

Indian Science Fiction: Myth Or Reality

Urvashi Kuhad^{1*}, Pritam Panda², Jai Singh³

¹Assistant Professor, Department of English, Ram Lal Anand College, University of Delhi South Campus, New Delhi

²Assistant Professor of English, JDSG College, Bokakhat, Assam

³Associate Professor, Department of English Literature, The EFL University, Hyderabad

Citation: Urvashi Kuhad, et al (2023), Indian Science Fiction: Myth or Reality, Educational Administration: *Theory and Practice*, 29(4), 2163-2167

Doi: 10.53555/kuey.v29i4.6969

Submitted: Oct- 06-2023 Reviewed: Oct- 28-2023 Accepted: Nov-11-2023 Published: Dec- 10- 2023

Introduction:

Indian epics- the Mahabharata and the Ramayana are the greatest literary works full of stories on virtues, life lessons, spirituality, social and political order, relationships, etc. The *Vedas*, *Puranas*, and *Shastras* are also replete with knowledge, wisdom, stories and incidents. The common point to observe in such notable ancient Indian works is that each document or story etched in them carries aspects that are realistic and demonstrate scientific rigor irrespective of the time in which they were written or narrated. They are timeless works. While discussing the emergence of science fiction in India, Joan Gordon in her research paper “Introduction: Indian Science Fiction” traces the rich tradition of Indian science fiction to the ancient times when she says:

“India’s very rich tradition begins not with Mary Shelley or Jules Verne, for instance, but perhaps with the *Ramayana* (circa sixth-century BCE). It has different definitions and aesthetic principles, a different relationship to fantasy, and a canon that includes Jagadish Chandra Bose and Satyajit Ray rather than Isaac Asimov and Arthur C. Clarke. Its science may be Ayurvedic as well as Newtonian, with triggering events revolving around historical traumas that are different from the Western tradition or from the Chinese. Far from estranging, this alternative history becomes increasingly normalized and familiar the more deeply one considers it. And it demonstrates that there are many alternative histories of science fiction, all equally true.” (433).

Apparently, they seem fictional but these works hold a social, spiritual, political, philosophical, psychological, cultural and scientific base and that theorizes their universal relevance even today. However, the scientific community eagerly dismisses myths as conjectures of little value, the re-enactment of mythic narratives in various timeframes and in various communities around the world refer to the universal tenor of the myths. Various examples include the Promethean myth, which is symbolic of the creator-creation dynamics. This creator-creation dynamic finds a new representation in the current AI revolution where humankind is at tenterhooks anticipating a massive digital colonization and exploitation.

Despite its ancient roots, the modern science fiction developed during the British colonial period sometimes as a resistance to colonialism, sometimes as a kind of translation of the European science fiction, and sometimes as a result of inspiration from the European science fiction. Suparno Banerjee quotes Science fiction authors Vandana Singh and Anil Menon who acknowledge this particular aspect during their blog discussion, “Menon (another prominent SF author) claims, “Indian” SF seems to have come out of the native experience with the inscrutable British. (The Portuguese and French dominated areas don’t show a similar evolution.) Perhaps it’s satisfying to think that Indian SF originated in a true alien-contact story” (21). Suparno Banerjee in his *Indian Science Fiction Patterns, History and Hybridity* supports the stand taken by Vandana Singh and Anil Menon when he says:

Indeed, such a take on the emergence of the genre is not at all far-fetched when we look at the early works displaying major SF qualities – narrative of the future, technological marvels, alien encounters, space travel, application of scientific principles to manipulate nature, utopian politics and so on – during the nineteenth century. Most of these early texts show a clear connection to the British either through direct references or through indirect ideological discourses. The fact that such qualities emerge in Indian literature at the height of British colonial rule lends further credibility to Menon’s opinion. This development is even more noticeable because of its coincidence with similar literary trends in the

industrialised nations of Europe and America. Kylas Chunder Dutt's 'A Journal of Forty-Eight Hours of the Year 1945', the first text that display SF-like qualities by setting its actions in the future, was published in 1835, only seventeen years after Mary Shelley's *Frankenstein* (1818, England), eleven years after Faddei Bulgarin's *Plausible Fantasies or a Journey in the 29th Century* (1824, Russia), the same year as Edgar Allan Poe's *Hans Pfaall – a Tale* (1835, USA), and almost thirty years before Jules Verne's *Five Weeks in a Balloon* (1863, France). Indian SF thus responded to the sociohistorical developments of the nineteenth century somewhat similarly (although ideologically very differently) to the industrialised West. (21)

By following, the argument mentioned above it can be said that Indian science fiction in nineteenth century, twentieth century, and twenty first century is an amalgamation of Indian traditional elements taken from Sanskrit literature, Vedas, mythology, and folklore etc. along with the scientific ideas that infiltrated from Europe. During this time, the impact of European science fiction is clearly visible on the Indian science fiction. Suparno Banerjee in his *Indian Science Fiction Patterns, History and Hybridity* foregrounds the impact of Indian Epics, Puranas, and folklore on Indian science fiction when he says that Indian science fiction

“is influenced by the ‘cognitive’ mode of Euro-American SF, development in science and technology as well as by the ancient traditions of myths, legends, ghost stories and folk tales of India. Although this mythical/Indian tradition has been highly influential in the development of Indian SF along with all other Indian cultural productions, seeing SF as a direct progeny of these works does a disservice both to SF and to the epics and Puranas. While SF primarily seeks to ground its speculation and extrapolation in a zero-world based on rational and materialist explanation of the author’s natural universe, the epics and the Puranas ground their worldview primarily in religious faith – in a relationship between the natural world and a divine supernatural order. If we accept this thesis, then it is only in the nineteenth century that we first notice works displaying SF qualities.” (22)

Indian epics- the Mahabharata and the Ramayana are the greatest literary works full of stories on virtues, life lessons, spirituality, social and political order, relationships, etc. The *Vedas*, *Puranas*, and *Shastras* are also replete with knowledge, wisdom, stories and incidents. The common point to observe in such notable ancient Indian works is that each document or story etched in them carries aspects that are realistic and demonstrate scientific rigor irrespective of the time in which they were written or narrated. They are timeless works. For the science community they seem fictional but these works hold a social, spiritual, political, philosophical, psychological, cultural and scientific base and that theorizes their universal relevance even today. However, the scientific community eagerly dismisses myths as conjectures of little value, the re-enactment of mythic narratives in various time- frames and in various communities around the world refer to the universal tenor of the myths. Various examples include the Promethean myth, which is symbolic of the creator-creation dynamics. This creator- creation dynamic finds a new representation in the current AI revolution where humankind is at tenterhooks anticipating a massive digital colonization and exploitation. India has had a rich tradition of imparting knowledge through storytelling, songs, arts etc. from one generation to another. The scientific achievements of ancient Indian scholars are often termed as mythology. It could be because of invasions, colonial period, modern education system, industrialization, globalization, and many more. Gradually, western theories and philosophy penetrated in to the education system and the scientific innovations and inventions of ancient times appeared alien to modern readers. The influence of western science was such that we started looking critically at our own culture and traditions and viewed much of it as mythical practices. In the age of modern times, with developments in science reaching its peak, it is important to acknowledge and understand that the Indian civilization always had its share of great surgeons, scientists, mathematicians, thinkers, astronomers, etc. since times immemorial.

Discussion:

As stated earlier, the ancient Indian works and their practices hold a great scientific base. In The *Shrimadbhagavadgita*, Bhagvan Shri krishana states that Arjun, under my aegis, nature brings forth the whole creation, consisting of both sentient and insentient beings; it is due to this cause that the wheel of *Samsara* is going round. In Vedic literature, it is mentioned, “yad brahmande tat pinde”, which means that whatever is found in the human body is also present in the universe. Smallest particles move around the nucleus and, the largest planets also follow the same principles. Our ancestors were capable of exploring the entire scientific hypothesis with the help of yogic practices. For example, Maharishi Patanjali wrote in his book *Patanjali Yoga Sutra*, “chandre taravyoohajnanam” (PYS 3/28). By making ‘samyama’ on the moon, comes the knowledge of the cluster of stars and “nabhichakre kayavyoohajnanam” (PYS 3/30). By making ‘samyama’ on the navel circle comes the knowledge of the constitution of the body. If at all imaginary stories were told in an exaggerated way in those works, it is necessary to note that they were written keeping scientific principles into consideration. These principles have possibilities of due application in the current time. So the ancient scholars who shared their ideas and philosophy may seem mythological or fictional to the modern word but there is a scientific base in their ideas, if investigated impartially. It could be their astronomical claims (concept of universe, solar

system), mathematical calculations (vedic mathematics, chakravala method to solve a cyclic algorithm), medicinal explorations (Ayurveda, plastic surgery, cataract surgery), etc.

Science fiction is one of the popular contemporary literary genres, which has its presence in media, literature, art, Internet, etc. It provides an '*imaginary picture*' of technology that can be hoped to achieve or achievable. When the imaginary science literature i.e. science fiction becomes reality through research and innovations, it appears as technology once imagined or envisaged which comes true, "Science fiction is also termed as scientifiction and sci-fic. Hugo Gernsback, a renowned sci-fic editor coined this term. He defines it as "a charming romance intermingled with scientific fact Not only do these amazing tales make tremendously interesting reading-they are always instructive".

Science fiction is a form of literature that basically deals with the impact of real, fantasy or imagined tales of science and technology. Science fiction as a genre is of modern origin and has found a significant place in literature, movies, art, etc. With the advent of technology, sci-fi has found a new place in the literary and creative world.

In the modern period, notable names in the field of science fiction are Edgar Allan Poe and H.G. Wells who are also pioneers in science fiction. On the Indian front, Jagdish Chandra Bose, Bal Phondke, Jayant Narlikar, Bhoosanurmah and many others have contributed immensely to the world of science fiction. Even the mythological authors of recent times like Amish Tripathi, Devadutt Patnaik and others are writing works based on Indian ancient mythological classics. In his book *Gyanganj*, Mahamahopadhyay Pandit Gopinathkaviraj claims that his Guru Swami Vishuddhananda Saraswati has the power to convert marigold into a rose. The red colour appears so because of the reflection of red rays. He makes this possible by using reflection of red rays, which are absorbed by marigold. Therefore, marigold appears as a rose. Science also claims that states of material can be changed.

Myths and Reality:

Myth is usually a story, narrative, misconception, plot, imaginary thought, etc. Mythology is also demonstrated as a collation or group of myths. In the ancient times, myths were mostly about religious and cultural aspects. These myths or stories have been passed from one generation to another through oral tradition. Most ancient civilizations are full of stories, be it Greek, Indian, Chinese etc. As against myths, reality is of the present time, not an imaginary idea or feeling. It is more influenced by science, facts and truth etc. Sometimes a myth may be realistic yet it is considered a myth or vice versa. Tom Lombardo highlights the importance of myths and terms them realistic models for society building. He comments, "We also need mythic characters that provide role models. Though ancient myths can be criticized for personifying the origin and workings of nature and the cosmos, such personifications of reality facilitated a psychological resonance between the myth and the human mind." (Lombardo 10)

While discussing on myths as active agents of present day socio-cultural change, Malinowski conveys, "Myth as it exists in a savage community, that is, in its living primitive form, is not merely a story told but a reality lived. It is not of the nature of fiction, such as we read today in a novel, but it is a living reality, believed to have once happened in primeval times, and continuing ever since to influence the world and human destinies". (81) Further commenting on the function of myths, Malinowski comments, "Myth fulfils in primitive culture an indispensable function: it expresses, enhances, and codifies belief; it safeguards and enforces morality; it vouches for the efficiency of ritual and contains practical rules for the guidance of man." (82)

Thomas Disch further comments on the role of myth-making by commenting "As mythmakers, science fiction writers have a double task, the first aspect of which is to make humanly relevant- literally, to humanize – the formidable landscapes of the modern era" (22). Tatiana Chernyshova, another critic, sheds some light on the ontology of myths and its mode of operation. She comments, "Mythology as a unitary, albeit contradictory, image of the world naturally did not come into being all at once; but empirical myths strive to coalesce into a system-their cyclical character attests to this. In the course of forming the canonical myths, the ancient world reshaped old legends, arranging everything around the central focus of Olympus, and the earlier pagan gods were replaced by the Olympians". (Chernyshova 346)

Not all myths may be true but some myths possess a scientific base and come closer to the reality. It is mentioned in the *Shrimadbhagavadgita* that Bhagvan Shri krishana tells Arjun that before birth, beings are not manifest to our human senses; it is after death they return to the un-manifest state again (Gita2/28, Gita Press edn.). Matter can change into energy i.e. un-manifest and energy can produce matter, according to Einstein. *Shrimadbhagavadgita* also explains that as a man sheds worn-out garments, puts on new ones, likewise, the embodied soul, casting off worn-out bodies enters into a new body (Gita 2/22).

Ancient Indian science theories seem 'mythical stock' to the modern world but not all the ancient myths fall in the group of 'just myths'. Before discussing about Indian ancient works, it is important to note that many of these ancient Indian works were written in Sanskrit, a 3500-year-old language, also widely accepted as the most scientific ancient language in the world. Even NASA the same has acknowledged the same. This is so because- in Sanskrit, the words are written exactly in the manner in which they are spoken. It is a respected language across the globe in the present times too. Not only Hindu scholars, but also even Buddhist and Jain have scholars; have made use of Sanskrit in their works.

Ancient Indian works are often described as mythology. However, there is sufficient amount of literature that simply cannot be termed as mere mythology. How can Patanjali's *Yoga Sutra* be termed as mythology; how can Charaka's *Charaka Samhita* and Susrata's *Susruta Samhita* be categorized as mythological works? All these three and many more ancient Indian literary works (*Siddhanta Shiromani*, *Gola Addhyaya*, etc.) hold a scientific base and therefore *Yoga and Ayurveda* are practiced in the modern times too. So, the Indian scholars practiced what they preached and shared to the world liberally.

Not only Indian, but also several ancient civilizations are full of examples that have some scientific base. One such example is of the *Hanuman Chalisa* and *Trips to the Moon*. In *Hanuman Chalisa*, Tulsidas writes: "Yug sahasra yojana par bhanu, leelyo taahi madhura phal jaanu. It means, "The sun, situated thousands of Yojanas (a unit of distance) away was swallowed by Hanuman thinking it to be a fruit". This *Yojana* has mathematical calculation. The Greek satirist Lucian of 2nd CE talks of sailing to the moon in his work, *Trips to the Moon*. As science fiction writers usually predict technologies that they see in the future through their imagination, the ancient scholars did the same, but they have had proper justification for their claims. For example, mentioned below is a Sanskrit mantra in which all the planets are explained, listed by modern astrology:

Brahmaa Muraaris-Tripuraantakaarii
Bhaanuh Shashii Bhuumisuto Budhash-Ca|
Gurush-Ca Shukrah Shani-Raahu-Ketavah
Kurvantu Sarve Mama Suprabhaatam ||

The Devas Brahma, Murari (The enemy of demon Mura, refers to Sri Krishna or Vishnu) and Tripurantakari (The One Who brought an end to Tripurasuras, refers to Sri Shiva). The Planets Bhanu (The Sun), Shashi (The Moon), Bumisuta (Mars) and Budha (Mercury), Guru (Jupiter), Shukra (Venus), Shani (Saturn), Rahu and Ketu, May all of them make my Morning auspicious.

Making on to Ayurveda, the oldest healing science of around 5000 years' history stems ancient Vedic culture. The knowledge of Ayurveda was taught through an oral tradition and passed from one generation to another. The basic principles of Ayurveda as a scientific healing domain are now known to the rest of the world. The binary numeral system used in digital electronics and mathematics which uses '0' and '1' as symbols also has connection with the ancient times. Pingala, one of the ancient Indian mathematicians used '0' and '1' to represent various numbers as it is represented in the computer programmes. Even in the Vedas, '0' and '1' have some philosophical connection as it is stated that all lives are made up of two parts viz. existence (1) and non-existence (0).

Furthermore, The *Mahabharata* and The *Ramayana* mention of *Vimana* (spacecraft) and *Brahmastra* (nuclear weapon). Aryabhatta theorized the existence of solar system and Bhaskaracharya theorized gravity much before Sir Isaac Newton. Similarly, the ancient Indian ancient works have mentioned of the speed of light, the distance between sun and earth, circumference of the earth, length of a year, etc. So what *Charaka*, *Kanad*, *Acharya Sushruta*, *Varahamihir*, *Patanjali*, and many others wrote, seem to be mythical facts but they have scientific rigor.

Conclusion:

Many civilizations worshipped the sun, rivers, trees, mountains. It shows that people from the ancient times realized the importance of natural resources in one's life. In our holy book, *Shrimadbhagavadgita*, Shri Krishna bhagavan says that earth, water, fire, air, ether, mind, reason and ego constitute my nature, which is divided in to eight parts. (Gita 7/4) These eight parts are natural elements which have a great impact on human nature in terms of *Triguna* (*Sat, Raj and Tam*) and *Tridosha* (*Vat, Pitta, Kapha*) as mentioned in Samkhya Yoga and Ayurveda, respectively. (Smakhyakarika of Ishwar Krishana -13) Such acknowledgement may be innocent, unnecessary, and mythical to the scientific world of modern times it demonstrated long back that anything that saves one's life should be worshipped or respected in their own way and be protected.

To sum up, the necessity to understand the art and science of myth and reality is imminent without any prejudiced mindset. As Devdutt Pattanaik says, "every society/nation has an immediate reality, a historical reality and a mythic reality. The last is the least understood, but is a potent force that is shaping our stories even today" (Kapoor, S). If mythical stories of any culture or civilization are retold, they should be retold through a balanced lens. We should not label them as pure myths unless they are weighed for their relevance

in the present times. Myths and reality may seem completely opposite but one should not assume so at their face value. Instead, the so called myths should be seen through an impartial lens. This may be evident in the words of Albert Einstein as an acknowledged by him at the beginning of this article.

Works Cited

1. Banerjee, Suparno. *Indian Science Fiction, Patterns, History and Hybridity*. University of Wales Press, 2020.
2. Gordon, Joan. "Introduction: Indian Science Fiction." *Science Fiction Studies: Indian SF* 43.3 (2016): 433-434.
3. Science and Hinduism: amazing facts about our Ancestors
4. <http://www.cortona-india.org/Material-ScienceHinduism.aspx>
5. Science fiction: Literature and Performance
6. <https://www.britannica.com/art/science-fiction>
7. Myth versus Reality
8. <https://openthemagazine.com/columns/guest-column/myth-versus-reality/>
9. How India's ancient myths are being rewritten <http://www.bbc.com/culture/story/20190902-how-indias-ancient-myths-are-being-rewritten>
10. Now IITs, NITs to prove Sanskrit is scientific language <https://www.indiatoday.in/india/story/nw-iits-nits-to-prove-sanskrit-is-scientific-language-1581903-2019-08-18>
11. Ayurveda: A Brief Introduction and Guide <https://www.ayurveda.com/resources/articles/ayurveda-a-brief-introduction-and-guide>
12. Scientists doing scientifiction: The science fiction of India's people of science
13. B <https://factordaily.com/science-fiction-meet-india-scientifiction-jayant-narlikar/>
14. Kapoor, S. Of myths and reality.
15. <https://devdutt.com/interviews/of-myths-reality/>
16. Chernyshova, Tatiana. "Science Fiction and Myth Creation in our Age." *Science Fiction Studies*, vol. 31, no. 3, 2004, p. 346. www.jstor.org/stable/4241282.
17. Lombardo, Tom. "Science Fiction: The Evolutionary Mythology of the Future." *Journal of Future Studies*, vol. 20, no. 2, 2015, p.10. [www. DOI:10.6531/JFS.2015.20\(2\). A5](http://www.doi.org/10.6531/JFS.2015.20(2).A5).
18. Malinowski, Bronislaw. *Myth in Primitive Psychology*. Norton and Co, 1926, pp. 81-87.
19. Disch, Thomas. "Mythology and Science Fiction." *On SF*. University of Michigan Press, 2005.