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Questioning the Western idea of reason through Hindu philosophy: An analysis of *The Circle of Reason* by Amitav Ghosh

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Abstract

The Western idea of reason and science has always been one of the most important tools used by Europeans in the colonial project to define the differentiation between native and European and the hierarchy between these two groups. In the context of Indian civilization, Europeans built their own stereotype through the emphasis on the supposed superiority of analytical reason and of Western science, while they also built the image of Indians as passive, religious, and illogical beings. One of the characteristics of postcolonialism, however, is the questioning of these “prerogatives” by reconfiguring or instrumentalizing the features that were once subjugated by European colonialism. Thus, the post-colonial fiction becomes a vital instrument for working with these stereotypes without the constraints imposed by the technicality of scientific text, which still suffers from the prejudices of Western binary division between science and religion or spirituality. The Indian writer Amitav Ghosh is a master at questioning the European colonial principles through critical reinterpretation of Indian popular and philosophical/religious knowledge. Through the literary analysis of Ghosh’s first novel *The Circle of Reason* (1986), I intend to demonstrate how he subdues the glorification of reason and Western science exemplified by phrenology, sanitation, sewing machines, etc. To accomplish this, I will focus on his strategy of naming the three parts of the novel after the three *gunas* (*sattva*, *rajas* and *tamas*) as well as the use of other references to Hindu philosophy such as Nachiketa, the main character of the *Kaṭha Upaniṣad* and the concept of *māyā* in the depiction of characters. Although some critics have paid relatively little attention to Ghosh’s use of Hindu philosophy, with some of them even suggesting its irrelevance to understand the novel, I argue that these elements appropriated from Hindu philosophy are fundamental to the understanding of the main dimension of the novel. Hindu philosophy then becomes not just Ghosh’s critical tool to question the Western monolithic view that establishes only one form of rationality as the legitimate one, but also the main theoretical tool for the present literary analysis.

Keywords: *The Circle of Reason*, Amitav Ghosh, *Gunas*, Reason

Introduction

At the beginning of the nineteenth century, numerous changes occurred in India due to modifications in the practices of the East India Company. In this period, the East India Company consolidated their territorial control, focusing on despotic profit as

well as systematic and efficient exploitation. Thus, the concepts of knowledge and authority also changed. The less invasive Orientalism was abandoned and the Western education system was established to create a class of Indians who could serve as subordinates in the bureaucratic sector of the Company (Prakash 1999, 3–4).

As part of this project, the European scientific knowledge was presented as a spectacle. Railroads and telegraph lines expanded rapidly, opening up the territory to the capital. What was implicit was the idea of science as a universal reason. In other words, the Western modern sciences supposedly represented knowledge free of prejudices, emotions, and superstitions. However, according to Gyan Prakash, the Hindu elite in India saw the European science as a possibility of cultural reform by simultaneously absorbing European scientific knowledge on the one hand, and enriching it with Indian scientific and philosophical traditions on the other, forcing thereby the Europeans to “share” the scientific authority (Prakash 1999, 6–8). What was behind the agency of the Hindu elite was exactly the questioning of the Europeans as “owners” of a universal knowledge. Since in India, traditionally science had not necessarily divorced itself from religion, it meant that India could humanize the European science.

The contemporary Indian writer Amitav Ghosh, in an interview with Claire Chambers, discusses his interest in science and affirms that he has been influenced by the link that science represented between Calcutta and the modern West. Conversations with contemporary Indian scientists such as Ashis Nandy and Jeetsingh Oberoi made him “interested in this whole phenomenon of how Indians do science, or how Indians relate to knowledge, and what are the relationships between a Western knowledge and an Indian knowledge” (Chambers 2005, 32). It is precisely this relationship that will be explored in the following pages.

Based on the idea of sharing the authority of science grounded on a Western idea of reason through its humanization, I will analyze Amitav Ghosh’s novel *The Circle of Reason*, as a process in which the European instrumental reason, which is based on empiricist and positivist characteristics, is creatively woven into the Hindu philosophy. In this process, the Western perspective of reason and its stereotype of superiority are often questioned through the use of the theory of *guṇas* (existential disposition of all beings) as a critical tool, making the idea of reason as well as of science more inclusive, diverse and heterogeneous. With this, Ghosh also demonstrates the importance of India as a civilization, regarding the dialogue between science and religion in today’s global landscape. After all, as the character Balaram says, “Science does not belong to countries. Reason does not belong to any nation. They belong to history—to the world” (Ghosh 2005a, 54).

Besides the theory of *guṇas*, one of the main theories presented in the *Upaniṣads* and the *Bhagavad-gītā*, Amitav Ghosh also appropriates the central figure of *Kaṭha Upaniṣad*, Nachiketa,¹ and the notion of *māyā*² through characters with homonyms (Nachiketa and Maya). Ghosh again takes up and updates the philosophical elements as his narrative strategy to subvert the colonial discourse instilled in European science; in this case, in phrenology³ and sanitation.

It is important to remember that this is not about a rejection of European science or analytical reason, but rather about the overcoming of a sense of reason that is expressed only through this science and, as we shall see, also through Western modern technology. *The Circle of Reason* extends its critique to US imperialism as a byproduct

of British colonization intertwined with the British colonial project through references to the Singer sewing machine and to the exploitation of oil in the Middle East.

The Circle of Reason: an overview

The Circle of Reason (1986) tells the story of Nachiketa or Alu, whose big head looks intriguing and seductive to his uncle, Balaram, a rationalist who is dedicated to the study of phrenology and who teaches Alu to love and appreciate modern Western science through the book *The Life of Pasteur*. Balaram's obsession with the study of skulls leads to his obsession with cleanliness when the village of Lalpukur starts receiving Bangladeshi refugees. Balaram attacks his neighbor Bhudeb Roy with carbolic acid and dies in confrontation with the police. Alu is suspected of terrorism and needs to flee, going to al-Ghazira. There, Alu ends up getting stuck for days under the rubble of a building that collapses while he was working. He is saved by two sewing machines that support the weight of the debris. While stuck under the rubble, Alu has a vision of his uncle giving him the mission of creating a community free of money, which again ends in disaster. Once again Alu is persecuted by the police. He escapes to the Algerian desert, where he faces the death of a friend during a theatrical rehearsal. He then decides to return to Bengal, but refuses to carry a copy of the book *The Life of Pasteur*, which is burned in the funeral pyre of Kulfi along with her.

The novel is divided into three parts, "Sattva: Reason," "Rajas: Passion," and "Tamas: Death." *Sattva*, *rajas*, and *tamas* are references to the theory of *guṇas*, which are the constituent elements of all forms of existence. It is very surprising that the main critics of Ghosh's works have paid little or no attention to its importance. Some critics, such as Shyamala Narayan, even point to the supposed "irrelevance" of the theory of *guṇas* to the understanding of *The Circle of Reason*: "The three *gunas* are almost irrelevant to the understanding of the novel; which is concerned ultimately only with reason, and its symbols, the loom, the sewing machine and the book" (Narayan 1988, 53). However, my standpoint is almost the opposite. In my opinion, these critics, influenced by Western theories, have not paid close attention to the fundamental role that the three *guṇas* play in Ghosh's novel. Therefore, I argue that the theory of *guṇas* is a key element in *The Circle of Reason*, because without it the work loses an important critical dimension. In addition, Narayan also seems to ignore some of the most important symbols of Western reason (and racism) presented in the novel i.e., phrenology and sanitation.

The three *guṇas* revisited

Before beginning the analysis of the novel, let me briefly summarize the theory of *guṇas* and how Ghosh applies it to suit his purpose in his novel. Since Ghosh has a close relationship with his birthplace – Bengal – and is influenced by the Vaiṣṇava schools of the Vedanta tradition, which are prominent in this region, the perspective of *guṇas* that will be focused on here is that discussed in the *Bhagavad-gītā*. In fact, throughout the novel, there are other references to Kṛṣṇa, which reinforce the writer's relationship with the Vaiṣṇava thought. However, it is important not to forget that as a postcolonial writer, Ghosh has a specific agenda and, in order to critically deal with themes such as colonialism, Western reason, and science, he also critically appropriates Hindu philosophy. By appropriation, I mean selection and transformation of the theory of *guṇas*. In the same way that

Ghosh weaves Indian popular and classical cultures with Western elements in *The Circle of Reason*, he exercises liberty in the application of the theory of *guṇas*. Therefore, the following overview of the *guṇas* reflects more a way to understand how the three *guṇas* were appropriated by Ghosh than a strict reading of a single philosophical school.

The Vaiṣṇava schools of the Vedānta tradition, prominent in Bengal and focused on the teachings of the *Upaniṣads*, *Purāṇas* and, *Bhagavad-gītā*, postulate that the three *guṇas* are originated from *prakṛti*, commonly translated as Primordial Nature. All manifested beings, and even the gods, are composed by the *guṇas* or inherent existential dispositions as described in the Bhagavad-Gītā: “Sattva, Rajas, Tamas, - these gunas, O mighty-armed, born of Prakriti, bind fast in the body the embodied, the indestructible” (The Bhagavad Gita 1985, 381).

Sattva is the “byproduct” of *prakṛti* related to goodness, happiness, and its virtues. *Rajas* refers to action, passion, and its desires. And *tamas* is said to be nescience and its forms of ignorance. The three *guṇas* originating from *prakṛti* are three fundamental dynamic constituents of the entire universe. As stated in the Bhagavad-Gita: “Sattva attaches to happiness, Rajas to action, O Bharata, while Tamas, enshrouding wisdom, attaches, on the contrary, to heedlessness” (The Bhagavad Gita, 1985, p. 471; 381; 384). The three *guṇas*, although different in qualities, are different forms of attachment to the phenomenal life.

The phenomenal condition of all beings, marked by the existential suffering involved in the cycle of birth and rebirth (*saṃsāra*), implies a condition of disharmony between the three *guṇas*, resulting in a diversity of intensity of these dispositions and consequently all the heterogeneity of the phenomenal world. It is exactly when these ontological dispositions are in disharmony that they hold us in *saṃsāra*. When *tamas* stands out over the other *guṇas*, it holds us through the attachment to the body and laziness, negligence, ignorance, etc. Kṛṣṇa declares the following about *tamas*: “When Darkness is surging up, these [states] arise: unlighted [darkness], unwillingness to act, fecklessness, delusion” (The Bhagavad-gītā 1973, p. 354). When *rajas* stands out over the other dispositions, it holds us through attachment to actions and to the results of these actions. The *Bhagavad-gītā* emphasizes: “When Passion is waxing strong, these [states] arise: greed, [purposeful] activity, committing oneself to works, disquiet, and ambition” (The Bhagavad-gītā 1973, p. 354). The predominance of *sattva* generates an attachment to abstract knowledge, purely theoretical and devoid of any practical application in guiding man’s conduct, to a charitable or spiritual life, etc. (Padhy 2014, 178–179). Likewise, Kṛṣṇa affirms: “When at all the body’s gates wisdom’s light arises, then must you know that Goodness has increased” (The Bhagavad-gītā 1973, p. 354). In the *Bhagavad-gītā*, Kṛṣṇa affirms that it is not possible to free oneself from the three *guṇas*, since all beings are composed of them (The Bhagavad-gītā 1973, 172). So, how can one overcome the attachment resulting from the imbalance of the *guṇas*?

The freedom that is discussed in the *Bhagavad-gītā* is a freedom from the bonds of actions, not exactly from the causes of actions themselves. In other words, it is the freedom from the attachment to the actions and from their respective results, while acting. The way we experience the phenomenal reality as pairs of opposites or *dvandvas* makes us understand this world as a world of dualities, making us unable to think, experience, and live beyond them. For example, to avoid sadness, we seek to do things that make us happy. Dualities become boundaries of our experiences. But if our experiences

overcome these pairs of opposites, we can transcend them and be free of them. However, to experience beyond the dualistic appearances does not mean to reject them, since it is impossible to be in the phenomenal world without dealing with them. The freedom, not from the actions, but from the attachment to the fruits of actions, expressed existentially as an overcoming of the polarization of experience around the dualities, is the condition of equilibrium of the three *guṇas*. This harmonization of *guṇas* reflects the functionality of *sattva* as a moderating instrument, as knowledge that neutralizes or equalizes the impulses of expansions and retractions or desire and aversion that characterize the other *guṇas* (*rajas* and *tamas*). *Sattva*, in this form, is reason in its ultimate dimension, as equanimity and wisdom of life. In the *Bhagavad-gītā*, this state is described as the constant imperturbability of mind. “But he who knows how constituents and works are parceled out in categories, seeing things as they are, thinks thus: ‘Constituents on constituents act,’ [and thus thinking remains unattached,” remarks Kṛṣṇa (The *Bhagavad-gītā* 1973, p. 172). He also adds that “Equal [his mind] in honour and disgrace, equal to ally and to enemy, he renounces every [busy] enterprise: ‘He has transcended the constituents’: so must men say” (The *Bhagavad-gītā* 1973, p. 357). This means that the freedom from the dualities of the phenomenal world is a positioning (imperturbability of mind) in the face of all things, a positioning that permeates our attitudes, words, and thoughts (White 1984, 298).

In classical Hindu philosophy, some of the most common meanings for *sattva* are “truth” and “knowledge,” but it can also acquire derivative meanings such as “goodness,” “bliss,” “beatitude,” and “purity.” *Sattva*, as true knowledge, has the basic function of promoting balance and harmony between the two other *guṇas*. *Sattva* then promotes the overcoming of the dualities of the phenomenal world by the subject. As Kṛṣṇa points out: “Whoever knows ‘persons,’ material Nature, and its constituents to be such, in whatever state he be, he is not born again” (The *Bhagavad-gītā* 1973, p. 346). However, as mentioned above, there can be a “degeneration” of a functional compromise of *sattva* with the harmonization of *guṇas*. In this sense, *sattva* is no longer the instrument of knowledge, but becomes itself an object of attachment, with an aura of knowledge, but ineffective from the standpoint of existential transformation. This is precisely the situation of Western reason, expressed especially by modern science and used as the starting point for the reflection that Ghosh conducts in *The Circle of Reason*.

In the *Bhagavad-gītā*, the spiritual process which human beings should undergo is described as being from *tamas* to *rajas* and then to *sattva*. Ghosh inverts this sequence to suit his post-colonial project. In other words, Ghosh does not only change the idea of Western reason through the use of the theory of *guṇas*, but in this process, he also changes Indian philosophy itself. His critical analysis is not one-sided. In order to deal with a new order of the world – the holdover of colonialism – Indian philosophy has also to be rethought in order to be applied to this new reality. Ghosh introduces the idea of a degenerated *sattva* as the beginning of Alu’s process of enlightenment, followed by *rajas* and *tamas*, which is not considered the last stage of this process, but the last step towards the enlightened reason or the real *Sattva*, thus, closing the circle of reason as the title of the book indicates. As Balaram observes: “Even reason finds itself in events and people” (Ghosh 2005a, 38) and the path of the discovery of reason is tortuous (Ghosh 2005a, 83), which explains Ghosh’s manipulation of the common

order of the three *guṇas*. It is only possible to reach the real *Sattva* after the death of the degenerated *sattva*. The narrative becomes a semantic journey from a reason that excludes other existential dimensions or other rationalities to a wise reason (*jñāna*) that integrates the different dimensions that comprise the totality of existence.

Although Ghosh inverts the general spiritual order of the *guṇas*, he does not lose sight of the affirmation in the *Bhagavad-Gita* that everything in the phenomenal world is composed of the three *guṇas*. Likewise, in each part of his book, it is possible to find references to the three *guṇas*. The first of the book, titled “Sattva: Reason,” is a clear reference to Balaram’s obsession with phrenology. As for *rajas*, Balaram himself asks Alu: “How can one change the world... if one has no passion?” (Ghosh 2005a, 28). In fact, the word “passion,” used by Ghosh as the translation of *rajas*, and its derivatives are mentioned eight times in the first part of the book while in the second part, titled “Rajas: Passion,” it is mentioned only once. Still in the first part of the book, *tamas* is certainly represented by the death of Balaram and other inhabitants of Lalpukur. Although Alu survives the explosion, he is already described as a corpse. The Assistant Superintendent of Police Jyoti Das tells his superior that “there was an accident, sort of, and most of them [the Lalpukur villagers] died. But one got away – there was a *corpse* missing. We managed to trace him to Calcutta. He was hiding with one of his uncle’s associates” (Ghosh 2005a, 153). From the very first part of the book, Alu is described as both living and dead.

The second part of the book, titled “Rajas: Passion,” emphasizes Alu’s preaching to the community of Al-Ghazira (while weaving) about the life of Pasteur and his discoveries. *Tamas* is depicted in the massacre of the people from the Ras, the village in Al-Ghazira, and in a certain way in the collapse of the building on Alu and his ability of overcoming death. When Jyoti Das gives the news of the supposed death of Alu to Jai Lal, the latter observes: “There was nothing in the newspapers about a death. Apparently your man was the only one, and even the authorities probably don’t know” (Ghosh 2005a, 271). *Sattva* is exemplified by Alu’s idealization of a community free of money, but also in the beginning of the transformations that Jyoti Das as well as Alu are undergoing. In the chapter titled “Call to Reason,” one reads: “As soon as the plane took off from Bombay, Jyoti Das knew that the light-headedness he was feeling had nothing to do with the altitude. He had been in planes before; planes didn’t make you feel quite like that. It was a mystery; he could think of no explanation” (Ghosh 2005a, 266). What Jyoti Das starts to feel is the transformation of *sattva*.

“Tamas: Death,” the last part of the book, highlights the death of Kulfi and of the degenerated *sattva*, representing the Western exclusionary reason. In fact, death here is indicative of the transformation of reason itself. After the cremation of Kulfi (and the burning of the book *The Life of Pasteur* along with her), Alu, holding the box of ashes, tells Zindi: “Mrs. Verma gave it to me to take back. She said it would give me a good reason to go home” (Ghosh 2005a, 418). He not only goes back to where the narrative started, but he now has a *good reason* to do so, a reason different from that at the beginning of the narrative, indicating a different *sattva*. The rehearsal of the play is a major example of *rajas*. In Alu and Jyoti Das’s enlightenment after the burning of the book *The Life of Pasteur*, we find an illustration of *sattva*. As we can see, although Ghosh inverts the common order of the *guṇas*, all of them are present in the three parts of the book.

Degenerated *Sattva*: Degenerated reason

The narrator of *The Circle of Reason* points out that the arrival of Balaram's eight-year-old nephew, Nachiketa Bose, was the "real beginning" (Ghosh 2005a, 3). This is not only the beginning of the narrative itself but also the starting point for the process of rethinking or experiencing the enlightened reason (*Sattva*). Due to the large size of Nachiketa's head, Bolai-da, the owner of a bicycle repair shop, nicknames him Alu (Potato). Nachiketa's nickname is extremely suitable for the project that Amitav Ghosh develops in this novel, since the potato refers simultaneously to something that grows inside the earth and to the fact that the potato is not native to India. The presence of the potato in different regions of the world is a symbol of European colonization. Originally from Peru, it was brought to Europe by the Spanish and introduced to other continents by European colonization. It is only at the beginning of the seventeenth century that the potato comes to be cultivated in India (Sharma 2008, 149–150). Alu is, thus, the one who simultaneously represents local traditions (Nachiketa) and foreign ones (potato). However, it is important to remember that it is from the ground where the potato grows that it takes its nutrients for its survival. In much the same way, Ghosh takes from India (Hindu philosophy) the raw material to deal with what is foreign (European modern science), thus overcoming the duality emphasized by the West between science and religion.

Accordingly, the first chapter of the book is entitled "Reason," which points to a rationality that was emphasized by the 'West,' which is closely linked to positivism and empiricism. Balaram is the one who personifies this Western reason, precisely because he is characterized as psychologically unstable, which suggests the degeneration of *sattva* as a balancing mechanism. The name Balarāma points to the elder brother of Kṛṣṇa. In all *Purāṇas* and the *Mahābhārata*, Balarāma is always mentioned along with Kṛṣṇa. Balarāma does not only instruct Kṛṣṇa in the various arts, but also devotes himself to helping him, always standing by his side in conflicts and battles (Joshi 1979, 1). In *The Circle of Reason*, the character Balaram does not deal with a deity (Kṛṣṇa), but with science. Here we encounter one of the many ironies of the novel, because in reality, science becomes for him a deity which he follows so blindly that he cannot think outside the structures of modern Western science.

One can see how immersed Balaram is in Western science through his analysis of Alu's head. Unlike the heads of other people, which are generally smooth, Alu's head is a festival of protuberances and depressions that, contrary to standard phrenological maps, did not develop in different 'organs.'⁴ Thus, Alu's head confuses Balaram for "unfamiliar reasons" (Ghosh 2005a, 8). Throughout the novel, Ghosh plays with the word "reason," pointing to a reason that Balaram is unaware of. Balaram also states that Alu's head had no respect for the discoverers of phrenology, suggesting that heads should fit theories. However, Alu's head is a symbol of resistance to the classification of phrenology and a challenge to the foundations of European science. After many years, Balaram still insists that if Alu read Spurzheim or Gall, he would change his head, because he could not live with such confusion (Ghosh 2005a, 8–9). Ghosh ridicules the way phrenologists used to fit the analysis of the objects to their theories, since this kind of attitude was very common among European phrenologists.⁵ Balaram's confusion or unsuccessful mimicry is used to question the supposed empiricism of phrenology and hence the idea of a Western scientific superiority.

Failure to understand the configuration of Alu's head begins to generate serious concern in Balaram. Alu's head presents a lump where the lowest and least desirable propensities were located, according to British phrenologists. Destructiveness, Amativeness, Secrecy, Combativeness, and Acquisitiveness were all within the realm of possibilities ascribable to Alu's lump, from Balaram's point of view. He feared he would not be able to identify those 'organs' in time to prevent Alu from committing a crime (Ghosh 2005a, 9).

Nevertheless, Balaram's analysis proves to be wrong, since with time the protrusion comes to represent philoprogenitiveness (love of offspring). Besides this, Balaram points out that the cranial region of Alu, where the "organ of veneration" would be, is completely flat, contradicting again the analysis of the heads of Hindus by European phrenologists. For these, protuberances in the organ of veneration were a characteristic of Hindu heads, a proof of their religious inclination. Balaram also questions the lack of similarity between him and Alu, since phrenology, especially when used in criminology or for racial profiles, determined inherited character as well as cranial shapes. "Wasn't that why Lombroso was so celebrated – for demonstrating the hereditary nature of character? Wasn't that why the American laws of 1915 prescribing sterilization for confirmed criminals were enacted?" (Ghosh 2005a, 11).

Ghosh emphasizes that the theories of heredity created by phrenologists had a direct influence on criminologists such as Cesare Lombroso (Rose 2004, 7). Criminology then was used as a "cleansing" tool of society with the Americans emulating British imperialist strategies. In 1915, almost a century after the creation of phrenology as a 'science,' Joel Hunter in his report on the laws of sterilization in the United States, endorses the legalization of sterilization of criminals based on the authorities of criminological medical science (Hunter 1915, 514). The first American state to have approved this project was Indiana in 1907, followed by Washington, California, Connecticut, Nevada, Iowa, New Jersey, New York, North Dakota, Michigan, Kansas, and Wisconsin. What is most surprising is that many people would "qualify" for this project. According to the list of the State of Iowa, "[i]t includes the inmates of public institutions for criminals, rapists, idiots, feebleminded, imbeciles, lunatics, drunkards, drug fiends, epileptics, syphilitics, moral and sexual perverts, and diseased and degenerate persons" (Hunter 1915, 515). The report also presents the opinions of many scientists showing that the nature of dysfunctions were hereditary (Hunter 1915, 519).

The American project of sterilization seems to be yet another plan which focuses on the purity of the human race and the consequent removal of unwanted individuals from society.⁶ Ghosh seems to bring the United States into the scenario of his novel to serve as a counterpoint to his reflection on India. On the one hand there is the United States absorbing the Western reason and emulating the colonial project of elimination of subjects as well as the capitalist expansion (to be discussed below). On the other hand there is India and its negotiation between foreign and native, the modern and the traditional, science and religion. After all, both countries are former British colonies.

Still on the supposed inheritance of character, Balaram, who had no children, imagines how his child would be. However, he realizes that the personality of his wife, Toru-Debi, is different from his, and consequently, his child could not inherit only the personality of one or the other (Ghosh 2005a, 12). Thus, Balaram subtly criticizes the theory of heredity proposed by phrenology. While Balaram was a devotee of European

science, especially the British phrenology, Toru-Debi was dominated by American technology through the Singer sewing machine.

And when at last she saw him, potato head and all, with a few bits of luggage and an impatient relative beside him, the Singer which had so long and so securely colonized her heart wobbled precariously. For a moment. Ten years earlier she might perhaps have pushed the machine away altogether, but at middle age it was too difficult to cope with the unexpected. Besides, the Singer had been part of her dowry; she had seen it for the first time on the morning after the traumas of her wedding night; it was her child in a way her husband's nephew could never be (Ghosh 2005a, 6).

The Singer sewing machine is described as having colonized her heart. The association of the American company's sewing machine with the British colonization is not random. As Stephen Tuffnell describes in his article "Anglo-American Inter-Imperialism," the American community in London served as a transnational space through which the expansion of American business were intertwined with the British colonial project.⁷ The Singer sewing machine that colonized Toru-Debi's heart is, however, associated with something positive, with the comfort needed after the trauma of the nuptials. Ghosh is not against the appropriation of Western science or technology, but is interested in the forms of appropriation of these elements by the Indians.

While Toru-Debi's first contact with Western technology was on the night following their nuptials, Balaram discovered his interest in Western science by chance when he was 13 years old. His father, a timber merchant, only buys light bulbs for his home many years after all the other neighbors. Ghosh emphasizes the magic of science by saying that had Balaram grown accustomed to the lights or had he had contact with it many years later, Balaram would not have been enchanted by them. The narrator points out that "[h]e was bewitched from the very first time he used one of those large, unwieldy switches. After that he couldn't find enough to read about electricity. He read about the Chinese and Benjamin Franklin, and Edison became one of his first heroes. In school he pursued the physics teachers with questions" (Ghosh 2005a, 40).

It was this fascination for science that made Balaram study at Presidency College in Kolkata. Founded in 1817 under the name of Hindu College and in 1855 having its name changed to Presidency College, this university was one of the projects of the Hindu elite of Bengal (*bhadralock*) and their desire to gain access to Western education, not just the study of English, but of sciences as well (Lourdusamy 2007, 39). As a student at Presidency College, Balaram sees with great excitement the arrival of Marie Curie and Frédéric Joliot, French scientists who were able to produce a chemical element from another, for example, radioactive nitrogen from boron. The narrator quickly relates this to the alchemy discarded by European modern science because of its relationship to spirituality (Ghosh 2005a, 16). Balaram feels humiliated by the reaction of the French scientists to his spontaneous comment and says, "They were all the same, all the same, those scientists. It was something to do with their science. Nothing mattered to them – people, sentiments, humanity" (Ghosh 2005a, 16). His criticism reflects the concern of the Hindu elite, in other words, how to humanize European science. However, Balaram

finds the solution in phrenology, through the book *Practical Phrenology*, by stating that this 'science' was different because there was no distinction between the outside and the inside of the person; character and skull were just different aspects of the same thing (Ghosh 2005a, 17). Notwithstanding this lack of distinction, he ignores issues of exclusion, stereotypes, and race involved in his statement. He is completely subject to the dualities of *gunas* because he is blinded by modern Western science.

Although the narrator affirms that Balaram was on a "pilgrimage"; a revival of the steps of Jagadish Chandra Bose (1858–1937)⁸ who taught Satyendra Nath Bose (1894–1974)⁹ and Meghnad Saha (1893–1956)¹⁰ in Presidency College (Ghosh 2005a, 41), his obsession with reason rather than the moderation of reason never lets him succeed as the above mentioned Indian scientists did. Even though Balaram made efforts to be reasonable, sometimes with a little bit of success, he could never sustain it. An example of this is his relationship with the rationalists. Balaram's friend, Gopal, was the president of the Society for the Dissemination of Science and Rationalism among People of Hindoostan, or simply rationalists. In order to not lose members to the recent created Science Association, Gopal decided to create new projects to boost the main objective of the Society, which was not to consider science alone. Their aim was the application of rational principles to everything around them, including religion. Thus, he decides to reinterpret the sacred texts rationally, in order to eliminate supposed perverted ideas by priests and Brahmins, such as the creation of thousands of deities. Contrary to the idea of a multiplicity of gods, Gopal affirms that Brahma "was without attributes, without form, nothing but an essence, in everything and in nothing. In fact, Gopal said in a sibilant whisper, the Brahma is nothing but the Atom," and decides to begin the meetings of the rationalists by saluting the "Cosmic Atom" (Ghosh 2005a, 47).

Here lies the main flaw in Gopal's reasoning. The atom exists in the phenomenal world, while Brahman¹¹ is not limited by it. According to the *Upaniṣads*, nothing exists outside Brahman, therefore, both atom and Brahman have the same qualities. However, one has these qualities in limited degree and the other in absolute degree. While one is mutable, the other is not; while one is affected and undergoes experiences, the other does not. That is why very accurately and ironically Balaram suggests that Gopal begin the meetings by saluting the "Cosmic Boson," since Satyendra Nath Bose discovered that the atom could be divided into smaller particles, called "bosons" obeying Bose-Einstein statistics. Problematizing even more, Balaram suggests that the rationalists should also salute the "Cosmic Fermion" for those particles that obey Enrico Fermi's (1901–1954)¹² statistics. The essential Brahman cannot be identified with the accidental attributes of the objects of the world. The forms, the structural distinctions that we observe in the things of the world are accidental, even though the commonsense perception makes one believe that the ultimate existence of the universe is material. This is the main problem of worshipping analytical reason as religion, instead of realizing the analytical dimension of religion and the questions that cannot be answered by an analytical reason and science which are solely focused on the phenomenal world.

Ghosh ridicules the rationalists who tried to interpret philosophical texts strictly rationally without taking into account their symbolic meaning, stating, for example, that the *sudarśana chakra*¹³ was actually old fireworks and that Jatayu, the mythological bird of *Rāmāyaṇa*, was actually a pterodactyl (Ghosh 2005a, 48). Even though Balaram

tries to escape from this rationalist analysis of the scriptures, he fails to give a meaningful purpose to science. His only idea is to start the “Campaign for Clean Clouts,” in which he tells the rationalists to wash their underwear (Ghosh 2005a, 105). His project initiates the end of the rationalist society and his own immersion into the study of phrenology with even more serious consequences than just rationally interpreting the scriptures.

Balaram’s relationship with phrenology leads him to have even more irrational reactions. He examines the head of the newborn son of Bhudeb Roy, and despite the changes that the cranial configuration of a newborn would undergo throughout life, he declares that Bhudeb Roy’s son will be a criminal (Ghosh 2005a, 24). With the same “sagacity,” he examines the head of a sculpture of Saraswati, the goddess of knowledge, stating that the bulge on the clay means vanity (Ghosh 2005a, 29). It is in this environment that Alu grows. Balaram instills in Alu a passion for Pasteur’s life by reading to him the book *The Life of Pasteur*. But as Alu does not like to study, Balaram finds a solution: Shombu Debnath, Maya’s father, is asked to teach weaving to Alu. Balaram thereafter affirms that Alu’s interest in weaving was due to the bulge below his hairline, the “organ of mechanical sense.” According to the narrator, “Once the organ was identified everything else became blindingly clear – Alu’s huge hands, his squat stocky frame. Even the mysterious attraction that drew him to Shombhu Debnath’s home. How could he cheat his destiny?” (Ghosh 2005a, 54–55). The expression “blindingly clear” is carefully chosen by Ghosh, since this reason has the pretension to be enlightening, but in fact, only obscures Balaram’s understanding, especially because what draws Alu’s attention to Shombhu Debnath’s house was his interest in Maya.

Ghosh then starts a profound reflection on the loom in one of the most beautiful passages of the novel. The loom, according to Balaram, despite transforming man into a mechanical being, does not turn him into an automaton, as European and American industries did to men as depicted by Charles Chaplin in *Modern Times*. On the contrary, the loom transforms man into a creator of his own world. Precisely because the weaver is also a creator of worlds, he understands the world he lives in. Kathryn Kruger, in her book *Weaving the World*, writes: “Weaving has long been a metaphor for the creation of something other than cloth, whether a story, a plot, or a world. Hence, it follows that the weaver is a natural metaphor for the Creator, and just as a cloth can be woven and thus a world created, so can it be unraveled. Hence, this creator has the power to destroy” (Kruger 2001, 23).

This creator of worlds, as stated above, understands the world in which he operates, since he realizes his creation within the Creation. Kruger also reminds us that in numerous passages of the *Upaniṣads*, Brahman, together with his consort Māyā, is the supreme god of creation “on whom the worlds are woven as warp and woof (Kruger 2001, 24).” She explains that while Brahman weaves the universe in the threads of eternity, Māyā weaves in the threads of time, that is, the things of the world. Through Māyā’s loom, there is a chain of creation in which eternity (Brahman) flows unseen (Kruger 2001, 24). In *The Circle of Reason*, when Alu goes from apprentice to weaver, Shombhu Debnath says: “-The world is now your challenge. Look around you and see if your loom can encompass it.” Alu then weaves numerous *butis* or decorative patterns, including a “Maya-buti” (Ghosh 2005a, 80–82), as an allusion to this greatest Creation. To

understand the world in which he creates is to be beyond the dualities of the phenomenal world while being in it.

Edward Domick, in his article “On Māyā,” discusses the different interpretations that the term *māyā* has in the Hindu philosophical schools. In the ‘West,’ it is common to see the translation of this term as ‘illusion,’ something that is not true. Indeed, Domick rejects this interpretation. He demonstrates how the Gaudiya Vaiṣṇavas define the term *māyā* as the *śakti* or power of the deity and, therefore, it is not an illusion, but a different dimension of the deity. At the same time while *māyā* is an intrinsic aspect of the deity, the deity is not just *māyā*. This ambiguous situation, which demonstrates both identity and difference, called *bhedabheda*, according to Domick, underlies the Vaiṣṇava perception of the true nature of all relationships of what is generally perceived as opposites (Domick 1991, 524). According to the Vaiṣṇava philosophy, *māyā* would be the power of self-limitation of the deity. It is the aspect of the power of the deity that allows us to know it, which allows the relationship between the finite and the infinite to be established, even if it is not fully understood. So *māyā* should not be understood as illusion, but as a different form of being. *Māyā* is also reflected in the temporal and spatial plan and, therefore, in the plane of motion and change (Domick 1991, 526).

Balaram said that the loom never allowed the division of reason (Ghosh 2005a, 55), since different rationalities are involved in the art of weaving. The loom also connected continents. Fabrics from India went to Rome and to parts of Africa, fabrics from China went to India, and with them legends, music, and other cultural elements of these people flowed from one place to another. India offered its cotton to the world. The Indian cotton was traded in countries as far away as Greece and Mesopotamia. Notwithstanding this harmonious history of the dispersion of the fabrics from the handloom to other continents, this situation is transformed into bloody events by Europeans. Balaram affirms that it all began in England, in the sixteenth century, with the invention of the mechanical loom by William Lee, and its posterior transformation into an industrial loom by inventors such as Arkwright and Kay. It is only at this point that the machine drives “men mad” (Ghosh 2005a, 57):

Lancashire poured out its waterfalls of cloth, and the once cloth-hungry and peaceful Englishmen and Dutchmen and Danes of Calcutta and Chandannagar, Madras and Bombay turned their trade into a garotte to make every continent safe for the cloth of Lancashire, strangling the very weavers and techniques they had crossed oceans to discover. Millions of Africans and half of America were enslaved by cotton (Ghosh 2005a, 57).

After the invention of the mechanical and industrial looms, England decided to change its strategies for the benefit of its own weavers. In need of raw material, Britain used India and the Americas to meet the need of fibers such as cotton. In order to do this, England forbade the production of fabrics in the colonies and forced them to just produce the raw fibers to be sent to them, so that there was no competition with the English industrialized product. Even handloom could no longer be manufactured in the colonies. In addition, Britain forced the population of the colonies to buy fabrics and English clothes at inflated prices. In a few decades there was a severe impoverishment of those living from the art of weaving and trade (Kruger 2001, 144). The Indian textiles were first banned

around 1700 and again at the end of the century. Between the eighteenth and nineteenth centuries, India was beset by severe shortage of food in areas under the East India Company government and later the British Crown (Selin 1997, 961). The scenario was of such destruction that it led Lord Bentinck, the general governor of India, in 1830, to say that the Indian plains were whitened by the bones of the cotton weavers (John 2012, 79). It is with this background in mind that Balaram recalls that:

Every scrap of cloth is stained by a bloody past. But it is the only history we have and history is hope as well as despair.

And so weaving, too, is hope; a living belief that having once made the world one and blessed it with its diversity it must do so again. Weaving is hope because it has no country, no continent.

Weaving is Reason, which makes the world mad and makes it human (Ghosh 2005a, 58).

It is not possible to change the past. The only possible thing to do is to accept it and transform the present according to our needs. Therefore, weaving is also hope – hope of humanization for what has been reified. The character Shombhu Debnath calls the loom “Kamthakur” or “God of work,” emphasizing the relationship between manual labor, the work of the weaver, and divinity (Ghosh 2005a, 79). Weaving, according to Balaram, is reason that makes the world simultaneously mad and human. Weaving as colonial reason is the cause of destruction; however, as a reason that restores creativity and the divine, it is humanizing and liberating.

As Kruger points out, weaving is closely connected with language. She says that, in literature, weaving becomes a tool to signify and its fabric is a text inscribed with political messages (Kruger 2001, 23). It is simultaneously the weaving of threads and stories. According to Kruger, “The connection between weaving (textiles) and language (texts) becomes so entangled as to be almost impossible to separate. In many languages, including English, the verb *to weave* defines not just the making of textiles, but a creative act. Likewise, the noun text comes from the Latin verb *texere*, also meaning “to construct or to weave” (Kruger 2001, 29).

Ghosh is the great weaver of this narrative that interweaves his criticisms and his ironies. The latter seeks to harmonize the dualities and oppositions that Europeans always emphasized, trying through negotiations with Hindu philosophy to harmonize them. He himself, through the narrator, emphasizes the relationship between weaving and language: “[I]t is because the weaver, in making cloth, makes words too, and trespassing on the territory of the poets gives names to things the eye can’t see. That is why the loom has given language more words, more metaphor, more idiom than all the world’s armies of pen-wielders” (Ghosh 2005a, 74).

In *The Circle of Reason*, Ghosh weaves the foreign element, the native classical traditions, and the popular culture into a unique fabric. For example, Shombhu Debnath learns the art of weaving from the Boshaks of Tangail (currently located in Bangladesh). The aim is to rehabilitate a reason which became exclusionary in the colonial projects, and turn it into a reason that is multifaceted, diverse, and inclusivist, as a post-colonial project. Alu learns the art of weaving and it is in the loom that he makes love to Maya. Recalling that the name of Alu is actually Nachiketa, a reference to the character of

Ka ha Upani ad, who perceives things beyond their dualistic appearances, Alu joins Maya, who represents the *śakti* of divinity and the phenomenal world, while weaving in the loom. This is the perfect image of creation within the Creation. It is the overcoming of dualities within the dualities.

However, this harmony is disturbed by Balam's instability of reason (degenerated *sattva*) when, concerned about the flow of refugees to Lalpukur and their lack of hygiene, he decides to sanitize the entire village with carbolic acid. Balam's concern increases when he realizes that Bhudeb Roy wants to build streets and straight roads, a clear reference to a typical feature of colonial planning. Simultaneously, Balam feels that Bhudeb Roy wants to destroy his carbolic acid. Balam affirms that, "Bhudeb Roy lives in mortal fear; there is nothing in the world that he fears as much as carbolic acid. His whole life is haunted by his fear of antiseptic. He'd do anything, go to any lengths to destroy my carbolic acid. He fears it as he fears everything that is true and clean and a child of Reason" (Ghosh 2005a, 100). Although his friend, Gopal, asks Balam to be reasonable, an allusion to the balance characteristic of *sattva* and to the harmonization of the three *guṇas*, Balam insists that Bhudeb Roy's objective is to destroy his carbolic acid. He grounds his impression on his analysis of Roy's skull.

In order to have an income to buy more carbolic acid, Balam then has the idea of building the Pasteur School of Reason, which has two departments: the Practical Reason, with weaving classes, and the Pure Reason, with mathematics classes. This project is yet another attempt to unite the opposites, the concrete reason and abstract reason. However, Balam proclaims himself as the Fount of Reason, which shows the prominence of *sattva*. In Balam, *sattva* is not liberating but becomes itself the attachment to reason. Since it is not in balance with the other *guṇas*, being an exclusionary reason, he decides to create a third department, the Militant Reason or the March of Reason, which is aimed at disinfecting the village.

Sanitation was also a very common practice of the British colonial administration in India. Sanitary measures were taken in order to preserve the life of the British, especially the military. Some of these measures were related to better nutrition, the provision of drinking water, and improvement of tents in the cantonments. In the "Report on Measures Adopted for Sanitary Improvements in India," we see that carbolic acid was a common tool for the success of some of these projects. Before the occupation of carriages by the troops, the carriages of the second and third class should be washed with boiling water. To each gallon of water, a wine-glass full of carbolic acid was added. Then sulphur should be burnt inside the carriages. The doors and windows should remain closed on the sulphur fumes for two hours ("Report on Measures Adopted for Sanitary Improvements in India" 1870, 208).

Since the focus of the measures was the health and well-being of the English, James Beattie points out that these reforms showed the rising gap between Indians and Europeans, especially with the cantonments separating the Indians from the European settlements (Beattie 2012, 104–105). In *The Circle of Reason*, neither Balam nor Bhudeb Roy absorbs the idea of the straight roads or sanitation creatively. Bhudeb Roy uses his project to exalt his name and his ego among the inhabitants of Lalpukur while Balam turns his distrust of Bhudeb Roy into obsession, starting a real war against him. Bhudeb Roy calls Jyoti Das, the Assistant Superintendent of Police, and tells him that Balam is an extremist. Before the arrival of the police, Shombhu Debnath tries to convince

Balaram to stop the attacks against Bhudeb Roy. Shombhu still tells Maya that all misfortune is only Sri Kṛṣṇa recalling how the world is (Ghosh 2005a, 102). In other words, the misfortune experienced in the phenomenal world is caused by the confusion created by our immersion in the dualities. But Balaram, immersed in a reason that does not enlighten, is unable to see beyond appearances. Shombhu tries to alert him to the dangers of this reason that only brings destruction:

You must stop this: this is madness. There's no reason to go on like this. No reason. Stop; I beg you, stop, and go away somewhere for a few days.

Balaram ran his eyes coldly over him. Certainly not, he snapped, and turned back to look at Bhudeb Roy's house.

As the knowledge of his helplessness slowly dawned on Shombhu Debnath, his face crumpled. He groaned: *He Shibo-Shombhu*. Balaram-babu, you'll destroy everyone without even stopping to think about it. You're the best sadhu I've ever known, Balaram-babu, but no mortal man can cope with the fierceness of your gods (Ghosh 2005a, 142).

If science is not humanized, it brings destruction. Balaram's chosen god becomes proof of this. Bhudeb Roy, led by Jyoti Das, arrives with the police at Balaram's house and everybody, with the exception of Alu, dies in an explosion. As the title of this chapter – “Sattva: Reason” – suggests, Balaram is immersed in reason, but this immersion is not enlightening; instead, it blinds and holds him further as a prisoner in the dualities. Early in the novel, Bhudeb Roy calls Balaram a “confused extremist” (Ghosh 2005a, 35), a perfect expression to describe Balaram's situation, since extremist reason confuses more than it reveals.

Rajas: Passion

Alu, who escapes the disastrous fate imposed by the degenerated *sattva*, “only sees the flames of the known world licking the skies” (Ghosh 2005a, 149). It is in this phenomenal world that Alu embarks on his journey to *rajas* (passion). Alu is taken to Kolkata, where he meets Gopal Dey, a friend of Balaram, who gives him a copy of the book *The Life of Pasteur* and helps him to get to Mahé in Kerala.

Blisters begin to appear on Alu's body, while in the boat *Mariamman*, on their way to al-Ghazira, in the Middle East. Gopal says that “it's only Balaram trying to come back to the world” (Ghosh 2005a, 155). Although Sankara Rao Chinnam and Pallavi Saxena state that “[t]he boils represent and symbolize not only the spirit of Balaram but also of the cry for justice of the oppressed masses,”¹⁴ this justice and oppression are not discussed in any of their texts. Therefore, I believe that the blisters symbolize Balaram's concern with the purity of the body and the presence of germs, that is, with this empirical reasoning, since the name of the boat on which Alu embarks – *Mariamman* (the goddess of smallpox) – suggests that the blisters are symptoms of smallpox.

According to Susan Bayly, the goddess Māriamman is identified with forms of diseases such as cholera, smallpox, and other skin diseases that produce fever. The blisters of smallpox are particularly understood as Māriamman's pearl necklace. When irritated, she breaks it, dropping the pearls. It is believed that, if she is not worshiped properly, one is affected by the disease because the person's body is possessed by the goddess

herself. Bayly also adds that there is no distinction between affliction and its relief or disease and its cure, since the disease is the wrath of the goddess and its cure the appeasing of her, if the diseased performs the correct rites and makes offerings that please the goddess and cool down her anger (Bayly 2003, 133).

The convergence of opposites in the figure of the goddess Māriamman indicates that she is simultaneously the cause and the cure of the disease. Also relevant to this work is to know that the diseased has his body possessed by the goddess. In the novel, Alu is possessed by the goddess. However, since he is in the boat *Mariamman*, which symbolizes the body of the goddess, he is also inside her body. Zindi helps Alu with the blisters and, after a few days, they burst and heal.

The boat *Mariamman* was used to smuggle people from India to al-Ghazira. Besides Alu and Zindi, there are numerous people, including Karthamma, who is in labor, but tries to postpone the delivery of her baby until the documents for the entry to al-Ghazira are signed. So that neither she nor her baby dies, Alu lends his copy of *The Life of Pasteur* for Karthamma to make her think she is signing the immigration documents (Ghosh 2005a, 180). This book, which throughout the novel is one of the main symbols of Western science, is appropriated and used to give continuity to life.

In al-Ghazira, Alu starts working in the construction industry in order to earn money to buy a sewing machine. The building in which Alu works collapses on him. Ghosh places, side by side, two interpretations for the collapse of the building or, in other words, two dimensions of the same event. Some say there was a lot of sand in the concrete while others say that the building collapsed because it was built over the tomb of a sheik, contravening the will of the local population (Ghosh 2005a, 264). Alu is saved because two sewing machines bore the brunt of the rubble. Again, Ghosh uses another symbol of Western reason in a different and positive way. It is important to remember that Toru-Debi, in the first chapter of the novel, states that only the sewing machine could save them (Ghosh 2005a, 136). Alu's friends were amazed to see that he had survived the disaster:

We had to stand there and stare at this man, hardly more than a boy, buried alive under a hill of rubble, with death barely an inch from his chest, and miraculously still alive. All we could do was marvel; all of us, we marveled, for there was not a man amongst us who had seen a thing like that before (Ghosh 2005a, 241).

Alu's name is Nachiketa who, according to *Ka ha Upani ad*, was the only person alive who went to the residence of the god of death (Yama). Alu, at this point in the narrative, starts to become Nachiketa. One of the villagers affirms that, "[i]t is no exaggeration to say that many people in that situation would have died of shock. And, far from being dead, he seemed to have come out a new man altogether, if such a thing is possible" (Ghosh 2005a, 275). In this state of suspension between life and death, he has contact with the spirit of Balaram, thinks of dirt and cleanliness, and decides that it is time to make war against money because, as Balaram said at the beginning of the novel, it is not possible to change the world if one has no passion (Ghosh 2005a, 28). Alu considers money a form of impurity and the beginning of all problems. Money was the motivation for the British to colonize India and other parts of the world, thus bringing much power to England while depleting India.

Exploring the criticism of passion for money, Ghosh brings to his work the issue of oil exploration by the British and Americans in the Middle East that turns humans into objects. In his review of *Cities of Salt*,¹⁵ entitled “Petrofiction,” he compares the oil exploration in the Middle East to the European maritime expansion. He points out that the maritime expansion in the sixteenth century in search of spices stimulated the imagination of the people of that time, creating a rich literature. On the other hand, the oil exploration in the Arabian Peninsula and the Persian Gulf by the Americans was literally sterile (Ghosh 2005b, 138). He also recognizes that Indians are in the midst of labor used in oil exploration, a project that turns people into mere tools for capitalism: “they were brought as weapons, to divide the Ghaziris from themselves and the world of sanity; to turn them into buffoons for the world to laugh at” (Ghosh 2005a, 261).

By bringing the suffering of those whose lives have been objectified by neo-imperialism, Ghosh humanizes them, while Alu embarks on his war on money, because it is the passion (*rajas*) for money that makes men mad. Alu speaks to the crowd every night while weaving quickly: “He was talking softly, but there was a force in his voice which carried it over the clicking of the shuttle, so that nobody missed a word; an extraordinary force, perhaps you could call it passion” (Ghosh 2005a, 279). The force that transforms Alu is *rajas*, dynamism, movement, the passion that makes him talk to the residents of his village about the life of Louis Pasteur, his experiments, and discoveries. In a way Balaram’s war and Alu’s are similar because both are against impurity. Nevertheless, the narrator highlights: “Reason is not a good weapon with which to wreak revenge” (Ghosh 2005a, 24). Like Shombhu Debnath, who tried to make Balaram give up his war, Zindi also foresees the destruction: “We’re ruined, all our years of struggle wasted because of a few days of madness” (Ghosh 2005a, 184).

Alu is blinded by *rajas* and does not realize that the important thing is not to refuse or eliminate the presence of money, but what we do with it. Let us remember that Ghosh’s project is based on the reality in which we currently are in order to transform it through a critical thinking that does not accept colonial reason and its products (science, technology, capitalism, etc.) in a blind manner. What he suggests is to escape the dualities, for example, the money representing evil or impurity, while its absence would represent good or purity. While Alu convinces the residents of Ras to get rid of all their money, Jyoti Das, the Assistant Superintendent of Police, who was still following Alu, learns that Alu himself is dealing with money. One day, when Alu and his followers are on their way to the collapsed building to rescue the sewing machines, a police helicopter lands and people are massacred by the police. Zindi escapes with Alu and Kulfi (Ghosh 2005a, 342). Therefore, Alu’s passion for combating money causes the destruction of almost everybody.

Tamas: The death of an exclusionary reason

Alu then begins his journey through *tamas*, death, limitation, restriction, by escaping al-Ghazira and arriving in El Oued in the Algerian Sahara. Alu begins to experience *tamas* not only in his introspection, but through his physical appearance. The narrator says: “The thumbs had stiffened and the skin had sagged over the bones, like a shroud on the skeleton” (Ghosh 2005a, 370). The hands of the weaver, unutilized by the stiffened thumbs, put an end to *rajas*, passion. Kulfi reminds Alu that the only thing that

he is left with is his eyes (Ghosh 2005a, 374), because it is time to see beyond appearances.

In El Oued, Zindi and Kulfi meet Dr. Verma who, in her spare time, tries to keep alive the Indian traditions among the small community of immigrants. And it is at her house that Alu finds a copy of *The Life of Pasteur*. Meanwhile, Dr. Verma decides to present *Chitra*, popularly known as *Chitrangada*, a drama by Rabindranath Tagore, at an annual party. Tagore was one of the most important figures in Bengal who incorporated in his various artistic and philosophical projects elements of the Indian popular and classical cultures, as well as those of Europeans. Tagore is one of the major representatives of Indian modernity. He is a symbol of union between the modern and the traditional, as well as the local and the global. The reference to the drama *Chitrangada* is especially chosen by Ghosh for being strictly in line with the theory of *gunas* that propels the narrative of *The Circle of Reason*. Dr. Verma explains that the drama is based on a legend from the *Mahabharata*. Chitrangada, the daughter of the king of Manipur, is brought up like a man who knows how to hunt and fight. Although she has these qualities, she is not pretty. One day, seeing the beauty of the great hero Arjuna, she falls in love with him. She declares her love for him, but he turns her away. After Chitrangada gets the boon of beauty for one year from the gods, Arjuna falls in love with her without knowing that she is Chitrangada. As the year passes, Arjuna hears more and more about Chitrangada and longs to meet her. Chitrangada then realizes that appearances do not matter. At the end of the year, when her beauty disappears, she opens up to him that she is Chitrangada. She declares that, although she is not beautiful, she gives him the heart of a true woman. “Then Arjuna, too, sees that beauty is only deception, an illusion of the senses” (Ghosh 2005a, 383–384).

Both Chitrangada and Arjuna, initially immersed in the confusion of appearances and trying to conform to them, overcome the appearances and realize that true love and companionship are not found in the external features, but beyond them. While the play *Chitrangada* brings us to the theory of *gunas* and the elimination of the confusion created by appearances and dualities (beauty and ugliness, for example), this drama also relates to the elimination of the binary modernity-tradition, since it leads us to the Hindu elite project of incorporating modern Western values in negotiation with Indian traditions. Sutapa Chaudhuri in her analysis of the play shows that Chitrangada, aware of both her feminine and masculine attributes, wants Arjuna as her equal; someone who would respect her as she really is: “She is aware of her potential and ready for her vocation as an equal to man in the new egalitarian world order” (Chaudhuri 2015, 232).

Dr. Verma invites Kulfi to interpret Chitrangada and, to Alu’s and Zindi’s surprise, Jyoti Das, who also knew the doctor, is asked to perform as Arjuna. Jyoti, who until then was considered a bird of prey in search of Alu, shall not anymore represent danger because his path in search of Alu has become an inner journey in search of the true meaning of things.

Tamas, death or restriction, is not only represented in Jyoti’s abandonment of the pursuit of Alu or in the deformed fingers of the latter. It is also experienced in the physical death of Kulfi, during the rehearsal of the drama. Kulfi’s death is an opportunity for Ghosh to adapt some elements used for the funeral. The Hindu funeral in the middle of the Algerian desert has to be rethought. Soybean oil is used in place of clarified butter (*ghee*) and carbolic acid replaces the water of the Ganges. The character Dr.

Mishra states: “The world has come full circle, he groaned. Carboic acid has become holy water” (Ghosh 2005a, 411). The carboic acid which in the first part of the novel was used by Balaram to attack Bhudeb Roy, and historically by the British as a separation between the Indians – “source of dirt and contamination” – and the English, becomes the “holy water” for a Hindu funeral ritual. Ghosh does not reject these or many other elements that are part of the current reality of many former colonies, but imbibes them with a spiritual dimension. Dr. Verma remembers: “Nothing’s whole any more. If we wait for everything to be right again, we’ll wait for ever while the world falls apart. The only hope is to make do with what we’ve got” (Ghosh 2005a, 416–417). This passage is also a reference to the main character of *Things Fall Apart* by Chinua Achebe. Okonkwo ends up committing suicide after seeing his culture, tradition, and village being transformed by the arrival of missionaries and British colonizers. Ghosh has a much more optimistic view of the present that has irreversible marks left by Europeans. He once again reframes elements brought by the Europeans by giving them a positive and religious value. *Tamas* is required for all new starts. As Professor Samuel said before being deported from al-Ghazira: “This is not the end, only the beginning. ...The queue of hopes stretches long past infinity” (Ghosh 2005a, 409).

It is clear that death is only the beginning of a new life, of a new way of experiencing the world, and of experiencing oneself in the world. Alu’s journey through the three *guṇas* and the reader’s journey through the novel is a revival of a comprehension and of an experience that go beyond appearances. As the narrator of the novel notes: “...here is another lesson: Blindness comes first to the clear-sighted” (Ghosh 2005a, 247). And it is the book *The Life of Pasteur* that serves as the symbol of the recovery of this subtle vision. Balaram, while giving his copy of the book to Dantu, one of his friends, says that one day the book will help him remember Reason. And Dantu, with his own handwriting, writes in the book: “To remember Reason” (Ghosh 2005a, 395). Alu does not want to keep the book and gives it back to Dr. Verma, who also does not want it. She then has the idea of giving it a funeral, by putting it in Kulfi’s pyre to be burned alongside with her (Ghosh 2005a, 415).

Tamas is the death of a limited reason, which has the empiricism and positivism as its foundation and the seeing/experience of a Reason that includes all rationalities; a reason that is more than paradoxical, as mentioned by Ashuman Mondal (2007, 52). I believe that it is multifaceted and inclusivist. And this process is reflected in the physicality of Alu. Movements return to Alu’s thumbs and Dr. Verma assures him that there is nothing wrong with his body. She adds: “all you have to do to cure yourself is try to be a better human being” (Ghosh 2005a, 413). When *sattva* functions as a balancing mechanism of the other two *guṇas*, the subject reflects upon his physical, verbal, and mental actions, as stated in the *Bhagavad-gītā*, in order to reach and maintain the imperturbability of mind. This is what I believe “becoming a better human” as mentioned by Dr. Verma means. During Kulfi’s funeral, we realize that even Alu’s head represents the transformation of reason: “Zindi hardly recognized Alu when she first saw him with his head shaven. He was changed, diminished. It was as though the clouds had lifted from some perpetually misted mountain; without his hair his head looked plain, ordinary, even smooth. You’re another man today, she said. I’ve never seen you before” (Ghosh 2005a, 418).

Alu, as a new man, and Zindi decide to return to India, where better sewing machines are now made, according to Jyoti Das. The sewing machine may have dominated the loom, but it is up to the tailor/weaver to notice in this symbol of Western domination “the inexhaustible miracle which can join together two separate pieces of cloth” (Ghosh 2005a, 155).

Jyoti Das, whose name means “servant of light,” finally finds the enlightenment that his name suggests: “Jyoti Das’s face was radiant, luminous, as though a light were shining through him” (Ghosh 2005a, 422). He was in peace and ready for a new beginning, since “[h]ope is the beginning” (Ghosh 2005a, 423). As Balaram said, reason is hope and it seems that this hope of a new life arises from the discovery of Reason-*Sattva*, the enlightened reason. And with this, the “circle of reason” closes. Alu-Nachiketa travels from one exclusionary reason, through *rajas* and *tamas* to reach a wise and liberating reason. He reaches the ultimate knowledge (*jñāna*), and like him, Jyoti also experiences this process.

Conclusion

Gyan Prakash said that India can incorporate Western machines in their national community without thereby becoming itself a machine because its relationship with modernity has been mediated by cultural differences (Prakash 1999, 233). In *The Circle of Reason*, Ghosh shows the same situation with the incorporation of the fruits of Western analytical reason, symbolized through the sewing machine, phrenology, carbolic acid, etc., and its appropriation (selection and transformation) in contact with Indian culture and local needs. However, Ghosh goes further. Using Hindu philosophy as a critical tool of this project, he ends up rehabilitating the notion of reason, turning a limited reason into a liberating one, and showing readers that a former British colony does not necessarily have to reproduce the European reason, as some former colonies did, but offers the example of Indian civilization as an alternative.

Endnotes

¹Nachiketa is the main character of the *Ka ha Upani ad*, which is perhaps the most popular among all the Upaniṣads. In this work, his father, Vijasharvas, was making elaborate preparations for the great ritual of Vishwajit, in which some of his possessions should be offered in sacrifice. The one who performed the Vishwajit ritual would be blessed with success and happiness in this life and in the afterlife. On the day of the ceremony, Nachiketa is ashamed to see that his father offers only thin, sick, and old cows. He then thought that if his father offered him (Nachiketa) in sacrifice, the success of the ritual would be guaranteed and asked his father to which god he would be offered to. The insistence of Nachiketa made Vijasharvas irritated and he said he would give him to Yama, the god of death. In order to make his father honor his word, Nachiketa goes to the abode of Yama, but finds nobody. He waits for three days and when Yama returns, he apologizes for having made a Brahmin wait for so long. Yama then offers Nachiketa the right to make three wishes. The first relates to peace for him and his father in this world, which Yama accepted. The second refers to the learning of the *agnihotra* (sacrificial fire), that leads the individual after death to paradise (*svarga*), which is also accepted by Yama. As its third wish, Nachiketa asks Yama to teach him about the mystery of life comprising births and rebirths. Yama asked Nachiketa to

choose another wish. But Nachiketa, realizing the continuity of things, insists on his request. Yama then speaks about the nature of *ātman* that remains after death and which, in the ontological sense, is not different from *Brahman*. After learning about the nature of *ātman* from Yama, Nachiketa was released from the cycle of birth and death (Shastri 2014, passim).

²The self-limitation of the deity that creates the phenomenal world.

³Phrenology (φρήν “mind,” and λόγος, “reason”) is a ‘science’ that seeks to determine the character or personality of the subject by analyzing his skull and brain. It was developed by the German physician Franz Joseph Gall (1758–1828) around 1800 but popularized by his collaborator, fellow German physician Johann Gaspar Spurzheim (1776–1832). The work of Gall and Spurzheim influenced many other Europeans, among them George Combe (1788–1858), precursor of phrenology in England, leader of the phrenological movement in the same country, and founder of the Edinburgh Phrenological Society in 1820. Combe’s ideas and the Edinburgh Phrenological Society were extremely important in the creation of the Phrenological Society of Calcutta (Kapila 2007, passim).

⁴Phrenological term used to describe different regions of the skull.

⁵For example, George Murray Paterson, in his study titled *On the Hindostan*, says that Brahmins have the “organ of veneration” more developed than the lower castes, and concludes that in general the heads of Brahmins are superior in organization than those of other castes (Paterson 1820, 349). Paterson’s analysis seems to suggest that the social structure of caste justifies his phrenological understanding of Hindus rather than the opposite.

⁶Ghosh brings up the issue of American criminology, influenced by European phrenological ideas of heredity. With this, he showcases the disastrous results of absorbing the exclusionary Western reason without transforming it. This is the risk that the character Balaram undertakes in the novel with tragic consequences. Ghosh may have in mind the relationship between phrenology and *samudrikavidyā* that was promoted when a phrenological society was found in Kolkata by Kali Kumar Das, in 1845, almost two decades after the creation of the Calcutta Phrenological Society by George Murray Paterson. The new society was composed exclusively of Indians. The *samudrikavidyā* has Vedic origins and is considered a *vedā ga* (auxiliary knowledge of Veda). Both *samudrikavidyā* and phrenology focused on physical marks as manifestations of differences between individuals. The physical marks suggested an innate predisposition of the individual. For phrenology, however, these predispositions were eventually interpreted in racial and hierarchical or evolutionary terms. As for the *samudrikavidyā*, differences in physical marks would say something about the “self” of the individual. Moreover, *samudrikavidyā* was concerned with distinguishing marks that the individual brought in the fullness of their bodies, not just in their heads (Kapila 2007, p. 502–503). These physical marks were considered *saṃskāras*, thus representing karmic dispositions. With the Calcutta Phrenological Society being taken over by Indians, the relationship between *samudrikavidyā* and phrenology contributed to the recreation of phrenology in the Indian context, enabling integration between science and religion, not in exclusionary or hierarchical terms, but promoting intellectual and spiritual development of each individual. Once their qualities were identified, the individual would be able to develop them. This would be an offshoot of *samudrikavidyā* in the form of

phrenology, a term with greater acceptability among the British. This was a very successful way to absorb Western 'science' changing it through *samudrikavidyā*. A change that neither the character Balamram nor the United States could successfully reproduce.

⁷The international growth of the Singer sewing machine exemplifies this relationship. George B Woodruff, the manager of the sales office in London, became the central figure in the creation of other offices in the British colonies. "Singer expanded into the Indian market in the mid-1870s when Woodruff embarked on an ambitious plan to extend the British colonial business 'to every point on the compass' including South Africa and the Straits Settlements of Malacca, Dinding, Penang and Singapore" (Tuffnell 2014, 185). Tuffnell also mentions that Singer sold 13,352 machines in its last year of operation in India even though they faced obstacles such as inaccessibility of houses, the seclusion of women, and the custom of barter. We note that the sale was about three machines a day even in the last year of operation in India, which suggests a significant number (Tuffnell 2014, 186).

⁸Indian scientist famous for his work on radio microwave optics and on the effect of chemical inhibitors on plant stimuli.

⁹Indian physicist best known for his work on quantum mechanics that provided the foundation for Bose-Einstein statistics.

¹⁰Indian astrophysicist famous for the development of the Saha equation, used to describe physical and chemical conditions in stars.

¹¹Although in the novel, Ghosh uses the word "Brahma," I understand it as "Brahman" due to the characteristics used to describe it.

¹²Italian physicist who created the first nuclear reactor.

¹³A spinning, disk-like weapon with 108 serrated edges used by the Hindu god Viṣṇu.

¹⁴This passage is exactly the same in two different articles: Chinnam, Sankara Rao. 2013. Narrative Techniques of Amitav Ghosh's *The Circle of Reason*. *International Journal of Language and Literature* 1.2: 32, and Saxena, Pallavi. 2015. The Mystique of Magical Realism in Amitav Ghosh's 'The Circle of Reason'. *Research Scholar. An International Refereed e-Journal of Literary Explorations* 3.1: 327. Since Chinnam's article was published in 2013, I believe that the claims of the interpretation of Alu's blisters as a symbol of oppression should be his, although Saxena does not acknowledge its ownership.

¹⁵A quintet in Arabic by the Saudi writer Abdelrahman Munif on the impact of oil exploitation by the Americans in Saudi Arabia.

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References

- Bayly, Susan. 2003. *Saints, Goddesses and Kings: Muslims and Christians in South Indian Society, 1700–1900*. Cambridge: Cambridge University Press.
- Beattie, James. 2012. Imperial landscapes of health: place, plants, and people between India and Australia, 1800s–1900s. *Health and History* 14(1): 100–120.
- Chambers, Claire. 2005. The absolute essentialness of conversations: a discussion with Amitav Ghosh. *Journal of Postcolonial Writing* 41(1): 26–39.

- Chaudhuri, Sutapa. 2015. The quest continues for the new woman. In *The politics and reception of Rabindranath Tagore's drama. The bard on the stage*, ed. Arnab Bhattacharya and Mala Renganathan, 222–235. New York: Routledge.
- Chinnam, Sankara Rao. 2013. Narrative techniques of Amitav Ghosh's *The Circle of Reason*. *International Journal of Language and Literature* 1(2): 25–36.
- Domick Jr., Edward C. 1991. On Māyā. *The Journal of Religion* 71(4): 523–537.
- Ghosh, Amitav. 2005a. *The circle of reason*. New York: Mariner Books.
- Ghosh, Amitav. 2005b. Petrofiction. The oil encounter and the novel. Incendiary circumstances. A chronicle of the turmoil of our times, ed. Ghosh, Amitav, 138–151. New York: Houghton Mifflin Company
- Hunter, Joel D. 1915. Sterilization of criminals. *Journal of Criminal Law and Criminology* 5(4): 514–539.
- John, Ian St. 2012. *The making of the Raj. India under the East India Company*. Santa Barbara: ABC-CLIO.
- Joshi, Nilakanth Purushottam. 1979. *Iconograph of Balarāma*. New Delhi: Abhinav Publications.
- Kapila, Shruti. 2007. Race matters: orientalism and religion, India and beyond c. 1770–1880. *Modern Asian Studies* 4(13): 471–513.
- Kruger, Kathryn Sullivan. 2001. *Weaving the word. The metaphors of weaving and female textual production*. Selinsgrove: Susquehanna University Press.
- Lourdusamy, John Bosco. 2007. *Religion and modern science in colonial Bengal (1870–1940)*. Kolkata: Sujana Publications.
- Mondal, Anshuman A. 2007. *Amitav Ghosh. Contemporary world writers*. Manchester: Manchester University Press.
- Narayan, Shyamala. 1988. The structure of Amitav Ghosh's *The Circle of Reason*. *Litcrit* 140(12): 43–54.
- Padhy, Sachidananda. 2014. Ethno-ecological introspection into Bhagawatgeeta: Guna (quality): the metaphysical factor of nature, responsible for diversity. *Journal of Human Ecology. International Interdisciplinary Journal of Man-Environment Relationship* 45.3(2014): 177–182.
- Paterson, George Murray. 1820. *On the Hindostan. Transactions of the Phrenological Society*. 430–448
- Prakash, Gyan. 1999. *Another reason: science and the imagination of modern India*. Princeton: Princeton University Press.
- Report on Measures Adopted for Sanitary Improvements in India, from June 1870 to June 1871; together with Abstracts of Sanitary Reports for 1869 forwarded from Bengal, Madras, and Bombay. 1871. London: George Edward Eyre and William Spottiswoode
- Rosen, Christine. 2004. *Preaching eugenics: religious leaders and the American Eugenics Movement*. Oxford University Press
- Saxena, Pallavi. 2015. The mystique of magical realism in Amitav Ghosh's 'The Circle of Reason'. *Research Scholar: An International Refereed e-Journal of Literary Explorations* 3.1: 326–331.
- Selin, Helaine (ed.). 1997. *Encyclopedia of the history of science, technology, and medicine in non-western cultures*. Dordrecht: Kluwer Academic Publishers.
- Sharma, B.D. 2008. The origin and history of potato in India. In *History of agriculture in India V pt. I*, ed. Vinod Chandra Srivastava and Lallanji Gopal, 149–158. New Delhi: PHISPC, Centre for Studies in Civilizations.
- Shastri, Kaipu Lakshmi Narasimha. 2014. *Nachiketa*. Bangalore: Litent.
- The Bhagavad-gītā. 1973. *With a commentary based on the original sources by Robert Charles Zaehner*. London: Oxford University Press.
- The Bhagavad Gita. 1985. *With the Commentary of Sri Sankaracharya*. Translated from the Original Sanskrit into English by Alladi Mahadeva Sastry. Madras: Samata Books.
- Tuffnell, Stephen. 2014. Anglo-American inter-imperialism: US expansion and the British World, c.1865–1914. *Britain and the World* 7(2): 174–195.
- White, David. 1984. *The Bhagavad-gītā's conception of human freedom. Philosophy East and West* 34(3): 295–302.

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