

The Tragi-Comedy of the New Indian Enlightenment: An Essay on the Jingoism of Science and the Pathology of Rationality

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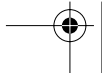
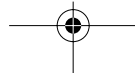
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A little less than ten years ago, the physicist Alan Sokal revealed a hoax that he had played upon the journal *Social Text* by publishing, under an assumed name, a supposed critique of science that, as he has gleefully recounted on numerous subsequent occasions, was little more than a clever arrangement of quotations, fragments, and musings from postmodernists, constructivists, deconstructionists, and others whose critiques of science (and much else), though amounting (as Sokal maintained) to quackery, had dangerously overtaken considerable portions of the American, British, and French academies^[1]. Sokal wrote at the height of the science wars, in the wake of equally intense and often vitriolic debates over the “canon” and multiculturalism, and some of the heat then generated appears to have diminished. One might say that the positions have since solidified. Indeed, it might not at all have been necessary to invoke Sokal, and Meera Nanda’s book, *Prophets Facing Backward: Postmodern Critiques of Science and Hindu Nationalism in India* (2003), could have been viewed merely as another impassioned defence, albeit one attentive to the particularities of politics and intellectual life in India, of “truth, reason and objectivity”^[2]. However, Nanda unabashedly declares herself to be an admirer of Sokal, and states that she stands with him, an “inimitable critic of all varieties of ‘fashionable nonsense’”^[3], in affirming the place of rational thought and analytical reasoning in quashing the “mystifications” to which the powerful are drawn (p. 2). Nanda’s enthusiastic embrace of Sokal sets the tone for her work, and we shall





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have occasion to consider whether, following Sokal's example, her own arguments should not similarly be viewed as something of an elaborate hoax.

The sweep of Nanda's critique is so vast that it is to useful to explicate, though not at any great length, the position from which she writes and the areas of agreement with her narrative before moving to the substantive disagreements that her work calls to mind. By the grand "sweep" of her work I emphatically do not mean to convey the impression that the architecture of her argument is inordinately complex, or that Nanda dazzles with her brilliance, erudition, or mastery over difficult questions, such as the web of relationships of modernity to oppression, with which many fine thinkers have been wrestling over the last few decades. Her argument, to the contrary, is adequately summed up in her oft-repeated observation that Hindu nationalists, cleverly drawing upon populist, romantic, and ill-informed critiques of science and the reckless disregard for the standards of objectivity, reasoning, and rules of evidence, or what one might call the culture of *logos*, associated with modern science and Enlightenment thinking, have generated dangerous myths and found new forms of legitimization of the inequalities and barbaric oppressions that have been endemic to caste-bound India for centuries (pp. xiv–xv, 67, 141, 157, *passim*). Nanda does not shy from describing the relationship between postmodernists and third-world indigenist movements, or between "self-styled 'left' intellectuals who see all sciences as cultural constructions" and right-wing Hindu nationalists, as an obviously unholy "alliance" (pp. 4, 30).

By "sweep" I wish to suggest, rather, that her target is not only postmodernists, constructivists, critics of science, and Hindu nationalists, but also ecofeminists, traditionalists, critical traditionalists, Gandhians, neo-Gandhians, subaltern historians, relativists, third worldists, multiculturalists, Vedic science proponents, reactionary modernists, anti-modernists, anti-secularists, clerical fascists, deep ecologists, hybridity theorists, cyborg anthropologists, bricoleurs, feminist epistemologists, cultural studies practitioners, advocates of "local knowledges", monists, post-Orientalists, post-developmentalists, postcolonial theorists, and various others who inhabit what she calls the "jungle of postmarked areas of scholarship" (p. 153). If this sounds like something of a caricature, it should be noted that every one of these animal species in Nanda's own private menagerie of degenerates, and perhaps several more that I have not documented, appears by name in Nanda's book. The obvious consequences of her roving attack, which resembles the tactics adopted by freeway snipers of the type sometimes encountered in the United States, are many. Not to speak of the distinctions between all these innumerable enemies of reason, even the finer points of difference between, say, the official-minded Gandhians, the Gandhians who largely view their mentor as a man of peace, the Gandhians who are inspired by radical critiques of modernity, the Gandhians who are declared atheists, the Gandhians who rejoiced at India's admission into the club of nuclear nations/rogues, the Gandhians who toil away in obscurity, and neo-Gandhian intellectuals who are not even Hindus, are entirely obscured. Subtleties do not interest Nanda.

Nanda thus takes on, usually in the most peripheral fashion, a whole panoply of ideas that she is ill-equipped to address, and engages in egregious readings of a large number of figures with whose works she demonstrably has little acquaintance ^[4]. To take two

examples, the prominent feminist theorist Gayatri Spivak is astonishingly transformed into an advocate of *sati*, the practice of widow-immolation. Here is Nanda, describing Spivak's critique of British discourses on *sati* which, for all their supposed concern for Indian women, had women neither as subjects nor objects: "The British, on this account [by Spivak], stand indicted of epistemic violence, because they tried to prevent actual violence against flesh-and-blood women" (p. 151) ^[5]. In other words, Spivak would rather see Hindu widows dead than being gallantly rescued by white men who may have violated the spirit of Indian texts. Or consider her reading of Ronald Inden's *Imagining India*, which she characterizes as the "paradigmatic example" of postcolonial scholarship's refusal to recognize the "affirmative Orientalism" of British and German Sanskritists. Either Nanda has not understood what Inden describes as the "loyal opposition"—the Orientalists, such as Friedrich Schlegel, Johann Herder, and Max Muller, with romantic conceptions of an eternally spiritual India—to positivist Orientalists such as James Mill and Thomas Macaulay who had open disdain for Indian traditions, or she is oblivious to the elementary consideration that representations of India as a land with an excess of spirituality, poverty, and oppressive religious traditions are intricately spun into a web of unchanging India, or she has not read the book. An attentive reading of Nanda is bound to become a thankless exercise for anyone with a modicum of intellectual perspicacity.

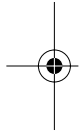
Recalling Joseph Goebells' famous expression, namely that he felt inclined to reach for a gun everytime he heard the word "culture", Nanda is unnerved by the word "post" and lets loose at that strange beast called "postmarked scholarship" (p. 169). No injustice is done to Nanda in arguing that, for her, the Enlightenment represents the culmination of human intellectual achievement: everything post-Enlightenment, with the obvious exception of those intellectual practices and social institutions that owe their existence to the Enlightenment framework, is dismissed as an aspect of "regressive modernity". She takes, quite unexceptionally, the Enlightenment to stand for the rejection of inherited dogmas, the revolt against superstition, and preeminently the affirmation of the scientific temper; it was the most decisive step ever taken towards the secularization and rationalization of society. Echoing E.M. Forster's "two cheers for democracy", Nanda urges "two cheers for disenchantment" (p. 80). Human beings could only realize their potential, and aspire for individual freedom, when the affairs of men and women were "set free from the cosmic order" (p. 80). Secularization furnished a new moral framework for understanding what precisely it means to be human; and though the disenchantment of nature, which is the necessary condition for the creation of modern identity, may have produced feelings of anomie, homelessness, and alienation among millions, a great many more people, especially those whom traditional religions held in subjugation or otherwise disempowered, have since been able to give real meanings to their lives, understand the world around them, realize their individuality, and value human dignity. These are not mere abstractions, Nanda insists, and she informs us that her education in science was a "source of personal enlightenment"—as indeed it should have been (p. xii). Her unstinting admiration for modern science and the ethos of the Enlightenment leads Nanda to become the advocate of science in two further respects. First, Nanda takes it as an unquestioned fact that modern science has a role, the supreme



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role, to play “in religious reformation and cultural revolution in Indian society”, and that it has hitherto been denied this role (pp. xii, 45). In India, at least, we have never been modern; and the rise of Hindu nationalism points to the incompleteness of the project of the Enlightenment in India (p. 51). Secondly, Nanda affirms unequivocally that science can only be spoken of in the singular, and that “platitudes” about the “alternative” sciences of women, non-Western peoples, and other “victims” deserve to be rubbished as dangerous forms of obscurantism (p. xii, and Chapter 6). The attempt to render modern science “symmetrical” with other knowledges not only stems from a “relativist disdain” for science, but reinforces the “mental bondage and authoritarianism” still encountered in “non-Western cultures” (pp. xii–xiii). What has been an unequivocal good in her own life, Nanda submits, is also good for India and the rest of the barbaric global South.

Nanda is, then, not inappropriately described as a missionary agitating on behalf of modern science, an advocacy that leads her, after her initial thrusts against post-modernism, into critiques of Vedic science and Hindu nationalism as dangerous forms of obscurantism that, when conjoined together, constitute a poisonous brew of extreme irrationality and ferocious hatred of the other. Vedic science, argues Nanda, is shorthand for a number of claims, all equally implausible if not preposterous. There is the claim that “Hinduism [itself] is simply another name for scientific thinking”, though others are inclined to view various “esoteric practices” such as Vedic astrology, ayurveda, *vastu shastra*, transcendental meditation, faith healing, telepathy, “and other miracles as scientific” (p. 65). Nanda is scarcely the first person to note that an increasing number of middle-class Hindus have come to embrace the view, if one may put it in its simplest form, that the most eminent findings of modern science, whether in the arena of physics, mathematics, or biology, are the same as the highest truths known to the sages to whom the Vedas are attributed. There is no disputing the fact, according to the more vocal proponents of “Vedic science”, that the truths of modern science are anticipated in the Vedas and other associated literature of the ancient Hindus; and since Hindu nationalists have also come to reject the long-accepted view that the Aryans arrived in India in a successive wave of migrations that probably first commenced somewhere around 2000 BCE, and instead describe India as the homeland from where the Aryans were gradually dispersed through central Asia, the near East, and Europe, India can then reasonably be viewed as the cradle of human civilization^[6]. As Nanda observes, more than one enthusiastic advocate of Vedic science has maintained that the secrets of the atom bomb and supersonic airplanes are to be found in the Vedas and the scriptural literature of the Hindus (pp. 71–2). The magic weapons that are described in the Ramayana and the Mahabharata as vanquishing mighty foes, shaking the earth in the process and creating a tremor in all those witnessing these weapons at work, might well be “smart” bombs, Daisy Cutters, Stealth Fighters, and Patriot missiles. One proponent of Hindutva, who is described by Nanda as being widely influential in the circles of those devoted to Vedic science, was quite certain that a thousand years before Copernicus, the Indian astronomer Aryabhatt had shown that the earth moves around the sun; the grammarian and philosopher, Patanjali, had furnished a reliably scientific account of matter two thousand years before Heisenberg; the relativity of space and



time, a finding credited to Einstein, had first been enunciated by Vedantists; and so on (pp. 73–4).

So just what is Vedic physics? Or, for that matter, Vedic mathematics? In her discussion, Nanda zeroes in on the work of Subhash Kak and Ram Mohan Roy. Much like the Chicago political theorist Leo Strauss, who strenuously held to the view that the work of important Greek thinkers such as Plato and Aristotle was penned in a secret language and could only be deciphered by the initiated ^[7], Kak has argued that the language of the Vedas is coded such that cows, crops, stones, and deities mean not just what they appear to mean but something quite different; indeed, when passages make no sense, they should be inferred as intending to relate an entirely different set of meanings. It is Kak's claim that the Vedic seers were aware of subatomic particles, entropy, electromagnetism, gravity, and the wave function: "the Rig Veda", he avers, "is a book of particle physics" (pp. 111–4). As Nanda argues, it is logical to ask: just how did these sages come to a knowledge of physics, or by whatever name they secretly designated their findings? what "scientific" methods did they deploy? To these queries, Kak and his ilk have only one reply: by knowing themselves, the Vedic seers could divine the meaning of the world outside them. If, in Kak's own language, "the innermost essence of the human being is the very same essence that underlies the universe at large", then Nanda is entitled to the observation that Vedic science is only another name for gnosis or mysticism (pp. 79, 115).

In her treatment of Vedic mathematics, however, Nanda turns to a different strategy. She does not doubt—indeed, she could not, considering the widely accepted views in Western scientific circles about the accomplishments of Hindu mathematicians—that mathematicians in ancient India had genuine insights, but she is insistent in representing these achievements as having no relation to "Vedic ontology and epistemology" (pp. 77–8). The celebrated geometric theorems found in the *Sulva Sutras* [texts on sacrificial altars], for instance, could only have arisen from the knowledge of those engaged in the manual labor of building the altars, but the Vedas reveal complete disdain for such forms of inferior knowledge. Following the work of the philosopher of Indian materialism, Debiprasad Chattopadhyaya, Nanda submits that the *Sulva Sastras* systematize the geometry implicit in the brick-making techniques of the pre-Aryan or Harappan civilization of the Indus Valley. In adopting this view, Nanda is also able to disarm those critics who might be tempted into the rejoinder that, according to Nanda, ancient India had nothing to contribute by way of genuine achievements in the realms of science, mathematics, and technology. Real science died out in India a long time ago; moreover, in Nanda's view, the scientific tradition that Hindu nationalists invoke is to be found not in Vedic literature, but in those "rationalist, skeptical, and naturalistic strands" of Indian thinking to which Vedic traditions were violently opposed (p. 77) ^[8]. The world of the Vedas, Nanda affirms in her two chapters on Vedic science, is best described as a magico-religious universe that has virtually no bearing on what can reasonably pass for modern science and such things as scientific matter, evidence, and reasoning.

While Nanda's critique of "Vedic science" generally rests on sound grounds, it is not only remarkably unoriginal but her strident tone masks her evasiveness with respect to

many key questions. Let us take a few examples. She barely registers the fact that many, if not most, of the advocates of “Vedic science”—Kak, Roy, and N. S. Rajaram, all cited by her—are not Indologists but scientists by training, besides being based in the diaspora. Was their training in science inadequate that they so readily turned to Vedic science? Is the scientific outlook of the Hindu never more than skin deep? Or is it the case that a Hindu scientist, in the last analysis, is a Hindu before being a scientist? Once a Hindu, always a Hindu? Why is it that irrational Hindus—a sheer redundancy, on Nanda’s reading—become remarkably more irrational and militant in the expression of their faith when they are located in the West? The more substantive consideration is this: why should certain Hindus feel the compulsion to validate their religion through the idioms of science? As Nanda herself writes, “Hindu nationalists are obsessed with science” (p. 65; also pp. xiv, 8, 14, 95–9). Scientists, by contrast, even when they are women and men of belief, do not customarily legitimize their scientific work through the categories of religion. Nanda’s own understanding of the genealogy of the modern attempt to render Hinduism into a scientific faith takes her back to Vivekananda (1863–1902) [9], and ever since Hindus have sought to convince themselves and others that Hinduism can be understood through the categories of modern science. What this points to is the extraordinary hegemony that science came to occupy in the worldview of Indians keen to emulate the West, an argument that should pose some difficulties for Nanda.

However, Nanda does not allow such trivialities to ruffle her feathers, since she adopts (knowingly or otherwise) the *purvapaksha*, that is a rejoinder to an anticipated objection, frequently encountered in the Indian mode of philosophical reasoning. India, in her view, offers the example of a country where “*technological modernization*” took place alongside an “*aggressive cultural re-traditionalization*” (pp. 2–3, emphasis in original), where secularism took hold in part without the secularization of civil society (pp. xvi, 39, 48–9, 64), where the “*technological accoutrements of modern life*” exist alongside a complete indifference towards, if not contempt for, the “*norms of a liberal-democratic culture*” (p. 7; cf. pp. 47, 155). Hindus lusted for modern technology—that is the aspect of science which became hegemonic. The worldview of the so-called modern Hindu finds no contradiction in accepting DVDs, airplane travel, satellite television, palm pilots, and coronary bypass surgery on the one hand, and dowry murder, female infanticide, religious intolerance, and shockingly ill treatment of widows on the other hand. One could, of course, add astrology, numerology, palmistry, and Vedic mathematics to the latter list, but that would be too obvious a contrast; more crucially, Nanda’s point is that the advent of science in the West was accompanied by the transformation of civil society, the creation of a civic public space open to norms of democratic discussion and political rationality, and the elevation of the individual to a position of dignity, and that in all these respects the scientific spirit never became part of the dominant ethos of everyday life in India. Reactionary modernism means precisely the acceptance of “*modern technology without the ideals of modernity*” (p. 37).

For all of his or her claim to be scientific-minded, and the inheritor of great scientific achievements, “the reality”, writes Nanda, “is that the ordinary practicing Hindu

believes in many superstitions, is far from tolerant, and is often modern only in his/her consumption habits” (p. 47). Characterizing the views adopted by Hindu nationalists, Nanda avers: “All the virtues of the modern West, and none of its vices, are claimed to be found in the wisdom of ancient Hindu sages” (p. 38). One might say, without the risk of any injustice to Nanda, that from her standpoint Hindus have adopted all the vices of the West, such as they are, but almost none of its virtues. Nowhere is this more clear than in the domain of science. Such is the perversity of Hindus that they love the bomb, but not modern science’s emphatic embrace of strict canons of reasoning, evidence, proof, and falsification; they love the bomb, and then they drench it in all the stench-ridden juices of Hindu worship (pp. 41–2). But does a nuclear weapon become any less reprehensible in the hands of the United States or France? To be sure, Nanda is no Dr. Strangelove, no mad scientist who has secretly carried out a love affair with the bomb; if anything, her repudiation of the nuclear mentality knows no exceptions, and she would decry the realpolitik kind of argument according to which nuclear weapons are permissible in the hands of allegedly responsible nations such as the US and lethal in the hands of “rogue nations” such as Iran and North Korea. Not stooping to such vulgar forms of Eurocentrism, Nanda embraces a much loftier form of ethnocentrism. The West is entitled to postmodern excess, to the claptrap of alternative rationalities and Eastern spiritualities, to such insidious forms of belief as creationism, even, perhaps, to the bomb—it can afford all of this, but India cannot, because the West worshipped successfully at the altar of science, gifted the world with the notion of the liberal-democratic political order, secularized its institutions, and created the conditions that allow individuals to flourish and achieve their potential. The West has paid its dues. The difference, Nanda explains, is that “while the Western postmodernists could at least take the hegemony of modern, mostly liberal, ideas for granted, the postcolonial critics were condemning modernity even before it had a chance to take root in the lives of their societies” (p. 28). If one understands postmodernism as a rebellion against the “excess” of the Enlightenment, what strikes Nanda is that in India the project of Enlightenment remained woefully “incomplete” (p. 43, also pp. 57, 174, *passim*). The “societies” of the non-Western world “have not yet had the revolution in values that is needed to create a liberal, secular culture” (p. 45), and “the rise of religious nationalism in India today is a result of the incompleteness of this project of Enlightenment” (p. 51). Nanda notes, with barely restrained disgust, that critiques of science and rationality in the West have prospered because intuition, emotion, value, and the notion of the divine are all said to have suffered on account of science’s overlordship, but what became marginal to the West has sadly never been marginal in the non-West (p. 155). Postmodernism is assuredly a form of nonsense everywhere, but in India and the non-Western world more generally it is nonsense to excess, something much more macabre.

Vedic science is bad enough, but it becomes dangerous after receiving succor at the hands of Hindu nationalists besides postmodernists. Within the broad contours of Nanda’s worldview, one cannot disagree with her immense dislike of militant Hinduism and the political ascendancy of those committed to the notion of Hindu supremacy. The proponents of Hindutva, or a militarized and masculinized conception

of Hinduism, have engaged in various forms of social engineering, most frighteningly represented in orchestrated attempts—such as the sustained pogrom directed at Muslims in Gujarat in 2002—to intimidate minorities, that would transform India into a Hindu *rashtra*. However, as is typical of Nanda's work, she is not content with settling for an argument in its most widely accepted form, but rather pushes for an interpretation that is unsustainable. It is now widely accepted that the early ideologues of Hindutva, such as M.S. Golwalkar, K.B. Hedgewar, and B.S. Moonje, were open admirers of Hitler and the fascists ^[10], and Golwalkar exulted in the salutary lessons that Hindus could imbibe by their attentiveness to the cultural nationalism of the Nazis. "To keep up the purity of the nation and its culture", wrote Golwalkar, "Germany shocked the world by her purging the country of the semitic races—the Jews". But this cannot be mistaken for a neutral narrative, as the lines that follow amply demonstrate: "Germany has also shown how well-nigh impossible it is for races and cultures, having differences going to the root, to be assimilated into one united whole, a good lesson for us in Hindustan to learn and profit by" (p. 26).

Whatever the difficulties in using fascism as a model to understand Hindu militancy, and there are many as some Indian scholars on the left concede ^[11], the affinities between Hindutva and Nazism are also numerous. Nanda is right to call attention to them (pp. 10–8). However, modesty not being her strong suit (whatever else it might be), Nanda goes on to argue forcefully that Nazism drew upon the mystical, anti-rational, anti-dualist, and holistic traditions that have always dominated Vedantic Hinduism. The interest of the Nazi ideologue Alfred Rosenberg in India is well-documented, and scholars such as Morris Berman have argued that the "real story of Nazism was a somatic one" ^[12]. Some Nazi leaders were drawn to the occult and various forms of gnosis such as the theosophy of Madame Blavatsky, all of which becomes in Nanda's narrative an account of how "Nazis borrowed from Hinduism" (p. 10). With characteristic exaggeration, the attraction that theorists of a Hindu nation and some of their followers had for various forms of authoritarianism is rewritten as the hunger that Hindus experienced for recognition as fellow travelers in myths of Aryan supremacy. "It is well-known that Hitler was seen by many in India as an incarnation of Vishnu", misinforms Nanda (p. 15), and moreover there isn't a single respectable scholar of the Nazi phenomenon in what is a huge industry who would consider Hinduism to be anything more than the most obscure kind of marginalia in the history of Nazism. Nor is this gross attempt to Hinduize Nazism saved by the disingenuous disclaimer that "of course, Hindu doctrines cannot be condemned for the sins of the Nazis" (p. 15). The vast bulk of Hindutva's scholars and critics justly agree that Hindutva, a highly militarized and aggressive conception of the faith that sets as its goal the achievement of a Hindu nation, must be distinguished from Hinduism. There is every reason for doing so, not least of which is the fact that Hindutva's votaries have contempt for Hinduism, which they perceive as a soft, feminine, and immensely chaotic faith that more often evokes derision rather than admiration; if anything, contrary to Nanda's view that the Semitic religions are viewed by Hindutvavadis as contemptible, the Semitic faiths are viewed as models of "real" world religions (cf. p. 16). Hindutva's most well-known ideologue, V.D. Savarkar, insisted on repudiating Hinduism ^[13]. Nanda, by contrast,

moves effortlessly between Hindutva, Hinduism, and Hindu nationalism (pp. 42–4), as when in asserting the “substantial overlap between the metaphysics of Hindu nationalism and Nazism”, she (a few lines later) affirms the Nazi borrowings from “Hinduism” (p. 10). What stands condemned in Nanda’s account is Hinduism itself; and Hindus are, in essence, no different from Nazis. What is contaminated at the source, a view held with firm conviction by Nanda *a propos* Hinduism, cannot be saved ^[14].

In Hindu mythology, the god Vishnu sends down an incarnation or *avatar* (literally, “descent”) from time to time to deliver the world from the evil-doers. The idea of deliverance has its obvious enthusiasts: George Bush would like to deliver the world into the hands of the corporate cartels from which he derives his sustenance, while Meera Nanda would unhesitatingly entrust the future of humankind to “Enlightenment science”. Savarkar wrote glowingly of the “holy work of the historian” ^[15]; Nanda holds “holy” the belief in the “scientific temper” (p. 207). She sees herself as a moral crusader, almost uniquely endowed among Indian intellectuals with the “honesty and courage” required to admit that “deep down” the “core metaphysical values” which have informed Indian society and prevented the ideas of “equality and individual freedom” from flourishing continue to reign supreme (pp. 47, 174). What kind of intellectual honesty is it which enables her to make the claim that Hindu nationalists thrive on the work of postcolonial scholars such as Ashis Nandy, Ron Inden, and Claude Alvarez [sic] (pp. 155–6)? And if Hindu nationalists did so, what do they understand of their work? What do they, and what does Nanda, understand of Inden’s claim about the centrality of human agency to any body of scholarship, and what would they make of the fact that the alleged postmodernist Ashis Nandy views postmodernism as another, more evolved, endeavor to colonize the futures of the global South? ^[16] If Nandy is the bosom buddy of the Hindu nationalists, how does Nanda reconcile her view with Nandy’s characterization of Hindu communalism as “the last frantic assault by nineteenth-century social evolutionism on the core organizing principles of Hinduism”? ^[17] None of this matters to Nanda, since her enterprise flourishes on innuendo and stringing together arguments around the most tenuous and imagined links. Her book is peppered with homilies against “radical intellectuals” who have abnegated their duties and pose as friends of the poor and the underprivileged (pp. 25–6, 28, 159). She sees “victims”—the quotations are Nanda’s (p. xi), mockingly placed to distinguish the real ones from those generated by the heat of postmodern ire against modernity—all around her, and, wishing to disown that label, proposes that we embrace the sparkling legacy of the Enlightenment.

As if we have not had enough of one Enlightenment, Nanda proposes to burden us with another one, the new “Indian Enlightenment” of which she holds B.R. Ambedkar, the champion of the lower castes who converted to Buddhism, and herself to be the vanguard. Postmodern excesses, doubtless a salient feature of the contemporary intellectual landscape, are the proverbial red herring for those like Nanda who resolutely refuse to grapple with the extraordinarily mixed and troubled legacy of the Enlightenment. It beggars the imagination to suppose that rationality and science are in no way implicated in the genocidal development schemes of the twentieth century (not to mention the long and sordid history of colonial’s rapacious tendencies), and

that the Nazi, Stalinist, and Maoist obsessions with science had nothing to do with science as such, but rather only with the occult, magic, superstitions, hermetic beliefs, and the usual whimsical fantasies in which megalomaniac leaders indulge. Zygmunt Bauman, writing with his customary skill and erudition of the schemes of social engineering devised by Stalin and Hitler, had this to say: “The two most notorious and extreme cases of modern genocide did not betray the spirit of modernity. They did not deviously depart from the main track of the civilizing process. They were the most consistent, uninhibited expressions of that spirit” [18]. The distinctly non-postmodernist theologian of the Judaeo-Christian world, Richard Rubenstein, has underscored the importance of recognizing how the process of secularization “led to the bureaucratic objectivity required for the death camps” installed by the Nazis, just as he is certain that it would be “utterly mistaken” to “isolate Nazism and its supreme expression, bureaucratic mass murder and the bureaucratically administered society of total domination, from the mainstream of Western culture” [19]. But how can Nanda, with her blind adulation of modernity, recognize the links between the disenchantment of the world and bureaucratically organized mass murder? The modern faith in science and technology has been severely tested, and Nanda should turn to the victims of grandiose schemes of human development rather than to the postmodernists to understand what has led to the erosion of belief in the scientific vision. As Shiv Viswanathan, surely as much of a nemesis of Nanda as anyone else, has put it so cryptically, “The history of Stalinism and particularly of Chernobyl proved that Soviets + electricity = genocide” [20].

What lies at the heart of Nanda’s failure is her adamant refusal to countenance any argument advanced on behalf of the plurality of science. The critics of modern science, Nanda complains, turn to the usual standbys—Paul Feyerabend, Thomas Kuhn, Carolyn Merchant, Sandra Harding—when they are keen on asserting its “culture-boundedness” (p. 117). I suppose Marx need not be mentioned every time one is writing a philosophical treatise on the nature of class struggle, and so one can be charitable to Nanda and trot out a number of names who do not make any appearance in her book. A recent study of Goethe’s scientific contributions introduces softer and more nuanced notes into the debates that so clearly stirred Nanda into voluble action. Goethe was, besides being a poet, dramatist, and novelist, a careful student of botany, anatomy, and zoology; he developed an elaborate theory of color, discovered the intermaxillary bone, and produced a body of work on fossils, plants, birds, morphology, rocks, and much else. The physicist Arthur Zajonc and his collaborator, David Seamon, suggest that Goethean science is largely phenomenological, or an attempt to understand the objects of study as they might, if endowed with the power of speech, have described themselves. Goethe himself wrote that “natural objects should be sought and investigated as they are and not to suit observers, but respectfully as if they were human beings” [21]. Goethe went so far as to project phenomena as theory, not in need of theory: “The highest is to understand that all fact is really theory. The blue of the sky reveals to us the basic law of color. Search nothing beyond the phenomena, they themselves are the theory” [22]. There is little here to distinguish Goethe’s position from those Hindu philosophers who insisted on holism, and rejected the

distinctions between fact and value, matter and spirit, and mind and body (cf. pp. 96–7). But Goethe was neither a Christian fundamentalist nor a petulant anti-modernist; nor was he a precursor of the Nazis. He remains to this day one of the supreme figures of Western humanism.

Drawing upon very different materials, the eminent sociologist and anthropologist Peter Worsley comes to a similar affirmation of the plurality of sciences. Worsley takes as his brief the following question: just how did knowledges become transformed into “Knowledge with a capital K”, and how can Knowledge be retransformed into “knowledges”? [23]. His exploration of the history of Pacific Islanders leads him to the conclusion that, even in remote antiquity, they drew upon vast storehouses of what can only be termed scientific knowledge to navigate thousands of miles without the aid of modern navigational aids [24]. His study of the classification practices of the Aborigines of Groote Eylandt in Australia led him to even more startling findings. These Aborigines, Worsley argues, experienced difficulties similar to those encountered by taxonomists when they must accommodate within their classificatory schema objects that are anomalous or elements riddled with ambiguity. Some Aborigines were inclined to be “splitters”, others “lumpers”—a common enough phenomenon. “Most people would think”, concludes Worsley, “that there is an unbridgeable gap between Westerns scientists’ thinking and Aboriginal thought”; indeed, the knowledge of “primitives” is routinely bracketed off as “ethnoscience” when it is not simply rejected with contempt. And, yet, as Worsley avers, there is a remarkable degree of correspondence between Aboriginal and Western classificatory systems [25]. To engage with Worsley, who ranges over medicine, seafaring, anthropology, taxonomy, food and more, is to come away with the conclusion that intellectual pusillanimity, moral bankruptcy, and insufferable arrogance are as much a legacy of Western scientific knowledge as the more familiar stories of selfless labor, heroism, ingenuity, resistance to authority, and rejection of superstition.

It has been amply documented of the life of the Indian mathematical genius, Srinivasa Ramanujan, that he had attributed his theorems to the goddess Namagiri [26]. Richard Askey, a mathematician who has pored over Ramanujan’s papers for years, admits that “we have no idea how he did the marvelous things he did, what led him to them, or anything else” [27]. Ramanujan’s patron at Cambridge, G.H. Hardy, whose own eminence in mathematics was widely acknowledged in his own day, endeavored mightily but with no success to persuade the world that “Ramanujan was no mystic and that religion, except in a strictly material sense, played no important part in his life” [28]. This is the same Ramanujan who reportedly said, “An equation has no meaning for me unless it expresses a thought of God” [29]. One can only urge Nanda not to dismiss these observations as a species of “romanticism”, her favorite word of abuse, as it is of other obdurate Marxists, for Gandhians, postmodernists, neo-traditionalists, and other degenerates (pp. 7, 56, 154, 221, 223). I am not aware of any scholar who has argued that Ramanujan’s devotion to Namagiri and Narasimha explains his inexplicable mathematical gifts, but similarly it would be futile to separate, as Nanda so assiduously attempts to do so, religion and science as two altogether different spheres of life. Ramanujan’s life is an invitation to a dialogue, just as Nanda’s book, regrettably,

forswears any possibility of a dialogue with those who are not prepared to enter into her worldview. The attitude of skepticism, Nanda submits, is ingrained in modern science, but her own book offers not an iota of evidence to support this unquestioned belief. Just how far can Nanda's skepticism take her? I leave the last words to Wagish Shukla, a mathematician at that decidedly secular temple to modernity, the Indian Institute of Technology (Delhi): "If we want to have an idea of how Vedic sages 'saw' knowledge, a close approximation is provided by S. Ramanujan who wrote down many, many *sutras* [theorems; ordinarily, religious formulas or sayings] in his diaries, not in cryptic Sanskrit but in ordinary mathematical literals and English, without proofs, without knowing perhaps why they are correct results. Professional mathematicians all over the world are proving them and working real hard. Here is Vedic mathematics such as is possible in this *Kaliyuga*" [30].

Notes

- [1] See, for example, Alan Sokal, "A physicist experiments with cultural studies", *Lingua Franca* (May–June 1966): 62–4.
- [2] Alan Sokal, "Truth, reason, objectivity and the left", *Economic and Political Weekly* (18 April 1998): 913–4.
- [3] See Alan Sokal and J. Bricmont, *Fashionable Nonsense: Postmodern intellectuals' abuse of science* (New York: Picador, 1998).
- [4] Gauri Viswanathan becomes "Gauri Vishwanath" (p. 168), Claude Alvares becomes "Claude Alvarez" (156), and so on. Ashis Nandy's own collection of essay, *Traditions, Tyranny and Utopias: Essays in the Politics of Awareness* (Delhi: Oxford University Press, 1987) is described as a book "edited" by him (p. 213). One could go in this vein. That standards of editing at university presses have declined precipitously is common knowledge; but I suspect, as well, that Rutgers did not have any specialist in Indian studies review Nanda's manuscript.
- [5] The piece under discussion is Spivak's famous essay, "Can the Subaltern Speak?", in *Marxism and the interpretation of culture*, eds. C. Nelson and L. Grossberg (Urbana, IL: University of Illinois Press, 1988), p. 302. On the preceding page, Spivak wrote: "Obviously I am not advocating the killing of widows"—a caveat intended precisely to deflect, evidently with not assured success, naive readings of her text.
- [6] The scholarly consensus on Aryan migrations to India and elsewhere remains unshaken, notwithstanding the claims of Hindutvavadis. See, for example, R.S. Sharma, *Looking for the Aryans* (Hyderabad: Orient Longman, 1995), and D. N. Jha, *Ancient India in Historical Outline* (Delhi: Manohar, 2001 [1977]), pp. 41–61. The so-called debate on the origins of the Aryans has over the years made its way into all the major Indian dailies in English, most eminently the *Hindu*, and the Hindutvavadi camp now even argues for an indigenous Aryan civilization in India centered around the lost river Saraswati. For a rejoinder to the Hindutvavadis, see Michael Witzel, "Autochthonous Aryans? The evidence from old Indian and Iranian texts", *Electronic Journal of Vedic Studies* 7, no. 3 (2001): 1–93.
- [7] For a devastating indictment of Strauss, whose influence has extended to the likes of Allan Bloom, Francis Fukuyama, and Paul Wolfowitz, see Michael Burnyeat, "Sphinx Without a Secret", *New York Review of Books* (30 May 1985).
- [8] Compare Debiprasad Chattopadhyaya, *Lokayata: A study in ancient Indian materialism* (Delhi: People's Publishing House, 1981 [1959]) and *Science and society in ancient India* (Amsterdam: B.R. Gruner B.V., 1978).
- [9] Many scholars would, of course, push this back to Rammohan Roy and the other initiators of the so-called Bengal Renaissance in the 1830s and thereafter. Rammohan Roy himself

was more interested in rendering Hinduism into a monotheistic rather than scientific faith, or more precisely in representing Hinduism in its “pure” form, shorn of the ritual baggage, excesses, and obscurantisms it had gathered around it over centuries. Vivekananda’s contemporary, the Maharashtrian nationalist Bal Gangadhar Tilak, is another important figure in the endeavor to represent Hinduism’s compatibility with modern science.

- [10] See, for example, M. Casolari, “Hindutva’s foreign tie-up in the 1930s, Archival Evidence”, *Economic and Political Weekly* (22 January 2000): 218–28; A.G. Noorani, *Savarkar and Hindutva: the Godse connection* (New Delhi: Leftword, 2002); and Christophe Jaffrelot, *The Hindu Nationalist Movement and Indian Politics, 1925 to the 1990s* (New Delhi: Penguin, 1999 [1996]), 50–62.
- [11] For instance, Achin Vanaik, *The Furies of Indian Communalism: Religion, Modernity and Secularization* (London: Verso, 1997), 18–21.
- [12] Morris Berman, *Coming to Our Senses: Body and Spirit in the Hidden History of the West* (New York: Simon & Schuster, 1989), p. 252.
- [13] V. D. Savarkar, *Hindutva: Who is a Hindu?* (Delhi: Hindi Sahitya Sadan, 2003 [1923]), pp. 3–4.
- [14] Nanda’s simplistic reading of the *Ramayana*, which she views in the singular as a homogenous text of patriarchal and caste-bound oppression, is a case in point of her inability to grapple with the complexities of this faith (p. 52). See, in contrast, Paula Richman, ed., *Many Ramayanas: The Diversity of a Narrative Tradition in South Asia* (Berkeley, CA: University of California Press, 1991).
- [15] V. D. Savarkar, *The Indian War of Independence* (New Delhi: Rajdhani Granthnagar, 1970 [1908]), p. 1.
- [16] Ashis Nandy, “The twilight of certitudes: Secularism, Hindu nationalism, and other masks of deculturation”, *Alternatives* 22, no. 2 (April–June 1997a): 157–75; Ashis Nandy, “The future of dissent”, *Seminar*, no. 460 (December 1997b): 42–45; Vinay Lal, ed., *Dissenting Knowledges, Open Futures: The multiple selves and strange destinations of Ashis Nandy* (Delhi: Oxford UP, 2000); Ziauddin Sardar, *Postmodernism and the Other* (London: Pluto Press, 1998).
- [17] Ashis Nandy, Shikha Trivedy, Shail Mayaram, and Acyut Yagnik, *Creating a nationality: The Ramjanmabhumi movement and fear of the self* (Delhi: Oxford University Press, 1995), p. ix.
- [18] Zygmunt Bauman, *Modernity and the Holocaust* (Ithaca, NY: Cornell University Press, 1991), p. 93.
- [19] Richard L. Rubenstein, *The Cunning of Reason: The Holocaust and the American Future* (New York: Harper Torchbooks, 1987 [1975]), pp. 30–1.
- [20] Shiv Viswanathan, *A Carnival for Science: Essays on Science, Technology and Development* (Delhi: Oxford University Press, 1997), p. 11.
- [21] Cited by David Seamon and Arthur Zajonc, eds., *Goethe’s Way of Science: A Phenomenology of Nature* (New York: State University of New York Press, 1998), p. 24.
- [22] Seamon and Zajonc, p. 24; see also pp. 2–4.
- [23] Peter Worsley, *Knowledges: Culture, Counterculture, Subculture* (New York: The New Press, 1997), p. 10.
- [24] Worsley, pp. 125–57.
- [25] Worsley, pp. 54, 71, 73.
- [26] See the discussion, for example, in Richard Kanigel, *The Man Who Knew Infinity: A Life of the Genius Ramanujan* (New York: Washington Square Press, 1991), pp. 280–9.
- [27] Kanigel, p. 280.
- [28] Kanigel, p. 283.
- [29] Cited by Ashis Nandy, *Alternative Sciences: Creativity and Authenticity in Two Indian Scientists* (Delhi: Oxford University Press, 1995 [1980]), p. 137.
- [30] Wagish Shukla, “Vedic Mathematics”, *Seminar*, no. 400 (December 1992), p. 47.

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