Comparability between Vedic and Modern Science in reference to Ashwin Sanghis: The Krishna Key

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In the ever-evolving landscape of human knowledge, the realms of modern science and ancient mythologies have often seemed to be at odds with each other. While modern science relies on empirical evidence, experimentation, and the scientific method to understand the world, Hindu mythology, like other ancient mythologies, often delves into the realms of the divine, the mystical, and the metaphysical. However, in recent years, scholars and thinkers have started exploring the fascinating interplay between modern scientific concepts and the rich tapestry of Hindu mythology. Scientists from various fields had carried out researches in their respective fields to find out the modern day scientific coherence of the Vedic literatures. In his book The Krishna Key, the master Story teller Ashwin Sanghi explores many such modern day scientific correspondence of Vedic literature. This article explores the scientific aspects of Vedic literature, shedding light on its contributions to various fields such as astronomy, mathematics, medicine, and nuclear science.

Keywords: Vedic Science, modern science, mythology, ancient India.

1. Introduction

The Vedas are ancient texts that form the cornerstone of Hinduism and are considered among the oldest religious scriptures in the world. Composed between 1500 BCE to 500 BCE, the Vedas consist of four primary texts: the Rigveda, the Samaveda, the Yajurveda, and the Atharvaveda. While traditionally revered as spiritual and philosophical texts, recent scholars have unveiled their scientific relevance, many modern scientists have openly discussed about the scientific base of the Vedic literature and also the influence of these literatures on their scientific discoveries and inventions. Dr.John Hagelin (Ph.D. Quantum Physics) addresses the International Conference to Re-Establish Vedic India, 20 February, 2015 on "Veda and Physics: The Science and Technology of the Unified Field". In his presentation defining the

Vedas he said that "Veda is the foundational level of natural law, the deepest laws of nature governing the universe. The laws that govern the emergence of the universe, the evolution of the universe". On the basis of his research he has established the fact the Vedic Science is not only scientific and practical but also indispensable in this modern age. He also said that Vedic tradition is founded upon the complete knowledge and practical application of the ultimate reality—the unified field. Modern physics has systematically explored finer levels of creation, smaller and smaller time and distance scales, from the classical macroscopic world to the atomic and nuclear levels, culminating in the discovery of one underlying unified field of existence at the basis of all diversity in the universe. (Hagelin 3:45)

The scientific relevance of Vedic literature is a testament to the profound wisdom of the ancient Indian civilization. The Vedas not only encompass spiritual and philosophical knowledge but also exhibit remarkable insights into various scientific domains such as astronomy, mathematics, medicine, physiology environmental sciences, and agriculture. While interpreting and integrating Vedic knowledge with modern science requires careful consideration, it opens the door to a more holistic understanding of the universe and fosters the appreciation of ancient wisdom. As we continue to explore and learn from these ancient scriptures, we recognize the enduring legacy of the Vedas in shaping scientific thought and contributing to our understanding of the natural world.

Ashwin Sanghi's The Krishna Key is a captivating novel that weaves together elements of mystery, historical fiction, and mythology. In one of his speech he said that "I have always believed that at the end of the day a book is not only for entertainment but it's also for education and enlightenment" (DSH2 1:38). Likewise his book the Krishna Key is an attempt to combine all the three elements and give us a suspenseful mythological thriller filled with mind-boggling facts. Central to the plot is the exploration of the fascinating connection between modern scientific discoveries and ancient Vedic literature. This article aims to delve into the interplay between these seemingly disparate realms, shedding light on the intriguing parallels that Sanghi draws between them in his novel. Making proper use of the license that fiction provides and relying mostly on factual data's in developing his thrilling story, Sanghi presents to the readers a package of entertainment and knowledge.

The Vedic literature forms the foundation of ancient Indian wisdom and knowledge. Composed thousands of years ago, these sacred texts encompass a diverse array of subjects, including spirituality, philosophy, embryology, astronomy, physiology and even aspects of natural sciences and plastic surgery. By integrating these timeless teachings into the narrative, Ashwin Sanghi acknowledges the profound contributions of Vedic sages to human understanding.

Vedic surgeons wrote about plastic surgery, extraction of cataracts, dental surger, caesarean sections and bone- setting. Surgery known as Shastrakarma in the Vedas- was pioneered in the Shushryta Samahita. Shushruta's pathbreaking treatise describes rhinoplasty in which a multilated nose can be reconstructed through plastic surgery! The Charaka Samhita authored by Charaka discusses physiology, etiology, embryology, digestion, metabolism, immunity and even genetics. For example, Charaka knew the factors that determined the sex of a child (Sanghi, 188)

While modern science explains the origin of the universe through the Big Bang theory, Hindu mythology narrates the cyclic process of creation, preservation, and dissolution of the universe through the concept of "Yugas" or cosmic ages. Interestingly, both narratives touch on the cyclical nature of existence. The scientific notion of an expanding and contracting universe resonates with Hindu cosmological cycles, where each Yuga represents a specific phase of the universe. This convergence sparks intriguing debates and reflections on the origins and destinies of our universe.

'Modern science says that at the beginning of time there was a great explosion – the Big Bang. Around 13.7 billion years ago, all energy was concentrated at a single point – physicists call this point a singularity- and this single point has been in a state of expansion since. It is from this single event that all the energy of the universe- and consequently all matter come into existence'. (Sanghi, 450)

'In ancient Hindu texts, the universe is called Brahamanda is derived from two words – Brahma and Anda. Brahma means expanding and anda means egg. It's a fitting description of the expanding egg- shaped universe as described by the Big Bang theory. Vish simply represents the expansion of energy into matter and Shiv represents contraction of matter back to energy – the energy of the universe remaining constant and unchanged'. (Sanghi, 452)

Sanghi juxtaposes modern scientific discoveries with the knowledge embedded in Vedic literature. He suggests that the ancients possessed advanced knowledge of various scientific principles that were ahead of their time. Concepts like advanced mathematics, understanding of the solar system can be traced back to the Vedic texts, fueling the debate on the exchange of knowledge between ancient civilizations and their impact on modern science. It is commonly believed that the Greek Pythagoras gave the very famous mathematical theory of hypotenuse which s commonly known as Pythagoras theorem after his name. But interestingly and shockingly enough the Vedic literature, Baudhayana Sulbastutra, which was written five hundred years before Pythagoras, had already discussed this theory.

The French Philosopher Voltaire Vehemently declared that "Pythagoras went to the Ganges to learn geometry. (Sanghi, 145).

The mathematical richness of Vedic literature doesn't just stops here; the very famous mathematical term geometry has its origin in Sanskrit language:

All construction needed geometry and it was Vedas that gave the word geometry, explained Kurkude. 'The present English word, geometry, is derived from a Greek root which itself was derived from a Sanskrit word- Jyamiti. In Sanskrit, jya meams an arc or a curve and miti means the correct perception or measurement. (Sanghi, 145)

The world deludes itself into believing that it was Pythagoras who gave us the famous theorem regarding the hypotenuse of a right-angled triangle but the Baudhayana Sulbasutra, which was written five hundread years before Pythagorus, states that a rope stretched along the length of a diagonal line produces an area which the vertical and horizontal sides make together. So who invented the pythagorus theorem – Pythagorus or Baudhayana? (Sanghi, 145)

Gosvami Tulasidasa who was an ardent devotee of Lord Rama and Hanuman composed Rama-Charita-Manasa, an adaptation of the epic of Lord Rama in the vernacular language. Apart

from this he also composed the Hanuman Chalisa, a very popular Hindu devotional hymn in praise of Hanuman. It is believed and also widely discussed that Tulasidasa provided an exact calculation of the distance between the Sun and Earth in one of these verses of the Hanuman Chalisa:

Would you be surprised to know that Sayana, a fourteenth-century Indian Scholar, in his commentary on a hymn in the Rig veda says, "with deep respect, I bow to the sun who travels 2,202 yojanas in half a nimesha". For your information, a yojana is about nine American miles and a nimesha is 16/75th of a second. Do the conversion, Priya! Sayana is simply stating the obvious- that sunlight travels at a hundred and eighty-six thousands miles per second! (Sanghi, 126)

In recent years, the umbilical cord has gained attention for its potential as a rich source of stem cells. After a baby is born, the umbilical cord is usually discarded along with the placenta. However, stem cells can be collected from the cord blood and cord tissue and stored for potential future medical use. These stem cells, often referred to as cord blood stem cells, are particularly valuable because they are relatively easy to collect and have the potential to differentiate into various cell types.

Cord blood stem cells have been used in treating certain blood disorders and immune system disorders, such as leukaemia and lymphoma, where bone marrow or stem cell transplants are necessary. The advantage of using cord blood stem cells is that they are less likely to be rejected by the recipient's immune system compared to other types of transplants. The ancient Vedic literature has also mentioned the umbilical cords as source of life (khosla et.al). The ancient Hindus have a ritual of preserving the umbilical cords of newly born babies. This shows that the ancient civilisation already knew about the very modern scientific technique of stem cells.

After delivery, the midwife would take the umbilical cord of the new born child and place a small portion of it in an airtight copper capsule, and this capsule- known as a Taviju Rakshawould be tied below the waist of the child until he grew up, explained Chhedi. The remainder of the umbilical cord would be placed I an earthen jar and buried underground. (Sanghi, 187)

The concepts of atoms, molecules and substances can be traced back to the Vedic age. Moreover, the concepts of astronomy, metaphysics and spirituality are described in the Rig Veda, the ancient Hindu scriptures of the Vedic period (Jagannath). Robert Oppenheimer, the American physicist and leader of the Manhattan Project, was known to have been immensely influenced by the Bhagavad Gita, a sacred Hindu scripture. He even learned Sanskrit to understand the original version of the Bhagawat Geeta. Oppenheimer, who was well-read and intellectually curious, is known to have referenced the Bhagavad Gita when reflecting on the moral dilemmas surrounding the development and use of nuclear weapons. He famously quoted a line from the Gita, saying, "Now I am become Death, the destroyer of worlds,"(Sanghi 120) after witnessing the first successful test of an atomic bomb in 1945. This quote is often interpreted as Oppenheimer grappling with the profound power and destructive potential of the technology he had helped create, and the moral weight of his role in it. He has also mentioned that it probably wasn't the first atomic bomb, but the first one in the modern world. This particular line gives us the clue that the technology for atomic bomb might have existed in the ancient time as well. In reference to this there is a hypothesis that the Brahmastra,

the deadliest weapon that is mentioned in the epic Mahabharata was indeed a nuclear weapon. The passage from Mahabharata that describes this weapon says:

The unknown weapon is radiant lighting, a devastating messenger of death, which turned all to ashes- a single projectile charged with all the power of the Universe. An incandescent column of smoke and flames bright as the thousand suns rose in all its splendour, a perpendicular explosion with its billowing smoke clouds: the cloud of smoke rising after its first explosion formed into expanding round circles like the opening of a giant parasol. The corpses were so burned as to be unrecognisable. Hair and nails fell out, pottery break without apparent cause, and birds turned white. In a very short time, foods become poisonous. The lightening subsided and turned into fine ash .

If this isn't description of a nuclear blast, then I don't know what is! (Sanghi, 120-21)

To conclude, Ashwin sanghi's The Krishna Key is the kind of mythological thriller that doesn't tries to retell mythology unlike many of his contemporaries, instead it tries to blend Hindu mythology, history, science and Vedic knowledge in perfect proportions and certainly provides the readers some foods for thoughts. When fictional literature deals with such enlightening subjects, learning about such huge subjects is made interesting and fun. When subjects like mythology is scrutinised through the lens of science and history it undoubtedly bewilders the readers. The instances of modern day scientific relevance of Vedic literatures that we get to see in Ashwins Sanghi's The Krishna Key is a significant topic in the field of research in almost all the disciplines. What we get to see in the book is just a glimpse of it, there are many more such astonishing researches that were being carried out in the past and there are many more that can be carried out in the future. Our universe if seen from a scientific prospective is a complex entity and has many hidden mysteries that are to be revealed through research, and the relevance between Vedic literatures and modern science can be seen as one among those enormous mysteries.

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