Abstract

The story 'The Unicorn expedition' by Satyajit Ray, with Professor Trilokeshwar Shonku as the protagonist, presents an alternative scientific discourse where scientific explanations and mythic mysteries meet half way. The porosity is visible not only in Shonku's pursuits but also in the nature of Dung-lung-do and the members undertaking the expedition. Even though Shonku is a strong advocate of science, mythic mysteries are not completely rejected but rather considered as a limitation of the present scientific discourse. The paper will analyse whether the scientific discourse of Shonku resembles ancient scientific discourse of India or its methodology in so far as it is received by the West. My paper intends to examine how Ray uses the medium of science fiction to initiate a dialogue with the scientific discourse of the recent colonial past. I argue that he writes back, using the tool of fiction. The paper will use other Shonku stories in order to substantiate the argument.

Keywords: Alternate Scientific Discourse, Orientalism, Philosophy of science, Professor Shonku, Satyajit Ray.

'The Unicorn Expedition' (henceforth 'Unicorn') by Satyajit Ray is placed in the discursive entanglement of science and mythology as the plot is balanced between scientific explanations and mythic mysteries. Professor Trilokeshwar Shonku, a strong proponent of science, never dismisses anything as 'wholly imaginary.' The 'strange beings' in 'Unicorn' can have both scientific and mythic explanations. The aim of the paper is to conduct a philosophical inquiry of the scientific milieu in which Shonku and his contemporaries are situated. I intend to analyse whether Ray frames the discursive universe of Shonku based on the ancient scientific discourses of India; in terms of reception by the western world, methodology and so on. Thus, in this paper I want to investigate how Ray uses the medium of science fiction to initiate a dialogue with the scientific discourse of the recent colonial past and whether he writes back, using the tool of fiction. I will also use other Shonku stories to substantiate my argument. The paper will also argue how Ray has used myth to point at the limitations of Western

Science. Thus in the course of the paper, I also intend to argue that Shonku's position in these stories both falls within as well as challenges the notion of Orientalism.

According to Samir Okasha, if one looks at science from a 'philosophical perspective,' one can question the 'assumptions that are implicit in scientific practice'. A philosophical inquiry of science enables one to delve into the nuances of scientific pursuits, from methods to construction of theory. One may point out that the stories fall under the category of science fiction and not popular science. One may also argue that science fiction cannot be used as a medium to write back as science does not rely on fiction but rather on facts. However, if we probe further into the history of this genre in colonial Bengal we can see how the fiction belonging to this genre shared a very porous border with that of science. There existed three kinds of stories which were based on 'the new sciences.'3 They 'comprise fiction; nonfictional accounts of stories behind common inventions and the stories of the lives of scientists; and essays on scientific topics, not all of which are speculative;'4 therefore they are not completely divorced from science or its methods. The term Kalpavigyan, a Bengali equivalent for science fiction, was coined by Adrish Bardhan, Bodhisattva Chattopadhyay defines it as 'a type of literary production that draws upon the natural sciences or the scientific method for at least a part of its narrative argument.'5 According to Chattopadhyay, Jagadish Chandra Bose is considered the father of Kalpavigyan or science fiction as Bose's works are reflective of the porous nature of Indian scientific discourse. Ashis Nandy, as quoted by Chattopadhyay, argues that Indian imagination, especially during the late colonial period, was 'non-dualist' in nature where verifiable knowledge shared space with spiritual knowledge.6 Science and scientific pursuits were not divorced from spiritual pursuits. Even though Bose relied heavily on empirical methods, he considered it a spiritual pursuit. According to Chattopadhyay, it was common in several late colonial figures.

Even though Ray is doing what every science fiction writer does, encapsulating non-fiction in the language of scientific writing, there are also instances where he is writing back using this medium. A philosophical exploration will help in understanding Shonku's ways and theories. Considering the Indian perception of science, especially during the time Ray situates Shonku, the late colonial period, Ray's fiction is reflective of

the actual scientific discourse of India at that time. It shows an attempt on Ray's part to give his fiction a touch of reality.

The journey in the story 'Unicorn' starts with the assumption that '[t]here are still many unexplored regions in Tibet' and that there is a possibility of the existence of very rare species of animals. Shonku cites the accounts of scholars like that of Pliny the Elder and Aristotle and therefore hints at the possibility of using natural science as an aid for exploring the existence of such a species of animals. Shonku states that even though 'the unicorn has been known as a product of human imagination' he has 'some hesitation in using the word imagination'. Apart from treatises of natural historians, he also relies on the seals extracted from the 'diggings at Mohenjodaro' which had, among the carvings of other animals, 'representations of a beast unknown to us...bull-like creature with a single curved horn growing out of its forehead.' Even though archaeologists reject it as a creature of imagination, Shonku finds it hard to believe that the ancients would depict a creature which is not real.

In the story, 'Professor Shonku And The Cochabamban Cave' (henceforth 'Cochabamban Cave'), we find a similar kind of doubt regarding archaeological depictions. Shonku gets involved in an altercation with the character of Professor Porfirio Cordoba, a Bolivian scientist regarding the age of the cave paintings. Cordoba has problems with Shonku and his associate, Hugo Dumbarton, calling the Cochabamban cave primitive. After examining the condition of the paintings, Cordoba rejects them as objects of imagination but Shonku finds it really hard to consider them as imaginary. Along with those ancient animals, the caves also depict an animal which is a strange fusion of giraffe, rhino, alligator and porcupine. Unlike the unicorn being a creature of the imagination which came to life owing to the nature of Dung-lung-do, the creatures depicted in this cave are actually present. They were on the verge of getting attacked by the animals but an earthquake saves them.

A closer look at the members, undertaking the expedition, reveals an interesting conglomeration of people and the different ways in which they engage with science and mythology. Shonku undertakes the journey in order to explore Tibet because he believes it to be a storehouse of otherwise extinct species. Shonku finds it quite hard to relegate the unicorn to the realm of imagination. Even being an advocate of science, he finds it hard to reject 'tantra and yogic meditation.' His neighbour, Mr Avinashchandra

Chatterjee, as Shonku states in 'Professor Shonku and The Gorillas,'is'the most un-scientific man on earth'. ¹² Avinash Babu undertakes this trip to have a 'glimpse of Lord Shiva's own mountain Kailash and also owing to the fact that his 'his wanderlust has been aroused' after accompanying Shonku, on his trips twice. ¹³ Kroll is an anthropologist who believes in science and occult practices at the same time. He believes that Unicorns exist but still resorts to 'spells and incantations' in order to know whether or not their expedition will be successful in 'Unicorn'. ¹⁴ Saunders, another character, does not believe in magic at all. Even his extensive knowledge of Tibet has not changed his views. The readers are unaware of the inclination of Markham in this regard but he turns out to be a thief masquerading as a traveller.

The previous paragraphs talk about the porous nature of Shonku's scientific universe. Not only does mystery dominate each of his scientific exploits, even Shonku's frequent companion, Avinash Babu harbours a radically different idea about science and religion If we take into consideration the other members undertaking the Unicorn expedition, we see that it is reflective of the scientific milieu where myth shares space with science. However, Western scientific pursuits considered the natives unreliable. In the following paragraph, I intend to show how Ray uses Shonku to play on this unreliability. It is Shonku's mysterious presence along with his esoteric inventions that establish him as a superior scientist.

The testimonies of the natives, during the colonial period, were considered unreliable and the western scientists relied heavily on their scientific methods like that of census. According to David Arnold, 'books were produced in the late 1800s and early 1900s, in an attempt to "know" India systematically and scientifically.' 15

Shonku's esoteric inventions and discoveries challenge the British tendency to 'know' India and their other colonies. In 'Professor Shonku and the Egyptian Terror' (henceforth 'Egyptian Terror'), the character of Dr James Summerton, a British archaeologist, is saved from the fatal bite of a scarab beetle with the help of the medicine called 'Miracurol' invented by Shonku. The medicine 'was made of some really weird ingredients'. He decided to not let Summerton know about the ingredients as it would make him think that Shonku had lost his sanity. India lacked a 'systematic investigation of specific diseases'. Shonku uses the colonizer's own language to challenge them by successfully treating an unknown disease

with a medicine which has bizarre ingredients. Arnold, while stating how Britain claimed to have a 'secure understanding' of the Indian, simultaneously also stressed on the fact that the approach 'imperfectly...equated power with knowledge'.¹⁸ Shonku's alternative knowledge challenges and dismantles this power as Summerton is saved only with the help of Shonku's formula.

In 'Professor Shonku and the Bones' (henceforth 'Bones'), he fails to record the chant which could bring back the dead to life. Instead, the chant is replaced by a laughter which is at the same time threatening and also mocks his failure. He faces similar limitations regarding the scientific breakthroughs that he keeps encountering. Either the spatial or technological barriers prevent the dissemination of knowledge. Therefore, what is supposed to benefit the scientific community remains a mystery. Shonku's laboratories, as Upamanyu Pablo Mukherjee argues, also act as spaces where modern science has a symbiotic relationship with ancient science. The ancient form of science is often unexplainable and magical in nature. Shonku records the chant as he '[w]as determined to defeat this affront to his scientific sensibility'. Later in the story, when he meets the sadhu again, the holy man brings back a dinosaur to life. During that moment, when he stares at the face of death, Shonku accepts that mystery defeats science.

Arnold²¹ states that, the colonizers employed Science as a means to rule the empire. Science was used to legitimize the rule. It was also used to effectively govern the people under their rule. Therefore, science acted as a means to justify the colonial rule. Shonku on the other hand is a scientist in his own right. He is often accused of being an egoist. When he faces failure while creating life in 'Professor Shonku and the Amazing Creature,' he is comforted by the fact that he is not the only one conducting this experiment. The creature which he manages to create is a miniature version of his own self. The story is not just about how Shonku manages to prove his international peers wrong, but also the fact that Cornelius Humboldt wants to take the credit for himself and even plots to get Shonku killed. The appearance of a miniature version of Shonku establishes him as the sole creator and the entire credit goes to Shonku. Thus, what Humboldt wants to do for himself is actualized by the creature for Shonku. However, the creature disappears and leaves a mystery behind. This incident not only shows Shonku's egoistic nature but also shows how he finally succeeds but

like most of his inventions, it disappears without proof thus remaining a mystery. Thus, his success not only helps him to reclaim the centre but the disappearance that follows keeps the procedure away from the international scientific community.

In this story he uses the aura associated with Indians to escape from a plan designed to murder him. He deliberately tells that many Indians 'have supernatural powers'. He uses 'omniscope' to outwit Professor Humboldt. Shonku's 'omniscope' can be used as a 'microscope, telescope, or xrayscope. '23 In 'The Sahara Mystery' (henceforth 'Sahara'), he exploits the same kind of wonder associated with India to get out of a precarious situation, although here he uses superstition to counter another kind of superstition. In the story, Shonku's fellow travellers accuse him and his fellow associate Summerville of inviting misfortune. They are blamed for 'infernal drumbeats'24 carried to their ears by the wind. Shonku starts chanting verses from Sanskrit texts and only stops when he uses his meteorological knowledge to feel that the wind is about to stop. However, even Shonku and his associate are bewildered that the drums stop beating as soon as the wind drops. It also brings to our notice the complex nature of Sanskrit language. Simona Sawhney, while talking about Sanskrit texts, argues how it depends on the reader to grant 'whatever mystery the texts might disclose or withhold.'25 Ray begins the series by simply presenting to the readers whatever that is there in Shonku's diary. It is up to us to decide whether they are true or not. Ray often takes real places and conflates them with mysterious events.

Jayant V. Narlikar argues that '[t]he oral transmission of texts across generations may well be responsible for corrupting the original information.' However, Narlikar also talks about the fallacious nature of the 'claim that our ancestors were advanced (if not more) in science and technology as we are today.' He talks about how such claims lack 'quantitative descriptions' which could explain the ways of creating 'guided missiles and missiles that wreak havoc comparable to modern nuclear weapons' in ancient Indian epics. Those who make such claims often justify the lack of a clear formula or 'technical description' by stating that they 'were destroyed in the frequent ravages brought about by invasions in India.' These 'gaps' of knowledge, like the lack of technical description or the lack of basic amenities like that of electricity in ancient times, falsify such claims. He argues that the writers of these ancient texts

may have 'had wide imaginations' and this got 'reflected in the descriptions of weaponry or magic.' At times, even Shonku resorts to this Indian tendency to believe the myths even though he sternly places himself in the domain of science. However, as stated earlier, considering the time Shonku was situated, science was considered something bigger than mere empirical pursuits.

Pratik Chakrabarti points out that even though 'scientific research in colonial India' questions the 'Eurocentric approach of Western Science', the model of inquiry is rooted 'firmly within the contours of European Epistemology.'28 Even though most of the scientific experiments or expeditions take place in non-European places like that of Egypt, Tibet, Baghdad, Bolivia, The Sahara Desert in Africa or places in India like that of the Nilgiris and so on, the West still features as an important agent in the world of Shonku. According to Chattopadhyay, Shonku's stories escape 'glib and narrow nationalism.'29 In 'Unicorn', Shonku uses his 'stun-gun' to defeat the gang of robbers who attacked the 'English explorer' Willard.³⁰ In 'Sahara', Shonku talks about how he interacted with Professor Hektor Demetrius and 'sent him some information' on ayurvedic medicine as Demetrius was doing a research on ancient medicines. He was a Greek biologist who was educated in Cambridge. Although he came to know about his British education later, the fact that Shonku could add to the knowledge of a British scholar increases his sense of self-worth.31 Moreover, Greece is often considered as the place from which Western civilization emerged. In 'Egyptian Terror', as already mentioned, Shonku's bizarre medicine cures an English archaeologist. 32 Shonku creates artificial life at a Laboratory in Switzerland in 'Amazing Creature'. 33

Shonku's interaction with the West can be analysed in relation to the discourse of Orientalism as articulated by Edward Said. According to Bill Ashcroft and Pal Ahluwalia, Said defines Orientalism as 'a way of defining and 'locating' Europe's others'. Said intervenes in order 'to illustrate the manner in which the representation of Europe's 'others' has been institutionalised since at least the eighteenth century as a feature of its cultural dominance.' Even though the West lays an important role in the fictional universe of Shonku, it never enjoys a superior position. Shonku is always superior to them, both in terms of moral and intellect. This brings to light Shonku's egoism for the second time. His egoistic behaviouris also an attempt to subvert the idea of natives being passive receptacles of European

quests. Said's publication of *Orientalism* 'has continued to be the site of controversy, adulation and criticism.' Apart from attracting criticisms from several disciplines, Mona Abaza and Georg Stauth comment on how this discourse addresses only the movement from the West to the East and thus failing 'to address the long history of "productive cultural exchange." With the 'flow of knowledge' between the centre and the periphery, the natives became an integral part of the discourse of science. Scientific experiments conducted in the colonies, by the natives, 'no longer seemed a mere extension of European methods.' Shonku's inventions are not only independent but also defy European knowledge.

J. J. Clarke comments on the 'age-old ambivalence in the West's attitude towards the East. The East is perceived, at the same time, as the 'fount of an ancient wisdom' and also as 'an alien region of looming threat and impenetrable mystery.' The ambivalent relationship that West shares with the East is fuelled by 'a whole range of familiar stereotypes and myths'. Thus, placing them 'in a variety of opposing or complementary relationships with each other.'38 In 'Bones', Shonku, on encountering the holy man and his ways, writes that '[p]erhaps, in fifty years, science will be able to explain it; but certainly at this moment, all of this is incredible.³⁹ Mysteries, beyond science, are projected as knowledge which may be explained later with the advancement of science. Therefore, Ray uses the medium of Shonku to point at the limitations of both the colonial as well as the Western scientific discourses of the present. William Jones's works reveal his 'empathy towards the Orient, his attempt to make the intricacies of Eastern knowledge respected and accepted within Western Scholarship.'Even though Jones was 'never consistent in his attitude, hostility towards Eurocentrism characterised much of [his] Orientalist work.' Jones's comment on the superiority of Sanskrit as a language, 'initiated a kind of "Indomania" which gave rise to an obsession that a study of the Orient could 'offer an explanation of the roots of European civilisation itself'. However, the exercise of knowing the East never questioned 'the supremacy and importance of European civilization.'41 Even though Jones wanted to know about the nature of Asia, he still considered the Royal Society of London as his model for the Asiatic society of India. 42 Shonku differs in this respect. He recognizes their presence but never places them at the centre.

Shonku's location in Giridih⁴³ and not in Kolkata, the imperialist capital,

is also interesting. During the colonial period, the climate in India and other colonies were considered as favourable for various scientific disciplines. Even though the studies were largely Eurocentric, tropical countries provided an important base for research. Even the journeys of 'various European scientist[s]' became an important part in their theories. For example, Charles Darwin, Alexander von Humboldt and Ami Boupland talk about South America.⁴⁴

Shonku's firm belief in Science echoes the way certain colonial scholars perceived India. But as Chattopadhyay argues, Shonku gives room for those 'phenomena that science has not yet been able to explain'. Thus 'the mythological, the unnatural, and the paranormal begin to be reabsorbed into narratives as sources of alternative hidden knowledge.' The divide between science and myth becomes the difference between science and alternate parameters of science. 45 Therefore, Shonku never does away with myth in its totality. Dung-lung-do is another important part of our argument. Tibetans believe it to be 'a place surrounded by a high wall which is impossible to scale. Nobody knows what lies beyond the wall.'46 The natives always knew about it but none tried to go there for a long time. Shonku and his associates manage to go beyond this wall to reach the valley. The flora and fauna of this place bears no resemblance to that of reality. Any attempt at collecting samples is rendered useless. One can use the theory of evolution through natural selection and descent with modification, as proposed by Charles Darwin, in order to understand the mystery. The theory proposes that every species has a single point of origin. Every act of reproduction gives rise to a variation owing to genetic modification caused by several factors like that of 'geographical distribution, geological succession, and so on. Natural selection is the preservation of those modifications which are favourable and destruction of the other. 48 This theory could be used to explain the impossibility of bringing the creatures out of that place as it changes the natural environment of the flora and the fauna. Even while speculating the presence of a creature called unicorn, Shonku falls back on the same theory of extinction owing to natural selection. Shonku believes that Unicorns did exist in ancient India, and that there is a possibility that they still exist in Tibet.

However, Shonku negates his own speculation by stating that creatures of imagination are brought to life by belief. According to him, if a lot of

people believe in the existence of a creature, it will come to life the way humans imagined it. So Dung-lung-do is such a place where imagination comes to life. The place, therefore, is an amalgamation of several myths. One can use the template of Buddhism to understand the mystery of the place. The place resembles a Buddhist *mandala*. According to Barry Bryant, *mandala* 'means "centre and surrounding environment." It is 'a pictorial manifestation of a tantra.' *Tantra* is the way of life lead according to the teachings of the Buddha.⁴⁹

The mind plays an important role in *tantra* and thus the mind becomes 'a repository of these actions and the impressions they make'; thus defining our past and the future. 50 Therefore, the emphasis is not placed upon the creation of 'something of material value' but upon the process of meditation while doing it.51 The mandala is dismantled after the service is over and '[t]he dismantling ceremony [is] as solemn and as important as the construction of the mandala itself.'52 Therefore, one finds a lot of similarities between the two structures. Apart from the Dung-lung-do being a place surrounded by walls, it is also about the power of the mind that brings everything to life. The mysteries coming to an end is similar to the dismantling of a mandala. This is not the only Buddhist reference in the text of 'Unicorn'. Firstly, it is the mantra of 'Om Mani Padme Hum', which has been used without any proper description. It is the most common mantra which is recited in Tibetan Buddhism. However, the mantra means 'the jewel in the lotus' and it invokes the imagery of a lotus 'emerging from the mud.' It is meant to hint at the 'purified mind' which has gained enlightenment. Shonku, using it at the end of the story, reveals the elevated status of his mind after witnessing a place which places mind above everything else. Secondly, they visit the monastery which goes by the name 'Thokchum Gompa.'54 We also get to know about Milarepa, a flying saint in Tibet⁵⁵ and come across a dead lama who was 'two-hundred years old.'56 There is also a mute lama whose prediction through gestures became clear only after Shonku realizes that there are unicorns but 'not in reality.' The influence of Buddhism was also a part of the 'social and political transformations of the twentieth century. 'Thus '[t]he interest in Buddhism was one of the facets of Oriental exchange that took place on the twentieth century.,58

Shonku's surname cannot be pinned down within a particular caste.

India saw the emergence of a scientific community which rose to prominence in the late 1800s. However, caste and class played an important role. One's success or even participation was largely decided by one's social position and access to opportunities. Shonku's social position subverts the hegemony of the '[b]engali bhadralok'. Who enjoys the privilege of caste and wealth. Avinash Babu, on the other hand, being a Brahmin by birth, always mocked Shonku's scientific investigations. However, his trips with Shonku bring about a gradual change in him. Therefore, Shonku's family name becomes a conscious choice on thepart of the author. Chattopadhyay also argues how 'Shonku displays throughout his narratives a disdain for wealth and patents, and he pursues his research solely to be recognized by the larger world. Thus, both class and caste are challenged by Shonku's unique social position.

According to translator Gopa Majumder the character of Shonku is inspired by Heshoram, a character created by Sukumar Ray. Heshoram, on the other hand, is a parody of Professor Challenger, a character created by Sir Arthur Conan Doyle. The character of Heshoram and his two associates, in Sukumar Ray's short story, 'The Diary of Professor Heshoram Hunshiyar' talk about bizarre creatures. Professor Heshoram engages in the act of naming these creatures. He imitates both the Biblical act of naming on the part of Adam and the usage of Latin in scientific taxonomy of the West. Thus, this act of naming challenges two major Western sources of authority.

This blurring of boundaries is rendered problematic when it is transformed 'into a defence of cultural and religious chauvinism.' The series starts with the information, in the story 'The Diary of a Space Traveller,' that the narrator got Shonku's diary from a character called 'Tarak Chatterjee'. The enigma around the protagonist and his ways is owing to the fact that Professsor Shonku was introduced by a diary; this also gives a scope to dismiss them as a story concocted by Tarakbabu. We are reading the diary of a scientist who has disappeared mysteriously. Perhaps the eccentric scientist wanted others to read his diary. There is also a possibility that the character of Tarakbabu is lying. When he is asked about the way he got hold of the diary, he starts with a tale based in the Sunderbans. The narrator informs us how Tarakbabu has this irritating habit of dragging the theme of tiger into whatever he had to say; thus hinting at the possibility of fabrication. In this case, however, it was about a

meteorite which fell and created a huge crater and the diary was lying 'in the middle of the crater.' Tarakbabu visited the affected place to procure tiger skins but found none. So he picked the diary up and sold it to the author as he was financially not sound. The author did not believe in his story. Amidst this atmosphere of scepticism, the author suddenly notices that the ink with which the diary was written changing colour. ⁶⁴ Thus one can say that these texts were not meant to be chauvinistic accounts by the author.

Therefore, one may argue that Ray is using the tool of mythology in order to counter the Western epistemology. Shonku also makes certain claims which are completely false. In 'Cochabamban Cave', he says that he 'was the first to read the ancient script found in Mohenjodaro and Harappa.' However, there were also certain European myths which conflated with history. Chakrabarti talks about 'Europe-glorifying maps that drew Europe as the centre of the global distribution of land masses.' It was a part of the natural history of the nineteenth-century. Therefore, one can see how the fabricated discourse of science was determined by 'the discourse of power.' Shonku challenges this power structure and comes up with a new discourse of science where this equation changes.

Endnotes:

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- ⁷ Ray, *Unicorn*,p. 193.

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- ⁹ Ray, *Unicorn*, pp.160-90.
- ¹⁰ Ray, *Unicorn*, p.236.
- ¹¹ Ray, *Unicorn*, p.194.
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