Chapter Three

Modernity, Medical Science and Identity in *The Calcutta Chromosome*

> Colonial knowledge both enabled conquest and was produced by it; in certain important ways, knowledge was what colonialism was all about.
>
> —Nicholas B. Dirks (*Colonialism and its Forms of Knowledge*, ix)

I

Calcutta has always been a fascinating city to Amitav Ghosh. Its ubiquitous presence in almost all of his works only attests to the fact that the city occupies a special place in Ghosh's literary universe. In an interview with Neluka Silva and Alex Tickell, Ghosh said: "I suppose the thing that's been most important is Calcutta…Calcutta has been in some way the centre of my imaginative world" (Bose, 214). Calcutta is the first city to receive colonial modernity in India. As a colonial city, it was a centre of science, and it fascinated the middle class Bengalis as an intellectual hub. But Calcutta is not only a centre of science; it is also a city of mysticism and occultism. Ghosh's keen interest in both science and mysticism bears out the city's enduring influence in shaping him as a writer.

In his essay "Satyajit Ray" Ghosh states that Satyajit Ray, one of the intellectual giants that the city has ever produced, has played a pivotal role in shaping his "imaginary universe" (05). Many of Ray's films, it is well known, use elements of both science and mysticism. Ray's intellectual lineage has been crucial in sparkling Ghosh's "interest in

science and science fiction" as well as in "Ghost stories and the fantastical" ("Satyajit Ray," 05). Ghosh reveals in this essay that Ray's film *Paras Pathar*[1] (*The Philosopher's Stone*), which he describes as "a neglected masterpiece that deserves a place of honour in the canon of surrealist cinema," has had a tremendous influence upon him ("Satyajit Ray," 05). Given Ghosh's position as a Bengali 'bhadralok' and his preoccupation with Calcutta as a colonial city, *The Calcutta Chromosome* (1995) is a novel in which coalesce his perennial interests in science, mysticism and Calcutta.

As a writer concerned with the lineage of colonial modernity in the Third World, Ghosh has always been interested in different manifestations of Western epistemology. Walter D. Mignolo has pointed out that Western epistemology is the key factor in establishing 'the colonial matrix of power.' Western science, no doubt, is the most potent form of Western epistemology, and has had the most significant role in justifying colonial subjugation. One of the most important branches of Western science is medical science. Ghosh has always been very curious to investigate how Western medical science is received in the Third World. In "The Imam and the Indian," Ghosh gives an interesting account of his encounter with an Egyptian imam, also a healer, who has discarded traditional medical practice of using "herbs and poultices and the old kind of medicine"(01) in favour of "the art of mixing and giving injections" (4). When Ghosh wants to know about his traditional medicine, the imam gets angry because "his medicines were as discredited in his own eyes as they were in his clients" (04). The imam himself deems traditional medicine as "relics of the past" which nobody wants (04). Another reason of his allopathic practice is that people want allopathic medicines for all sorts of diseases. This episode is indicative of the hegemonic effect of Western medicine upon traditional medicine of Asian countries. Western medicine projects itself as universal and discredits other forms of medicinal practice.

The role of science in establishing the British Colonialism in India in the eighteenth and the nineteenth centuries and in the birth of modern India was instrumental. Science became not only a technical authority but also cultural authority envisioning freedom and enlightenment, power and progress. Gyan Prakash observes that "Standing as a metaphor for the triumph of universal reason over enchanting myths, science appears pivotal in the imagination and institution of India, a defining part of its history as a British colony and its emergence as an independent nation" (*Another Reason*, 3). As a representative of Western science, medicine can be viewed as the bedrock of British imperialism as it played a crucial role in confirming the supposed intellectual superiority of the British over the Indians. The institutions of colonial modernity at first impress one as imperial altruism, but in deeper analysis they turn out to be tools for implementing 'coloniality.' In his influential book *Colonizing the Body*, David Arnold observes that the highly prestigious Western medicine was one of the key players in the colonisng process. Arnold points out that "medicine cannot be regarded as merely a matter of scientific interest" (8). Western medical science is not an innocent science; rather it was complicit with colonialism in subjugating the colonised. As a result, it "cannot meaningfully be abstracted from the broader character of the colonial order" (Arnold, 8). Western medicine was, indeed, a tool of empire.

But despite its hegemonic ambition, argues Arnold, Western medicine had to struggle hard to establish itself among Indian people throughout the entire British reign in India. The reasons for this unacceptability of Western medicine by Indian masses may be that it was confined to the small enclave of the army and of Europeans, and more importantly, India had nourished the ancient medical systems of Ayurveda and Yunani whose practitioners (the kavirajas, the vaidyas and the hakims) were easily available even in remote areas. The fascination and loathing of Indians for Western medicine are at the heart of "the dialectics of power and knowledge in colonial India" (*Colonizing the Body*, 7). Mark Harrison, another

historian of medicine, notes in his 1994 book *Public Health in British India: Anglo-Indian Preventive medicine 1859-1914* that medicine was a 'tool of empire.' The writings of colonial medical authorities and historians reveal how medical science served the purpose of empire. In the colonial enterprise, medicine became an instrument of social control in the colonies, providing means of knowing the indigenous population as well as to frame policies of public health. The British managed to rule the vast and varied India not merely through military control, but by developing, what Bernard Cohn has called "colonial forms of knowledge." "In coming to India," writes Cohn, "they unknowingly and unwittingly invaded and conquered not only a territory but an epistemological space as well" (*Colonialism and its Forms of Knowledge*, 4). The British tried to comprehend India through certain science-based "investigative modalities" such as economics, ethnology, tropical medicine, cartography etc (*Colonialism and its Forms of Knowledge*, 5). But the irony is that while the colonisers believed that they had complete power over Indians, resistance came from within, and even resistance is prior to power in many instances. Amitav Ghosh's *The Calcutta Chromosome* which is subtitled "a novel of fevers, delirium and discovery" and has often been deemed as a medical thriller, plays with Western medicine, medical practitioner and epistemologies to problematise the power dynamics between the coloniser and the colonised. Ghosh's science fiction is a nuanced commentary on the limits of colonial epistemology to contain the natives who attempt to break free of the colonial power structure by building on their own form of epistemology and moving towards an alternative modernity and alternative mode of being. The novel presents the problematics of colonial medical science vis-à-vis indigenous knowledge and cultural identity.

II

In order to understand Ghosh's critique of colonial modernity through the identity of certain characters in the novel, I conjoin Mignolo's idea of coloniality with Michel Foucault's notion of the "insurrection of subjugated knowledges" and with Michael Hardt and Antonio Negri's conceptualisation of modernity, antimodernity and altermodernity. Let me begin with Foucault. In the first (delivered on 7 January 1976) of his "Two Lectures" Michel Foucault contends that in the last fifteen years or so there has been an insurrection of subjugated knowledges. By subjugated knowledges, Foucalt refers to:

> a whole set of knowledges that have been disqualified as inadequate to their task or insufficiently elaborated : naive knowledges, located low down on the hierarchy, beneath the required level of cognition or scientificity. ("Two Lectures," 82)

Foucault is here talking about the discourse of knowledge. In other words, he draws attention to the politics of production, management and legitimisation of knowledge. The dominant epistemology certifies itself as universal, and subjugates the peripheral, local forms of knowledge by discrediting them as non-knowledge. But in the second half of the twentieth century, there has been a resurfacing of the discredited knowledges. The function of criticism, Foucault opines, is to pay attention to the local forms of knowledge. As for *The Calcutta Chromosome,* the novel itself performs the task of criticism by staging a hypothetical re-emergence of the local forms of knowledge, but not necessarily taking recourse to any reductive essentialism. The indigenous knowledge that the novel unearths is "far from being a commonsense knowledge," and is "differential knowledge," no doubt. But this is not to say that the alternative knowledge is a pristine system retrieved from the ancient inventory containing 'blocs' of wisdom ("Two Lectures," 82).

Set in uncertain future of the early twenty-first century, in *The Calcutta Chromosome* Ghosh traces—via Ava, the super computer of Antar, a New York based employee of the International Water Council—the mystery of L. Murugan, a former colleague of Antar at Lifewatch and diehard malaria enthusiast who disappeared at Calcutta on 21 August in 1995. Antar's stumbling upon an old ID card of L. Murugan on Ava's screen leads him to excavate—through futuristic cybernetic surveillance and reminiscences involving complex network of events spanning across centuries and continents—an alternative history of the British medical doctor Ronald Ross' discovery of the malaria parasite at Calcutta in 1898. Ross was honoured with the Nobel Prize in 1902 for his breakthrough in malaria research, and since then, has been hailed as a great scientist. As per the official version, Ross was a rare genius who undertook the research to save humanity from the world's oldest and probably the most widespread disease, malaria. But Murugan shows that Ross was neither a genius nor was his work motivated by any humanitarian urge.

Sir Ronald Ross Laboratory at SSKM (formerly PG) Hospital, Kolkata. Picture clicked on 15 October, 2016.

Ross was, opines Murugan, both a genius and dunderhead, the least likely person to discover anything, let alone the malaria parasite. Murugan claims that Ross had little interest in medicine, and he carried out the research as a project of the British Empire. But the most significant part of Murugan's research is his hypothetical claim: "some other person or persons had systematically interfered with Ronald Ross's experiments to push malaria research in certain directions while leading it away from others" (*The Calcutta Chromosome*, 32-3). This proposition is the key to unlock the novel's layered connotations.

According to Murugan, Ross was manipulated by a secret group of natives in making the malaria breakthrough. They guided him in the particular direction towards his discovery. When Ross was almost hopeless to get samples of malaria blood in Begumpett, a man called Abdul Kadir dropped by to volunteer, and then a guy named Lutchman came in who became the de facto supervisor of Ross. It is this Lutchman who not only disproved Dr. Manson's

hypothesis but also casually pointed out to Ross that malaria is caused by a particular species of mosquito, anopheles. Murugan believes that Abdul Kadir and Lutchman are members of a secret group of low-caste natives headed by a woman named Mangala. The crux of Murugan's narrative is that this group was much ahead in malaria research than Ross, and that they had their unique knowledge system which operated on the principle that once something becomes known, it changes its nature. Murugan guessed that they were stuck in a point of their secret research and the only way they can move to the next step was through a mutation in the malaria parasite which can only be achieved through making the previous developments public. Mangala's discovery that the malaria parasite carries the randomly assorted personality traits of the infected person via pigeon into another person's body is the crucial knowledge that helps her to achieve the ultimate thing, the transcendence of nature, that is, immortality. Murugan observes that the two persons — the linguist J.W.D. Grigson and the young bacteriologist Elijah Farley — who almost discovered the secret workings of Lutchman and Mangala are removed from their path. Even D. D. Cunnigham who employed Mangala disappeared mysteriously from Calcutta. Ross suited them because he was absolutely oblivious of what were happening around him; he never enquired who the natives really were or from where they came. To him, they were mere servants, ignorant people who do not deserve attention from a scientist like him. Even just when Luthcman told him that the malaria vector might be one species of mosquito (he never imagined it), his immediate response was one of reprimanding the native as a sahib was used to do: "next time I want your help I'll ask for it" (*The Calcutta Chromosome,* 68). After making the discovery, Ross thanks the Angel of Fate rather than making a serious enquiry about how Lutchman got to know this crucial idea. He easily believed Lutchman when the latter passes it as to have learnt from some villagers up the Nilgiri hills. Murugan relishes the irony as do the readers: "He thinks he's doing experiments on the malaria parasite. And all the time it's he who *is* the

experiment on the malaria parasite" (*The Calcutta Chromosome*, 69). Ross imbued racial notion of European supremacy so much that he did not bother about his assistants at all. The colonialism-modernity-racism nexus looks self-defeating as the discoverer is the discovered, and the lacunae of colonial ideology are exposed.

That Ghosh has challenged the Western cultural hegemony and deconstructed the binary of superiority and inferiority between the West and the East have been pointed out by several critics. In her article "Postcolonial Science Fiction: Amitav Ghosh's *The Calcutta Chromosome*" Claire Chambers reads the novel as a postcolonial science fiction which not only mixes fact with fiction, but also undermines "the universalist claim of Western science" (58). She contends that Ghosh has subverted Ross' sole claim of discovering the malaria parasite by fictionally showing how he was manipulated by a counter-scientific Indian group which was much ahead in malaria research. Chambers also argues that Ross' discovery was as much predicated upon reason as on faith. Further, Ghosh projects, she thinks, "the possibility of the Hindu doctrine of reincarnation becoming reality in future" (Chambers, 59). This point of Chambers seems particularly untenable as the native group does not seem to be bothered about any particular religious doctrine. I return to this issue later in this chapter.

Isabella Bruschi has argued that Ghosh has deconstructed the dichotomy between the official Western science and an alternative Eastern science but has avoided the risk of revised essentialism by making the narrator only partly reliable. The novel endorses, according to her, a fusion of science and counter-science. "The picture that Ghosh seems to draw," holds Bruschi, "is one where traditional oppositions, artificially imposed, fade away and leave room for a new kind of approach to reality, capable of interweaving different paths to knowledge" ("*The Calcutta Chromosome*: Reading Western Cultural Hegemony," 72-73). John Thieme argues that Ghosh has uncovered an intricate network upon which the cutting edge epistemology of the indigenous group is based. In doing so Ghosh has questioned the

essentialist versions of national and regional cultures. Ghosh has rejected, thinks Thieme, the dualistic Manichean model of opposition between the coloniser and the colonised, and has subscribed to the view that "Western discourse silences alterity by denying its very capacity for utterance" ("The Discover Discovered," 130). Tabish Khair argues that Ghosh has achieved a remarkable feat by raising the issue of subaltern agency without appropriating their voice. Ghosh avoided the vulgar dualism of Science and Magic, Man and Machine in order to expose the shadow lines that construct these binaries. The secret procedure of Mangala's group cannot be discarded as irrational though it is incomprehensible to Western rationality. The "other" version of ir/rationality is epitomised, argues Khair, in the human sacrifice which is construed by European rationality as the extreme sign of barbarity and irrationality of non-European cultures. But in the novel, human sacrifice is generative of new bodies, new identities. "Ghosh," writes Khair, "clearly recognises that power (in political and economic senses) remains the prerogative of the coloniser, but he also explores through fiction the ways in which the colonised, the subaltern can subvert this power" ("Amitav Ghosh's *The Calcutta Chromosome*: The Question of subaltern Agency," 156).

Anshuman A. Mondal reads *The Calcutta Chromosome* as Ghosh's strategy to reverse the authority of colonial science in order to challenge the diffusionist "narrative of scientific discovery whereby knowledge travels out from the Western centre to the non-Western periphery" (*Amitav Ghosh*, 54). He identifies three displacements through which the reversal is accomplished. First, instead of any first world city, Calcutta, a colonial city in the Third World, is the site of scientific research. Second, the scientific authority is shifted from the colonial scientists to the subaltern group. Third, the novel dismantles the Western form of knowledge as the only legitimate form of knowledge. And lastly, Ghosh focuses on the paradox of the "impossible" native knowledge which eludes formal recognition.

While such readings highlight Ghosh's critique of colonial discourse by reversing and dismantling it without endorsing reversed essentialism, they do not take into account the novel's potential to undermine the self-certified universality and legitimacy of colonial modernity through the formation of identity of native characters. Identity formation is closely linked, as suggested by Mignolo through the diagram of 'the colonial matrix of power,' with specific epistemology. The epistemologically-empowered natives not merely manifest antimodern resistances by virtue of their preexisting freedom but also break free of the oppositional positions between modernity and antimodernity. They move — along a diagonal line that escapes the confining play of opposites — from resistance to alternative. I have attempted to show how the subaltern resistance not only comes from within the colonial discourse but also how the resistance is prior to colonial oppression. In this case, the whole dynamics of suppression-resistance model is turned on its head as the colonised breaks free of the dialectic of science vs. counter-science, modernity vs. counter-modernity. My reading of the novel is an attempt to understand how the narrative undermines oppositional discourses, and consequently, signposts the possibility of the emergence of subjectivities that defy easy codification.

Ghosh's deployment of science fiction to challenge the sanctity of Western science has attracted attention of some critics. In her doctoral thesis *The Relationship between Knowledge and Power in the Work of Amitav Ghosh* Claire Chambers contends that Ghosh has played with the notion of science fiction by prioritising the Hindu myth of Avatars rather than the biblical myth of Christ's resurrection which is at the back of Western science fiction. More importantly, Ghosh takes issue with the genre of science fiction by undermining the racist attitude inherent in science fiction. While as a genre science fiction often works on the assumptions of the white supremacy over the non-whites and looks at things from the point of view of the coloniser rather than the colonised, Ghosh's novel "explores the possibilities of

alternative technologies of being invented by oppressed peoples in *this* world" (Chambers, 212). James H. Thrall recognises that one of Ghosh's strategies to question the binaries of native/alien, technologist/pastoralist, coloniser/colonised etc. is to shift the perspective of the narrator from the technologically advanced cultures to those cultures whose technologies are destroyed or stunned by colonialism. The novel challenges the boundary of science fiction (so associated with Western technological hegemony) by disrupting colonialism's sharp opposition between suspect Eastern esoterism and the normative force of Western rationality as well as by presenting an inherently rational and mystical order that privileges the agency of the colonised subaltern.

In a thought-provoking reading of the novel, Diane M. Nelson views the novel's social science fiction guise itself as a metaphor of colonial laboratories of modernity which are the sites of both work ('labour') and slippage ('labi'). Her stance is predicated upon the view that "social science fiction may itself be a tropical laboratory where one might dissect and examine the labor of other colonial labs and produce new ways of figuring the human"("A Social Science Fiction of Fevers, Delirium and Discovery," 247). Notwithstanding these readings, the novel can be deemed as opening up a different way of thinking about science fiction in the post-colonial context. The novel seems to be a manifestation of, what Grace L. Dillon termed "indigenous scientific literacies" (indigenous epistemologies that use natural world in a sustainable way) and "ceremonial worlds" (works that rely on indigenous storytelling as a method of knowledge transfer) in the face of hegemonic colonial suppression. Taking these clues from Dillon, Jessica Langer argues that a postcolonial science fiction brings to the fore the indigenous epistemologies that "are at times more scientifically sound than is Western scientific thought" (*Postcolonialism and Science Fiction* 130-1). So *The Calcutta Chromosome* which was awarded the Arthur C. Clarke Award in 1996 for best science fiction can be read as foregrounding indigenous science. Mangala's

system is a working on medicine and sustainability, and is transmitted through indigenous storytelling which involves networks of silence. Mangala's system incorporates the beneficial elements of microscopy but fuses it with spiritual beliefs and rituals. So Ghosh's postcolonial science fiction is a challenge to Western knowledge from the indigenous knowledge system.

One of the important procedures by which colonialism functions is to deny any value to the epistemology of the colonised on the basis of Western criteria. Colonialism establishes its knowledge system as dominant by either discrediting the indigenous knowledge system or destroying it. Before going further into the conflict between the knowledge systems of the coloniser and the colonised and its relation to identity, it is important to clarify what is meant by "knowledge system." In her book *Science, Colonialism and Indigenous Peoples: The Cultural Politics of Law and Knowledge* (2009) Laurelyn Whitt postulates:

> … a knowledge system can be defined in terms of four characteristics: epistemology, a theory of knowledge giving an account of what counts as knowledge and how we know what we know; transmission, dealing with how knowledge is conveyed or acquired, with how it is learned or taught; power, both external (how knowledge communities relate to other knowledge communities) and internal (how members of a given knowledge community relate to one another); and innovation, how what counts as knowledge may be changed or modified. (31)

The four criteria — epistemology, transmission, power and innovation — are present both in the Western knowledge system and also in the indigenous knowledge system. But the important difference between the knowledge system of the coloniser and that of the colonised is that whereas the indigenous knowledge system is integrally related with the land, histories and local customs and is inapplicable in other locations, the Western knowledge system poses

to be universal, and reduces other knowledge systems to the status of superstition, antithesis of knowledge. No doubt, the identity of the coloniser and the colonised is inextricably bound up with their respective knowledge system.

Going by Murugan's claims, the subaltern group's quest for immortality is predicated upon interpersonal transference: the disposition of a malaria-infected person is transmitted to a recipient when the blood of the donor is injected into the syphilis-hit recipient's body. In fact, using the malaria parasite was the standard procedure for syphilis treatment in the West for long before the advent of penicillin; and though discovering this procedure of treating one disease with another disease fetched Julius von Wagner-Jauregg the Nobel in 1927, he did not know, claims Murugan, how it actually worked in human body. Coincidentally Mangala used the same procedure of injecting malarial blood to cure syphilitic paresis but with a twist: she used pigeons — like test-tube or agar plate — for "making the bug cross over" before injecting the malarial blood into syphilis-hit patients. She discovered personality transpositions in this procedure which worked because of asexual transfer of what Murugan calls the Calcutta chromosome which affects human brain only. In this way, a person can continue to exist in newer incarnations through chromosome transfer to "the chosen." Interestingly, the recipient can comprehend the entire process after the transposition is accomplished, and "the chosen" has to struggle hard in order to understand his role and destiny in the experiment of DNA crossover. Thus, after linking all the clues when he/she mutates to the next incarnation, he/she knows how to make the next move in secret. So the mechanism remains ever secret. Mangala'a methodology surely qualifies Whitt's criteria of "knowledge system" but with a difference. Her knowledge may be non-knowledge to the Western scientists, but its efficacy validates itself; in fact, its validity is contingent upon its dismissal by the dominant knowledge system.

For the Westerners the only legitimate knowledge is the knowledge produced and validated by themselves. One cannot deem any knowledge system as authentic unless it is recognised and certified by the Western institutions such as the Nobel Prize. Murugan's knowledge on Ross did not fit in with the Western notion of knowledge, with the result that his article "An Alternative Interpretation of Late 19th Century Malaria Research: is there a Secret History?" was rejected by the Western scientific community, and he was threatened to be excommunicated. As for the transmission of knowledge, Western science does it through publication in scientific journals so that the knowledge might get disseminated and be used for benefits of mankind as well as for further research. By this standard, the knowledge of Mangala can never be called authentic as its very efficacy depends on its remaining a secret. But Mangala's knowledge is also transmitted, not by publication, but by the selection of people who must make the connections without his/her knowing it. It is a transmission of knowledge which is accomplished when the persons involved become new persons. Her knowledge system is transmitted, as already has been pointed out, by choosing a recipient who must perform the act of knowing and carry it forward in secret, not through publication which is the usual means for transmission of dominant knowledge system. Its very survival and efficacy are inextricable from its method of transmission which is done in secret. Indeed, secrecy is the religion of the native group. The power relation involved in 'the colonial matrix of power' apparently obviates Mangala's knowledge system from claiming any such status as she is at double remove from any position of producer of knowledge. First, she is a colonised subject. Second, she is a low-caste uneducated sweeper woman who is marginalised within Indian society. She is apparently absolutely powerless in her social/employment position that forecloses any possibility of her developing a knowledge system, let alone riding on the Western science and manipulating the Western scientists. However, her position within her own secret group is supreme. Even to certain folk of Calcutta she is a goddess who is

worshipped long after she left her original body and continues to exist in newer incarnations. In terms of innovation, Mangala's knowledge system functions on the principle of improvisation as she believes that "to know something is to change it", and they have to remain one step ahead of the changing nature of the malaria parasite. So the native system of knowledge qualifies for a "knowledge system" which is not recognised by the colonial science. But the difference of her system from the dominant epistemology is that it never claims its status as a knowledge system because its founding assumption is that "to know something is to change it…knowledge couldn't begin without acknowledging the impossibility of knowledge" (*The Calcutta Chromosome*, 91). The strict principles of Mangala's knowledge system are to avoid any sort of disclosure to the outside world, and to carry over transmission of personality traits in secret. What is at stake in Mangala's system is the ontology of the persons involved. Mangala's knowledge is more than the mere treatment of syphilis; its thrust is on achieving transcendence of nature though transfer of a particular chromosome (a biological correlate of soul) from body to body. The way Mangala appropriates Western science to her own end reveals the ambiguous role of Western science in colonial encounter. Kapil Raj contends that in many colonial interactions, the indigenous people not merely participated in the making of scientific knowledge, artifacts and practices but also "appropriated and eventually deployed them strategically to renegotiate their positions in the emerging colonial regime" (*Relocating Modern Science: Circulation and the Construction of Knowledge in South Asia and Europe, 1650-1900,* 19) *The Calcutta Chromosome* illustrates this process of negotiation and adoption of Western science by the natives.

The indigenous knowledge system spearheaded by Mangala can be called "science from below" which is, as Sandra Harding puts it, a form of empirical feminist research that starts off "from women's life" (*Sciences from Below*, 115). In such a project, the margins

become a site of radical epistemological possibility. Such science dismantles the established hierarchies which attempt to ensure that the "understandings available to the dominant group tend to support the legitimacy of its dominating position, while the understandings available to the dominated tend to delegitimate such domination" (*Sciences from Below*, 118). Though not in feminist contexts, "science from below" opens up, in the words of Fredric Jameson, "a space of a different kind of polemics about the epistemological priority of the experience of various groups of collectivities" ("'History and Class Consciousness'" 144, qtd. in *Sciences from Below*, 119). Important in "science from below" is the fact that it is hooked up with the beliefs, life practices and lived experiences of the indigenous people. "Science from below" aligns itself with the indigenous knowledge system which endows the natives with their unique ways of being in the world. But does this knowledge system place the natives in a dialectical opposition with the colonisers, reversing the power relation between the coloniser and the colonised? Or, is the indigenous knowledge system built on the precolonial culture and tradition of the natives? I will come back to these questions with the theoretical guidance offered by Michael Hardt and Antonio Negri in their 2009 book *Commonwealth*.

The members of the secret group are mainly preoccupied with finding the right people and making personality transfer to their bodies. The kind of autonomous selfhood and mode of existence embodied in the secret group's lived experience comes close to Hardt and Negri's notion of "altermodernity" which is marked by a decisive break with modernity and its binary opposite, antimodernity. Altermodernity is truly revolutionary in the sense that it rejects the oppositional positions of modernity and antimodernity with relation to epistemology and identity. In jettisoning any sort of fixed identity, altermodernity favours 'becoming' over static 'being.' Whereas the passage from modernity to antimodernity leads to static stance of opposition, the passage from antimodernity to altermodernity is characterised by transformation involving "rupture with any fixed dialectic between modern

sovereignty and antimodern resistance" (*Commonwealth*, 106). That is why Claire Chambers' contention that the novel effects "the Hindu doctrine of reincarnation becoming a material reality in the future" seems untenable ("Postcolonial Science Fiction: Amitav Ghosh's *The Calcutta Chromosome*," 59). Such a stance—despite its insistence on regenerative selfhood—aligns the novel with antimodernity. In fact, Hindu doctrine or any doctrine is never asserted by Ghosh. The novel's basic premise is to deconstruct assertion of any fixed positionality. Suparno Banerjee argues that the novel subverts Western epistemology by conflating it with Indian mysticism, but "it does not employ classical Hindu mythology or invoke traditional Vedic knowledge" ("*The Calcutta Chromosome*: A Novel of silence, Slippage and Subversion," 58). The novel subverts the hegemonic status of Western medicine, and exposes the intellectual inferiority of its practitioners but without falling back on and glorifying the traditional Indian medicine of Ayurveda and Yunani.

Syphilis patients visit PG hospital not to avail the treatment of any British doctor but to meet Mangala who treats them under the nose of colonial doctors like Cunningham and Ross. Mangala's method of treatment is neither entirely Western nor Indian system of medicine; she appropriates Western microscopy but practices it in conjunction with Indian mysticism. The syphilis patients who come to her at the backyard of Cunningham's laboratory chant — by squatting around a fire — certain mantras in unison, "as though in preparation for a ritual or ceremony" (*The Calcutta Chromosome*, 129). Mangala sat alone on a low divan at the far end of the room in an attitude of command. Beside her there were many bamboo cages containing a pigeon each. Elijah Farley, who found out the mysterious activities of Mangala, could not bring him to believe that an Indian sweeper woman can cure syphilis, and be worshipped by her patients; he dubs her as "a false prophetess" who cheated poor sick people of money they could ill afford (*The Calcutta Chromosome*, 130).

The failure of colonial scientists to take notice of Mangala's mysterious activities can be attributed their racial outlook. Murugan observes that Ross was never bothered to enquire about his Indian assistants who popped up before him when he needed them most. Never ever Ross was curious to know why a guy named Abdul Kadir came to him to volunteer in his research when everybody thought that he was doing witchcraft. In case of Lutchman he was equally uninterested to know anything about him. According to Murugan, it is this Lutchman who was Ross' constant companion during the three years of his research, from 1895 to 1898. All that Ross knew about Lutchman was his name and his job of shoveling shit. Ross' indifference to his Indian servants raises a few questions. Why was Ross absolutely uninterested to know the personal details of Abdul Kadir and Lutchman? Was he so obsessed with the malaria parasites that he was oblivious of what were happening around him? Answers to these questions make clear Ghosh's stance on the confrontation between the epistemologies of Western scientists and the native group as well as his take on identity in colonial and post-colonial context.

It is important to remember here Murugan's observation that Ross was doing the research as a project of the empire, and his mindset was that of typical colonial type. Mark Harrison contends that Ronald Ross was convinced that the British rule was essential for India's development. Ross believed, writes Harrison, that the British were superior to "subject peoples in natural ability, integrity and science" (*Public Health in British India*, 151). He must have assumed himself as a representative of Western modernity, a rational subject engaged in scientific study which only deserves his attention. The people of India were to him, perhaps, mere superstitious, ignorant, and primitive folk who did not merit any attention from a scientist of his stature. Anibal Quijano has stressed on the role of Western epistemology in producing the racial categorisation of 'subjects' and 'objects.' Quijano notes that in colonial representation, "only European culture is rational, it can contain 'subjects' –

the rest are not rational, they cannot be or harbor 'subjects'… They can only be 'objects' of knowledge or/and of domination practices" ("Coloniality and Modernity/Rationality," 28). To Ross, people like Abdul Kadir and Lutchman are important as far as they can be used in his experiment, and can be ordered to perform the menial duties for him. But as human beings, they do not deserve any merit because the colonisers thought of the colonised as having no subjectivity, no sense of selfhood. Abdul Kadir and Lutchman are nothing but mere 'object' to Ross who believed himself as 'subject,' having the authentic, rational selfhood. Ross' indifference toward Kadir or Lutchman is not his idiosyncrasy, but is the product of the colonial discourse in which he was embedded. Bernard Cohn observes that the British colonial authorities loved to survey India "from above and at a distance" because they had already codified various "forms of knowledge" regarding India (*Colonialism and its Forms of Knowledge*, 10). According to these epistemological constructions, Indians must act in the role the colonial masters have devised for them. Cohn writes: "Everyone—the rulers and the ruled—had proper roles to play in the colonial sociological theater" (*Colonialism and its Forms of Knowledge*, 10). Ross had never imagined beyond this hierarchy.

In the light of the above observation, it can be said that Abdul Kadir, Lutchman and Mangala did not raise any doubt in Ross' mind because apparently they subscribed to the colonial forms of knowledge which prescribe Indians to be loyal, submissive, unquestioning and always in awe of the colonial master. Apparently, both the coloniser and the colonised played their respective roles — the subject, the experimenter and the object, the experimented — in the colonial theater of power. But Ghosh's narrative shows the other side of the coin where the experimenter is the experimented, where the very identity of the coloniser is questioned and the inefficiency of colonial ideology to construct and contain the colonised is exposed.

Murugan's narrative poses a paradox on behalf of the knowledge system of the natives: it is the system whose very efficacy depends on its remaining a secret and its resistance to appropriation by the dominant discourse. Murugan tells Urmila that Mangala's system involves a kind of double bind—it must remain a secret, and at the same time, it must carry the experiment forward by choosing the next incarnation. The targeted person gets to know of the process through subtle hints only, and comprehends the entire process after it is accomplished. That is why Murugan thinks Urmila and himself are implicated in the continuum of Mangala. What his narrative highlights is not only the absolute indifference of the universalist Western science to other epistemologies, but also the latter's self-imposed prudent silence. Mangala's system which operates on the principles of secrecy and silence has to be communicated, but only to the select persons who must perform the act of knowing in order to effect a mutation of the parasite. Any other person who interferes with the secret cult is either scared away or done away with. Murugan's research activities place him in the position of observer and observed, outsider and insider as he explains to Urmila that "'someone's trying to get us to make certain connections; they are trying to tell us something; something they don't want to put together themselves, so that when they get to the end we'll have a whole new story'" (*The Calcutta Chromosome*, 184).

As a researcher, Murugan's findings can be seen as genealogy which from Foucauldian perspective can be described as, writes Clare O' Farrell, "a form of research aimed at activating 'subjugated' historical knowledge, that is, knowledge which has been rejected by mainstream knowledge, or which is too local or specific to be deemed of any importance" (*Michel Foucault*, 68). The function that genealogy performs is to subvert the hegemonic power structure of unitary scientific discourse by reactivating the local knowledges, and by bringing them into play against "unitary body of theory" which constitutes "true knowledge." Genealogies "are precisely anti-sciences" ("Two Lectures,"

83). Foucault cautions us that genealogy is not against the "contents, methods or concepts of a science" but against the homogenising, centralising power of scientific discourse. Mangala's method which Murugan disinters and which he dubs as "anti-science" is not accredited by the Western science but is none the less effective in not merely curing syphilis but in interpersonal transference across the collapse of time and space. But once excavated, the knowledge system of the secret group always runs the risk of either being appropriated and re-codified by the dominant discourse or being placed in a dialectical opposition against the dominant discourse. If such were the case, then genealogies are likely to be hoisted in their own petard. Genealogy never presents itself as a coherent, systematic knowledge which opposes the dominant, scientific knowledge. Foucault chalks out the tentative mechanism of genealogies:

> At all events, we must proceed just as if we had not alarmed them at all, in which case it will be no part of our concern to provide a solid and homogenous theoretical terrain for all these dispersed genealogies, nor to descend upon them from on high with some kind of halo of theory that would unite them. Our task, on the contrary, will be to expose and specify the issue at stake in this opposition, this struggle, this insurrection of knowledges against the institutions and against effects of the knowledge and power that invests the scientific discourse. ("Two Lectures," 87)

This is exactly what the novel does. It brings to the fore the local, discredited forms of knowledge; but it never claims that the resurrected knowledge is the only legitimate form of knowledge. To do so is to subscribe to the philosophy of Western epistemology which the indigenous epistemology vows to resist. The natives never wanted to reverse the power relation between the coloniser and the colonised as that would lead them to be stuck in the static position of antimodernity. Rather they always sought to break free of the dialectic of

power relation between the coloniser and the colonised. Though Murugan tries to clarify the workings of the secret group on the basis of the oppositional model of "Christ and anti-Christ," "science and counter-science," the novel does not endorse any opposition between science and anti-science, between modernity and antimodernity; rather it dismantles and deconstructs such binary structures (*The Calcutta Chromosome,* 91). Hardt and Negri's theorisation of modernity may be useful in understanding how the novel deconstructs binaries, and signposts towards alternative dimensions of life.

III

In colonial encounters, modernity must be understood not merely as a legitimising agency of colonialism on the ground of spreading the light of civilisation and progress, but also, as Michael Hardt and Antonio Negri put it, as a power relation of domination and resistance between the dominant and the subordinated. For Hardt and Negri, modernity is "always two": beside designating reason, secularism and other Enlightenment ethos, modernity is invariably a power relation between domination and resistance, sovereignty and struggles for liberation. To identify the intimate role played by modernity in European colonial expansion, they refer to Walter Mignolo who claims that "There is no modernity without coloniality because coloniality is constitutive of modernity" (qtd. in *Commonwealth*, 67). Modernity has evolved not solely in Europe; it has developed as a result of colonial encounter. In colonies, modernity, however, has faced many oppositional resistances. The forces of resistance which they term as "antimodernity" are not "outside modernity but rather entirely internal to it, that is, within the power relation" (*Commonwealth*, 67). This is because the ethos of oppositional resistance is premised upon the same philosophy of hierarchical power relation that underpins modernity.

The encounter between the coloniser and the colonised is never a one-way traffic; in fact, both sides are changed in the relation involving "processes of mixture and mutual transformation that result from the struggle of domination and resistance" (*Commonwealth*, 68). The problem with traditional colonial historiography is that, claim Hardt and Negri, not only it ignores the contribution of highly developed precolonial civilisations to the so-called modern civilisations (as in the case of Mexican the Nahua to the Spanish or the Iroquois to the U.S. Constitution), but also it willfully denies resistances from the colonised. This deliberate erasure of resistance comes close to the psychoanalytic idea of 'foreclosure' by which the unpalatable histories are not admitted at all. Foreclosure differs from repression in that whereas the repressed element is forced inside the psyche where they remain buried deep, the foreclosed is expelled outside so that the ego can function without any kind of inhibition as if the incidents have not occurred at all. The denial by historiography of resistance from non-European peoples is a strategy to foreground the idea that modernity is a purely European invention. But ironically, resistances do not come from outside, but from inside:

> The foreclosed element in this case is not only the history of contributions to modern culture and society by non-European peoples and civilisations, making it seem that Europe is the source of all modern innovation, but also and more important the innumerable *resistances* within and against modernity, which constitute the primary element of danger for its dominant self-conception. Despite all the furious energy expended to cast out the "antimodern" other, resistances remain within. (*Commonwealth*, 70)

What Hardt and Negri want to posit is that resistance from outside is quite visible, and thus is curbed easily. But if the resistance comes from within, it is not easy to detect and to contain it.

Herdt and Negri insist that in terms of geography, modernity functions as a power relation between the dominant centre and the subordinated periphery. Modernity's notion of geography in terms of the West as the civilised centre and the East as the primitive periphery goes awry when resistance is conceived, often fallaciously, as something external to domination. The West is often taken as a homogenous entity by making the narratives of many liberation movements and struggles disappear from history. Similarly, domination and subjugation of people in non-European countries are often dismissed as echoes of European domination. This fallacy cannot be rectified by multiplying the centre/periphery paradigm—by the way of finding the centre and the periphery within Europe and subordinated countries. Rather, "To understand modernity," write Hardt and Negri, "we have to stop assuming that domination and resistance are external to each other, casting antimodernity to the outside, and recognize that resistances mark differences that are within" (*Commonwealth,* 70). Their understanding of modernity as a power relation also undermines Jurgen Habermas' notion of modernity as an unfinished project because completing the unfinished project of modernity would only produce the structure of domination and subordination. Rather, resistances which they term as "antimodernity" is internal to modern domination.

As examples of foreclosure for modernity's self-conception, Hardt and Negri refer to the strategy of the modern republic of property to make the presence of slavery and racism — despite these two being the cornerstones of the republic's economy and chauvinistic optimism — disappear from its history, or, if acknowledged at all, to dismiss them as mere aberrations to the republic's core ideological principles of equality and freedom. Republicanism and capitalist ideology make the slaves disappear, or deny their very existence, or dismiss them as remnants of pre-modern culture. The dominant historiography of America, France, England and many other modern republics testifies that slavery is a scandal for the republic, and therefore, must be banished from history. Like slavery, racism is

also banished from the rhetoric of modernity, leading to the incompleteness hypothesis which promises that on its completion, modernity will do away with racism. But in reality racial hierarchies are integral to modernity's operation in many forms such as the tendency of European countries to deem Asian and African countries as barbaric. So modernity is as much constituted by coloniality as by racism; the three—modernity, coloniality and racism—form a complex, the modernity-coloniality-racism triumvirate whose techniques and instruments permeate subordinated populations not merely in the abstract ideological level but also in the practical, day to day practices of life. As for the all-pervasive impact of the modernity-coloniality-racism complex, reference may be made to Edward Said's influential study of Orientalism which demonstrates how the representations of the colonised in novels, histories, administrative documents and a host of other texts not only legitimise colonial rule but also mould the very consciousness of the colonised as inferior. Gayatri Spivak also provocatively claims that in the hegemonic structure of colonialism and patriarchy, the subaltern cannot speak whose voice is either ideologically silenced or appropriated by the dominant class. Colonialism accomplished, it seems, its task of complete domination not merely through violence, but more effectively through tacit consent from the colonised by making them internalise colonial forms of knowledge and values. But despite the all pervasive colonial biopower which invests both the forms of consciousness and forms of life of the dominated peoples, it fails to occlude resistances from them. External forms of resistance such as violent revolt could reverse the hierarchy of the coloniser and the colonised; but resistances could be more subtle and nuanced when it is prior to power. *The Calcutta Chromosome* is a strategic commentary on the power relation between the coloniser and the colonised; it is a power relation in which the supposed power of modernity and colonialism fails to contain the natives who seem to embody resistances of antimodernity prior to colonial subjection. My reading of the novel focuses on how the natives not only

dismantle the hierarchical power relation between modernity and antimodernity but also break free — very ingeniously, without staging any kind of crude external resistances — of the entire dialectic between the two. They also envision, what Hardt and Negri term "altermodernity," through forming an alternative medical system and embracing forms of subjectivities which defy the Western notion of rational self and identity. The absence of the Indians in Ross' memoirs, especially those of his servants and lab assistants, attests to the mechanism of foreclosure in his psychic process. In his memoir Ross often fails to remember the name of Laakhan/Lutchman though it is this Laakhan/Lutchman who implanted the idea of anopheles mosquito in his head.

But Ghosh's purpose in the novel is not to show the oppositional resistance of the natives; rather Ghosh is concerned to evade it by bestowing upon the natives a freedom that is prior to and beyond subjection. What the novel does is to empower the colonised subaltern by endowing them with a sound epistemology which is inextricable from their identity. Hardt and Negri's contention that "resistance is prior to power" is particularly pertinent in understanding how the native group eludes the colonial hegemonic discourse, and moves towards an autonomy which endows them with an alternative mode of being and identity. Power can only be exercised over free subjects in order to subjugate them; but if their freedom is prior to power and outside its arena, then their resistance is simply the continuation of that freedom. In *The Calcutta Chromosome* the native group stands outside the cognition of Western modernity, and hence their ostentatious meekness is a camouflage which eludes the grasp of conceited colonial scientists like Ross and D. D. Cunningham. But interestingly, the secret group subverts the hegemony of Western science, but does not fall back on the Indian Vedic system, thus moving towards an alternative epistemology that resists easy categorisation. What makes it easier for Mangala and Lutchman is that they belong to the lowest stratum of Indian society. Lutchman is a low-caste whom the upper-

caste station master tried to kill, and Mangala is a sweeper woman. As for Mangala who is the chief brain of the native group, she is never looked seriously; she is taken for granted as a subaltern woman who disappears between patriarchy and imperialism. Even modernity's emphasis on the autonomy of subjects takes only men as free subjects, excluding women from subjectivity. Kanchana Mahadevan thinks that in the context of Indian colonialism the British thinkers like J.S. Mill and James Mill considered Indian society as barbaric which was "especially testified in the inferior condition of Indian women taking to sati and the alleged effeminacy of Indian men" ("Colonial Modernity: A Critique," 199). Interestingly, though the rise of nationalism propagated the need for strong women by invoking the image of superwomen (a combination of the spiritual Maitreyi, the learned Gargi, the suffering Sita, the faithful Savitri and the heroic Lakshmibai), it was constructed on the image of high-caste women, excluding the lower caste.

Women like Mangala figure nowhere—be it in the imaginative boundary of the coloniser or the colonised. She and her followers were virtually outsiders to everything. Murugan identifies them as "fringe people, marginal types" who are so far from the mainstream that one cannot "see them from the shore" (*The Calcutta Chromosome*, 92). They were already marginalised within the caste-obsessed Indian society. But they knew all about Ross and a lot about the best collection of parasites. It is by virtue of their invisibility in Indian society and in the high-browed colonial ideology that they continue their research bypassing all impediments, and even appropriating colonial research for their own benefit. By nurturing their own form of modernity they covertly resist and move beyond the hegemonic structure of mainstream/marginal, central/peripheral endorsed by both Indian society and colonial discourse. From the narrative perspective, the novel does not make any authentic claim as the alternative narrative is predicated upon the hypothesis of an unreliable narrator who, despite claiming to be an authority on the medical history of malaria, has only "one of

the ways of putting it," and admits throughout the narrative his struggle to see the whole truth (*The Calcutta Chromosome*, 51). He tries to establish connections among events spanning across centuries and continents, and he constructs his narrative based on a series of hypothetical propositions to a large extent: "'The truth is,' he said, 'that I don't know…" (*The Calcutta Chromosome,* 184); "'We don't even know what we don't know'" (*The Calcutta Chromosome,* 185); "'I am just guessing wildly here. Okay?'" (*The Calcutta Chromosome*, 211); and "'All I have is bits and pieces—no beginning, no middle and definitely no end'" (*The Calcutta Chromosome*, 215). The rejection of his research article by the scientific community and the revocation of his membership from the History of Science Society are indications of how the alternate versions are discredited till now, but which continue to exist in palimpsest.

In rejecting both modernity and antimodernity what the novel envisions is an alternative mode of being that defies the Western notion of self and identity. Moving beyond the oppositional positions between modernity's power and antimodenity's resistance, altermdernity is marked by rupture, transformation and an orientation of the forces of resistance towards an autonomous terrain. The passage from antimodernity to altermodernity is a dynamic, creative process in which, as Hardt and Negri put it, " neither does identity remain fixed, but it must be transformed into a revolutionary becoming" (*Commonwealth,* 104). The novel endorses the kind of selfhood which is multiple, fragmentary, and always is in the process of evolution. The process of migratory selfhood is elaborated by Murugan:

> '…when your body fails you, you leave it, you migrate—you or at least a matching symptomology of yourself. You begin all over again, another body…' (*The Calcutta Chromosome*, 95)

Chitra Sankaran argues that Ghosh has deconstructed the unitary Cartesian self. In the novel the self is presented as "un-circumscribed" and "fluid" ("Sharing Landscapes and mindscapes," 111). This un-circumscribed self also defies the constraints of time and space.

The migratory selves of the natives acquire special poignancy when placed against the rational Western self. The un-circumscribed self creates multiple identities of the same person across the collapse of time and space. As for the identity of Lutchman, Murugan says to Antar: "'Too many may be. As I see it, he was all over the map, changing names, switching identities'" (*The Calcutta Chromosome,* 76). Such a notion of anti-essentialist, contingent identity comes close to Stuart Hall's notion of cultural identity as a means of resistance to colonial hegemony. The identities that Mangala and her followers took are provisional, creative and strategic. Their ever-regenerating identities remind us of Hall's assertions that cultural identity "is a matter of 'becoming' as well as of 'being' " and that such identities "belong as much to the future as much to the past" (Cultural Identity and Diaspora," 225). Every reincarnation of them is like a temporary positioning in a never-ending chain of signification. These positionings are accomplished within the narratives of the past; they make full use of Indian mysticism. Lutchman who appears at Ross' laboratory in Begumpett in 1895 and remains his servant for the next three years may be linked to Laakhan who, as Phulboni came to know while passing a macabre night at Renupur station in 1933, used to stay at the station and who arranged for the murder of the station master in 1860s, and who is the probable murderer of Elijah Farley in 1894. It is the same Laakhan whose reincarnations are Romen Halder of Kolkata in 1995 and Lucky of New York in indefinite future. Similarly, the Armenian Mrs. Aratounian who lives in Calcutta, the hard-working and self-dependent Calcutta journalist Urmila Roy and the New York babysitter Tara in future are all avatars of Mangala across temporal and spatial barriers. These characters occupy different identities in different times and different places but with some

basic traits (Lutchman's missing thumb, for example) linking all the incarnations. Thus Mangala is at the same time a sweeper woman and goddess among her devotees; she is worshipped because she has mastered the technique of infinite reincarnations. Murugan thinks that her syphilis-infected patients-cum-devotees might have believed her to be "a witch or a magician or a god or whatever" (*The Calcutta Chromosome,* 210). Similarly Lutchman was apparently a servant of the British Government, a dhooley-bearer whose job was to shovel shit, and he acted as an obedient personal servant of Ross. But all his jobs are nothing but role-playing of the inscrutable front-man of Mangala's cult. He is ever enigmatic, right from his boyhood at Renupur station to his association with Ross to the ingratiating Lucky in New York. The uniqueness of the natives is that their identities are integrally related with their bodies and their indigenous knowledge system. The way the natives utilise their bodies to resist Western epistemology is akin to Mignolo's notion of 'body politics of knowledge' which undermines 'egopolitics of knowledge.' Ghosh's presentation of the confrontation between the Western epistemology and the indigenous one echoes Mignolo's concept of 'border thinking' which makes us rethink about our cherished ideas relating to the Western scientists and the Eastern mystics. The colonial scientists might think the natives to be ever obeying, faithful and ignorant subject people upon whom they can test their hypothesis, whom they can employ as servants, upon whom they have complete control, and whom they did not think important enough to mention in their diaries and memoirs; but they are actually much clever, intelligent people who are out of the loop of the hegemony of modernity and colonialism. In a sense, these fringe people form an alterity, an inassimilable other that both resists and breaks free of modernity's notion of self and identity.

Both in *The Circle of Reason* and in *The Calcutta Chromosome*, Ghosh has dealt with the feasibility of different manifestations of Western epistemology in the context of colonial encounter. In *The Circle of Reason,* Ghosh's focus is on Reason; *The Calcutta Chromosome*

takes issue with Western medicine. In both novels Ghosh's critique is unleashed through formation of identity of certain characters. Both novels reinforce Partha Chatterjee's proposition that 'our modernity' (that is, Indian modernity) is quite different from Western modernity. Forceful implementation of Western modernity may result in its distortion and translation. Both novels also exhibit traces of what Mignolo calls 'border thinking,' that is, an attempt to pay attention to the neglected, non-Western forms of knowledge. The thread of critiquing Western epistemology is carried over to Ghosh's 2005 epic *The Hungry Tide*, but this time the focus in concentrated on a unique place, the Sunderbans. Thus, with the hope to explore more of Ghosh's take on Western epistemology, I turn to *The Hungry Tide* in the next chapter.

Notes

1. *Paras Pathar* is a 1958 classic Bengali film that mixes science with magic, fact with fantasy in order to depict psychology of an ordinary man. Upheaval comes in the life of Paresh Dutta, a bank clerk, when he finds a small round stone in Calcutta. The stone metamorphoses iron into gold by mere touch. Mr. Dutta becomes neo-rich overnight. As his lifestyle changes, he frequents social programmes. In a cocktail party alcohol gets the better of him. He gets into a scuffle, and demonstrates the secret of his success. Soon it becomes public, and he has to flee to avoid arrest by police. Before setting out, he gives the stone to his secretary who swallows it in an impulsive moment. Mr. Dutta is nabbed by the police and he confesses the truth. In the meantime, the stone gets digested in the stomach of the secretary. Miraculously, all the iron items which were transformed into gold by the stone get back to iron. A mix of fantasy, realism and satire, the film brilliantly dramatises human vulnerability in the face of a hypocritical and money-mined society. And to crown it all, there is the magical acting of Tulsi Chakraborty in the lead role. It is

not for nothing Ray said that had Tulsi Chakraborty been born in America, he would have surely won many Oscars for his acting skill.