

## The chemistry of a Bengali life: Acharya/ Sir Prafulla Chandra Ray in his times and places

Zachariah, Benjamin

Veröffentlichungsversion / Published Version

Sammelwerksbeitrag / collection article

### Empfohlene Zitierung / Suggested Citation:

Zachariah, B. (2006). The chemistry of a Bengali life: Acharya/ Sir Prafulla Chandra Ray in his times and places. In K.-S. Rehberg (Ed.), *Soziale Ungleichheit, kulturelle Unterschiede: Verhandlungen des 32. Kongresses der Deutschen Gesellschaft für Soziologie in München. Teilbd. 1 und 2* (pp. 4316-4332). Frankfurt am Main: Campus Verl. <https://nbn-resolving.org/urn:nbn:de:0168-ssoar-142121>

### Nutzungsbedingungen:

Dieser Text wird unter einer Deposit-Lizenz (Keine Weiterverbreitung - keine Bearbeitung) zur Verfügung gestellt. Gewährt wird ein nicht exklusives, nicht übertragbares, persönliches und beschränktes Recht auf Nutzung dieses Dokuments. Dieses Dokument ist ausschließlich für den persönlichen, nicht-kommerziellen Gebrauch bestimmt. Auf sämtlichen Kopien dieses Dokuments müssen alle Urheberrechtshinweise und sonstigen Hinweise auf gesetzlichen Schutz beibehalten werden. Sie dürfen dieses Dokument nicht in irgendeiner Weise abändern, noch dürfen Sie dieses Dokument für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, aufführen, vertreiben oder anderweitig nutzen.

Mit der Verwendung dieses Dokuments erkennen Sie die Nutzungsbedingungen an.

### Terms of use:

This document is made available under Deposit Licence (No Redistribution - no modifications). We grant a non-exclusive, non-transferable, individual and limited right to using this document. This document is solely intended for your personal, non-commercial use. All of the copies of this documents must retain all copyright information and other information regarding legal protection. You are not allowed to alter this document in any way, to copy it for public or commercial purposes, to exhibit the document in public, to perform, distribute or otherwise use the document in public.

By using this particular document, you accept the above-stated conditions of use.

# The Chemistry of a Bengali Life

Acharya/Sir Prafulla Chandra Ray in his 'Times and Places'

*Benjamin Zachariah*

## Introduction

Scientist, nationalist, educationist, Bengali *bhadralok*, intellectual, entrepreneur, public figure, sometime Gandhian, almost-politician – all these describe Prafulla Chandra Ray at various stages of his life. He was an important influence on the scientific fraternity in India – in giving them a legitimate voice as Indian scientists, and in giving them the confidence to practice in a new and less unequal environment. He was a major participant in debates on Indian nationalism from the late nineteenth century to independence. He linked debates on the philosophy of science and its validity for India in the late nineteenth century to those on the justification of development in the 1940s. P.C. Ray crops up in all these debates, but in a fragmented manner.<sup>1</sup>

The question which might be asked, in piecing together the fragments of Ray, is whether the fragments hold together at all, and if so, how. It may be possible to use Ray's life as a stalking horse to raise wider questions about his times. Ray's importance as a public figure over several decades, and as one whose pronouncements on various social, political and cultural matters were taken extremely seriously by a wide audience of middle-class Bengalis and Indians, enables us to chart something of an intellectual history of Bengali and Indian nationalism over a wider time-frame than that of a single political flash-point. This potentially leads to a journey through the history of the Bengali intelligentsia, through the history of Indian nationalism, and the psychological and social history of an intellectual bourgeoisie under colonialism.

---

\* I should like to thank several people who have read drafts of this essay or had me discuss aspects of it with them: Crispin Bates, Debraj Bhattacharya, Subhas Ranjan Chakraborty, Rajarshi Dasgupta, the late Hiren Mukerjee, Riddhi Shankar Ray, Surjya Shankar Ray, and in particular Sulagna Roy, who will recognise some of the ideas contained in this paper.

<sup>1</sup> Biographical work, which could potentially cut across these barriers, tends again to be from scientists or Bengali *bhadralok* heroic perspectives. For a short biography, see J Sen Gupta, PC Ray (Delhi, 1972).

Ray's peculiar ability to voice the concerns and anxieties of the Bengali intelligentsia, his frank projection of these anxieties onto the rest of the Indian middle-class, not to mention the ›nation‹ at large, and the engagement of his contemporaries with his ideas, makes him more than a random example of peculiar views. His political orientation moved from high liberalism in his years as a student at Edinburgh University, through Gandhism in the 1920s, to a position close to the socialism of his prominent students and fellow public figures such as the physicist Meghnad Saha in the 1930s. An inspirational figure for the *Swadeshi* movement for economic and intellectual self-reliance early in the twentieth century (Sarkar 1973), he continued to be, and to regard himself as, a role model for publicly desirable behaviour, even as he managed to reconcile the lessons from role models ranging from Gandhi to Mussolini. Through a study of Ray's ideological shifts, incoherences, inconsistencies, associations and dissociations, and within a comparative framework that keeps in perspective the ideas of his contemporaries, I attempt to analyse crucial aspects of ›identity‹ formation under colonialism; and in particular, to examine the often complex interaction between allegedly ›Western‹ and ›indigenous‹ ideas, or between metropolitan and colonial ideas.

Acharya Prafulla Chandra Ray's lifetime (1861-1944) spanned crucial changes in the Indian middle-class's social and intellectual landscape. Ray's life in science and in public fora covers a period of intense debate among Indians as to the role that science was to be accorded in national life. Was it an alien accretion to be treated with suspicion? Or was it a model for a universalism for which a colonised people craved, and consequently a means through which Indians could achieve equality? And if it was the latter, was this to be at the expense of the ›spirituality‹ which was allegedly the hallmark of ›Eastern‹ civilisation? Ray's work found answers to these questions; his answers succeeded in being remarkably cosmopolitan, unlike those of many of his contemporaries, as well as unlike several present-day writers.

The slippage from ›Bengali‹ to ›Indian‹ in many debates surrounding Indian nationalism has often been noted by historians. P.C. Ray's own writing is indicative of the ease with which such slippages occurred. It might be productive of a better understanding of the social and psychological processes involved therein to try and trace how they occurred rather than simply to see it as a Bengali attempt to appropriate the nation. Perhaps this might also provide a clue to how other particularist readings of Indian nationhood might have operated – by providing a picture against which to measure, by analogy and disanalogy, Marathi or Malayali relationships to the Indian nation. Because there were of course particular readings of Indian nationalism that were inflected in terms of region, class, gender, or various sectarian positions.

There has been some recent writing which has sought to read P.C. Ray in a Hindu fundamentalist or exclusionary framework.<sup>2</sup> Some of this relies on his own speeches from platforms connected to various Hindu Sabhas or other parochial organisations. Other writing connects Ray with a project of defining a ›Hindu‹ science. In some versions of this argument, Ray's attempt to indigenise science, to deny its alien nature, threw him back on a romanticised view of ancient Indian science as ›Hindu science‹; which allegedly denied the achievements of ›Muslim‹ or medieval Indian science.<sup>3</sup> Ray has of course had his (partial) defenders; but even these defenders are embarrassed by Ray's frequent resort to the category ›Hindu‹.<sup>4</sup> However, the embarrassment regarding the term is probably due to the inadequate attention paid to the nuances the term might have had in Ray's own usage, and in the usage of his times.

### Legitimacy and the Self-Respecting Voice

All this raises a larger question: what was the nature of Indian borrowing of ideologies and practices from the metropolis, and in what ways were they adapted or transformed in Indian usage?

One of the major problems of understanding politics in colonial India is that the terminology is misleadingly familiar to us, while the meaning of the terminology is often subtly but significantly different. This makes the shifts in meaning acquired by apparently familiar political ideas in the Indian context inaccessible without close attention to their operation in that context. Much existing writing attempts to get around the problem by insisting on a fundamental difference between the operation of Indian and ›Western‹ politics; other writing assumes that the terminological familiarity implies sameness. It is, however, necessary to examine in some detail the transposition of familiar ideas borrowed from European (or North American) usage

---

2 Joya Chatterji, *Bengal Divided* (1994), Cambridge; to an extent Pradip Datta, *Carving Blocs* (Delhi, 1998); on science, Gyan Prakash, ›Science Between the Lines‹, in Shahid Amin and Dipesh Chakrabarty (eds.), *Subaltern Studies IX* (Delhi, 1996); Gyan Prakash, *Another Reason: Science and the Imagination of Modern India* (Princeton, 1999); and on ›romanticism‹ in science and its connections with ›Hinduness‹, David Arnold, ›A Time for Science: Past and Present in the Reconstruction of Hindu Science, 1860-1920‹, in Daud Ali (ed.), *Invoking the Past: The Uses of History in South Asia* (Delhi, 1999); David Arnold, *Science, Technology and Medicine in Colonial India* (Cambridge, 2000); Pratik Chakraborty, ›Science, Nationalism and Colonial Contestations: P.C. Ray and his Hindu Chemistry‹, *Indian Economic and Social History Review* XXXVIII, 2 (2001), pp. 185–213.

3 Arnold, David, ›A Time for Science‹, p. 156–157.

4 Deepak Kumar, *Science and the Raj, 1857-1905* (Delhi, 1995); and to an extent Datta, *Carving Blocs*.

to Indian contexts before the nature of the experience of ›politics‹ in colonial India can be properly understood.

We are dealing with a problem of translation that is both cultural and linguistic.<sup>5</sup> The problem itself arises from the need to communicate in an English language-dominated public sphere, and therefore the need to collate terms in English with terms in Indian languages. This was not necessarily a one-sided process; it could be a mutual process, in the course of which the meanings of English and Indian language terms shifted towards each other.

Political arguments in colonial India were interventions into arenas structured by the British colonial power. An effective intervention had to appeal to principles that the colonial power recognised as valid. These were often principles that had already secured political and/or academic respectability in Britain – that is, whose legitimacy was reinforced by their *prior* status as valid principles in the metropolis. Metropolitan ideas were therefore a potential source of legitimacy for arguments in India.<sup>6</sup> At the same time, as oppositional positions to British rule developed, standards of legitimacy in India could not be seen to lean too strongly on metropolitan standards alone, since metropolitan positions were often closely associated with imperialism by Indian audiences. Hence the importance of *claims* to ›difference‹ from merely metropolitan standards in Indian nationalist arguments.<sup>7</sup> This meant that ›indigenous‹ intellectual resources were also drawn upon as standards of legitimacy, either to reinforce or to undermine the sanctity of outside principles. Ironically, these ›indigenous‹ resources had themselves been crucially shaped by British interventions in earlier periods – perhaps by Orientalist scholarship, whose positions seem to have been rediscovered or internalised by Indian nationalists in the twentieth century.

P.C. Ray's writing bridges the concern with metropolitan and indigenous ideas and illustrates the ambivalences this tension gave rise to. In these tensions many themes can be explored, not least an anguished search for self-respect – and a demand for respect. *But from whom?* In a colonial society, who is in a position to bestow respect? Can *self-respect* emanate from sources other than the self? Is the colonised self one whose self-hood is in some sense borrowed, one which must lean on sources external to itself?

---

5 In this essay, the concern is with the predominance of English, but the problem of cultural translation transcends that of linguistic translation.

6 This was true not merely for arguments made by Indians but also for those made by British officials or non-officials in India.

7 Hence the importance of Partha Chatterjee's formulation of the nature of Indian nationalist thought – ›derivative but different‹. Partha Chatterjee, *Nationalist Thought and the Colonial World: A Derivative Discourse?* (London, 1986).

## ›Hindu‹ science

P.C. Ray's pronouncements on anything called ›Hindu‹ have been unearthed and held up for scrutiny. It has not been asked: what did it mean for him to be a ›Hindu? What did it mean in the circles in which he moved to be a ›Hindu? What, for that matter, did it mean for him to be a Bengali? Or a *bhadralok*? Or an Indian? Or a scientist? And (a question every social scientist has learned to ask in seminar sessions about anything to do with India) what about caste? Or gender? And so on. All these competing, complementary, and contingent identities, within the social contexts of each and all of them, would have had some meaning.

Let us first review some of the charges against Ray. Joya Chatterji has made the general charge that the Bengali (Hindu) *bhadralok* were communal (as a whole, a major part, or merely those who counted?). Gyan Prakash has discovered a Hindu revivalist streak in Ray and his associates' science. David Arnold sees in the romanticism of Bengali scientists a tendency to glorify a Hindu past, a glorification that amounted to the denial of the Muslim contribution to Indian science. Deepak Kumar acknowledges ›streaks of revivalism‹, but takes a less strong position. Pradip Datta is more willing to acknowledge a contradictory position.<sup>8</sup>

In Chatterji's case a major problem may be that the terms ›communal‹ or ›communalism‹ are often used but never defined or clarified, except where a Hindu communalism is seen as distinct from nationalism – a distinction which is very hard to maintain, especially when both terms appear in her work as normative, with no clear indication of what they are intended to describe. Ray's guilt by association with some strange causes can certainly be alluded to: for instance his signature appears on a memorial by the ›Hindus of Bengal dated 1936, claiming protection as a minority community and drawing attention to the great contribution of Hindus to the greatness of the Bengal province; the other signatories included Rabindranath Tagore, Brajendranath Seal, educationist, philosopher, and sometime historian of science, and Ramananda Chatterjee, editor of the *Modern Review*.<sup>9</sup> Ray appears again in Chatterji's text presiding over a meeting of the Congress in July 1947 urging acceptance of partition, at a time when the Congress and the Mahasabha hosted some joint meetings in Bengal (here again it is unclear what else he might have urged at that late date).<sup>10</sup> Yet if a sense of besiegement and of loss of status among the Bengali Hindu *bhadralok* (which undoubtedly existed) is to be described as ›communal‹, then the reader is entitled to ask what the *criteria* for such ›communal-

8 Chatterji, *Bengal Divided*; Prakash, ›Science Between the Lines‹; and Another Reason; Arnold, ›A Time for Science‹; Kumar, *Science and the Raj*; Datta, *Carving Blocs*.

9 Chatterji, *Bengal Divided*, pp 25, 28. Ramananda Chatterjee was a member of the Hindu Mahasabha in the 1940s.

10 Chatterji, *Bengal Divided*, p 251.

ism» might be. The implicit criteria for selection might seem strange to many: Hindu opposition to the Communal Award (on what grounds?), or support (or acceptance) for partition (of India or Bengal, and at what juncture, against the backdrop of what kind of options?) merge into one another. This again is said to be without prejudice to the fact that Muslims were communal too.<sup>11</sup> So we are (or they were) *all* guilty – and perhaps, therefore, no one is – or in Peter van der Veer's writing, all Indians are religious nationalists, and there isn't any other kind of nationalism in India.<sup>12</sup> This of course exposes the contradictions evident in the casual use of the normative term «communalism» without agreement as to its descriptive significance – a point which some historians are beginning to grasp.<sup>13</sup>

There are certain inconsistencies to be accounted for in attempting to cast P.C. Ray as a »Hindu revivalist«. Several of his public statements are ambivalent about being a »Hindu«. In fact, he was a Brahmo, a sect that carried on a vigorous internal debate as to whether or not to define itself as Hindu at all. As Pradip Datta has pointed out, there are inconsistencies in Ray's position, with an apparent distrust of Muslims alternating with an apparently more sympathetic position, as expressed in his memoirs (published in 1932), and where the unacceptable outsiders appear to be the Marwaris – who, it might be added, though Datta does not mention it, are nonetheless admired for their drive and entrepreneurial zeal.<sup>14</sup> Equally significantly, many of his colleagues and close associates did write books and articles that were hostile to Muslims, usually in terms of the commonplace view that a glorious Hindu past had been disrupted by Muslim invasion.<sup>15</sup> Ray did not; unlike many of his con-

11 Chatterji, *Bengal Divided*, p 17.

12 Peter van der Veer, *Religious Nationalism: Hindus and Muslims in India* (Berkeley, 1994).

13 See Jalal, Ayesha, »Exploding Communalism«, in Ayesha Jalal/Sugata Bose (eds.) (1997), *Nationalism, Democracy and Development: State and Politics in India*, Delhi; Sulagna Roy, 'Communal Conflict in Bengal'.

14 Datta, *Carving Blocs*; Prafulla Chandra Ray, *Life and Experiences of a Bengali Chemist* (Calcutta and London, 1932) (hereafter *Ray, Chemist*).

15 On the 'Hinduness' of science and civilisation in India, and their decline from the time of the 'Muslim conquest', see PN Bose, *A History of Hindu Civilisation During British Rule*, vol 2 (Calcutta, 1894), and vol 3 (Calcutta, 1896); Benoy Sarkar, *Hindu Achievements in Exact Science* (New York, 1918), cited in Kumar, *Science and the Raj*, pp 209–12. Such arguments are often dismissed as 'Hindu revivalist'; although they often were, the dismissiveness is unwarranted and retards a closer understanding of why they were so – they would merit closer attention on the grounds that they were often not directly or instrumentally sectarian or anti-Muslim; and they drew strongly on conventions of metropolitan academic writing in their references to and mixing of the categories of 'Hindu' and 'Aryan' – see for instance PN Bose, *A History of Hindu Civilisation During British Rule*, vol 1 (Calcutta, 1894), p 20; vol 2, pp 1–5. PC Ray's avoidance of this formula is particularly significant in that he was close to both Benoy Sarkar and PN Bose: Bose had been his colleague at Presidency College (he was in the geology department) and Benoy Sarkar was prominent in the Swadeshi movement, of which Ray's company, Bengal Chemicals, was an inspirational institution. See Kumar, *Science and the Raj*, p 209–11, 213.

temporaries he was able to avoid a situation in which his historical quest turned into ancestor-worship and sectarianism. His *History of Hindu Chemistry*, the first volume of which was published in 1902, is read, largely by virtue of its title, as evidence of his attempt to glorify a Hindu past.<sup>16</sup> It does not.<sup>17</sup> And unlike Jagadish Chandra Bose (1858-1937), who tried to reconcile modern scientific practice with ancient Indian (Hindu?) philosophy (largely encouraged in this quest by Margaret Noble, the Irish-woman and Theosophist later known as Sister Nivedita), Ray remained sceptical of the ancients' ability to discover the modern before modernity was conceived.<sup>18</sup>

The *History of Hindu Chemistry* was written for a series, at the request of a French chemist whom P.C. Ray greatly admired, M. Berthelot. Thus, David Arnold is correct in writing that Ray's »focus on »Hindu« chemistry was no accident«; it was in fact deliberate, but Arnold's implied attribution of motive is unwarranted.<sup>19</sup> Berthelot had just written a history of Arab chemistry, and had noted that Arab sources frequently mentioned Hindu sources for their own work. He wrote to Ray asking whether Ray would write a history of Hindu chemistry, since he had the necessary language skills which Berthelot himself lacked.<sup>20</sup> It is not recorded whether Berthelot knew anything of the state of Hindu-Muslim relations in Bengal, nor whether he realised or cared about the possibility of such a history being read as a glorification of a Hindu past to the exclusion of a Muslim one. Ray himself did not write in order to »excise« the »Islamic contribution« to Indian chemistry.<sup>21</sup> He specifically stated that the reason he had confined himself to Hindu chemistry was that he did not know Arabic or Persian.<sup>22</sup>

We can see a problem of terminology here: Arab sources would have used the term »Hindu« in a geographical sense, as would Berthelot, on the basis of his sources (and perhaps also on the basis of first language interference – his own translating from the French »les Hindous«, meaning »Indians«). Ray, however, would have been

16 Prafulla Chandra Ray, *A History of Hindu Chemistry* (2 vols, Calcutta, 1902-08).

17 For a detailed analysis of this text and the debates surrounding it, see Dhruv Raina, »The young P.C. Ray and the inauguration of the Social History of Science in India (1885-1907)«, *Science, Technology and Society* 2: 1 (1997).

18 See Ashis Nandy, *Alternative Sciences: Creativity and Authenticity in Two Indian Scientists* (Delhi, 1980; 2nd edn, Delhi, 1995). This indicates that a simple »Western/Eastern« dichotomy would be wholly inadequate to characterise the engagement with questions of science and culture that preoccupied people then; unless it can be argued that Bose's turn to Hindu philosophy via the Theosophists makes his Hinduism a »Western« Hinduism – but this is to say that the Theosophists' Hinduism was »Western«. All this is polemical rather than useful – this is a polemic that Ashis Nandy himself uses, for instance in his Preface to the new edition of *Alternative Sciences*, though he avoids it in the text, written earlier.

19 Arnold, *A Time for Science*, p 166.

20 Berthelot's letter to Ray, reprinted in Ray, *Chemist*, p 116, note 3, and facsimile, facing page.

21 Arnold, *A Time for Science*, p 157.

22 Ray, *History of Hindu Chemistry*, Vol 1, preface.



aware of the continuity being claimed among his colleagues for Hindus ancient, medieval and modern; and he could choose either to maintain a distance from those debates or to engage them in debate. He appears to have chosen the former option, but he could not have failed to realise that his critical remarks regarding the Hindu past would sit uneasily with some of his close associates' views. Furthermore, he wrote with a clear idea of what he regarded as scientific and what he did not – and was rather logocentric in his approach, paying little attention to the debates regarding the validity of ›Western‹ science for India, or how to create an ›indigenous‹ science. In a chapter entitled ›Knowledge of Technical Arts and the Decline of the Scientific Spirit, he indicted the ancient Hindus on a number of counts. Among these was the wastage of gold, and the fact that Hindu chemistry was inextricably linked up with medicine on the one hand (which was not undesirable) and with magic on the other (which was clearly undesirable).<sup>23</sup> On the other hand, he was proud to be able to quote Professor MacDowell on the debt of the Europeans to the Indians in science.<sup>24</sup>

If we are to ask whether Ray felt it worthwhile to engage with the category ›Hindu‹, the answer is ›yes. It would have been surprising, given the times in which he lived, had he not. But this tells us nothing about whether he engaged with it as a cultural, national or religious category. We need, moreover, to keep in mind that the problem of terminology takes on a further twist here: what did it mean to be ›Hindu? Was it a ›race‹ (›Aryan?‹), a ›culture‹, a ›civilisation‹, a ›nation‹, a ›nationality? Was ›Hindu‹ unproblematically seen as ›Indian‹, or was it acknowledged as an imperfect synecdoche used to invoke a cultural continuity with an ancient past that would otherwise not be available at all as a ›national‹ resource? Were the potential exclusions of such categories recognised? This is a problem that was particularly acute in the 1920s and ›30s, in the heyday of eugenics, and eugenics-related theories of race, culture and fitness: all these categories were terribly mixed up even in specialised, academic usage – and this was a worldwide problem -. It could also be a problem of translation: *jati*, *sabhyata*, *desh*, *rashtra* etc – or even *arjya* for Aryan – did not map unproblematically onto their very approximate and often differently rendered English equivalents.<sup>25</sup>

Let us, then, ask a more directed question: did Ray's engagement with the category ›Hindu‹ amount to sectarianism? Furthermore, what other relevant categories did Ray engage with? Once we have framed the question in this way, we may dispense with the simpler question of Ray as a Hindu revivalist or a Hindu scientist,

<sup>23</sup> Ray, *History of Hindu Chemistry*, Vol 1, p. 104 ff.

<sup>24</sup> Ray, *History of Hindu Chemistry*, Vol 1, p. (lxxix).

<sup>25</sup> I have dealt with this point in some detail elsewhere: see Zachariah, Benjamin, (1999), ›British and Indian Ideas of ›Development: Decoding Political Conventions in the Late Colonial State‹, in: *Itinerario*, issue 3–4.

and move on to the more complex question as to what he might have been beyond that.

### The Public Life of P.C. Ray – As It Is Written

The first volume of Ray's autobiography, the *Life and Experiences of a Bengali Chemist*, appeared in 1932. Well aware of his status and responsibilities as a public figure, Ray intended his book to inspire his fellow countrymen to action.<sup>26</sup>

The Preface takes the reader straight to the point:

»While a student at Edinburgh I found to my regret that every civilised country including Japan was adding to the world's stock of knowledge, but that unhappy India was lagging behind. I dreamt a dream that, God willing, a time would come when she too would contribute her quota. Half-a-century has since then rolled by. My dream I have now the gratification of finding fairly materialised.«<sup>27</sup>

Why did Ray decide to refer to himself as a *Bengali* chemist? This, he recognised, required some explaining.

»In these days of awakened national consciousness, the life story of a *Bengali* chemist smacks rather of narrow provincialism. As there are two or three chapters which relate exclusively to Bengal, I have been reluctantly compelled to substitute *Bengali* for *Indian*. It will be found, however, that most part of the subject matter is applicable to India as a whole. Even the economic condition of Bengal applies *mutatis mutandis* to almost any province in India.«<sup>28</sup>

Ray can be accused of projecting the particulars and peculiarities of his own Bengali-ness onto India as a whole – therefore of modelling the »nation« on the »region« to which he belonged – or even worse, on the region, religion, class and/or caste to which he belonged – thereby excluding other regions, religions, classes, castes, or genders, from his definition of »nationhood«. Whilst introducing himself as a *Bengali* and as a *chemist* Ray also made it clear that he wished to be thought of as »something more than a mere chemist: at least as an educationist and as one who had closely involved himself in social and economic problems, as well as the politics thereof: »because, as Professor Bowley observes, »economic and political events cannot be disentangled.«<sup>29</sup>

---

26 Ray, *Chemist*, title page.

27 Ray, *Chemist*, p (vi).

28 Ray, *Chemist*, p (vi). Emphases in original.

29 Prafulla Chandra Ray, *Life and Experiences of a Bengali Chemist*, vol. II (Calcutta and London, 1935) (hereafter Ray, *Chemist II*), p (iii). Italics in original.

Ray's text has a great deal of Bengal history in it. Certain details are taken for granted as familiar, in particular tales of ›the old Hindu College‹ with which students of the new Calcutta Presidency College would have been familiar.<sup>30</sup> They were also tales which related Ray to a ›progressive‹ Bengali genealogy, that of the so-called ›Bengal Renaissance‹ – a connection he makes explicit later in the book, when he refers to his father's and his own Brahmo Samaj connections.<sup>31</sup> One might therefore assume that this was a book written for an audience familiar with this history, a Bengali audience who identified positively with this history. And yet, despite this, there is the omnipresent imperialist-as-superego. Comparisons with British history are frequent; it is necessary for Ray to establish that Bengalis have a comparable history to that of Britain. It is also extraordinarily important for Ray to establish his credentials as a man well-read in English and European literature, and as a man who writes well in English.

Two interrelated questions may be addressed here: the engagement with Britain as a ›progressive‹ force, and the ›renaissance‹ analogy for the history of Bengal. There is a definite ambivalence towards Britain and the British in Ray's writing. On the one hand the British are to be greatly admired; on the other, they are to be resisted as conquerors and as racists.<sup>32</sup>

Ray was also keen to establish his progressive credentials. Despite his own zamindari origins, he took a broadly anti-zamindari position, quoting James Mill's *History* on zamindars being undesirable as absentee landlords.<sup>33</sup> ›Only the idlers and the parasites of the *bhadralok* class and the peasantry are the dwellers in the village.‹<sup>34</sup> He placed himself within the ›Bengal Renaissance‹. Here again his engagement with the phenomenon was ambivalent: he attributed the ›intellectual renaissance in Bengal‹ to the efforts of Rammohun Roy and Thomas Babington Macaulay, and agreed with James Mill that the ›Hindu‹ mind was capable of great metaphysical subtlety but deficient in practical skills. Where science should have flourished as a result of the ›ferment all around, ›(u)nfortunately, the Hindu intellect, lying dormant and fallow for ages, was overgrown with rank weeds and brambles.‹<sup>35</sup> Of Macaulay he wrote, »Macaulay's famous minute (1835) was in no small measure responsible for the intellectual renaissance of India, however much neo-Hindu revivalists may take

30 For details of the history of Hindu College, see Benjamin Zachariah, Subhas Ranjan Chakraborti and Rajat Kanta Ray, ›Presidency College, Calcutta: An Unfinished History‹, in Mushirul Hasan (ed.), *Knowledge, Power and Politics: Educational Institutions in India* (New Delhi, 1998).

31 Ray, *Chemist*, pp 30–31, 39, 42, 146–7.

32 Ray, *Chemist*, p 27. The attitude of educated *bhadralok* to the ›Mutiny‹ had been one of distance; many had professed their loyalty to the British at the time, and sought to distinguish themselves from the backward mutineers.

33 Ray, *Chemist*, pp 140–42.

34 Ray, *Chemist*, p 16.

35 Ray, *Chemist*, pp 140–42, 147.

offence at some of the passages in it.<sup>36</sup> Three years later, he used the same Minute of 1835 as a quote to begin a chapter deploring the Bengali's imitative tendencies: adopting European dress, customs, manners, and consumption patterns, embodied in tea, tobacco and automobiles.<sup>37</sup>

Ray mentioned his Brahma Samaj membership as part of his progressive credentials, and seemed to regret that his father had failed to marry a widow.<sup>38</sup> He recounted his father having told him that in earlier times Brahmins used to eat beef.<sup>39</sup> A provocative tone is evident in these passages, in which the pretensions and the sensibilities of conventional, and conservative, Hindu society, and the Brahma Samaj's separateness from it, are emphasised. Ray was equally keen not to be seen as anti-Muslim. This point he introduces into the narrative a number of times: while in Edinburgh Ray had on occasion borrowed a Muslim friend's clothes;<sup>40</sup> once he walked the Scottish Highlands with a Muslim friend.<sup>41</sup> Curiously, he mentioned the fact that his friends in these cases were Muslim, but didn't mention their names. On the other hand he names all the Hindu *bhadralok* he came into contact with – so he seems to be making a deliberate political statement when he says he has Muslim friends – as when he ascribes significance to his father's knowledge of Arabic and Persian.

Ray argued, in common with many in the nationalist movement, that ›communalism‹ had been virtually unknown in India before the advent of British rule.<sup>42</sup> *Bengali* Muslims, for Ray, were unquestionably to be included in the category ›Bengali‹<sup>43</sup> – which, as we have already noted, was for him the necessary intermediary category through which to imagine, by extension or projection, the ›Indian‹. Ray did not argue that there were no differences between Hindus and Muslims; merely that these differences ought not to result in conflict – and he rejected the contention that Hindus and Muslims in Bengal were different races: most Muslims were converts from Hinduism due to the ›very democratic character of Islam as also its absolute freedom from the curse of untouchability‹<sup>44</sup>. The *prajas*, for whom the good zamindar was expected to care, were, as everyone knew, and certainly in East Bengal from where Ray came, most often Bengali Muslims. Marwaris were part of the

36 Ray, *Chemist*, p 142.

37 Ray, *Chemist II*, pp 333–43.

38 Ray, *Chemist*, pp 79–82, 85.

39 Ray, *Chemist*, p 28

40 Ray, *Chemist*, p 68.

41 Ray, *Chemist*, p 71.

42 Ray, *Chemist II*, Chapter XV.

43 Ray, *Chemist II*, pp 85–103.

44 Ray, *Chemist II*, p 97; see also *Chemist*, p 502.

problem of the decline of the Bengali that greatly exercised Ray,<sup>45</sup> but their productivity, and the lack thereof in the Bengalis, were commented upon.<sup>46</sup>

The importance to Ray of his East Bengali origins is constantly stressed in his memoir. The extreme difficulty in getting into the Imperial Education Department as an Indian in his day (c. 1888), and dependence on the patronage of a European for those who managed to break this barrier, looms large.<sup>47</sup> Discrimination against deserving Indians is also juxtaposed against instances of Europeans recognising Indian talent. The experience of colonial rule is divided into the tale of the good Englishman and the bad Englishman; but in either case, *the one with the ability to endorse the capability of the Indian is the European*; the Indian does not exist on his own, he exists only in the eyes of the European perceiver. There is a recognition of the injustice of this situation, but very little possibility of escape from it.

Muslim backwardness in education was considered regrettable by Ray – Muslims needed to abandon traditional education just as the Hindus had due to the influence of Rammohun Roy. The ›medieval‹ nature of some Bengali Muslim leaders was commented upon – backed up by quotes from Muslim critics.<sup>48</sup> The Hindus, by contrast, were progressive because they had taken to English education – and what progress the Muslims had made in this regard could largely be attributed to the good Hindu influence.<sup>49</sup> These are echoes of the ›backward Muslim‹ argument that became a central plank of *bhadralok* fears of being dominated by Bengali Muslims after Provincial Autonomy was inaugurated in 1937. Such an argument was indeed conducive to sectarian feeling. In Ray's writing in 1935, these fears had already begun to be expressed, though not explicitly – and already a shift from 1932 is evident. But the argument is still this: unacceptable Muslims are those with a ›medieval‹ outlook rather than a ›modern‹ one: *uneducated* Muslims rather than ›people like us‹. The ›Hindus‹ (or at any rate the progressive Hindus) have a ›catholicity‹ about them that the Muslims ought to adopt.<sup>50</sup> This may be *implicitly* exclusionary and potentially alienating; but it does not begin to actually divide people without the added – and necessary – situation of loss of status and control in Bengal after 1937.<sup>51</sup> Psychologically, at least, therefore, it was perfectly consistent that men like Ray blamed the British for the deterioration of Hindu-Muslim relations: it was British acts that caused the problem, as far as they were concerned. But equally, the

45 Ray, *Chemist*, pp 89–90.

46 Ray, *Chemist*, pp 16–17.

47 Ray, *Chemist*, pp 73–4.

48 Ray, *Chemist II*, pp 90–91.

49 Ray, *Chemist II*, pp 93–4.

50 Ray, *Chemist II*, p 93.

51 See Sulagna Roy, ›Communal Conflict in Bengal, for an elaboration of this argument, albeit with an emphasis on Bengali Muslims‹ points of view.

engagement with a contradictory Britain – as progressive educator, and as repressive ruler – remained central to the analysis. The ›people-like-us‹ category thus assumed a normality that was an upper-middle-class or at least intellectual *bhadralok* normality – but it was open to other ›people like us: Muslim intellectuals could be *bhadralok* without too much trouble if they were ›secular‹. By contrast, Marwaris could not.

Those who remember him note that Ray was always dressed in *dhobi* and *kurta* – unlike Sir J.C. Bose, that other scientific knight who is often cast as Ray's foil in such narratives.<sup>52</sup> Obviously, his Gandhian proclivities might go some way towards explaining Ray's consciousness of the politics of the sartorial. Ray's description of dress codes in England (c. 1882) is not quite as fraught with anguish as Gandhi's own. Famously, Gandhi castigated himself for ›playing the English gentleman, a futile exercise in imitation,<sup>53</sup> while Ray, writing later than Gandhi, but possibly also more familiar with urban codes of European dress from his Calcutta and Brahma Samaj background, was able to treat the subject more lightly. Ray wrote of his particular distaste for ›the ugly, hideous-looking tail-coat‹ that was required for evening parties, dinners or balls, and he substituted this with a *choga* and a *chapkan* ›such as the illustrious Raja Rammohun Roy wore while in England‹ – made for him by an Oxford Street tailor.<sup>54</sup> He wore European dress on other occasions. On the subject of imitation, he wrote, ›the English have always appeared to me to be rather stupid in the slavish imitation of modes *a la Parisienne*.<sup>55</sup> But he did feel that as a disciple of ›Mahatma Gandhi in his loincloth‹, he ought to ›apologise for having to digress on such a trivial subject.<sup>56</sup> After getting off the boat from England in August 1888, on his return to Calcutta, the first thing he did was to ›borrow a *dhobi* and a *chaddar* from a friend and change his ›outlandish mode of dress.<sup>57</sup>

Although he had a knighthood, and did use the title, Ray's own life was rendered by many in terms of two categories: *Acharya* (respected teacher), and *brahmachari* (renouncer, celibate, or perhaps student). Translating these terms renders them both imprecise and ambiguous. *Acharya* is a term that properly encapsulates the relationship he had with his students, and the image of the teacher that both he and his students projected before a wider public – especially in his capacity as public educator. The formulation ›Sir P.C. Ray‹ was often used in making public statements to a British or imperial audience: the implied endorsement of the source of the

52 Conversation with Hiren Mukerjee, Calcutta, August 2000; photographs in the possession of Surjya Shankar Ray, Calcutta.

53 MK Gandhi, *The Story of My Experiments with Truth* (1927-1929; new edition Harmondsworth, 1982), pp 60–62.

54 Ray, *Chemist*, p 55.

55 Ray, *Chemist*, p 55.

56 Ray, *Chemist*, p 56.

57 Ray, *Chemist*, p 76.

statement by the British sovereign power itself added weight to the statement itself. *Brahmachari* was more complicated: thanks to Gandhi, the celibacy aspect of *brahmachari* has received some attention.<sup>58</sup> Ray noted that the first time he met Gandhi, he was attracted by his magnetic personality and our common devotion to asceticism.<sup>59</sup> But Ray himself does not seem to have regarded celibacy as an ideological position: that was just the way things appeared to have turned out.<sup>60</sup>

There are passages in which Ray's claim to being progressive sits uneasily with his narrative strategy, as when he writes of womanhood's decline from the days of Rajput glory.<sup>61</sup> Various other tales of Rajput glory, often retold from colonial texts like Tod's *Annals and Antiquities of Rajasthan*, came to be the inspiration behind Bengali nationalist writing, those using these sources including Rabindranath Tagore. It has been often pointed out that these Swadeshi stories of valiant Rajputs or Marathas defeating or outwitting their enemies were not likely to appeal to Muslims, given that the enemies defeated or outwitted were often the Mughal emperors, or Muslim conquerors of various description. This implicit exclusion did eventually impress itself upon authors such as Tagore, whose shifts away from the aggressive nationalism of his Swadeshi phase are well-known.<sup>62</sup> It needs of course to be noted that the exclusions were implicit; there were better ways of excluding Muslims from the nationalist mainstream than by telling stories of Rajputs.

What then was the purpose of telling these stories? The search here was for pre-colonial sources of self-respect. These would be sources untainted by foreignness, not open to the claim that everything progressive had come to India via the British. But these tales could also draw our attention to another point: that the Bengali *bhadralok* himself lacked a precolonial past. It is at these moments, when he tries to fashion for the nation a respectable genealogy in the past, that a certain anxiety regarding his own inauthenticity might strike him: *in a precolonial past, he doesn't exist.*

---

58 Gandhi, *Experiments with Truth*, pp 194–200.

59 Ray, *Chemist*, p 126.

60 Ray, *Chemist*, p 67. There is a certain amount of unsubstantiated speculation over whether Ray was homosexual.

61 Ray, *Chemist*.

62 In some readings of Tagore, he rejected nationalism altogether – see Ashis Nandy, *The Illegitimacy of Nationalism*

## Conclusions

In existing historical and sociological studies of Bengal and the Bengalis, the category *bhadralok* has been given a fixity that it did not in practice have.<sup>63</sup> Obviously, any level of abstraction requires one to use analytical tools, and the *bhadralok* is a reasonably useful heuristic device or ideal type. Yet it is important also to look at *internal* definitions of *bhadralok*-ness. The tensions between who the *bhadralok* thought they were and academics' definitions of the *bhadralok* become clear from such an exercise, as also the mixing up of these internal and external criteria in academic writing.<sup>64</sup> This internal definition – or description, to use a word that captures imprecision better – varied over time. New entrants to *bhadralok* status usually announced their arrival by taking their place in the various fora of the *bud-dhijibi*, intellectuals. Although obviously it was not necessary to be an intellectual to be a *bhadralok*, it was possible to gain entrance to *bhadralok* status as an intellectual, as the success of the *Bangal* Prafulla Chandra Ray and later of his student, the lower-caste Meghnad Saha, indicate.<sup>65</sup> The Bengali language was integral to this inclusion. Beyond this, it is much easier to talk about who was *not* considered worthy of being considered a *bhadralok* at any given point of time than who was. Nonetheless, there was definitely an implicitly majoritarian ethos about being a *bhadralok*. For instance, literary excellence was often recognised according to linguistic criteria derived from a more Sanskritised than Arabised or Persianised Bengali, and the Muslim writers who made it to the category of good Bengali writers as opposed to good Bengali *Muslim* writers tended to be lauded as writing ›good‹ or ›pure‹ Bengali. This majoritarian ethos, in moments of stress or insecurity, could indeed take on a specifically Hindu – or more precisely an upper-caste Hindu – colour.

And yet even with these qualifications, ›*bhadralok*‹ remains an elusive category. For one thing, there was never a self-conscious and clear way of describing oneself as *bhadralok*. The criteria of inclusion in *bhadralok*-ness were never explicitly discussed, except perhaps in self-mocking terms, as in the writing of Ray himself or of his colleague at the Presidency College Chemistry Department and at Bengal Chemicals, the writer Rajsekhar Basu (Parashuram). Referring to someone as *bhadralok* or *bhadramabila* was no more than to acknowledge the person's right to inclusion in civilised social intercourse. The second category was perhaps the more explicitly discussed – norms of womanhood were and are more typically discussed explicitly than norms of manhood. Perhaps it might be possible to reconstruct

63 A summary of these debates can be found in Joya Chatterji, *Bengal Divided*.

64 A useful analogy can be made with varying self-definitions among the bourgeoisie in Europe, so ably highlighted by Peter Gay: see his *The Bourgeois Experience: Victoria to Freud* (5 vols, New York, 1984-98), vol. 1, pp 1–48.

65 See Zachariah, Chakraborti and Ray, ›Presidency College, Calcutta: An Unfinished History.



positive self-given norms for the *bhadralok* based on the positive norms they gave ›their‹ women, in a bizarre variation on Lalan Fakir's song.<sup>66</sup> But then again, these norms of gentility might bear strong similarities with norms prescribed by a *Muslim* middle-class for ›their‹ women. This actually points in the right direction, because people did not go around calling themselves *bhadralok* in any descriptive sense – far more common was to use the terms *madhyabitta samaj* or *madhyabitta sreni* – literally, ›middle society‹ or ›middle class‹.

This discussion of the *lack of precision* regarding how to describe oneself might lead us back into our main story. It is obvious from even our cursory drift through stages of P.C. Ray's life that there are untied loose ends to it, incompatible shifts, and a move along a number of legitimising idioms. Yet perhaps a focus on shifts and differences are less revealing than a focus on the abiding concern: the search for self-reliance and ultimately for self-respect. But if we search in the writings of Ray, or of many Bengali *buddhijibi*, for a confident, clearly articulated and consistent view of who they were, how they stood in relation to the ›nation‹ or to other potential loyalties, we might be missing the very ambiguity that truly illustrates our problem. As we have seen, for the *bhadralok*, precolonial sources of self-respect required a leap of imagination from Bengal to various parts of an Indian past, and to other regions: the Bengali *bhadralok* lacked a precolonial past of his own. *In the course of this leap*, it became necessary to link a newly-developed social group to ancient ›Hindu‹ or ›Aryan‹ glories or to Rajput or Maratha history – a leap that could only be accomplished by imagining for the *bhadralok* a ›Hindu‹ identity. But did this mean abandoning the undoubtedly more important *Bengali* identity? That of course was not possible; and the inconsistency here could be avoided by various mechanisms of dissociation, including (occasionally but not always) a forgetting of the fact that Muslim Bengalis were also Bengalis. But what about the ›progressive‹ genealogy that was integral to the *buddhijibi*'s mental well-being? This, unfortunately, entangled him in the humiliating assumption that he owed his enlightened state to the British, the very source of his anxious search for self-respect. In part this could be solved by imagining a dual Britain: as the oppressive and racist ruler and as the kind, if sometimes patronising, teacher. But this too was dissatisfying. Too much energy had been spent trying to escape negative stereotyping by the British for a Bengali to adopt this solution. First the Bengali was ›incapable of representing himself politically‹; so he studied English, learned parliamentary practice, and tried to disprove this charge in the caricatured fora in which he was permitted to perform. The Bengali was ›effete, effeminate, incapable of physical vigour‹; so he built up his body, formed *bayam samities*, became a terrorist. He was incapable of ›economically rational behaviour‹; so he tried to become an entrepreneur. Eventually, some tired of

66 ›Ami bamun chini poyte praman, ar Bamni chini ki kore?‹

this game, and sought to claim that Indians had already been enlightened while the British were still savages.

But what was the good of knowing this for oneself? Surely the best part of this exercise was to demonstrate to the coloniser that he was no longer able to convince the Bengali of his inferiority. And so the resolution of the question of *why* the Bengalis/Indians were a great nation had to be translatable. The imperialist had to be able to listen; indeed, he was to be *forced* to eavesdrop on these discussions even as his implicit presence dominated conversations among the *buddhijibi*. Hence the search for a *legitimate voice* had to be intelligible to imperial and metropolitan audiences. The necessary corollary of this need to *find* self-respect was the need to *demand* respect – from the coloniser.

If, then, we discern in the contradictions and fragments of P.C. Ray an attempt to gain self-respect, we can also discern in it a certain agony. What were the sources of that self-respect? From whom might they be claimed? The sheer eclecticism of the sources would defeat claims to consistency and coherence. Yet they also indicate the difficulties encountered by the colonised intellectual of finding sources of self-respect that he might feel comfortable with. If in some ways he might attempt to project his own particularities – scientist, Bengali, Hindu/Brahmo – on to the nation as a whole, in other ways the universalising of those particulars required a resort to recognisable criteria that the coloniser also found acceptable, or was forced to acknowledge. Because the European perceiver remained integral to a valid existence for the Indian; whether he recognised its injustice or not, it was a political as well as a psychological fact. And so we are still faced with the major question we raised at the start: can *self*-respect emanate from sources other than the self? Is the colonised self one whose self-hood is in some sense borrowed, one which must lean on sources external to itself?

## References

Sarkar, Sumit (1973), *The Swadeshi Movement in Bengal 1903–1908*, New Delhi.