and Other Papers of Rai Chunnalal Bose Bahadur*, vol. II, Calcutta: Printed at the Bengal Chemical Steam Press, 1925, p. 382. Emphasis added.

⁸⁹ Deepak Kumar, *Science and the Raj*, p. 147.

⁹⁰ *Indian Scientists: Biographical Sketches*, p. 12.

College he attracted the notice of Dr Archer for his intelligence.⁹¹ At Dr Archer's request he later delivered a series of lectures on optics to his fellow students—by all means a rare achievement for a boy of Sarkar's background.⁹² He was also fortunate to have had teachers like Dr Archer—and earlier headmaster Umacharan Mitra, Prof Jones, and Principal Sutcliffe—who not only recognised his talent, diligence and intellect, but nurtured him in the right direction by allowing him to independently work his way to his desired subject.

The year after he joined medical college Sarkar married Rajkumari,⁹³ the daughter of Mahesh Chandra Biswas of Bandipore, 24-Paraganas, and in August 1860, was blessed with his only son, Amrit Lal, who was to grow in the shadow of his famous father.⁹⁴ The same year Sarkar sat for his final LMS examination obtaining the highest honours in medicine, surgery, and midwifery and also several scholarships.⁹⁵ His distinctions and extraordinary performance in these subjects also won him high praises from posing loudly his professors.⁹⁶

⁹¹ As the story goes, on one occasion Sarkar took a young relative of his for an eye ailment to the College's out door dispensary. Dr. Archer, a Professor in the eye department often tested the understanding and knowledge of the Vth year students in his clinic by posing difficult questions on the Anatomy and Physiology of the eye and on the laws of sight. Such a quiz was in progress and none of his students could answer a particularly ticklish question pertaining to the anatomy of the eye. Sarkar, who was at some distance with the compounder overheard the question and answered in a clear loud voice. 'Who is that fellow?' retorted Dr. Archer. Sarkar was pointed at and many heads turned towards him. 'The Professor's surprise knew no bounds. He could not contemplate without mixed feelings of astonishment and admiration a second year boy answering "Dr. Archer's questions." The young prodigy was pushed into the Doctor's presence.' Further questions definitely more difficult ones were posed to the young student. 'The test [surprised and] satisfied the highest expectations of the examiner. The pupil at once became the favourite of the Professor for the diseases of the eye. He was asked to attend the Clinique every day to get into closer touch with the subject. Then at the request of the senior students and with the permission of the Principal and the Professors, he delivered a course of lectures on Optics in order to enable his fellow-students to understand the mechanism of the eye as an optical instrument. In the same year, he also delivered a lecture at the Bethune Society on "the adaptation of the human eyes to distance.'" *Indian Scientists: Biographical Sketches*, pp. 13-14.

⁹² From *The Empress*, No. 2, April 1904, in Amrita Lal Sircar, *Obituary Notice of Mahendra Lal Sircar*, p. 46.

⁹³ After the death of his wife and in her loving memory, Sarkar founded the Rajkumari Leper Asylum at Baidyanath in 1893. The asylum set up with his personal donations of Rs 5000 and supplemented by public subscriptions, was created as a home for the shelter and treatment of leprosy victims.

⁹⁴ Like his father, Amritlal Sarkar also became a doctor and, after his father's death, functioned as the secretary of the IACS and served the institution as well.

⁹⁵ From *The Empress*, No. 2, April 1904, in Amrita Lal Sircar, *Obituary Notice of Mahendra Lal Sircar*, pp. 46-47.

⁹⁶ Sarkar 'lost his Gold Medal in Medical Jurisprudence for having stated in answer to question that the lethal dose of arsenic was much larger than that stated in books and that men were known who had accustomed themselves to taking it in doses of more than a drachm without injury (sic). This was looked upon by the examiner as a gross mistake. The Professor had not evidently read the latest periodicals of the time upon whose authority Sircar made his statement.' *Indian Scientists: Biographical Sketches*, p. 14.

The Turning Point: Sarkar's 'Conversion'⁹⁷

The years 1863 to 1867 were important ones in Sarkar's life as it was within these years that the entire drama leading to his conversion unfolded. Having reached the fag end of his student life, he topped the MD examination acquiring the first position in 1863. After Chandra Kumar De, Sarkar became the second MD from Calcutta Medical College. On completion of his post graduation with flying colours, Sarkar began his practice as a young spirited doctor in right earnest. Interestingly, he did not opt for a permanent job in the subordinate provincial medical service or for a regular income or stability. Despite coming from a humble background, he had the confidence that he would be able to pull on and establish himself as a practitioner in due course. Sarkar may not have wanted to leave the urban socio-cultural milieu of Calcutta and the intellectual and material sustenance that it would have given him. The provincial service would have taken him to far flung regions of Bengal where perhaps he did not want to go at that point of time.

The year he obtained his MD degree he also joined the Bengal Branch of the British Medical Association, which had been newly established through the exertions of Dr Chukerbutty. Sarkar being one of its founder members was elected secretary for three years before becoming one of its vice-presidents. At the inaugural meeting of the association held at the residence of Dr Chukerbutty, on 27th May 1863, Sarkar gave a notable speech denouncing homoeopathy with incredible passion and in the most derisive manner.⁹⁸ This speech was to have wide ranging repercussions in Sarkar's life. In the speech he lampooned homoeopaths as the 'kinsmen of quacks'. He 'ascribed the rise and "temporary triumph of Homoeopaths and other quacks and charlatans" to the indifference and rather wanton neglect of duty on the part of the Allopathic practitioners.'⁹⁹ Referring to homoeopathy as an occult science, Sarkar

⁹⁷ Here 'conversion' refers to change or shift in the choice of the mode of physick, premised upon the admission of truth and validity in the new mode or the chosen mode of physick. See also Mahendralal Sircar, 'Ourselves; Or the Need of Catholicism in Medicine', Opening or Editorial Essay, *Calcutta Journal of Medicine*, vol. X, no. 1, Jan 1882, pp. 1-6; Mahendralal Sircar, 'Story of My Conversion', *Calcutta Journal of Medicine*, vol. XXI, no. 7, July 1902, pp. 267-77; Mahendralal Sircar, *On the Supposed Uncertainty in Medical Science, and on the relation between Diseases and their Remedial Agents; being the Address in Medicine read at the Fourth Annual Meeting of the Bengal Branch of the British Medical Association, held on the 16th February, 1867*, Calcutta: Anglo-Sanskrit Press, 1903. Also see Mahendralal Sircar, 'Our Creed', *Calcutta Journal of Medicine*, vol. 1, no. 1, Jan 1868, pp. 1-4.

⁹⁸ *Indian Scientists: Biographical Sketches*, p. 15. See also Mahendralal Sircar, 'Story of My Conversion', *Calcutta Journal of Medicine*, vol. XXI, no. 7, July 1902, pp. 267-77.

⁹⁹ *Indian Scientists: Biographical Sketches*, p. 16. See also Mahendralal Sircar, 'Story of My Conversion'; Mahendralal Sircar, 'Story of My Conversion to Homoeopathy', *The Monthly*

regarded its pursuit by any intelligent person as unworthy. The audience heard the speech with great respect and deference. As a young allopathic practitioner Sarkar was indeed in his triumphalist aplomb, more so, because his brilliant educational attainments had given him a newfound confidence and status. Babu Rajendra Dutt¹⁰⁰ one of the successful homoeopathic professionals of the day was also present in the audience. The lampooning by a young man of the pathy and profession that he adhered to might have given him a challenge to strike a conversation with Sarkar and to remind him of the basis and efficacy of this new pathy which he espoused.

Having been sufficiently affected by Sarkar's speech, Dutt saw in him, if converted, the makings of a crusader for the cause of homoeopathy. However, his repeated attempts to engage Sarkar in a discussion on the pathy yielded little and his arguments were of no avail. Sarkar did not deny the cures that Dutt effected which appeared almost miraculous in cases that were declared incurable, but he attributed them to the strict regimen adhered to. Dutt's explanations of the superiority of homoeopathy over allopathy fell on Sarkar's deaf ears as he was in no mood to relent. Not aware and unable to appreciate the 'schism of medical thought' from where homoeopathy emerged, Sarkar continued to disapprove the merits that the alternative pathy had to offer. But his tryst with homoeopathy had only begun. With the stage thus set and it was not too long before the tide began to turn.

It is from here that Sarkar's journey to homoeopathy begins. However, there was a larger background to his sudden inclination towards this new pathy. The choleraic times in which Sarkar had been born and had greatly impacted upon his childhood continued into his adult life. The shadow of cholera that had followed him became a distinct reality as he came face to face with the lethal potential of the disease. Through the nineteenth century, mortality rates were high and cholera kept giving birth to newer controversies. Cholera defied all attempts at halting its

Homoeopathic Review, vol. 46, no. 10, Oct. 1902, pp. 598-610; Sharat Chandra Ghose, *Life of Dr. Mahendralal Sircar*, Calcutta: Hahnemann, 1935.

¹⁰⁰ Rajendra Dutt (1818–89) was '[b]orn in Calcutta, 1818; educated at Drummond's school, and at the Hindu College; joined the Calcutta Medical College, to be trained in Medical Science; after leaving the College, he opened a dispensary at his own house and commenced allopathic treatment, helped by Dr. Durga Charan Banerji; In 1853 opened the Hindu Metropolitan as a protest against the laxity displayed in the Hindu college, and began to study homoeopathy; In 1857, started a business firm, Dutt, Linzu and Co., with Europeans as partners, which failed in 1861; there upon he established a homoeopathic dispensary; In 1864, Dr. Berigny came to Calcutta, and with him began to spread homoeopathic treatment; In 1867, he converted Dr. Mahendralal Sarkar (q.v.) to homoeopathy; lost great wealth in business speculations; was very generous; died June, 1889.' Taken from C.E. Buckland, *Dictionary of Indian Biography*, Delhi and Varanasi: Indological Book House, 1971, p. 28.

advancement as the disease charted out its own trajectory in the disease-ravaged province and elsewhere in the subcontinent. All this the doctor knew very well. He was also aware of his own frustration with this disease, especially his own helplessness in treating those suffering from it. Both as an MD student at Calcutta Medical College and then as a practitioner, he perhaps witnessed the cadaverising cholera taking every wit away from doctors attending to the afflicted especially during the monsoon season.

For much of the cholera history in the nineteenth century the number of ‘curative’ measures or entities within the *materia medica* was extremely small. Moreover, the drugs used to manage the patient were not administered on fixed principles and much depended on the exigencies of circumstances and on the personal conviction of individual doctors. The anxiety fostered by the baffling disease often compelled them to adopt vigorous medical treatments like bleeding and paraboiling, which increased the risk of iatrogenic damage. Pessimism was manifest in the articulations of many medical men who encountered the disease though the tone of doctors of the heroic age remained combative. The lack of an effective cure for cholera greatly bewildered and frustrated Sarkar. The use of heroic therapy to combat the disease was clearly inadequate in the face of the number of cholera deaths that took place during each epidemic visitation. As Sarkar witnessed the inefficacy of dominant medicine he was stirred by a desire to find an alternative therapeutic cure that would bring relief to the numerous cholera patients. It was against this choleraic backdrop that Sarkar turned to homoeopathy.

Sarkar’s anxiety with dominant western medicine’s inability to confront cholera became more accentuated in the immediate years following his grand speech in 1863 when he had denounced homoeopathy so disparagingly. The triumphalist aplomb that had marked his oration began to pale as he increasingly confronted cholera’s reality and dominant medicine’s failure in the wake of large-scale cholera deaths. Not long after Sarkar’s resounding speech denouncing homoeopathy, and Dutt’s failed attempts at impressing upon him the merits of the pathy, a journalist friend approached him with an offer to review Morgan’s *Philosophy of Homoeopathy for the Indian Field*. Morgan’s work became Sarkar’s point of entry into a new ‘pathy’ of which he had hitherto had only a superficial understanding and he readily agreed to its review viewing it as an opportunity of exposing the absurdity of the system. The first perusal of the pamphlet convinced him, however, that it could not be

properly reviewed without practical acquaintance with the system or scrutiny of facts before proving them false.¹⁰¹

Morgan's text not only gave Sarkar a new perspective to view the body, diseases, and drugs but also invited and induced him to delve deeper into the alternative pathy for which he had an unfounded contempt. Intrigued by its intricacies, he began to procure the works of the master himself—Samuel Hahnemann (1755–1842), the founding father of homoeopathy.¹⁰² As a fresh and inquisitive physician he explored the Hahnemannian system in great detail and was greatly impressed by its intrinsic worth and excellence vis-à-vis the mode of physik in vogue. It was at this stage that Sarkar felt the need to witness and test the efficacy of homoeopathy in practical terms. Dutt's armour consisted of persuasion, pleas, and the constant underlining of the ruining potential of heroic therapy. He had challenged Sarkar to be a witness to the homoeopathic way of treatment by appealing to his rationality and scientific temper. As an amenable volunteer-apprentice doctor, he was not only prepared to witness the Hahnemannian principles of therapeutics at work at Dutt's dispensary, but also compared his allopathic prescriptions with the latter's homoeopathic prescriptions and got the opportunity to assess the effects of those 'sweet globules' at the bedsides of patients.¹⁰³

¹⁰¹ 'A Short Account of Dr. Sircar's Life', in Amrita Lal Sircar, *Obituary Notice of Mahendra Lal Sircar*, p. 5.

¹⁰² Sarkar's initiation into homoeopathy was similar to Hahnemann's revolt. In the context of the prevailing heroic therapies with its indiscriminate purging, drugging, and blood-letting, Hahnemann had started to question his own convictions as an allopath about the crude ways in which medicine was being practiced. In his letter to a physician of high standing on the great necessity for a *regeneration* in medicine, Hahnemann poignantly revealed his feelings:

It was agony for me to walk always in darkness, with no other light than that which could be derived from books, when I had to heal the sick, and to prescribe, according to such or such an hypothesis concerning diseases, substances which owed their place in the *materia medica* to an arbitrary decision. I could not conscientiously treat the morbid conditions of my suffering bretheren by these unknown medicines, which being *very active substances* (emphasis added), may (unless applied with the most rigorous exactness, which the physician cannot exercise, because their peculiar effects have not yet been examined) so easily occasion death, or produce affections and chronic maladies, often more difficult to remove than the original disease. To become thus the murderer or the tormentor of my bretheren was to me an idea so frightful and overwhelming, that soon after my marriage, *I renounced the practice of medicine* (emphasis added), that I might no longer incur the risk of doing injury, and I engaged exclusively in chemistry, and in literary occupations. But I became a father, serious diseases threatened my beloved children, my flesh and my blood. My *scruples redoubled* (emphasis added) when I saw that I could afford them no certain relief.

See Thomas Lindsley Bradford, *The Life and Letters of Dr. Samuel Hahnemann*, Calcutta: Roy Publishing House, 1970 First Indian edition (First Published in 1895), p. 33. I have quoted at length from this letter because it contains all the seeds of Hahnemann's formulation of homoeopathy.

¹⁰³ Sharat Chandra Ghose, *Life of Dr. Mahendra Lal Sircar*, pp. 50–70.

For Sarkar experimentation became crucial for understanding the working of homoeopathy, as experimental evidence becomes public knowledge, *par excellence*, with the power of carrying complete conviction.¹⁰⁴ Through his association with Dutt's clinic he became aware of the limitations and contradictions of old training and conditioning of the orthodox medical practice, explored the possibilities of the new one, and also tried to innovate within it and qualify it further. Observing several cases at Dutt's dispensary, Sarkar concluded that there was a grain of 'truth in the system and the profession had been doing a most gross injustice to it by ostracising those who adopt[ed] it.'¹⁰⁵ Dutt stood by Sarkar's side as he grappled and tried to come to terms with the new realisation that was dawning before him. Dutt himself had served the cause of the pathy with a 'missionary zeal' to the extent of even losing his son in his devotion to the cause of homoeopathy.¹⁰⁶ His spirit and conviction was to live on in Sarkar. In later years, when Sarkar was attending on the dying Dutt, he felt a sense of helplessness as he was unable to do justice to the man who had been a source of great succour and inspiration for him. His death left him lonely as the persuasive, critical companion was gone, but for Sarkar, carrying on Dutt's legacy was the most fitting tribute to the man who had been instrumental in changing the trajectory of his life and practice as a physician.

Rajen Dutt was not the only one to prevail upon Sarkar to overcome his contempt for homoeopathy. Vidyasagar, a common friend and mentor, further persuaded him to comply with Dutt's request. By and by, Sarkar's earlier certitude melted away, though the clouds of dilemma kept hanging before him, further accentuated by the cholera deaths all around. Doubt and anxiety remained not because of the repercussions, which he anyway had not anticipated, but because of the core questions pertaining to therapeutics that constantly nagged and haunted him, compelling him to reassess his own training as a practitioner prescriber-physician of the orthodox pathy. The torment remained, for his dual loyalties could not be so easily

¹⁰⁴ For importance of experimentation, see John Ziman, *Public Knowledge: An Essay Concerning the Social Dimensions of Science*, London: Cambridge University Press, 1968, p. 32.

¹⁰⁵ 'A Short Account of Dr. Sircar's Life', in Amrit Lal Sircar, *Obituary Notice of Mahendra Lal Sircar*, p. 5.

¹⁰⁶ Rajen Dutt's younger son, 'Upendra, fell a victim to an attack of enteric fever. All the doctors of the city gathered in his house; there was a considerable pressure to persuade Dutt to have his son treated with the allopathic medicines, but he would not agree because that would go to prove the superiority of allopathy over his own system. He was told that it was an established convention for a doctor not to treat his near relation, to which Dutt replied that his brain was cool enough to be able to treat his own son. The son died but the conviction of Dutt survived.' See S.P. Sen *Dictionary of National Biography*, vol. IV (S-Z), p. 68.

reconciled. Sarkar did not entirely debunk allopathy or the old school in the sense that he did not want to stop dialogue with the adherents of allopathy but rather wanted to assert his freedom as a physician in opting for the more certain proven, efficacious and controlled therapeutic options. In fact, in later years, he did not like the appellation of a 'homoeopath' and defended his right as a physician. At the same time, he did not want to become another pillar of medical orthodoxy. The two options before Sarkar ran in conflicting directions. One path was of convention and certainty, the other, was covered with thorns and uncertainty. On the one hand, were the delights of power, wealth, and comfort of a bhadralok doctor and, on the other, lay the yet unanticipated path of dry fodder, sacrifice and deprivation. But Sarkar was not one to give up the game in despair.

With the experience and exposure at Rajen Babu's clinic and, gradually in conversation and dialogue with himself, Sarkar was able to break the mould in which he was cast and was ready to mitigate and drop some of his conditioning, and reach a physiological state where there did not remain much to prejudice so as to preclude a full consideration of all points of view to come to a judicious and professional decision to state his parting of ways. Not only was he sure of the wisdom of his act, he was also prepared to act against cheap propaganda and was not ready to be outmaneuvered. In the course of his years of trial Sarkar often had to staunchly defend his new found medical conviction with strong convincing condemnation of the prevailing orthodoxy, with an aim towards refining but not abandoning it entirely, as all of his jolting statements were always followed by reasoned and impassioned arguments. A parallel reading of Sarkar's speech on '**Uncertainty in Medical Science**'¹⁰⁷ with that of Hahnemann's '**Uncertainty letter**' stands testimony to the initial dilemmas, compulsions, and intellectual underpinnings which ensured his parting of ways.¹⁰⁸

Sarkar's first public declaration of his 'conversion' to homoeopathy was made at the fourth annual meeting of the Bengal branch of the British Medical Association, at the same place and forum where four years earlier he had so grandly denounced the

¹⁰⁷ Mahendralal Sircar, *On the Supposed Uncertainty in Medical Science, and on the relation between Diseases and their Remedial Agents; being the Address in Medicine read at the Fourth Annual Meeting of the Bengal Branch of the British Medical Association, held on the 16th February, 1867*, Calcutta: Anglo-Sanskrit Press, 1903.

¹⁰⁸ It is useful and instructive to read Sarkar's *On the Supposed Uncertainty in Medical Science* speech along with Hahnemann's uncertainty letter. The parallelisms between them are not incidental and are instructive.

pathy. On February 1867, a much-mellowed Sarkar presented a paper titled *On the Supposed Uncertainty in Medical Science and on the Relation between Diseases and their Remedial Agents* before his colleagues. This paper presented in the form of a speech was to be the landmark event of Sarkar's 'conversion' to the new pathology. In the same spirit in which Hahnemann had written a letter to Hufeland¹⁰⁹ on the '**Great Necessity of a Regeneration in Medicine**' where he gave vent to his anguish regarding the uncertainty of medical practice, Sarkar too agonisingly voiced his discontent with the medical science and practice of the day and its inadequacy in providing the right prophylactic cure for diseases at large. On this day, which 'will ever remain memorable in the history of the medical profession in India', Sarkar stood up arguing for reform in medicine, alone and single-handed as he delivered a stirring defense of his new formative medical conviction and a critique of the prevailing orthodoxy. He saw the condemnation levelled at him as directed at the essence of the spirit of science, and its process of observation and experimentation. These were not to be dealt with prejudice and orthodoxy as it tantamounted to science itself being put on trial before rationality and reason. Sarkar declared that for the sake of science he was prepared to be tried several times over.¹¹⁰ Conviction was thus being shaped and the link between the individual issue of his 'conversion' and the large societal issue was becoming comprehensible. It was with this conviction that he also professed a parting of ways from those who sought the favour and protection of orthodoxy.¹¹¹

Sarkar's first speech of uncertainty and subsequent writings in defence of the former had literacy grace and elegance as well as a tone of passionate sincerity. It was both sentimental and persuasive and few among his colleagues could have matched up to him. In the later years, gradually but emphatically, Sarkar rendered those lessons which the appreciation of schism in medical thought underscored in the era of 'medical uncertainty'. His will to appeal repeatedly for a cause reflected his ardent sincerity and added emotional depth to his intellectual conviction. The speeches and writings of the doctor struck its listeners and readers as refreshingly free

¹⁰⁹ Thomas Lindsley Bradford, *The Life and Letters of Dr. Samuel Hahnemann*, p. 33.

¹¹⁰ For details of Sarkar's views on his conversion and critique of medical orthodoxy, see Mahendralal Sircar, 'Ourselves; Or the Need of Catholicism in Medicine', Opening or Editorial Essay, pp. 1-6; Mahendralal Sircar, 'Story of My Conversion', pp. 267-77; Mahendralal Sircar, *On the Supposed Uncertainty in Medical Science, and on the relation between Diseases and their Remedial Agents; being the Address in Medicine read at the Fourth Annual Meeting of the Bengal Branch of the British Medical Association, held on the 16th February, 1867*. Also see Mahendralal Sircar, 'Our Creed', pp. 1-4.

¹¹¹ Mahendralal Sircar, *On the Supposed Uncertainty in Medical Science*.

and articulated his understanding of the limits of the orthodox pathy in which he was trained. By his expatiation of the critical questions raised by the other pathy and his understanding of the nature of schism of medial thought and the lessons it underscored for doctors or physicians like him, he was able to cast the net of his appeal for reform in medical practice far and wide among other doctors.

The ‘uncertainty’ speech was certainly free from the hackneyed phrase and narrow vision which prevailed at that time and which equated homoeopathy with quackery. Sarkar’s replies and rebuttals were a stirring evocation of the medical past of humanity as an instrument to explain the present and give hope for the future. The passion with which he rendered his speech and the negative reactions it provoked made him aware of how dogmatic science could become. This realisation added emotional depth and passion to his expression of intellectual conviction in the new pathy. The utopian glow of the alternative way to read diseases and health as shown by Hahnemann charmed him but his radical way of functioning and his new ways of medical practice perturbed him too. It is in this crucible of tension that he decided to give homoeopathy a fair trial. The parting of ways had indeed arrived.

‘After the private moment of illumination, there must come the public demonstration, the deliberate process of persuasion. That is why one concedes that a good experiment is a powerful piece of rhetoric; it has the ability to persuade the most obdurate and skeptical mind to accept a new idea [and that]; it makes a positive contribution to public knowledge.’¹¹² Sarkar after his private moments of illumination became amenable towards the efficacies of homoeopathy and was convinced to contribute his might against its public discrimination by publicly declaring the reasons for the change of his own choice. The immediate experience at the hands of peers and professional brethrens from the Bengal branch of the British Medical Association, the medical college and the representative of the medical press—the *Indian Medical Gazette*—made it clear to Sarkar that sullen passivity not only reigned among the masses but also amongst the intelligentsia. He decided to throw the full weight of his conviction against this defeatist mentality.

The idea to ‘convert’ to the much discriminated pathy was quite daring and dramatic but definitely not hasty and without judicious trial. The criticality that compelled him to favour a particular strand or shade of therapeutic probing and option

¹¹² John Ziman, *Public Knowledge*, p. 36.

was a professional decision and the idea of establishing an institution for ‘Cultivating Science’ was linked to that decision.

Sarkar’s declaration of his new medical ‘faith’ had been an ‘act of intellectual honesty which no doubt exhibited his moral courage.’¹¹³ But the consequence of his ‘uncertainty’ speech was to prove disastrous for him, for he was literally out casted by the whole body of allopathic doctors and bitterly persecuted by some of them for the change of his ‘faith’. He was cornered, castigated, lampooned, criticised, and finally thrown out of the Bengal chapter of the British Medical Association. In these hard times, it was difficult for him to even retain his practice. Excommunicated by the Medical Association, Sarkar was left forlorn and bereft of the medical pedigree and fraternity that he had hitherto been a part of. There might have been various sub-plots to the main drama of his conversion to homoeopathy or ‘quackery’ as he had once himself described it, doing the rounds among the ‘gossipy’ bhadraloks but for Sarkar it meant frustrating isolation. The gap between rhetoric and action, between conviction and execution of his professional peers was driving home a lesson. Sarkar had not anticipated such dogmatic and contemptuous behaviour. He had never imagined that he could touch and test the limits of the liberal spirit which epitomised the marriage of British education, rationality and aesthetic refinement and the claimed civilisational tolerance by such one act of ‘heresy’. The orthodoxy and parochialism of both his native and European peers on the question of his espousal of the efficacy of homoeopathy was a revelation for Sarkar. Instead of submitting to orthodoxy, he fought for the freedom of a physician to think and act rationally. Even on facing contempt, ridicule and loss of practice he did not harbour a revengeful attitude. As a perceptive doctor he understood that these ‘signs and symptoms’ were nothing but a manifestation of the lack of scientific temperament in society.

However, even in these tormenting moments he was not alone as there were many convinced souls like Rajen Babu, Vidyasagar and Rajendralal Mitra who stood by him and continued to be a pillar of inspiration. In these insecure years, Sarkar could look beyond the web of envy and prejudice and earnestly sought to weave a ‘web of complementarity’ of a different kind. The rebuttal and castigation he faced prepared and gave him the strength, conviction, and commitment to tread an unbeaten path. It was in these very insecure years that Sarkar set about laying the basis of his

¹¹³ *The Indian Nation*, 29th February 1904, in Amrita Lal Sircar, *Obituary Notice of Mahendra Lal Sircar*, p. 25.

life's long-term agenda and commitment by doing two grand things. One was the founding of a journal called the *Calcutta Journal of Medicine (CJM)* in 1868. The second was that in the following year, through the same journal he floated the idea and vision of a national science association for cultivating science. During these anxious years of his life, Sarkar not only entertained such grand utopias,¹¹⁴ but plunged head-on to realise these ideals by stepping out of the limits of his professional peer group to establish communication with the literati at large by directly addressing them.¹¹⁵ In those restless years his rebellion and the consequent reprimand that he had faced further sharpened his interest in the history of medicine and commitment towards the larger question of science. In the wake of the controversy he had to simultaneously confront, refute and persuade, his readings also became wider and his commitment sturdier. In this broadening and sharpening of his interest, one can witness the change of his mood. His perspective had widened enough to appreciate contrary thoughts and concerns. One can see foreshadowed the mature man—the doctor in the making and his unconscious self-disclosures—who was soon to find his life's most enduring satisfaction in a long career as a successful and open-minded physician.¹¹⁶

After boldly avowing his conversion to the Hahnemannian system of curing diseases, though this put him in great pecuniary difficulties and made him an object of ridicule to the members of his profession and of scolding to those of his family, Sarkar gradually gained ground and his practice soon began to look up. He made a number of wonderful cures which so spread his reputation that his rooms once again

¹¹⁴ It should be remembered that the IACS was visualised in the image of the Royal Institution and the British Association for the Advancement of Science.

¹¹⁵ See two seminal essays by Mahendralal Sircar, 'On the Desirability of Cultivation of the Sciences by the Natives of India', *Calcutta Journal of Medicine*, vol. 2, no. 8, Aug. 1869, pp. 286-91. Also reprinted in Arun Kumar Biswas (comp. & ed.), *Collected Works of Mahendralal Sircar, Eugene Lafont and the Science Movement (1860-1910)*, Kolkata: The Asiatic Society, 2003, pp. 40-44; 'On the Necessity of National Support to an Institution for the Cultivation of the Physical Sciences by the Natives of India', *Calcutta Journal of Medicine*, Jan & Feb. 1872, pp. 37-. Also reprinted in Arun Kumar Biswas (comp. & ed.), *Collected Works of Mahendralal Sircar, Eugene Lafont and the Science Movement (1860-1910)*, pp. 69-80. In defence of his heresy, Sarkar published an essay clarifying his stance regarding his medical perspective and the need for the inculcation of science, see Mahendralal Sircar, 'Ourselves; Or the Need of Catholicism in Medicine', pp. 1-6. For Rajendralal Mitra's defence of Sarkar in the context of his association with the medical faculty of Calcutta University, see Raj Jogeshur Mitter (ed.), *Speeches by Raja Rajendralal Mitra*, Calcutta: Messrs S.K. Lahiri and Co., 1892. See the speech titled 'The Hon'ble Dr. Sircar and the Faculty of Medicine', pp. 90-100. This speech was delivered by Rajendralal Mitra in defence of Dr Mahendralal Sarkar 'at a meeting of the Senate held on 31st August 1878 to consider the resolution of the Medical Faculty and Dr Mahendra Lal Sircar's letter in reference thereto regarding his nomination to that body'.

¹¹⁶ Betsy Copping Corner, *William Shippen, Jr. Pioneer in American Medical Education*. Philadelphia: American Philosophical Society, Independence Square, 1951, p. 2.

began to get crowded with visitors and patients. The laity really did not care by what system they were treated provided they were healed and cured.¹¹⁷ Thus he was able to regain his old practice. Within a short period he found himself at the top of the medical profession in Calcutta with an income surpassing that of most successful practitioners in the regular line. Again he sat enthroned in his old position of a premier medical practitioner in Calcutta with the added fame and glory of a great votary of truth who had stood up with fearless courage for his convictions, under circumstances which would surely have perturbed a weaker man into partial submission to his detractors. In the course of a few years, his fame, as an eminent homoeopathic practitioner, spread from one end of the country to the other. Towards the end of his life when a painful illness restricted his mobility, he raised his fee to save himself from the supplications of his patients; yet 'people would still crowd at his door, in such high faith and estimation was his medical skill held by them.'¹¹⁸ The faith that people reposed in him was taken note of by *The Indian Nation* at the time of his death:

In the end, we believe he was a gainer rather than a loser by his practice of homeopathy. The faith of public in the system rapidly increased, and for many years Dr. Sircar was, in the opinion of the public, the one representative of homeopathy. Even up to his last days, he had this monopolising hold over the mind of several, if Dr. Sircar had failed to cure a patient, homeopathy could do nothing for him; and if he had not taken a patient in hand, homeopathy had not been tried, though many other homeopaths may have treated him. This was the almost universal belief.¹¹⁹

As he became a tower of strength to the cause of homoeopathy, Sarkar also stood for toleration and exchange of medical knowledge at its uncertain state of knowledge formation. By his stand, he contributed to the growth of toleration and paved way for exchanges of knowledge and views among the votaries of the different systems in this country. The practice of healing was to be made more science based, more rational and refined and open to scrutiny and criticism. Implicit in it was what Karl Popper later called falsification though the appeal to it at that time appeared certainly much more mild and intuitive owing to the empiricist strand.¹²⁰

¹¹⁷ *Indian Scientists: Biographical Sketches*, p. 22.

¹¹⁸ *The World and the New Dispensation*, 28th February 1904 in Amrita Lal Sircar, *Obituary Notice of Mahendra Lal Sircar*, p. 35.

¹¹⁹ *The Indian Nation*, 29th February 1904, in Amrita Lal Sircar, *Obituary Notice of Mahendra Lal Sircar*, p. 25.

¹²⁰ Karl Popper, *The Logic of Scientific Discovery*, 1959; London and New York: Routledge, 2002.

Sarkar's conversion to homoeopathy was then not a chance happening, nor was his engagement with it an amateur hobby that he had developed. His 'change of creed' was very much a professional decision—a decision taken as a 'physician awakened to a sense of awful responsibility of his calling'.¹²¹ The context of cholera as a recurrent malady and its lack of treatment in allopathy, made Sarkar realise the lacunae in the then prevailing heroic therapies and also allowed him to appreciate homoeopathy, as we shall argue, with critical perspective.

Not long after the IACS had been inaugurated, Sarkar was again drawn into another major controversy. In 1870, three years after his declaration of faith and excommunication by the Bengal Branch of the British Medical Association, he was appointed a fellow at the Calcutta University where he was placed in the faculty of Arts. In 1878, Sarkar was transferred to the Faculty of Medicine, a move that was strongly opposed by the Medical faculty who passed a resolution on 27 April 1878 for his removal from its faculty. They vehemently objected and raised serious reservations to Sarkar's involvement in and practice of 'the absurd and unscientific system of homoeopathy'.¹²² With the medical establishment once again rearing its ugly head of orthodoxy, Sarkar raised his voice against the injustice heaped upon him by writing two letters.¹²³ In these letters he went about explaining the basic principles of homoeopathy and how as a system of healing it was no less significant than any other branch of medicine and that he had approached the system from a scientific basis. This time, however, the Senate of Calcutta University proceeded more cautiously in the matter. After a careful perusal of Sarkar's letters, the Senate did not remove him from the Medical faculty, a step that angered and left the faculty members greatly disappointed. The hostile attitude of the faculty ultimately left Sarkar with little choice but to resign.

Sarkar's rebellion like his earlier one was directed against the establishment and his orthodox peers. But while the establishment itself came in his defense, he was not able to fight off the prejudice and intolerance of his orthodox colleagues.

¹²¹ Mahendralal Sircar, *A Sketch of the Treatment of Cholera*, Preface, pp. iii to v.

¹²² 'A Short Account of Dr. Sircar's Life', in Amrita Lal Sircar, *Obituary Notice of Mahendra Lal Sircar*, p. 6.

¹²³ See 'Dr. Sircar's First Historic Letter' (pp. 231-36) and 'Dr. Sircar's Second Famous Letter' (239-47), in 'The Account of Dr. Sircar's Persecution by the Medical Men (1878)', in Arun Kumar Biswas (comp. & ed.), *Collected Works of Mahendralal Sircar, Eugene Lafont and the Science Movement (1860-1910)*, pp. 229-48.

However, what he did achieve through his letters was to place homoeopathy on a higher ground. In his second letter, Sarkar set forth the cardinal doctrines of homoeopathy ‘with indisputable facts and authoritative opinions from the best men of profession, from Hippocrates downwards, making it clear to anyone who would take the trouble of reading it that Homoeopathy was really the only scientific system of medicine as yet established, and not the absurd and irrational system of transcendental nonsense as misrepresented by the Faculty.’¹²⁴

These two letters were testimonies not only of Sarkar’s conviction, tenacity of purpose, sharp and biting wit, and his capacity to refute by logical reasoning and coherent argument, but also his deep knowledge of the history of medicine. Both these letters can be independently read as two essays on the evolution of medical thought and its creative interpretation. The strong rebuttal in the form of these two letters silenced all the earlier murmurings and Sarkar eventually acquired a secure place in the annals of Calcutta University. The same university was to later honour him in many ways. Between 1893 and 1897, he served as the president of the faculty of Arts and, in 1898, he was bestowed an honorary D.L or Doctor of Law degree by Calcutta University. After his resignation from Calcutta University, Sarkar immersed himself whole-heartedly in running the Association.

Sarkar’s other long-term goal and commitment was the creation of a medium or mouthpiece to articulate and disseminate his ideas. In January 1868, less than a year after he had publicly declared his faith in homoeopathy, he began editing *The Calcutta Journal of Medicine*, a journal catholic in name and spirit, with the sole purpose of drawing public attention to the rationale and efficacy of homoeopathy as a medical system over others.¹²⁵ In the process, he faced considerable resistance from the entrenched medical elite of the city, gave up his practice and courted ridicule, reprimand, and rustication, though he remained optimistic, stoic and determined not to be pushed into depths of ignominy and oblivion. Through his rebuttals articulated in the journal, Sarkar struck back by presenting homoeopathy with its ‘logical teeth brushes and its observational trouser seams’¹²⁶ sharply creased. He delved deep into the medical literature from 1865 to 1880s, wrote profusely, and practiced passionately but he was never intoxicated with success. His wide reading sustained the medical

¹²⁴ ‘A Short Account of Dr. Sircar’s Life’, in Amrita Lal Sircar, *Obituary Notice of Mahendra Lal Sircar*, p. 6.

¹²⁵ S.P. Sen, *Dictionary of National Biography*, vol. IV (S-Z), p. 68.

¹²⁶ John Ziman, *Public Knowledge*, p. 34.

writings he indulged in for the journal becoming, in the process, an excellent medical journalist.¹²⁷

Through sheer talent, conviction, commitment, and the capacity for prolonged and concentrated work, Sarkar once again rose rapidly in his profession. He conducted the journal almost single handedly up to the day of his death. It demanded commitment of high order and ‘much sacrifice of money and time which he ungrudgingly gave amidst his professional and multifarious public duties. In a country like Bengal where everything is short-lived and the fire of enthusiasm in a good cause blazes up suddenly and dies out as quickly, the regular conduct of a scientific journal for over a period of 36 years speaks volumes for the ability, resourcefulness, energy, determination and perseverance on the part of the Editor, and these are qualities well worth [emulation] by his countrymen.’¹²⁸ Sarkar understood the public mind well, but he shunned a propagandist behaviour and was ready to compare and contrast in light of evidences. Neither did he resort to cheap publicity. The journal became a medium for establishing the reputation of the hitherto discriminated homoeopathy and its efficacy.

The *CJM* carried not only Sarkar’s medical ideas and musings but was also the channel for transmitting the doctor’s germinating ideas on the ‘cultivation of science’ among native Indians. In the journal’s issue of August 1869, Sarkar floated the idea of an institution for the cultivation of national science for the first time. The particular issue carried an article titled ‘On the Desirability of a National Institution for the Cultivation of the Physical Sciences by the Natives of India’, which became the starting point of the Indian Association for the Cultivation of Science (IACS).

The journal had already become the most powerful exponent of homoeopathic principles while guarding and retaining its catholicity. It was not only a medium for Sarkar to ventilate his own views pertaining to homoeopathy but remains till today an important source of medical history and thought of the nineteenth century. In the doctor’s own words it was to nurture and foster ‘the germ of a beneficent truth

¹²⁷ The importance of his journalistic contribution can be assessed from the tribute paid by *The Indian Nation* when he was no more: ‘The legal profession is strong in Bengal but the entire province has no legal journal, never had any except for two brief periods of two years each. Dr. Sircar maintained the reputation of the native section of the medical profession by his journal the *CJM* which he started in 1868 and which he edited for many years, almost entirely unassisted, and we believe at no little sacrifice.’ *The Indian Nation*, 29th February, 1904, in Amrita Lal Sircar, *Obituary Notice of Mahendra Lal Sircar*, p. 24.

¹²⁸ J.P. Bose (ed.), *The Scientific and Other Papers of Rai Chunilal Bose Bahadur*, vol. II, p. 391.

capable of indefinite development'. In his autobiographical confession of his uncertain times he pointed out:-

It became but too evident that I must not content myself with merely practicing the new system in which I had recognized the germ of a beneficent truth capable of indefinite development, but that I must help in that development and do all in my power to diffuse a knowledge of it among the profession and the public, I had no hopes of doing it through the medium of the *Indian Medical Gazette*, the only orthodox journal in India, whose columns were shut against me even for reply to unfounded charges and slanderous accusations. I thought it not only inadequate but also undignified to do so through lay journals, I saw that I must have a journal of my own if I was to fulfill my mission at all. The attitude of the Press in India encouraged me to take the risk.¹²⁹

The success achieved by the journal since its inception is fully borne out by the gradual popularity and the subsequent entrenchment of homoeopathy in Bengal. In the wake of the conversion-controversy, and his efforts to surmount his own marginalisation, allied the journal to many other principal figures in the colonial capital's financial, social, and professional circles. This helped Sarkar to build a web of complementarity that in turn was instrumental in sustaining and nurturing both the IACS and the *CJM*. The journal occasioned and allowed ideas to be debated creating, catalysing, and refining them continuously. In the process a convergence of conviction was realised among voluntary enthusiasts and stakeholders and the will to accept responsibility was fostered. A few among them did come forward to help the doctor in shouldering responsibilities of the IACS by their varied contribution to the institution. Sarkar's future was now clearly charted, a life in medicine and for the IACS, both complementing each other.

Sarkar through his *CJM* and also through other forums emphasised scientific drug proving as the basis for disease therapeutics. By assimilating scientifically and judiciously what homoeopathy had to offer in terms of new therapeutic options, he urged medical men to derive benefit from homoeopathic drug provings and the expanding material medica. For Sarkar drug proving was the soul of homoeopathic ways and means to achieve cure and to restore health. The expanding material medica as being compiled on the basis of drug proving in Hehnmannian tradition, provided immense scientificity, specificity and flexibility to homoeopathic proven drugs. It allowed physicians not only to assess symptoms from homoeopathic perspective but also to identify a remedy according to the therapeutic option provided by

¹²⁹ *Indian Scientists: Biographical Sketches*, pp. 25-26.

homoeopathy. Sarkar always underlined that drug proving was the strength of the material medica and the soul of homeopathic therapeutic option. Presiding over the celebration of the 135th anniversary of Hahnemann's birthday, Sarkar cautioned that

Hahnemann's birthday should be celebrated not by simply dwelling on the generalities of his doctrines, for already all that could and need be said about the ignorance and opposition of the dominant profession, about the unscientific character of old medicine, and about the scientific character of the new system, has been exhausted. These anniversaries should be celebrated by doing something by way of continuation of the work began by the great master, and he (Dr Sircar) could not think that they could do better than bring to these anniversary meetings at least one new proving and one reproving. Their country was a rich store-house of remedial agents, and if they only followed in the path pointed out by Hahnemann then they could add immensely to the *Materia Medica Pura*. Those who practice homoeopathy must have become convinced that for a large majority of diseases they have not got the appropriate remedy, and that the drugs already in their possession require to be more thoroughly proved than they have been, in the light of modern advanced knowledge of the structures and functions of animal organisms. There was necessity therefore not only of provings of new drugs but of reprovings of the old ones. He therefore hoped that they shall be able to inaugurate this era for homoeopathy in India at the next anniversary.¹³⁰

¹³⁰ 'Speech of Mahendralal Sircar while presiding on the celebration of the 135th anniversary of Hahnemann's birthday', as reported in *Reis and Rayyat*, vol. IX, no. 419, April 12, 1890, p. 176.



Figure 2.1: Dr. Mahendralal Sarkar, one of the earliest and famous converts to homoeopathy in nineteenth century India. Sarkar was born on 2nd November 1833, graduated in medicine from Calcutta Medical College and obtained the degree of Doctor of Medicine (M.D.) in 1863, and declared his faith in homoeopathy in 1867. He lived as an accomplished and much sought after homoeopath all his life. He died on 23rd February 1904. He founded an institution called Indian Association for the Cultivation of Science (IACS, 1876) for the promotion of scientific spirit and basic research in science among natives in India. Sarkar's journal *Calcutta Journal of Medicine* which he single-handedly edited for more than twenty years played an instrumental role not only in the dissemination of homoeopathy but also in animating the medical debates of those times.

Note: The pointed arrow in the picture reveals the spine of the book under Sarkar's elbow as *Hahnemann's Chronic Diseases*. This picture is Sarkar's most widely circulated picture and the bust at the entrance of the IACS veranda is nothing but a three dimensional replica of it.

The Indian Association for the Cultivation of Science: Realising a Vision

From here we enter the entwined lives of Sarkar and the institution he created and nurtured. The significant lesson he learnt while defending his professional decision to change to homoeopathy, and the concomitant controversy it raised, was that the fight against dogmatism could not be sustained by individual efforts alone, but required an institutional basis. It should also be remembered that Sarkar all through his public life after 1868 reeled under the perennial temptation and consequent tension of establishing a homeopathic college—an easier and natural step for him.¹³¹ Instead, he struck at the root of the problem by addressing the larger agenda of the cultivation of science. In the age of social reform he added an altogether different but much needed dimension of cultivating science for the regeneration of the nation.

Sarkar chose to weave a ‘web of complementarity’ around science as the spirit of free enquiry. His desire to found an institution for the cultivation of national science was an expression of this contested culture of enquiry. It was in this sense that his vision was an expression of the initial quest of modernity and nationalism. The ideas, initiatives, and responses as revealed through *CJM* and also through a plethora of native Bengali medical and science journals in the last quarter of the nineteenth century clearly reveal the convergences of cultural concerns pertaining to its societal, political, and economic role of science. However, the prevalence of a speculative aura and pessimism bordering on fatalistic belief in Indian society deeply anguished him. But Sarkar saw that it could be challenged and men of conviction from different realms did pose challenges and sought resolutions from their own realm of activities. He wanted to usher in an era of culture of science through ‘cultivation’, which encompassed within itself both research and the popularisation of science. Sarkar saw in the symptoms of his age the opportune context for the collective activity of cultivation. He had in mind the creation of an institution modeled upon the Royal Institution in London. He identified the popularisation of science among the masses as

¹³¹ Sarkar was very pleased when the Banaras Homoeopathic Hospital was opened by J.B.H. Ironside, a judge in Banaras, who himself was an amateur homoeopath. Sarkar knew Babu Loknath Moitra who ran the hospital, as he was also a pupil of Rajendra Dutt, the individual who oriented Sarkar towards homoeopathy. Due to his heavy engagements and preoccupations with IACS and the *CJM*, he never had the occasion to actually open a homoeopathic college and hospital at Calcutta. Following the Banaras example, he definitely desired others to venture towards establishing a homoeopathic hospital, though one is not sure whether he wanted an exclusive homoeopathic college or not? Even if he may have thought about it in his initial days, as his vision of plural medicine gained ground and shape, the logic of a homoeopathic college might have lost its relevance, though he never really opposed homoeopathic physicians who wanted to establish such colleges.

the initial step, but this was to be a means towards the fulfillment of the former long-term goal of research. For him, the kind of knowledge best calculated to remove prejudice and the spirit of intolerance from the mind was the knowledge of natural science. The retrogressive tendencies of Indian society could only be remedied, according to Sarkar, by the training that resulted from the investigation of natural phenomena. His agenda for 'national science' took off with a trenchant 'unpatriotic critique' of India's past, and he urged and exhorted for 'Baconian aplomb' and the Comtean appreciation for positivist science. Sarkar was witness not only to the prejudice and orthodoxy of the society at large, but also to the orthodoxy and parochialism that he faced due to his 'change of creed'. This further convinced him that, science understood and practiced only in a narrow disciplinarian sense, was of no avail. He, therefore, defined and identified science in the broadest way as a rational way of thinking. He accorded science, the status of an ameliorative and emancipatory moral force, and conceived his Science Association as a great seat of science and not just utilitarian science in this sense.¹³²

Sarkar was prescient in realising the need for a proper scientific climate for the march towards national progress. In other words, the progress towards a better order of civilisation was incumbent upon the pursuit of science, which engaged human capacities of reasoning to counter 'the retrogressive influence of age-old prejudices and superstitions'.¹³³ Raja Rammohan Roy was one of the earliest to have felt the need of such a scientific organisation but had not lived long enough to realise it. Sarkar's vision of an institution for national science was in a sense a realisation of this need. In his article 'On the Desirability of a National Institution for the Cultivation of

¹³² Mahendralal Sircar, 'On the Desirability of a National Institution for the Cultivation of the Sciences by the Natives of India (1872-1876)', *IJHS* Supplement, vol. 29, no. 1, 1994, pp. S1-S46. This supplement is an assortment of primary sources depicting the germination of the idea of a science association as enlisted below:

1. 'Lecture delivered by Mahendralal Sircar at a meeting of the Bethune Society held in the Medical College Theatre on the 1st, and at a meeting of the Literary Branch of the Uttarpara Hikari Sabha, held at Uttarpara on the 14th February 1872.'
2. 'First Meeting of Subscribers to the Projected Science Association' (4th April, 1875).
3. 'Letter from the Lieutenant-Governor dated 3rd May, 1875 to Mahendralal Sircar'.
4. 'Report of the Provisional Committee in 16th December 1875'.
5. 'A Sketch of the Scheme of the Science Association, Mahendralal Sircar'.
6. 'A Memorial in Honor of the Prince's Visit' (*The Hindoo Patriot*, 20th Dec. 1875).
7. 'Joint Meeting of Subscribers to the Science Association and of the Indian League' (28th Jan. 1876).
8. 'Aid by Government to the Native Association for the Cultivation of Science' (23rd Feb. 1876).
9. 'List of Subscribers/Donations'.

¹³³ S.P. Sen, *Dictionary of National Biography*, vol. IV (S-Z), p. 70.

the Physical Sciences by the Natives of India', he emphasised tolerance as the other side of open mindedness:

Absolute toleration of all opinions should mark civilization properly so-called. Until men should learn to respect each other's honest convictions, and until they should be free from all prejudices, in other words, be fearless of the consequences of discoveries in the fields of knowledge, they cannot be said to have become civilized men. The one thing which can secure this blessing, the toleration, freedom from prejudice, is knowledge.¹³⁴

Sarkar was constantly arguing for knowledge, for tolerance, freedom from prejudice, to be open to everyone else's thoughts and convictions. This, after all, is the basis of science. He elaborated further, '[t]he kind of knowledge which is best calculated to remove prejudices and the spirit of intolerance in the mind is what one passes by the name of physical sciences.'¹³⁵ For Sarkar the term 'physical science' was all-inclusive and meant all rational modalities of probing into the mysteries of nature and conditioning our life through those insights.

Having floated the idea of a national science in August 1869, Sarkar earnestly set about the task of realising it. Given the trajectory of Sarkar's life so far it is not too difficult to see the lively links between his conversion into a new creed of medicine and his subsequent veering towards the foundation of a National Science Association for the espousal of science as a moral force permeating every aspect of cultural existence. Notwithstanding his sincerity towards his avowed aspiration and mission, it was not until a few years had elapsed that the foundation stone of the institution was laid in 1876. Until then, Sarkar was still trying to stabilise himself as a practitioner in homoeopathy especially in the face of the castigation he received from the dominant medical orthodoxy. As he attempted to deal with the ignominy he was facing through his journal and his own practice, the idea of the cultivation of national science never once faded but remained vibrant in his mind.

However, both time and circumstances were largely unfavourable for the germination of Sarkar's vision. In Calcutta, few institutions then were equipped to teach science and with employment avenues being limited, there was little encouragement to take up physical sciences. In general, there were few who recognised or appreciated the importance of studying science. Sarkar, then, 'had not only to prepare the soil but also to provide for an adequate supply of nourishment to

¹³⁴ Mahendra Lal Sircar, 'On the Desirability of Cultivation of the Sciences by the Natives of India', *Calcutta Journal of Medicine*, vol. 2, no. 8, Aug. 1869, pp. 286-91.

¹³⁵ Ibid.

the young plant for which he had to depend upon an unappreciative public.’¹³⁶ The metaphor of ‘cultivation’ invoked by him was not at all inappropriate on the contrary as apt in more than one sense.

Sarkar had early made an appeal for generous support to realise his project but it fell on deaf ears.¹³⁷ But he was also well aware of the importance of official support and legitimacy as being ‘the only key to unloose[n] the purse-strings of his wealthy countrymen.’¹³⁸ After languishing for almost seven years, the project drew the attention of the then Lieutenant Governor of Bengal, the passionate and pragmatic administrator, Sir Richard Temple who lent his whole-hearted support. In February 1876, the Bengal Government agreed to give a house for a term of years to the Association provided it raised £7,000 and invested £5,000 in government securities, with monthly subscriptions of at least £10 for two years.¹³⁹ The same year in the month of July, the Indian Association for the Cultivation of Science [IACS] was finally inaugurated with Sir Temple gracing the occasion as the chairman and delivering ‘a happy and buoyant speech’ and Sarkar too delivered an admirable scientific lecture. He gratefully noted in his speech:

Who could have realised even in dream, that at the call of an obscure practitioner of medicine, the enlightened and the wealthy of the land, orthodox and heterodox, old and young, nay, the princes of other lands having apparently no interest and no concern in the affairs of Bengal and the Bengalee, would come forward so promptly, so nobly and so liberally, to assist in laying the foundation of an institution, but vaguely understood to be calculated, in some future time, to elevate the physical and intellectual and thereby the social and moral condition of the natives of India.¹⁴⁰

The IACS’s establishment on July 29, 1876 has been regarded as ‘a milestone in the history of renaissance of modern India.’¹⁴¹ Sarkar’s initiative and endeavours ‘ensured the convergence of complementarity and cooperation of many of his contemporary peers towards the establishment of an institution that they thought would usher in an era of science cultivation, so that science [could] play the important

¹³⁶ J.P. Bose (ed.), *The Scientific and Other Papers of Rai Chunilal Bose Bahadur*, vol. II, p. 375.

¹³⁷ S.P. Sen, *Dictionary of National Biography*, vol. IV (S-Z), p. 70.

¹³⁸ *Indian Scientists: Biographical Sketches*, p. 32.

¹³⁹ *The Empress*, No. 2, April 1904, in Amrita Lal Sircar, *Obituary Notice of Mahendra Lal Sircar*, p. 47.

¹⁴⁰ *Indian Scientists: Biographical Sketches*, pp. 32-33.

¹⁴¹ ‘Introduction’ in *A Century: IACS*, (Centenary volume of IACS), Calcutta: IACS, 1976, p. xiii. A Century is an excellent ‘centenary volume incorporating the historical developments and scientific activities of the Association since its inception.’ See ‘Introduction’, p. xiii.

role in the “regeneration of the modern Indian society”.¹⁴² The Association itself was founded with the objective of ‘enabling the natives of India to cultivate science in all its departments by original research and its varied applications to the arts and comforts of life.’¹⁴³

Following the inauguration of the Association, Sarkar again appealed to well wishers to donate generously for its cause and many well-known contemporaries aided him in fund raising. The great novelist Bankim Chandra Chatterji earnestly appealed for funds to support the organisation while Pandit Iswar Chandra Vidyasagar ‘joined Sarkar in going about with the begging-bowl.’¹⁴⁴ Kali Krishna Tagore, the rich and well-known zamindar, gave the first generous contribution of Rs. 25,000. Keshab Chandra Sen also came to Sarkar’s rescue by obtaining a substantial donation from His Highness the Maharaja of Cooch Behar which went into the creation of the Cooch Behar Professorship. His Highness the Maharaja Bahadur of Vizianagram donated a third substantial sum of Rs. 50,000 and it is his name that the main laboratory of the Association bears.

Sarkar’s endeavour was indeed grand and novel as he set out to establish a scientific institution at a time when research work in the sciences in the subcontinent was practically unknown. From its early days the IACS began to organise lectures on physics, chemistry and botany on a regular basis. Initially, the IACS lacked students and teachers with the lectures having poor attendance, but gradually the lecture halls filled up with eager students and many learned individuals came forward to volunteer as teachers. The success of the Association was also a result of its adoption of and adaptation to the needs of the university system.¹⁴⁵ The IACS was soon affiliated to the Calcutta University as a recognised institution to teach science subjects like physics, chemistry and botany. Sarkar also functioned as the secretary of the IACS until his death.

Sarkar had thus made a beginning on his own individual initiative and on a grand scale in spite of the insecure and unfavourable times. Rai Chunnilal Bose described the origins and history of the IACS at a session of the science convention at the institute as one of small beginnings, faltering steps and ‘of a great ideal, somewhat

¹⁴² Ibid., p. xiii.

¹⁴³ Ibid., p. xiii.

¹⁴⁴ S.P. Sen, *Dictionary of National Biography*, vol. IV (S-Z), p. 70.

¹⁴⁵ *The Indian Nation*, 29th February, 1904, in Amrita Lal Sircar, *Obituary Notice of Mahendra Lal Sircar*, p. 25.

in advance of the time, carried into practice by unfailing faith in a good cause supported by singleness of purpose, unflagging zeal, great personal sacrifice and whole-hearted devotion on the part of a single individual endowed with a fertile brain, a high sense of duty and a lofty conception of patriotism.’¹⁴⁶ However, this was only one side of the picture, as over the years, the IACS was sustained by the collective efforts of several individuals, men and women, from various walks of life committed towards the cause of furthering science especially science education among the masses. Some of them were great educationists, some had distinguished themselves in public life or in some profession, and some were enlightened chiefs and landlords—who, in fact, represented a cross-section of the ‘intellectual and the social life of the people and were looked upon as the rightful leaders of the community’.¹⁴⁷ Some of these notable men were Iswara Chandra Vidyasagar, Raja Rajendra Lal Mitra, Rai Kisto Das Pal Bahadur, Babu Joykisen Mookerjee, Maharaja Bahadur Sir Jatindra Mohan Tagore, Babu Kali Kissen Tagore, Raja Ramnath Tagore, Justice Dwarkanath Mitter, Raja Digumbur Mitter, Maharaja Kamal Krishna, the Maharaja of Benares, the Maharaja of Patiala, the Maharaja of Cooch-Behar, the Maharaja of Vizianagram, Maharani Swarnamoyee of Cossimbazar, Babu Sambhu Chandra Mookerjee, Sir Surendra Nath Banerjee, Rev. Father E. Lafont, Babu Kesab Chandra Sen and Babu Nilmony Mitter.¹⁴⁸ It was with the financial assistance and moral support of these diverse personalities that Sarkar was able to take the first steps towards realising his mission. Moreover, they were men from across the social spectrum who despite their differing backgrounds and divergent views weaved a web of complementarity—both at the level of ideas and actions that kept the institution inching gradually but definitively towards its cherished ideal, despite its precarious economic foundation.

Sarkar had envisaged the IACS as an institution where Indians after completing their university education would, on their own initiative, conduct original research work in the different branches of science. His sole idea was ‘to popularize science among his countrymen and to found a *National Institution* “entirely under Indian management and control,” where his people would pursue those investigations

¹⁴⁶ J.P. Bose (ed.), *The Scientific and Other Papers of Rai Chunilal Bose Bahadur*, vol. II, p. 374.

¹⁴⁷ *Ibid.*, p. 376.

¹⁴⁸ *Ibid.*, p. 376.

which unravel the mysteries of Nature'.¹⁴⁹ He practically devoted his entire life to the fulfillment of the objectives that he had laid for the Association—'[i]ts prosperity was his happiness, its adversity his grief.'¹⁵⁰ He unstintingly exerted the last thirty years of his life in manifold sacrifices for the institution functioning as its general manager as well as one of its regular lecturers without letting his professional calling come in the way. He was as passionate about the IACS in later years, as he had been with homoeopathy in his younger days. In fact, in the later years, the IACS came to occupy a position closer to his heart than homoeopathy or any of his professional duties. 'He gave to it time and money, refused professional business for its sake, broke with many a friend for its sake.'¹⁵¹

Steadily, persistently, and against many odds, employing his personal prestige, influence, and acumen as a doctor he nurtured his institution. He sought the cooperation of many and antagonised a few but kept the agenda not only floating, but provided a semblance of foundation for the institution to survive and function purposefully. The decision and the dream emerged from the same crucible of tension, and were shaped and further refined by the vicissitudes of the circumstances in which Sarkar found himself from time to time. The efforts made to pull himself out of such circumstances and the larger and lofty lessons learnt by the doctor in the process, reveal that he could rise above his individual sufferings relating them to meaningful social goals, and thus emerged the vision of IACS.

Sarkar in particular and the institutional history of the IACS in general find a prominent place within the historiography of the growth of science institutions in modern India. The careful selection of the term 'cultivation' reflected the lack as well as the need of not only such institutions but of a scientific spirit and culture. It also indicated the patience and perseverance required for nurturing such a spirit and culture, otherwise why would there be the particular need to exhort and invoke such a metaphor which relates and fits more to the peasant world than to the world of the literati? His ability and perseverance in nurturing the institution by himself was a rare example. Some historians point out that Sarkar never questioned nor criticised the

¹⁴⁹ *New India*, 27th April, 1904, in Amrita Lal Sircar, *Obituary Notice of Mahendra Lal Sircar*, p. 50.

¹⁵⁰ *The Telegraph*, 24th February, 1904 in Amrita Lal Sircar, *Obituary Notice of Mahendra Lal Sircar*, p. 11.

¹⁵¹ *The Indian Nation*, 29th February, 1904, in Amrita Lal Sircar, *Obituary Notice of Mahendra Lal Sircar*, p. 25.

colonial government and its policies, and never talked about colonialism per se. His concerns were ultimately related to the ills that pervaded Indian society. To deal concretely with this, his efforts were directed at placing the IACS, which was to remain autonomous under native management and control, out of any structural control by the colonial government. On principle he was alert about colonial constraints and also tried to pragmatically transcend them. He was not much into the rhetorical version of nationalism articulated by ‘platform blustering’ and ‘newspaper invectives’.

However, Sarkar was honest enough to admit that western science touched Indian shores and psyche because of the coming of the British. Keeping away from rhetoric, he reminded that, ‘we have a no less solemn and sacred duty towards ourselves, imperative alike by gratitude for the unspeakable benefits we have received under British rule, and by the patriotic feeling for the land which we have the honour and pride to belong.’¹⁵² He was not for throwing out the baby with the bath water. He recognised the power of science, and the way it was growing and getting institutionalised leading to its nucleation and further development, was something which made him understand and underline its potential significance for the natives and, above all, he dared to embrace that vision. But along with it he was completely Indian when he said, ‘by the patriotic feeling for the land which we have the honour and pride to belong.’ Sarkar also introduced a very important concept that is significant in terms of science policy today, ‘One of these favourable circumstance is self reliance.’¹⁵³ He insisted on self-reliance at a time when the term had not even entered the Indian nationalist discourse. He was conscious of the need for self-reliance in science, not just imitative science. This is what characterised the scientists who followed, for whom the facilities were created by Sarkar through the Indian Association for the Cultivation of Science. He spoke about areas and fields in science, completely remote from their own specialisations and was very particular about defending the autonomy of this first national institution. He advocated, ‘[w]e want an institution which shall be for the instruction of the masses...[and] entirely under

¹⁵² Mahendra Lal Sircar, ‘On the Desirability of Cultivation of the Sciences by the Natives of India’, pp. 286-91.

¹⁵³ Ibid., p. 289.

native management and control.’¹⁵⁴ Again, Sarkar echoed the spirit of *swadeshi* and *swabhiman* much before the time of their articulation.

Sarkar was not a research scholar endeavouring at original research nor was he credited with any original discovery. ‘He was interested in science because he saw that it was the most powerful instrument of modern civilization.’¹⁵⁵ The great progress of civilisation in Western countries underscored his conviction. Through the ‘cultivation of science’ by Indian natives Sarkar sought to place his country on a similar platform of civilisation and progress.

Aspiration for a National Science: Mahendralal Sarkar and the IACS

After 1880, Sarkar’s writings eschewed much of the polemics it once contained without losing its bite and astuteness. Now established as a doctor, his goals were clear; the context was of nurturing an institution by soliciting wider support and cooperation. Polemics was no longer quite relevant; the tone was less petulant and more persuasive. The formidable task of sustaining a newly established institution took most of his time and energy. The journal similarly demanded whatever time and energy he could spare. Sarkar was convinced and left no occasion to persuade others that science was an elevating, regenerating subject and hence a predominant factor in any scheme of Indian regeneration and revival. It enthused him to devote his life to the noble object of creating the necessary facilities for scientific studies in a country stricken with the curse of apathy and indifference to all sublunary concerns.

Apart from his role as a physician and the founder of IACS, Sarkar was now a public figure shouldering several responsibilities. His tenacity in the years of turbulence and rebellion provided him name and fame, and gradually he carved out a distinct public role for himself. In 1877 he was appointed Honorary Presidency Magistrate and in 1883 he was made a CIE. Four years later, in 1887, he was appointed the Sherrieff of Calcutta and member of the Bengal Legislative Council by three successive Lieutenant Governors until 1893. The 1886 IACS Report celebrated Sarkar’s elevation into the Council in glowing congratulatory terms, with A.M. Bose, the proposer of the second resolution, observing that,

He was not sure that it was really any elevation to Dr. Sircar personally; but of this he was sure that they might look upon his appointment to the Council as an

¹⁵⁴ Ibid., pp. 290-91.

¹⁵⁵ *Indian Scientists: Biographical Sketches*, p. 33.

honor done to Science, as a recognition of his eminent services to the cause of scientific education, and as a matter of special congratulation for the members of that Association in furtherance of whose interests Dr. Sircar had laboured so long and with such self-sacrificing zeal. He regarded the appointment of Sir Alfred Croft and of Dr. Sircar as a recognition by the Government of the claims of Arts and of Science. Already their Honorary Secretary had proved himself an active and a zealous member of the Council and left the impress of his labour although working in a field which was new to him.¹⁵⁶

Even with such a prominent and active public life, Sarkar's attention to the IACS remained unabated. The Association despite its modest beginnings and insecure financial status was gradually emerging as an institute of scientific learning. In 1884, Lord Ripon inaugurated the Lecture Hall at the IACS.¹⁵⁷ Around this time Sarkar also greatly pressed for the need of a permanent professorship at the IACS. Since its inception, the Association basically ran on the voluntary contributions in terms of resources and voluntary lectures made by distinguished intellectuals and men of science. This did not mean that the lectures were merely occasional and adhoc; there was a semblance of routine and they were well publicised in the press.

Not abandoning his canvassing élan as his style of persuasion, Sarkar continuously emphasised the importance of physical sciences in the regeneration of the country and the role of the IACS in furthering this end:

And though in view of the progress the very small progress, which this Institution has made in the course of upwards of fifteen years, during which time Science has made rapid strides in the favored countries of the West, giving birth to marvelous discoveries followed by equally marvelous inventions, all tending to the comforts and happiness of man, I say, though in view of the lamentable state of things in my own country, the temptation is great of reiterating what I have been saying for nearly a quarter of a century, about the absolute need of the physical sciences for the regeneration of the Indian races, I must resist that temptation.

The time has come when I may fairly assume that all this is fully understood, that the utility of this Institution is no longer a matter of doubt, and that all that is needful now is to find out ways and means to bring out that utility.¹⁵⁸

About five to seven years later when his ambition to have a permanent professorship did not materialise and the existence of IACS on that count remained precarious, he was skeptical about people's i.e. the literati's capacity and ability to appreciate the

¹⁵⁶ IACS Report of 1886, Presented at the Tenth Annual Meeting held on 27th April 1887.

¹⁵⁷ IACS Report of 1884, Presented at the Eighth Annual Meeting held on 25th April 1885.

¹⁵⁸ IACS Report of 1890 Presented at the Fourteenth Annual Meeting held on 30th April 1891; emphasis added.

role, purpose and ideals of IACS. Such despondent moments kept reappearing, but gradually some infrastructural facilities were also created.

By 1891, IACS had a proper lecture hall and in the following year it had a new separate building for its laboratory known as the Vizianagram laboratory whose foundation stone was laid by Lord Lansdowne a year earlier. The magnificent liberality of His Highness the Maharaja of Vizianagram had enabled the construction of a splendid building for the laboratory. Sarkar viewed the building only as the outward shell of the laboratory and reiterated that the ‘life-blood...is constituted by instruments of illustration and research, and the *animating spirit* must be the men who will devote their lives in it to use those instruments for the exploration of Nature.’¹⁵⁹ The Association particularly owed its good collection of apparatus to the munificence of Babu Kali Kissen Tagore whose contribution during its early days benefited it for a number of years. During the opening of the Vizianagram laboratory, Sarkar pointed out the need to replace older instruments by new and more modern ones and again appealed that ‘our millionaires who have not yet come forward in aid of the Association should follow [Kali Kissen Tagore’s] noble example’.¹⁶⁰ He lamented that the lack of such contributions from fellow countrymen was what actually ‘deprive[d] such movements in our country of their really public character’.¹⁶¹

What was even more important for the working of the Association which Sarkar lamentably pointed out was the lack of actual workers or the ‘animating spirit’, i.e. the students and researchers to work it. In India, the poor student ‘must be furnished with leisure, that is with freedom from anxiety..., in order that his mental energies may be conserved and utilized for the conquest and annexation of nature’s domains in the service of man.’¹⁶² The animating spirit of scholars, if it was to translate into contributions towards science, needed material basis and Sarkar was fully aware of the large amount of outlay required for the purpose. Even the proposed Ripon professorship to be instituted in honour of Lord Ripon had lagged behind for the paucity of funds. The Ripon professorship fund was founded in 1884 with the initial donation of one thousand rupees by Lord Ripon himself. ‘At the time the proposal for such a professorship was made it was hoped that, considering the

¹⁵⁹ Ibid.; emphasis added.

¹⁶⁰ Ibid.

¹⁶¹ Ibid.

¹⁶² Ibid.

imperative necessity of a professorship and the dear and honored name with which it was intended to be associated, the citizens of Calcutta would not allow a long time to intervene between the proposal and the endowment'.¹⁶³ Sir Steuart Bayley presiding over the 1888 annual meeting regarded the project as most deserving.¹⁶⁴ From time to time until Sarkar's death there were subscriptions of Rs. 500 made to the Ripon professorship fund enabling subscribers to become life members of the IACS.¹⁶⁵ Unfortunately, Sarkar failed to see the fund materialise during his lifetime.

In the Annual meeting of 1891 another silver lining appeared with the announcement of the Maharaja of Cooch Behar's generous monthly contribution towards the establishment of a permanent professorship. Though the money pledged was not enough and required further supplement, it was this grant that allowed the proposed professorship to pass 'beyond the nebular stage and settling down into a permanent endowment.'¹⁶⁶ It was through a gradual but very slow process that Sarkar saw the IACS rising to the dignity of a scientific institution that would humbly fulfill the task of diffusing and making small contributions to scientific knowledge. But he was also apprehensive that the rapid advancement of science in the west meant that 'our poor institution will suffer immeasurably by comparison.'¹⁶⁷ He viewed science as an endless frontier and to catch up with the west should be the 'earnest endeavour of every patriot'. He emphatically pointed out:

To avert this catastrophe, for a catastrophe it will be in view of our glorious past and the promising present when the progress of enlightenment has become so rapid under the blessings of western education and the fostering care of a beneficent Government, - to avert such a catastrophe must be the earnest endeavour of every patriot. And the only way, which I can think of, by which this may be effected is to set free and properly direct the two forms of energy that are to be found in the country, partly latent and partly working or rather, to speak in more appropriate terms being, dissipated in wrong directions, I mean the energy of intellect and the energy of hoarded wealth. We have ample and satisfactory evidence of the existence of astonishing amounts of both forms of energy. To liberate and properly direct the former in order to get the maximum of work from it, it is absolutely necessary to liberate and properly direct the later; and when this is done, when wealth becomes the help-meet (sic) of intelligence, the arrears due

¹⁶³ Ibid.

¹⁶⁴ Ibid.

¹⁶⁵ In 1893, subscriptions of Rs. 500 came from Babu Mahendra Nath Bagchi, Dr. Hem Chandra Rai Chaudhuri, Dr. R. Sen, and Mr. B. Chaudhuri. See *IACS Report of 1893, Presented at the Seventeenth Annual Meeting held on 25th May 1894*.

¹⁶⁶ *IACS Report of 1890, Presented at the Fourteenth Annual Meeting held on 30th April 1891*.

¹⁶⁷ Ibid.

to a variety of causes will, I am confident, be made up and the time hastened when India shall regain her lost prestige.¹⁶⁸

In Sarkar's opinion these two forms of energy were to be channelised in such a manner as to make them converge. He further saw the ignorance of his countrymen as the bane that eluded progress:

My people are perishing for lack of knowledge.... Ignorance of the eternal laws by which the universe is governed has brought death into this country, death physical, death intellectuals, death moral. And is this ignorance to continue here when the rest of the world is ablaze with the light of knowledge? The light of knowledge elsewhere, unless we can make it our own and add to it, will not avail us but will only render the darkness of our ignorance the more visible. It is to help in reluming (sic) the light of knowledge in the breast of my countrymen in order to restore their old Aryan vigour of intellect, that this Association has been established, and that I have nearly sacrificed a whole life-time. I trust that I have not done so in vain....¹⁶⁹

Science and knowledge was the better and sure path to know god.

The man imbued with lofty ideals did not forget men associated with him in the institutionalisation of IACS. By 1890, Sarkar attributed the 'diminished attendance' at the IACS lectures to the initiation of science teaching in various colleges in and around Calcutta which had themselves begun to acquire apparatus for the experimental teaching of science. Under the altered circumstances he envisaged a larger role for the Association. Explaining this to the Managing Committee of the IACS in 1892, Sarkar noted:

I believe, rightly accounted for it to the fact that the Colleges of Calcutta, which furnish the bulk of our audience; have most of them begun to provide themselves with apparatus for the experimental teaching of science, the consequence being that though the facilities offered by the Science Association for the experimental illustration of scientific facts and principles are much greater and fuller than are to be found elsewhere, still the majority of students, with a pardonable regard for convenience and economy of time, prefer the inadequate and imperfect facilities offered by their own institutions. When these facilities become more and more adequate and perfect, the audience from this source, now the chief source, will necessarily become less and less. In anticipation of this contingency which is, sure to come one day, and in order that the Science Association may fulfill its objects better under the altered circumstances, the Committee have wisely suggested a deviation from the course hitherto pursued, namely, ***to institute two classes of lectures, one elementary for the instruction of the masses, and one advanced for the enlightenment of those who have already passed through the***

¹⁶⁸ Ibid.

¹⁶⁹ Ibid.; emphasis added.

*portals of the University, or any how have mastered the discovered facts of physical science.*¹⁷⁰

The contingent context and circumstances for IACS to elevate itself to a research institute from being a mere teaching centre lay in these ‘altered circumstances’. The managing committee in its report chose to view them in a positive light noting that ‘however irritating it must naturally be to the lecturers, far from being matter for regret, is matter for congratulation, inasmuch as it shows appreciation by our educational institutions of the value of experimental teaching of science, which without exaggeration may be said to have been brought about mainly by the initiative taken by the Science Association.’¹⁷¹ While the experimental facilities were far superior at the IACS than in any other institution at Calcutta, the committee felt that students who for convenience, or economy of time preferred the inadequate facilities at their own institutions should be pardoned.¹⁷²

Sarkar was clear that an evolving institute was to constantly redefine and reconfigure its role and identity to avoid becoming redundant, though the ground realities hardly permitted a smooth transition. The lack of whole-time lecturers or a permanent professor devoting undivided attention to respective subjects was one of the main hurdles encountered in the expansion of the Association’s activities. Since the beginning of 1891, the IACS was already holding popular lectures for the masses through the services of Babu Ram Chunder Dutt who gave free popular lectures on the advantages of physical science in Bengali.¹⁷³ The lectures were well attended, with over two hundred men from all classes and capacities, and were highly impressive and illustrated by striking and suitable experiments.¹⁷⁴ The employment of the vernacular medium for science teaching particularly accounted for the popularity of the lectures. Unfortunately, this tradition of teaching in the native tongue could not be strengthened further. Sarkar himself was overburdened with age, his professional calling, and many other social commitments and obligations, besides labouring for *The Calcutta Journal of Medicine* and as secretary of IACS to find time to engage with such an endeavour creatively. However, he clearly understood the potential and efficacy of such an engagement. If teaching, laboratory and research facilities were

¹⁷⁰ *IACS Report of 1891, Presented at the Fifteenth Annual Meeting held on 6th May 1892*, emphasis added.

¹⁷¹ *IACS Report of 1893, Presented at the Seventeenth Annual Meeting held on 25th May 1894*, p. 12.

¹⁷² *Ibid.*, p. 12.

¹⁷³ *IACS Report of 1891, Presented at the Fifteenth Annual Meeting held on 6th May 1892*, pp. 10-14.

¹⁷⁴ *Ibid.*, pp. 10-14.

elevated and enhanced in a comprehensive manner at the IACS, then many committed students desirous of making science their vocation and profession would definitely return to it for higher studies after completing their degrees from other institutions in and outside Calcutta.

It was not only the lack of permanent teachers that Sarkar viewed as one of the serious shortcomings of the Association but also the need to provide adequate remuneration to teachers and students as well:

Gentlemen, I trust I am not startling you when I give it out to you as my conviction that in order to (sic) the successful indigenous cultivation of science, it is necessary not only that we should remunerate our teachers, but that we should offer rewards to the learners in order that they may prosecute scientific studies as yet not apparently profitable from a pecuniary point of view. This would be only to do what is being done all over the world for similar purposes. It is very easy to reproach the Indian student for not taking to science for the love of science, as if even in the most civilized countries which owe their civilization to science, the unfledged student prosecutes scientific studies with expectation of neither immediate nor prospective advantages. Of course we know that in the end scientific studies would be profitable to the student and to the country at large, but so long as this is not immediately so, we must allure students to these studies by rewards in the shape of prizes, medals and scholarship.¹⁷⁵

Remembering his own humble origins and the way he struggled and made way through the help of many sincere teachers, Sarkar felt inducement through rewards by the IACS could render both help and opportunity as well as ‘utilize genuine talent from its home in adversity’.¹⁷⁶ But often the paucity of funds and subscriptions falling led to prizes, medals, and scholarships being discontinued. Sarkar constantly canvassed and laboured to revive and raise funds for them. Any offer for such purpose created a spark of hope for the moment, but there were several ‘dry’ years in the institutional evolution of the IACS.

In 1891–92, Justice Gooroodas Banerjee contributed a sum of Rs. 550 for instituting a prize of Rs. 20 out of the ensuing interest, to be awarded to any meritorious student attending lectures at the IACS. The prize was named after Jatindra Chandra its first student beneficiary as a token of appreciation and encouragement.¹⁷⁷ Justice Banerjee’s example was also followed by another member of the Association,

¹⁷⁵ Ibid., pp. 10-14; emphasis added.

¹⁷⁶ Ibid., pp. 10-14.

¹⁷⁷ Ibid., pp. 10-14.

Babu Sarat Kumar Ghosal as well as by the Chaitanya Library in Calcutta.¹⁷⁸ Raja Peary Mohan Mukherjea also continued with his late father's subscription of Rs. 200 a year for prizes and Rs. 300 a year as subscription to the general fund. The entire amount which the Raja had left at the Association's disposal to utilise in any way was again used for instituting two scholarships 'in the name of the late Babu Joykissen Mookerjea who was one of its first patrons, and that of Raja Peary of Mohan, who [continued to be] one of its staunchest supporters'.¹⁷⁹

Both pragmatism and a mild tinge of cynicism sometimes came to the fore and clouded his optimism as Sarkar often reiterated the importance of a 'substantial return' for fellow Indians in the pursuit of science. In the 1893 annual report of the IACS, he observed:

...gentlemen, I cannot help craving your indulgent attention to what I fancy to be a new discovery, but which I should be glad to tell, is no new discovery at all, but is a fact as old as human nature itself. The discovery, I pretend to have made, is that our countrymen will not take to science for the love of science; that they must be convinced of its positive, palpable, tangible, material advantages before they will *waste* their time upon its pursuit, in other words, they must be convinced of a *substantial return* from it before they will think of engaging in its cultivation.¹⁸⁰

This was not the case with India alone but, as Sarkar realised, a phenomenon common in the west as well. The difference being that while the west did not need 'the stimulus of immediate benefit to engage in that pursuit, our people, on the contrary, though they do see benefits flow from the cultivation of science by other nations, not having had the advantage of the same experience themselves, have not the same confidence in science which can only be inspired by its actual cultivation, and therefore require the stimulus of immediate benefits.'¹⁸¹ For Sarkar, being convinced of the 'material, intellectual, and moral' utility of science, it was their 'obvious duty...to encourage the cultivation of sciences by holding out prospects of immediate advantages, in the shape of substantial rewards, prizes and scholarships'.¹⁸² No nobler object existed for him 'than to encourage by the offer of rewards the practical study of science by students, most of whom come from the ranks of the poor, and in a country where there is no immediate prospect of employments which require

¹⁷⁸ *IACS Report of 1893, Presented at the Seventeenth Annual Meeting held on 25th May 1894*, p. 12.

¹⁷⁹ *IACS Report of 1891 Presented at the Fifteenth Annual Meeting held on 6th May 1892*, pp. 10-14.

¹⁸⁰ *IACS Report of 1893 Presented at the Seventeenth Annual Meeting held on 25th May 1894*, p. 12; emphasis added.

¹⁸¹ *Ibid.*, p. 12.

¹⁸² *Ibid.*, p. 12.

scientific knowledge'.¹⁸³ Such a system of prizes, Sarkar hoped, would attract not only college students, but also graduates and non-students from the general public who would gain in terms of knowledge and remuneration by the lectures of the Association and thus fulfill one of the objects for which it was established.

Having basked in and analysed Sarkar's lofty vision of the 'cultivation' of science, such mundane details relating to financial worries, the appeals to and chiding of wealthy patrons for philanthropy, the tension and anxieties of imparting a direction to the institution with changing times, the question of attracting students and seeking cooperation of teachers, the continuous efforts towards instituting permanent professorship in order to impart stability to the institution, and many more routine matters gradually took a toll, and occasional flickers of cynicism and frustration sometimes crept into Sarkar's speeches at the IACS.

From time to time or rather year after year Sarkar felt the ever increasing burden of carrying out the other chief objective of the IACS—the promotion of scientific research—which could only be carried out by professors 'working within its walls, with unflagging zeal and undivided attention, at their adopted specialties'.¹⁸⁴ Since the 1880s, as discussed, Sarkar had tirelessly engaged himself in the creation of professorship endowments. Each professorship required at least a lakh of rupees as a critical mass to begin with, and considering the existing specialisations and the anticipated increase in the number of specialised branches at the IACS, the task of generating the vast sums required was clearly a mammoth one.

Apart from the need to create new professorship funds, the older professorship funds that had come into being like the Ripon professorship fund continued to plague Sarkar for their failure to take off. Even in 1895, twelve years after the foundation of the Ripon professorship fund not much could be added to it and remained in Sarkar's frustrating words 'a standing disgrace to the Association and a blot upon our national character'.¹⁸⁵ Even the generous donations and subscriptions of fellow countrymen like Justice Gooroodas Banerjee and others did not yield the desired income of Rs. 100 a month to secure a permanent professorship. The same year, Sarkar appealed again to his fellow countrymen to help not only in the realisation of the much anticipated Ripon professorship but also in the creation of more professorships:

¹⁸³ Ibid., p. 12.

¹⁸⁴ Ibid., p. 12.

¹⁸⁵ *IACS Report of 1895, Presented at the Nineteenth Annual Meeting held on 29th August 1896*, p. 15.

You no doubt feel that the Association must be in the lowest stage of evolution, when it has not yet been able, after an existence of twenty years, to provide even so poorly for a single professorship, that is, for a man who can carry on investigations within its walls, unhampered with the thought of providing for the simple necessities of life. *Each of you, therefore, gentlemen, who have helped in establishing the Association with the object of enabling your countrymen to cultivate science in all its departments, ought not to rest contented till you have enabled it to fulfill that object, you have to see to the endowment not of one but of several professorships. For it is no longer possible for one man to cultivate all the branches of science, though a general acquaintance with as many of them as possible helps in the proper and successful cultivation of special branches.*¹⁸⁶

The expanding frontiers of science were giving rise to an increasing number of specialised branches which required an equally large number of professors to maintain them if any scientific institution was to function at par with its western counterpart. Given the situation of the IACS, Sarkar did not endeavour to even look that far. He conceded, '[u]nder the circumstances of our country, to think of so many professors for our Association would be but indulging in an idle dream. I must therefore limit myself to speaking of such professorship as are an imperative necessity.'¹⁸⁷

The Ripon endowment had been made for a chair in physics while the monthly subscription of Rs. 100 by His Highness the Maharaja of Cooch Behar had opened up the way for an endowment for chemistry. The next subject requiring attention was biology and a professorship in David Hare's name was first proposed at the Hare anniversary in 1895 by Babu Nilmani Kumar who was reading out an address on the Calcutta Medical College:

Before resuming my seat, I beg to make a suggestion, the adoption of which, I humbly think, will perpetuate the memory of David Hare better, because more fittingly, than the statue which was erected by his immediate pupils. The suggestion is, to invite public subscriptions for the establishment of a professorship in his name in this institution (the Science Association), which may be said to have owed its existence to his influence, because founded by one who commenced his education in the Hare School and completed it in the Calcutta Medical College.¹⁸⁸

At the Annual meeting of IACS held on 29th August 1896 the proposal for David Hare Professorship was thus made with Justice Gooroodas Banerjee proposing that it be reserved for biology and even providing the initial amount of one thousand

¹⁸⁶ Ibid., p. 15; emphasis added.

¹⁸⁷ Ibid., p. 15.

¹⁸⁸ Ibid., p. 15.

rupees (Rs. 1000). The audience supplemented this initial amount with a further sum of Rs. 1306 bringing it to Rs. 2306.¹⁸⁹ Despite these various endowments in the pipeline, it was Sarkar's greatest moment of anguish not to see the fulfillment of even one of these professorships until his death. The burning hope, the anxiety, and growing impatience to establish a permanent professorship at IACS for Sarkar remained a cherished but unfulfilled wish and he died a broken hearted savant.

Sarkar was constantly appraising the role of science not only in terms of basic inventions but also for human relief and aggrandisement. He particularly underscored how the assiduous cultivation of science could raise even an insignificant Asiatic nation like Japan to the level of civilised nations of Europe and America.¹⁹⁰ He saw his own nation placed at an important cultural and intellectual juncture but unable to reap the benefits:

The question naturally arises what has our country, with all the advantages of a most intellectual heredity, and with the advantages of contact with and being under the immediate direction of the most civilized, the most enlightened, and the most liberty-loving nation on the face of the earth – what has our country, with all these advantages, done?¹⁹¹

Sarkar saw the ensuing cultural encounter as the context and occasion to inculcate science as a civilisational yardstick, and as an agent to foster enlightenment. He was acutely aware of the ever expanding boundaries of science as a marker of the deepening of civilisational ethos and saw the growth of science in the broadest possible sense of the sedimentation of the substratum of rationality and, to that extent, elevated it to the status of being a social referent for the populace:

Shall I be reproached with egoism if I say, the true answer of this question is furnished by the progress and condition of the Science Association? I cannot help if that answer does not prove creditable to the country. I cannot help it, Gentlemen, if that answer belies our oft-iterated boast of our enlightened intelligence and advanced education.¹⁹²

The doctor saw the large numbers of beacon graduates produced by universities as only the first stage in the development of the country but viewed the content of their education with skepticism when compared to the west. For Sarkar, the diffusion of existing knowledge alone was not a cause of contentment as such knowledge was

¹⁸⁹ Ibid., p. 15.

¹⁹⁰ Sarkar was especially captivated by the idea of 'self reliance' and saw Japan's Meiji Restoration as a beacon and inspiration, though he did not live till 1905, the year Japan defeated Russia.

¹⁹¹ *IACS Report of 1897, Presented at the Twenty-first Annual Meeting held on 21st March 1898*, p. 15.

¹⁹² Ibid., p. 15.

retrograde and merely learning ‘parrot-like’ what other countries were teaching and ‘to abdicate our position as an intellectual people, as a member of the republic of letters’.¹⁹³ He felt that India ‘once the cradle of civilization, of all that is noble in intellect, elevated in morals, and spiritual in religion’,¹⁹⁴ had to be restored to its rightful position. The intellectual challenge posed by the cultural encounter was taken head on by Sarkar who viewed the ‘cultivation of science’ as the means of doing so:

I am impressed more than ever with the necessity of science cultivation by my countrymen, not simply for their improvement, but, as I have been saying from the very beginning, for their very regeneration, or I would not have sacrificed a life in endeavouring to awaken them to that necessity.¹⁹⁵

The pursuit of physical science more than any other branch of human knowledge, in Sarkar’s opinion, was grounded in rational thought impressing upon the mind with the ‘eternal and unalterable relationship between cause and effect’. Neither was his engagement with physical science devoid of moral consciousness as he was sometimes blamed of. His emphasis on science especially physical science was precisely because:

Strange as it may appear to you, it is because of my faith in man as a moral being; it is because of my faith in the supremacy of his moral over his intellectual nature, that I am so much after the cultivation of the physical science, not in suppression of, but as preliminary to, the cultivation of the moral sciences.¹⁹⁶

In the vein of an ardent humanist, Sarkar argued that often it was the ‘moral instinct’ that anticipated the demonstration of sciences. Citing the committal of the first sin and its impact on creation from Milton’s *Paradise Lost*,¹⁹⁷ he pointed to the interconnectedness between the moral and physical realms. He admitted, however, that moral intuitions drew their conviction from religion and hence their mandatory character made them appear arbitrary and were even rebelled against when they appeared unreasonable.¹⁹⁸ In contrast, the injunctions of science demanded

¹⁹³ Ibid., p. 16.

¹⁹⁴ Ibid., p. 16.

¹⁹⁵ Ibid., p. 16; emphasis added.

¹⁹⁶ Ibid., p. 17.

¹⁹⁷ Sarkar cites this sublime passage from Milton to demonstrate the interconnectedness between the moral and physical realms of the universe:

So saying, her rash hand, in evil hour,
Forth reaching to the fruit, she plucked – she ate!
Earth felt the wound; and nature from her seat,
Sighting through all her works, gave signs of woe
That all was lost!

See Ibid., p. 17.

¹⁹⁸ Ibid., p. 18.

appreciation of natural laws and discipline of mind and thereby the logical training of the mind, implicit in which was the ability to critique and be critiqued thus pushing and streamlining the boundaries continuously. This characteristic of science was reiterated by Lord Lansdowne in his speech during the laying of the foundation stone for Vizianagram Laboratory where he pointed out that ‘a person, who has received a scientific training, will, even in the current affairs of every-day life, know how to distinguish between careful argument and noisy assertion, between hasty generalizations and deliberate conclusions based upon solid premises’.¹⁹⁹ It was this beneficial aspect of scientific culture that Lord Lansdowne found justification for the encouragement by the government ‘of studies likely to have the effect of generating what may be called a scientific habit of mind among those who, owing to their superior education, claim for themselves the right of guiding public opinion.’²⁰⁰

Apart from the creation of a scientific habit of mind, Sarkar envisaged a science that would play a role in uplifting the socio-economic conditions prevailing in the country. In the national project of the ‘cultivation of science’, he emphasised the inculcation of physical science both as a moral and a productive force, i.e., both for its role in the moral and material well being of the nation. Cognisant of the Indian material realities such as occurrences of famines and epidemics, he linked the development of physical sciences to meteorology; meteorology to weather prediction and its role in agriculture and role of agriculture in enhancing the food resources of the country.²⁰¹ All these he linked to the further development of the science of botany and chemistry. After the turn of the century, P.C. Ray’s ideas were to reinforce Sarkar’s belief.

He was further confident that ‘science properly cultivated and properly applied can never be in opposition to the purest and most cherished sentiments and feelings of the heart’.²⁰² It was with this humanist optimism that he viewed the cultivation of science by the natives of India for their own progress and development:

It is my belief that sciences, however they may be advancing under zealous and earnest cultivation in Europe and America, are capable of still further advancement of being cultivated with the same zeal and earnestness by my countrymen. And it is no vaunting patriotism which prompts me to prophecy that when the Indian mind with its heritage of acuteness and penetration is brought to

¹⁹⁹ Ibid., p. 18.

²⁰⁰ Ibid., p. 18.

²⁰¹ Ibid., p. 20.

²⁰² Ibid., p. 20.

bear upon the exploration of nature's secrets, results will be attained which will add largely, to the stock of human Knowledge.

There is even a higher motive still, the highest if I may venture to say so, because above all utilitarian considerations, which should induce our Government to encourage to the utmost the cultivation of science by the natives of India. It is no mere chance which has placed the destinies of this vast and once glorious country in the hands of the British nation. If, as one of England's greatest philosophers said, "*the dignity of the commandment is according to the dignity of the commanded*," when I make bold to say that the British nation will not have fulfilled the mission for which Providence has appointed them till they have done their best to raise the Indian people to a level with themselves.²⁰³

Evidently, Sarkar in the process of recognising the tender shoots of the octopus called colonialism and in a subtle manner with the invocation of 'providence' tried to show the limitations of the rhetoric of civilising mission. He invoked the British rhetoric of their 'civilizing mission' to remind them about their 'un Britishness' 'till they fulfill[ed] the mission for which providence [had] appointed them; till they [had] done their best to raise the Indian people to a level with themselves.' The reiteration and urge for parity and self-reliance is stark and evident.

For Sarkar then, 'the old Aryan vigour of intellect in the Indian people is only dormant and not dead'.²⁰⁴ He reposed great faith in the 'powers of the Indian mind in the field of science'. This was increasingly demonstrated in the achievements of Indian men of science like Jagadish Chandra Bose in electricity and Prafulla Chandra Ray and Babu Jyoti Bhusan Bhaduri in the no less difficult field of chemistry. The advantage of leisurely working at government furnished and equipped laboratories of the Presidency College brought these men at par with European and American scientists. Until sometime ago, the IACS had a richer laboratory than the Presidency College, conducting practical classes for students of the college as well as of other colleges of Calcutta. However, the Presidency College itself was to soon boast of a government-funded worthy laboratory, though Sarkar was not one to begrudge the premier college of its new fortunes. What he deeply regretted was the indifference and general apathy of the government towards the IACS, as some stimulus from it was still required for the institution's development:

²⁰³ Ibid., p. 21; emphasis added. It is in this disjunction between the dignities of the commandment and the commanded that Dadabhai Naoroji caricatured and linked poverty in India to 'unBritishness'. After 1905, this articulation was followed by more threadbare critique of colonialism by many Swadeshi protagonists.

²⁰⁴ Ibid., p. 21.

It is both an interesting and an instructive problem, psychological and scientific, worth solving for our own sake, namely, why has this Science Association up to this time failed to enlist the sympathy and support of those for whom it was designed and established. Is it because its objects have not been clearly set forth? It cannot be so, because however much I may have failed in explaining them, they were clearly and vividly and I may say authoritatively placed before the public by successive Viceroys and Lieutenant-Governors who gave the most convincing proof of their sincerity by not only becoming our Patrons and our Presidents in name, but by actually contributing to our funds, and by attending our meetings, in the midst of imperative and imperials duties, in order to exhort, us to do good to ourselves.

Not only has the clearest exposition been given of the objects of the Association, *but as illustration of the amount of fund necessary to carry them out, the costs of the various laboratories of the world have been placed before the public, compared to the least of which the fund which we have been able to realize sinks into an utterly insignificant and ridiculous figure.* In addition to the costs of starting and maintaining those laboratories, we have the example of princely benefactions of single individuals to stimulate us:— benefactions amounting from thousands to lacs. For some reason or other which I cannot find out, these facts and examples make no impression upon us.²⁰⁵

However, over and above the indifference and general apathy, it was the prevalence of a ‘positive antagonism’ towards the IACS that Sarkar viewed as most inimical. The Association through its years of struggle for existence was not only ignored but ‘even looked down upon with cold disdain’ instead of the help and encouragement that it required. But Sarkar was not one to readily lose hope despite the ‘annoyingly slow’ progress of the IACS. It was perhaps this silver lining that saw him through his worst moments of despair:

...notwithstanding that unfavorable, unfriendly, and even inimical influences are at work against it, I am not despondent. Unless I relinquish all faith in Providences I can not lose faith in the future of my country. And I have stronger reason than ever to believe that bright future would be through the fields of science. I am therefore firmly convinced that if once a taste for science is created among my countrymen, science will count her votaries by hundreds and thousands, instead of scarcely, as now, by units. And a day will come when India, of her own accord, unaided and unsolicited, will equip and send out scientific expeditions, as is now being done by the more favored countries of the West. No part of the world requiring exploration will be without explorers from India. Not a single phenomenon can occur, either in the heavens above or in the earth below, which can be predicted beforehand and the observation of which might be of scientific interests and importance which India will not send her scientific men to observe and record. Is this a dream? Yes, it is, but it is one of those dreams which with adequate funds can be made as much a reality as anything in nature. *It is in*

²⁰⁵ Ibid., p. 23, emphasis added.

*your power, countrymen and young friends, millionaires and poor students, to hasten the advent of that day which will regain our country her lost prestige.*²⁰⁶

Sarkar's constant oscillation between hope and despair during the years of running the IACS was a reflection of his strength and resilience as well as his frustrations. Notwithstanding his frustrations at the slow progress and indifference of the government and countrymen towards the IACS, there was never a moment of doubt that his vision would fail. As the IACS slowly evolved, the possibilities of the field of science in India and for fellow countrymen were no longer a distant dream for him. His optimism drew from the fact that it was just a matter of time and adequate resources that kept India from the scientific advancement witnessed in the west. This reason was also for a large part the cause of frustration in Sarkar as it was a case of being 'so near yet so far' from the fulfillment of his vision.

Sarkar was clear that the resources and means were very much within reach and it was the wealthy citizens of the country who were in the best position to contribute towards the advancement of science. He also repeatedly sought succour from the government but not in terms of money as this only meant a burden on the poor tax payers. In clarifying his notion of government support, he pointed out:

I may be asked if I do not require money aid from Government what do I mean by wishing it to encourage to the utmost the cultivation of science by the people of this country? I simply mean that Government should employ indigenous men of science in its service and recognize institutions like this if they can prove themselves worthy of such recognition. I need hardly add that money or other aid spontaneously given without interfering with our liberty would also be substantial encouragement and would be most welcome.²⁰⁷

While the kind of Government support Sarkar had often expressed remained a cherished desire, from the time of the Association's inception encouragement came in the form of the interest shown by individual government officials and administrators in furthering its cause. Sir Temple, Lord Ripon, and Lord Lansdowne, as we have seen, had lent their whole-hearted support to Sarkar and the IACS during the insecure years. In 1897, Sir Alexander Mackenzie, the Lieutenant-Governor of Bengal, expressed his support by accepting the office of President of the IACS. In his speech at the annual meeting, he affirmed his support for higher education in Bengal especially the need for scientific and technical education and training. He pointed out

²⁰⁶ Ibid., p. 24, emphasis added.

²⁰⁷ Ibid., p. 25.

that he had been misunderstood by the Bengali press and youth on the **question of sedition in India** which was an imperial matter.

Sarkar's Views on Education

Notwithstanding his grand vision of the IACS as a centre for science learning, Sarkar remained deeply grounded in reality as he realised that it was the system of education itself that had to be addressed for the success of his vision. While he strongly advocated the cause of science teaching, he was an ardent critic of higher education in Bengal and felt the system of primary education largely at fault. In his evidence to the Education Commission in 1882, he held the base of primary education responsible for the poor state of higher education and the lack of science teaching as a major lacuna of the education system in India.²⁰⁸ He particularly noted three important requirements for a sound basis for the primary system of education in the country:

Firstly, it should be accessible to children of all classes of the community, irrespective of their circumstances and position. Secondly, it should meet the requirements of those classes who cannot advance their children to higher education, and last but not the least, it should constitute the basis of higher education.²⁰⁹

Sarkar found that the system of primary education in vogue in Bengal had largely displaced the older indigenous *gurumahasay* or the *pathsala* system and had thus 'ceased to fulfill the requirements of the lower, and partly of the middle, classes, native society'.²¹⁰ For primary education to succeed, he argued that the system should embrace a wider area so as to 'leave no human being untouched by it'. Subjects that were part of the indigenous system like writing, mental arithmetic, practical mensuration, and the study of common things and their obvious properties should constitute a part of primary instruction as sought by people in general. He was sure that '[n]o class would hold aloof from it if they were convinced of its practically useful nature, and if, moreover, it were accessible [within] their means'.²¹¹ However he admitted that despite the liberal and enlightened amenability of higher castes towards education, the caste system still excluded the very lowest castes from this privilege. In his writings, he did not deny nor spared them of the conditional and

²⁰⁸ The imprint of Vidyasagar upon Sarkar is evident.

²⁰⁹ Document no. 48, in Sabyasachi Bhattacharya, Joseph Bara, Yagati Chinna Rao (eds.), *Educating The Nation: Documents on the Discourse of National Education in India, 1880-1920*, New Delhi: Kanishka Publishers and Distributors, 2003, p. 124.

²¹⁰ Ibid.

²¹¹ Ibid.

parochial liberality towards the cause of an all-embracing primary education. Critically examining the selective liberality displayed by the wealthy and influential classes in aid of both elementary and higher education, Sarkar clearly saw that ‘liberality [was], in many cases, more from a desire to please the Government than from a genuine sense of duty and philanthropy.’²¹² The efforts of the venerated Vidyasagar and his imprint were palpably marked on the doctor.

Sarkar advocated for an education that was ‘national’ in character thus introducing the concept more than two decades before it was to become a part of the nationalist discourse in Bengal. In his view, ‘[t]he object of *all national education* should be to find out men of talent, and the greater the number of men brought under its influence, the more men of talent will rise up for the benefit of the country and of the world...’²¹³ He prescribed a science inclusive curriculum for elementary and secondary education though he viewed the lack of science teaching in colleges as the ‘chief defect’ of the Indian higher education system:

The only educational institution in the metropolis where we have a staff of able professor and suitable laboratories for the teaching of physics and chemistry is the Presidency College. The other colleges affiliated to the University are just beginning to make some provision in this direction; but without meaning any disparagement to them. I am constrained to say that the provision is far from adequate with a view partly to remedy this deficiency in our educational system, but chiefly *to enable my countrymen to pursue science for its own sake*. I projected, and have at last succeeded in founding, the Indian Association for the Cultivation of Science, which for a beginning is doing good work. So great is the necessity felt for experimentation for the proper mastery of science truths, and so great is the avidity for witnessing and taking part in such experimentation, that students even from the Presidency College come to the lectures of the Association simply because the lectures take particular care to illustrate by experiment every physical fact truth which they have to impress upon the mind of their hearers.²¹⁴

This was of course in 1882. As observed in the earlier section, the IACS through its lectures was to provide the right impetus and environment for the growth of science learning and teaching in various colleges and institutions in Bengal. But as a constant stimulus to science teaching and learning at the college level, the IACS itself was to gradually take on the role of a research institution. It was this tardy transition and the urge to catalyse it faster that caused Sarkar great anxiety.

²¹² Ibid.

²¹³ Ibid.; emphasis added.

²¹⁴ Ibid.; emphasis added.

Sarkar also spoke out for the advancement of technical education, but he was not willing to compromise on the development of science before technical education. His view was that a firm basis in the physical sciences alone could lead to an enhancement of a comprehensive basis of technical education. In fact, in 1890, the doctor was again mired in a controversy that erupted over technical education. The ensuing controversy once again revealed that he was not ready to compromise on the foundational basis for nurturing technical education and innovation which feeds and catalyses it. He wanted to cross the barriers of mere emulative and repetitive ways of technical skill formation.

The Science versus Technical Education Controversy

The science versus technical education controversy in which Sarkar was embroiled in 1890–91 was triggered by the proposal of converting the lecture hall of the IACS into the Calcutta Technical Institute. This proposal came from the leader of the Indian League Party who wanted to establish a technical institute for teaching scientific techniques in industries and who desired to name it after His Royal Highness, the Prince of Wales then visiting India. Advocates of the proposal felt that the Science Association was essentially a well funded body with many ‘influential patrons’ and its lecture hall could easily be converted to the proposed institute had it not been for Sarkar’s opposition and resistance. Consequently, Sarkar drew a lot of flak from the supporters of the proposed institute who accused and lampooned him for being an opponent of technical education. However, another section of the press did not allow such distortions of Sarkar’s vision of science which was not antithetical to technical education rather it was the real foundational basis on which technical education was to diversify and flourish. As the *New India* echoed the larger public sentiment,

...Dr. Sircar though almost single-handed,...was successful in rallying round him all his former supporters from Sir Richard Temple downwards. We do not know of any other public movement which caught the public fancy and received the public support more effectually from the beginning. The attempt was, to express it in his own words, “to ascertain whether the natives of India with their admitted and justly-boasted intelligence, and their capacity for development and progress, are ever to take part in the intellectual history of the world, or for lack of proper culture, are to be blotted out of such existence as they have well nigh begun to be.”²¹⁵

²¹⁵ *New India*, April 27, 1904, in Amrita Lal Sircar, *Obituary Notice of Mahendra Lal Sircar*, p. 50.

The science versus technical education controversy was hardly new and had its genesis during the inception stages of the IACS itself. In other words, the controversy was as old as the IACS. In the initial phase i.e. in 1876 there were conflicting visions regarding the establishment of the then proposed IACS as a technical rather than a science institute, but Sarkar and his supporters had their way ultimately convincing even the arbiter of this debate, Sir Richard Temple. In 1890–91, this subdued debate resurfaced with Sarkar's opponents pushing for the creation of a technical institute at Calcutta and accusing him of an anti-technical education stance. Once again mired in controversy, Sarkar sought to elaborate his stand by reiterating that far from being against technical education, he wanted people to imbibe the spirit of science rather than merely imitate the external and peripheral knowhow peddled and named as technical skills. Again, he did not have a cakewalk.²¹⁶ Some thought that his ideas were too romantic and non-utilitarian. In defending the aims of the IACS against the accusations of the Indian League which advocated a technical institution of a utilitarian nature, Father Lafont and Rajendralal Mitra, ardently defended Sarkar's dream. The great Orientalist Rajendralal Mitra²¹⁷ reiterated

Science had a higher and nobler claim than the narrow, utilitarian Benthamite one...it was the most powerful lever for progress, for the advancement of civilization, for ennobling the mind of man. Do not confound science with technical education in the industrial arts....Let every step of science education be explained by experiments, for science to be effectually learnt should be learnt in the laboratory: but do not attempt to make your institution a school of technical education in the industrial arts under the misnomer of practical science.²¹⁸

Father Lafont further refined and put the argument in a more succinct cultural idiom when he alleged that the League wanted to '....transform the Hindus into a number of mechanics requiring forever European supervision. Whereas Dr. Sarkar's object was to emancipate in the long run his countrymen from this humiliating bondage.'²¹⁹ Contrary to Sarkar's vision of self-reliance, this truncated view of emulative technical education was a humiliating bondage of dependence, breeding peripheral technical know how, which would have ensured European superiority and

²¹⁶ See Pratik Chakrabarti, 'Science, Morality, and Nationalism: The Multifaceted Project of Mahendra Lal Sircar', *Studies in History*, vol. 17, no. 2, pp. 245-74.

²¹⁷ This great Orientalist had stood up for Sarkar's intellectual acquittal when the doctor faced expulsion from the Faculty of Medicine because of his adherence to homoeopathic practices.

²¹⁸ *A Century*, p.11.

²¹⁹ First Meeting of Subscribers at the Senate Hall, Calcutta University, 1875, cited in Chittabrata Palit, 'Mahendralal Sarkar, 1833-1904: The Quest for National Science' in D. Kumar (ed.) *Science and Empire: Essays in the Indian Context*, New Delhi: Anamika Publications, 1991, pp. 156-157.

supervision in perpetuity. It was against this that Sarkar, Father Lafont and Rajendralal Mitra were advocating the foundational step of the cultivation of sciences. The very fact that some criticised and debated the role of the IACS and some argued in its favour and dedicated themselves for the growth of this institution, proves not only that these men were interacting very closely but also that the role of science in India's destiny was being debated and discussed thereby elevating science as a social referent. The then pervading spirit of social reform and emerging nationalism was to engage with this social referent in very many ways.

The *Hindoo Patriot* launched a vigorous defence of the doctor and his Association so as to bring the true nature of the controversy before the public. It pointed out that the IACS despite its contribution to the growth of science in Bengal had throughout its career suffered from the paucity of funds. Highlighting the issue of Sarkar's lack of support on the question of introducing paid professorships, it vigorously condemned the 'slandorous group' who was trying to malign his name and efforts. The necessity and importance of having paid professorships was a matter that had surfaced time and again in Sarkar's scheme of things as he had been vehemently arguing for it since the time of the Association's inception. He had pointed out in 1875 that:

There will be no want of workers if we could only provide for them, and we must provide for them, that is remunerate them properly, if we want to get good steady work out of them. I have no faith in un-remunerated workers. ***We must not forget men must have stomachs as well as minds. The mind must have leisure to think that it may think with any advantage, and this can only be secured by providing for the demands of the stomach. In Europe and America this leisured thinking is secured largely by State and other appointments.*** In our country such appointments do not exist, and it is chiefly with a view to supply the deficiency and the desideratum that I have been striving to fund this Association.²²⁰

The *Hindoo Patriot* not only aligned itself with the idea of 'science cultivation', but provided that ***patriotic act*** considerable press coverage in a substantive sense by steering clear off rumours and diatribes against Sarkar and by putting the debate in right perspective. It strongly reiterated his expressed views by adding its own weight of agreement and approval:

²²⁰ The *Hindoo Patriot* on the Report of the Fourteen Annual Meeting of the IACS held on 4th May 1891; emphasis added, in Arun Kumar Biswas (comp. & ed.), *Collected Works of Mahendralal Sircar, Eugene Lafont and the Science Movement (1860-1910)*, pp. 366-78; p. 367.

We are strongly of opinion that unless *we have indigenous workers in science free from all other anxieties, science will for ever remain an exotic plant, and will never grow and flourish in Indian soil*. Science will thus be, if we would only wish it, an opening for many a poor student, and they in their turn will provide openings for vast numbers of their countrymen.

How to find out ways and means for the establishment of permanent professorship is the most difficult problem which the Science Association has before it. A lakh and-a-half rupees is about the sum which, invested in government securities, will bring in income for the support of one whole-time professor.

As many times this sum will provide for so many professorships. If the whole country were to come to a firm resolve, it will not be long before the Association will have a good number of professors.²²¹

The newspaper gave a very easily understandable arithmetic for the multiplication of such urgently needed professorship. The general membership fee if volunteered by the educated and employed section would have generated a good part of the fund. Further, it pointed out that the Association would benefit immensely if only the rich of the country were to loosen their purse strings:

There are millionaires who can each found a professorship. Why should they not come forward and hasten the day when “India”, to use Dr. Sircar’s words, “shall regain her lost prestige?” We must gratefully admit that Bengal and especially the Metropolis, has done much for the cause of science. But it must be equally admitted that much more that could have been done has not been done. We see only the names of a few millionaires on the subscriptions list, and it is their names which recur on different occasions. How many there are who can come forward very liberally, but have not done so! What more convincing proof do they require of the utility and the importance of the Association than the testimony, in eloquent, earnest and often impassioned word, borne of that utility and importance by successive Viceroys who have been its patrons, and by successive Lieutenant-Governors who have been its presidents?²²²

Clearly, the appeal was being legitimised by invoking successive Viceroys and Lieutenant-Governors’ attention to the cause. However, it was not the millionaires alone who were to be blamed. The indifference and apathy towards the Association, it was felt, basically stemmed from the lack of appreciation from among the larger community especially the educated classes who were the proper representatives of the country. Despite the fact that education had not reached the masses, the universities in the country were churning out a large number of graduates annually to whom the advantages of science could hardly have remained unknown. It was this hypocrisy

²²¹ Ibid., pp. 367-68; emphasis added.

²²² Ibid., p. 368.

among the educated that the *Hindoo Patriot* derided, who though well knowing the ‘supreme necessity of science cultivation in [the] country’ had failed to ‘come forward either with their purse or with other help at their easy command’.²²³ Even exceptions were solitary cases and by and large it had ‘scarcely found a single graduate who has tried to persuade others to help the institution. If our graduates had shown any earnestness in the matter, and acted the part of the missionary in the cause of science, the Association would have worn a different and brighter aspect.’²²⁴

It was especially in appealing for funds for the Association that the *Hindoo Patriot* rallied in its favour. In order to attract funds and to arouse interest in the Association, the membership fee was brought within the reach of those with a moderate income—Rs 2 per month or Rs 24 per annum. It was thus within the means of everyone to directly or indirectly help the Association. Quoting Sarkar’s appeal during the presentation of the twelfth annual report, the newspaper opined:

Every hundred and fifty such members would enable the committee to employ a whole-time professor, which means a man who will be able to devote himself to the experimental study of a particular branch of science and deliver regular lectures in it to a class and to the public. “Is it too much to expect” asks, he, “that at least five hundred persons in the Metropolis, and five hundred more from the country generally, may for such a purpose, the purpose of enabling the Science Association to have permanent professorships, become ordinary members of the Association?” Here is an easy method of increasing the revenues of the Association. What is it that prevents its adoption?²²⁵

This issue of the *Hindoo Patriot* attempted to place the debate of the IACS versus the proposed Calcutta Technical Institute in right perspective and in light of the ideals on which the Association was premised. It tried to curtail rumours and slanders circulated subtly and underlined that people who had indulged in such an act did not understand the facts about the IACS properly and were acting irresponsibly, harming the cause of science and the regeneration of India. Fearing the rumourous accusations of such a group which ‘*speaks of the very large capital which the association has in its possession*’, The *Hindoo Patriot* reminded them that

[t]his very large capital is constituted by the eighty thousand and four hundred rupees which the Association has invested in Government securities yielding the very large income Rs. 294 a month! With this capital and this monthly income our contemporary [the rumourous group] wishes the Science Association to convert its lecture hall into the Calcutta Technical Institute! He

²²³ Ibid., p. 368.

²²⁴ Ibid., p. 369.

²²⁵ Ibid., p. 369.

does not see any insuperable difficulties in the way, for “all that is wanted is the consent of Dr. Sircar and his friends.” Certainly, Dr. Sircar must be a very perverse man not to give his own consent and procure the consent of his friends for such an easy conversion of his lecture hall into a technical institute. Poor Dr. Sircar! How is he being misjudged and misunderstood by his compatriots who ought to have known better, and who, if they had taken the trouble to know better, would have, we doubt not, zealously earnestly and substantially seconded his untiring efforts in the cause of science cultivation in this country. The Association has certainly “most influential patrons,” without whose liberal and in many cases truly princely, patronage it could not have been started into existence, far less could it have been advanced to its present position. But we cannot help saying, though we say so with deep regret, that to the great misfortune of the country the influential patrons almost without exception have persuaded themselves into the belief that their duty had ended with the paying down of their subscriptions.²²⁶

The *Hindoo Patriot* while praising the philanthropy of the IACS’s ‘influential patrons’, lamented the fact that these rich and prominent men did little to involve themselves in the activities of the institute. Such financial and moral support without deep-kneed involvement in the activities of the institution only tantamounted to half-hearted support from outside. Participation and engagement in various aspects of the institute would have made them much more accountable and responsible towards the aims and objectives of the institution and their support much more substantial and real. They would have become more affectionate and nurturing patrons and not ‘just patrons’ of the Association’s activities and its supporters. Despite the fact that almost every influential patron became a member of the managing committee of the Association, its meetings were ‘very rarely favored with the dust of their feet. If they had attended these meetings, if they had attended the lectures delivered year after year by the honorary lecturers, they could have convinced themselves of the actual requirements of the Association, and then they would have felt a genuine affection for it, and would not have suffered it to pine for want of proper nourishment.’²²⁷

The *Hindoo Patriot* also bemoaned the doctor’s misrepresentation as an opponent of technical education. Sarkar himself had pointed out that ‘the founders of the Association were not unmindful of technical education [instead],... they wanted to place it on a solid and substantial footing, that is, on the basis of a preliminary scientific education.’²²⁸ The avowed objective of the IACS had been to embrace both scientific and technical education within its wide scope. If, until then, the Association

²²⁶ Ibid., p. 370; emphasis added.

²²⁷ Ibid., p. 370.

²²⁸ Ibid., p. 370.

had not been able to direct attention on technical education, it was ‘for the simple reason that preliminary scientific, education must precede technical education, and that before making provision to establish the former on a secure basis, it would be madness to waste, energy and fritter away funds for the mere name of technical education.’²²⁹ Sarkar firmly believed that ‘scientific education must permeate the country, before technical education would be even possible.’²³⁰

Sarkar’s views were, in fact, supported by none other than Scott Russell, one of the most earnest advocates for technical education in England, who perceived science as the sole foundation of skill and saw the necessity of having skilled thinkers above skilled doers. The Royal Commission on Technical Education had a similar view in pointing out that technical education should have a scientific base. If science then was the foundation of skill, then skilled thinkers and skilled doers were to be in dialogue. Moreover, an interface between the two was necessary for the growth of material wellbeing, as expected from science.

Through the raging controversy, the *Hindoo Patriot* was unflinching in its support of the doctor and his Association. However, it was willing to agree on one point with his opponents. If Calcutta was to indeed have a technical institute ‘it should be part and parcel of the Science Association’. Citing Sarkar’s own reasons they pointed out that

The funds required for carrying on technical education must be adequately large, or failure must be the result. With inadequate funds, there may be a mockery and [sic] name of technical education, but not technical education properly so called. The humblest institution for imparting technical instruction, even on a single subject of art or branch of industry must have a good collection of scientific instruments and apparatus and a laboratory for teaching the elementary principles of Science, that is, must have what the Science Association already has and what it still wants to have. Hence, in the present state of the country, to attempt to establish a separate and distinct institution for technical education would be, to say the least of it, uneconomical.²³¹

It was especially the lack of funds that made it imperative for any technical institute in Calcutta to be a part of the Association itself. The paucity of funds was also the main reason why the Association’s managing committee had not yet done something for the cause of technical education. It was this fact that the *Hindoo Patriot* attempted to impress upon Sarkar’s opponents. The newspaper thus made the entire science versus

²²⁹ Ibid., p. 370.

²³⁰ Ibid., p. 371.

²³¹ Ibid., p. 371.

technical institute debate a plea and appealed for funds for the IACS and the much-needed permanent professorship. Sarkar himself had noted that

I do not say, that it is altogether beyond the range of possibility that the two may not be made to go side by side, or rather, that technical education may not be made to follow closely upon the heels of scientific education. But before thinking of realizing this possibility, consider the amount of money that would be necessary to bring about the desired result. Archimedes could move the earth if he had a lever of sufficient length. The Committee of Management of the Science Association would, I believe, be able to make thorough scientific and thorough technical education a reality even in this country, if sufficient funds were placed at their disposal.²³²

The *Hindoo Patriot* did not merely vindicate the doctor's stand but also denounced all critics who questioned the purpose and integrity of the IACS. Thus when a contemporary pointed out that the scheme of the Association was well-meaning rather than convincing, the newspaper immediately rose to its defence by quoting the glowing tribute he (the contemporary) had given Sarkar at the time of the Association's foundation:

"Since Dr. Sircar in 1869 in the *Calcutta Journal of Medicine*", said he in 1877, "urged the necessity for an institution in this country and under native control for the cultivation of Science, up to the present year when his idea has found practical realization, his patient, persistent and single minded devotion to the object he had set before him has been such as may well enlist the sympathy and admiration, not only of every devotee of science, but of every friend of human progress, of every admirer of unselfish heroism, of every reformer, and of every patriot. At one time, his enterprise seemed so hopeless that many men would have set him down, as some we suppose did set him down, as an unpractical dreamer. He seemed like a gifted architect spending his life and genius in planning an edifice for the erection of which no materials existed. Time and the result have already justified him and we doubt not that coming generations will preserve his name as one of the worthiest pioneers of the splendid future which we all hope is in store for India. ***We do not believe that we use the language of exaggeration, but the simplest language to describe a notable fact, when we say that a new era dawned on this country when Dr. Sircar published, and resolved to act upon, his conviction, that the only method by which the people of India can be essentially improved, by which the Hindu mind can be developed to its full proportions, is by the cultivation of the physical sciences.***"²³³

It was rather unfortunate that this same contemporary who had upheld Sarkar's patience, persistence and single-minded devotion was to cast aspersions on the scheme upon which the IACS was founded. The debate on technical education also highlighted the great disparities between the colony and the metropole. The *Hindoo*

²³² Ibid., pp. 371-72.

²³³ Ibid., pp. 372-73; emphasis added.

Patriot pointed out that simply echoing the English cry for technical education in India as well was ‘mere imitation of the serious efforts that [were] being made in England to remedy the great defects which have been prevailing up till lately in her educational system, our efforts are spasmodic and share all the aimlessness and fruitlessness [of] spasmodic efforts, because being mere imitations only they have not the steadiness which can only proceed from a full comprehension of the nature of the evil, and of the means of its removal.’²³⁴ Moreover, this clamour for technical education was entirely unmindful of the preliminary requirements of such education. The vast and ‘almost immeasurable difference’ existing between England and India with regards to these preliminary requirements appear to have fallen on the blind spot of such advocates. The paper sardonically noted:

We must have technical education here though we may not have those requisites at all, for “all that is necessary is the consent of Dr. Sircar and his friends!” The prospects of technical education in this country must be very remote indeed when such is the ignorance of its enlightened leaders. Dr. Sircar has been trying to dispel that ignorance, and this he has been doing for nearly the last quarter of a century, and yet we are sorry to see that ignorance is as profound as ever.²³⁵

An appreciation of the role and scope of the IACS became all the more important in order to dispel this ignorance. The efficacy and need for the ‘cultivation of science’ was itself the ‘measure of civilization’ and this could only be achieved by advancing the interests of the Association to which the interests of the nation was tied. The *Hindu Patriot* could only agree with Sarkar

that the time has come when we may fairly assume that the utility of the institution is no longer a matter of doubt. As it is the only national institution in all India for the cultivation of science we should expect to see it supported by the nation without stint or grudge. With adequate, liberal support from those for whom it is intended, it will be an institution worthy of the Indian nation with all its glorious antecedents. With grudging, inadequate, nominal support it will only reflect the present degeneration of that nation Dr. Sircar has depicted what the prospects of the institution are likely to be with such half-hearted, inadequate support. “In this way,” says he, “by a gradual but a very slow process the Association may rise to the dignity of a scientific institution, fulfilling in a humble way the functions of diffusing and, may be, of making small additions to scientific knowledge.”²³⁶

Even in such optimism, Sarkar warned that in light of the pace of scientific advancement in the west, ‘our poor Institution will suffer immeasurably by

²³⁴ Ibid., p. 374.

²³⁵ Ibid., p. 375.

²³⁶ Ibid., pp. 375-76.

comparison'.²³⁷ The only means of averting it was to channelise and converge the energy of intellect and energy of hoarded wealth found in the country. The IACS and similar sites, as sites of national regeneration, were the appropriate place for these two forms of energy to converge.

Sarkar and his Contemporaries

The doctor and his peers were an odd assortment sharing a devotion to the cause of science to a greater or lesser extent. Their temperament varied, as did their cultural interests, their habits of living, and their sensitivity to their immediate surroundings. Yet all of them were ready to accord science the status of a social referent. In the years 1868–78, when Sarkar was criticised for his so called conversion, the idea of an institution could not have materialised without large-scale cooperation. There were people to vouch for the need to cultivate western science in both its broader and pragmatic sense. There emerged a 'web of complementarity' or an 'amorphous collegiality' among the literati despite the differences in their background. No doubt the individual urges may have emerged from the need to reinforce their own vision of social reform and education. Through this act they hoped to reaffirm and reinforce their own attempts and acts of reform within their respective realms of activity. This does not mean that there were no dissenting opinions but, despite this, there was a great commonality and consensus on making science the social referent.

A cursory appraisal of the personalities who came along with Sarkar provides a clear picture of how this fabric of complementarity and collegiality was weaved. One important point to be remembered here is that like Britain, and in this particular case Bengal, medical men and doctors and institutions associated with them played an instrumental and pivotal role in furthering the realisation of the cultivation of science. Sarkar may have been reproached and ridiculed by many of his peers of the dominant pathy of the Calcutta Medical College, but it is from the same college that many supporters sharing his vision of having a native institution for the cultivation of science, embodying the twin vision of specialisation-based science education along with researches in them, came forward. It is a well-known fact that Rajendralal Mitra was a student of the Calcutta Medical College and had later dropped out. Asutosh Mookerjee's father, Gangaprasad Mookerjee, a friend of Sarkar, was also a product of

²³⁷ Ibid., p. 376.

Calcutta Medical College. Sarkar also reviewed Gangaprasad Mookerjee's book in Bengali *The Principles and Practice of Medicine*, volume I, published by the Baptist Mission Press.²³⁸ He lauded his friend and professional peer's efforts towards disseminating Bengali medical literature and his contribution to the nurturing of science. Sarkar, as a friend of Asutosh Mookerjee's father, acted as a mentor to him. Asutosh Mookerjee taught mathematical physics and pure mathematics at the IACS during Sarkar's lifetime, and after the latter's death, he pledged to continue support to IACS, whose responsibility had fallen on Amritlal Sarkar. After 1894, Dr. Nilratan Sarkar also lectured on physiological chemistry at IACS and continued giving lectures and provided his support for many years. He was one of the most brilliant graduates of Calcutta Medical College and was to contribute much to the advancement of medical science, building up of medical infrastructure, and also as an educationist and swadeshi protagonist. In his initial days when he lectured at IACS, he gave out a microscope as prize to a student who attained the first position in the biology exam.

Sarkar was then definitely not alone in his expression of faith in science. Many of his contemporaries came together at the IACS and it was in this sense that it functioned as a platform for like-minded individuals interested in the cause of science and also served as a launching pad for many others who were to achieve fame. One of the most prominent figures who aided Sarkar at the IACS was a Jesuit priest of the Society of Jesus who shared many of the doctor's ideals. It is not incidental, therefore, that Sarkar and Father Eugene Lafont came together at the IACS; for Father Lafont regarded his work at the IACS as his best contribution to this country. For the fathers of the Society of Jesus, 'Man is moulded in and surrounded by matter, subject to space and time drawing his subsistence from the earth and all therein. His mental, moral and physical resources need to be deployed in and through the material universe of which he is a part. Through nature man has to reach nature's God.'²³⁹ Sarkar and Father Eugene Lafont imparted academic stability to the IACS by their lectures. Neither Sarkar nor Lafont were themselves great scientific discoverers, but they were philosophers of science who reflected upon its epistemological roots; its role in cultural transformation; its relationship with religion and with society and so on. They were cultivators and popularisers of science par excellence and great

²³⁸ This review appeared in the *Calcutta Journal of Medicine*, January 1869, pp. 26–30.

²³⁹ Mahendra Lal Sircar, 'On the Desirability of Cultivation of the Sciences by the Natives of India', pp. 286–91.

institution builders for that cause; they were also great teachers. Their social, economic, and religious background were different but yet their views on the efficacy of science in the Indian context converged in certain fundamental respects. They were tied to each other by personal bonds, as well as the realisation that theirs were complementary roles of leadership in the struggle for services of an Institution and the realisation of its ideals.

An entire generation got its first exposure to science at the IACS. P.C. Ray in his student days attended classes at the IACS. J.C. Bose was a student of Father Lafont at St. Xavier's College. These were men who later made discoveries at par with the best in the world of science, and established the spirit of science for self-reliance. The very fact that some criticised and debated the role of the IACS and some argued in its favour and dedicated themselves for the growth of this institution, proves not only that these men were interacting very closely but also that the role of science in India's destiny was being identified and encouraged for the posterity to carry it forward in the best possible way.

The point to understand here is that in the complementarity and collegiality weaved around IACS, doctors had a fair presence and consequently their role in the realisation of Sarkar's vision was significant. Commentators on the medical scene of eighteenth- and nineteenth-century Britain and Europe have also underlined the seminal role played by doctors in disseminating and furthering the cause of science.²⁴⁰ Among the roughly seventy or so odd participants of the 18th annual meeting of the IACS held on 30 July 1895, there were not less than fifteen doctors.²⁴¹ It is not impertinent here to remember that a large part of the audience who attended some of the regular and popular lectures at IACS was students of the Calcutta Medical College. The IACS report of the year 1887 also attests to the presence of a group of female students of the Calcutta Medical College. Later on special practical classes in chemistry were also held for women.

As reiterated earlier, Sarkar had very high ideals for the IACS which was conceived in the image of the Royal Institution. He had not only been its general manager but also one of its regular lecturers for many years. 'His love for the

²⁴⁰ In the post-enlightenment era, anatomy played a very instrumental role in furthering science. See Mel Gorman's 'Introduction of Western Science into Colonial India: Role of the Calcutta Medical College', pp. 276-98.

²⁴¹ *IACS Report of 1894 Presented at the Eighteenth Annual Meeting held on 30th July 1895*. Also see Arun Kumar Biswas (ed.), *Collected Works of Mahendralal Sircar, Eugene Lafont and the Science Movement (1860-1910)*, pp. 396-98.

Association, involved more sacrifice than [even] his conversion to homoeopathy, and showed more of ardour, energy and courage.’²⁴² However, his high ideals remained unfulfilled in his lifetime and, despite his constant struggle and attention, he could not establish a permanent professorship. Yet he remained optimistic.

While Sarkar’s life was inextricable intertwined with the IACS, he was a man of many parts. Beyond the Association he was a towering personality and loomed large as a figure. Through periodic tours in and around Calcutta due to calls from patients, through innumerable demonstration lectures at the IACS besides labouring as its honorary secretary but in reality functioning as more than a full time general secretary, and by attending to its big and small business, the man was not just constantly on the move but also diverted adequate energy to the *CJM*.

The doctor could also dream of big things without getting embroiled too much in trivialities. Though unsophisticated in his dress and attire, straight forwarded in his comments and dealings, his personality revealed exceptional congruence of ethical and moral values and conviction of a very high order, not only to face criticism for his actions but also the capacity to provide rebuttals with conviction without wavering. His perseverance, patience and compassion were also proverbial. His enormous organisational abilities were reflected in his capacity at institution building. The IACS, which Sarkar so painstakingly nurtured, was not merely an institution but an extension of himself.

Apart from his involvement with the Association and his profession as a homoeopathic practitioner, Sarkar had a highly successful and uninterrupted public career. Occasional tours outside Calcutta provided him opportunities to enjoy freedom from the normal routine of the Association. As already mentioned, he received many public honours and distinctions such as his appointment as the Honorary Presidency Magistrate in 1877—the duties of which he discharged faithfully for twenty years till 1902 when he resigned on account of his illness—and the conferment of the CIE in 1883. He also earned the unique distinction of being the greatest promoter of scientific enquiry in the country. A reluctant government was further compelled to recognise him by nominating him member of the Bengal Council in 1887 which he remained till 1893. As member of the Syndicate and as President of the Faculty of Arts from 1893 to 1897, he was closely involved with the administration of Calcutta

²⁴² *The Indian Nation*, 29th February, 1904, in Amrita Lal Sircar, *Obituary Notice of Mahendra Lal Sircar*, p. 25.

University. In 1898 Lord Curzon conferred on him the honorary degree of Doctor of Law of the Calcutta University.

Sarkar was also a member of many institutions and enlightened bodies. He was a prominent member of the Council of Asiatic Society of Bengal a trustee of the Indian Museum and a life-member of the British Association for the Advancement of Science.²⁴³ He was also a corresponding member of the American Institute of Homoeopathy and of the British Homeopathic Society, and a life-member of the Astronomical Society of France.²⁴⁴ The Society for the Higher Training of young men founded by late Rev Pratap Chandra Majoomdar and which later came to be known as the Calcutta University Institute also had Sarkar as one of its organisers. At its inauguration he delivered a very interesting and instructive address to his young audience on the 'Moral Value of Scientific Studies'.²⁴⁵ As Raja Peary Mohan Mookerjee remarked 'Dr. Sircar, lived to see the dream of his youth realised. At the time of his birth, his country was a silent, passive spectator of the achievements of Western Nations. At the time of his demise, India was an active participant in all the progressive movements of the world.'²⁴⁶

Despite his love for his Association and in spite of the fact that he often gave more priority to his lectures than to his professional calling, he never really abandoned it. His first and foremost love remained medicine and it was in its practice that he drowned his everyday larger problems of the Association. He was a compassionate doctor and this is especially witnessed in his treatment of the poor whom he treated free of charge. He also gave free medicines and often made gifts of money to the needy or the old and infirm. But even in such acts of generosity his conduct was formal and he was generally undemonstrative except during the periods of controversy that he faced. 'The maxim of suavity in manner and strength in action, was reversed in his case. He was kind in action but cold and even forbidding in manner.'²⁴⁷

As a doctor he maintained a high standard of care for his patients demanding that they pay close attention in preparing their diet and maintenance of surroundings.

²⁴³ *Indian Scientists: Biographical Sketches*, pp. 51-52.

²⁴⁴ 'A Short Account of Dr. Sircar's Life', in Amrita Lal Sircar, *Obituary Notice of Mahendra Lal Sircar*, p. 8.

²⁴⁵ J.P. Bose (ed.), *The Scientific and Other Papers of Rai Chunilal Bose Bahadur*, vol. II, p. 391.

²⁴⁶ Quoted in *Indian Scientists: Biographical Sketches*, p. 52.

²⁴⁷ *The Indian Nation*, 29th February, 1904, in Amrita Lal Sircar, *Obituary Notice of Mahendra Lal Sircar*, p. 26.

He always insisted on ‘the most accurate record of temperature, pulse beats, the character of the excretions, and such other matters. His fear of over medication or harmful medication, often made him avoid medication altogether, and he contended himself with merely watching the patient and regulating his mode of living. This was no “experiment” he performed on others. When he was suffering great agonies himself, he would not take any medicine unless he felt almost sure what it would answer; and he objected to give or take any medicine when the vital forces were at a low ebb.’²⁴⁸

Sarkar also had high regard for practitioners in his field and outside whose instruction and lectures on aspects of medicine he attached a high value.²⁴⁹ However, he himself did not bother to theorise or speculate much upon diseases like plague when it broke out towards the close of the century. Neither did he formulate opinions on various modern postulations regarding the treatment of diseases like cancer, consumption, or the causes of leprosy.²⁵⁰ The latter disease i.e. leprosy especially touched his sensitivity and in 1893 he established the Rajkumari Leper Asylum named after his wife and in her memory at Baidyanath. On his numerous visits to Baidyanath he had witnessed men and women suffer from the cruel disease and their physical sufferings along with their neglected and helpless condition had moved him considerably. Not being one to content with mere expression of sympathy, Sarkar set about the task of founding an asylum for the lepers. With his own personal donations of Rs 5000, supplemented by public contributions he established a home for the shelter and treatment of the unfortunate sufferers.²⁵¹

In the later years of his life Sarkar raised his fee to Rs 100 with the intention of dedicating more time to his poor patients who consulted him at his own house and were not charged the hefty fee. Though this step did bring down the number of patients, his income hardly suffered.²⁵² The general public reposed great faith in the doctor considering him as ‘the *one* representative of homoeopathy’.²⁵³ Notwithstanding his general commitment to his practice, there were those who

²⁴⁸ Ibid., p. 22-23.

²⁴⁹ Ibid., p. 22.

²⁵⁰ Ibid., p. 22.

²⁵¹ J.P. Bose (ed.), *The Scientific and Other Papers of Rai Chunilal Bose Bahadur*, vol. II, p. 387.

²⁵² Ibid., p. 386.

²⁵³ *The Indian Nation*, 29th February, 1904, in Amrita Lal Sircar, *Obituary Notice of Mahendra Lal Sircar*, p. 25.

criticised him for not having done enough for the pathy for which he had so ardently fought for recognition. According to *The Voice of India*,

It is no fault of his that homeopathy has acquired an evil reputation in Bengal, with its cheap medicine and still cheaper practitioners. Dr. Sircar did all he could to discountenance the pretension of both. Where he seems to have failed was in giving body and shape to his life-long convictions. He could have supplied the nucleus of a fund for a real Homeopathic College and Hospital in the metropolis of India, or for the cultivation of Medical Science in its higher branches. Had he taken the lead in this practical spirit, he would not have had to cry in the wilderness for the greater half of his singularly prosperous career. But we have no right to more than refer to a failing, which is shared by almost all our public men.²⁵⁴

The *Indian Mirror* at the time of Sarkar's death also expressed similar sentiments. While mourning his death as the loss of a 'great worker in the cause of reform', it pointed out that,

[h]ad he directed his energies in founding a Homeopathic College and a Homeopathic Hospital in the place of the Science Association, he would have done a lasting and tangible good to the community, and more specially to the suffering humanity. He kept up a Homeopathic Dispensary in his house where hundreds of patients used to get treatment and medicine *gratis* daily.²⁵⁵

No doubt, Sarkar could have immersed his energies in creating a Homeopathic College and Hospital. But his vision, as we have seen was a much larger and encompassing one. His burning ambition remained to further the cause of science and empower his own countrymen with the wherewithal for that purpose. This of course could not have been achieved if he had not been so single-minded in his pursuit and purpose of the medical realm. On the practical side, the Association itself was always lacking in funds and hence even if Sarkar had attempted to build a homeopathic college, it would have been an intractable task.

In the year Sarkar died the political scene was beginning to warm up. With the death of this towering personality, Bengal in particular and India in general were preparing themselves to take on a new political role—a role which Sarkar himself would have been glad to witness. Sarkar had been the 'connecting link between the old and new

²⁵⁴ *The Voice of India*, 27th February, 1904, in Amrita Lal Sircar, *Obituary Notice of Mahendra Lal Sircar*, p. 16.

²⁵⁵ *The Indian Mirror*, 3rd March 1904, in Amrita Lal Sircar, *Obituary Notice of Mahendra Lal Sircar*, p. 39.

generations of Bengal.’²⁵⁶ He was the force of example, the nobility of aspiration, and the articulation of India.

To conclude this brief history of the institution and the short sketch of the life and character of its illustrious founder, it is tempting to quote the following lines from his last appeal to his countrymen. Soliciting help and cooperation in the maintenance and development of the Science Association, Sarkar exhorted his countrymen:

To you, my dear colleagues, from whom I receive the heartiest sympathy and support, and to all over educated young men who have not yet come forward as they should have, I leave this Science Association of ours as a legacy which, calculated to regenerate our country, you will, I dare say, try your best to improve and develop to its utmost capacity.²⁵⁷

²⁵⁶ *The Pioneer*, 25th February, 1904, in Amrita Lal Sircar, *Obituary Notice of Mahendra Lal Sircar*, p. 14.

²⁵⁷ J.P. Bose (ed.), *The Scientific and Other Papers of Rai Chunilal Bose Bahadur*, vol. II, p. 392.