

Online Seminar/Symposium



Interface Between Creation Hymns of Rigveda and Modern Cosmology: A Multiverse Dialogue

Organized by

Maharshi Dayanand Saraswati Chair, Maharshi Dayanand University, Rohtak

In Collaboration with

National Institute of Advanced Studies (NIAS), Bengaluru

Centre for Indic and Agamic Studies in Asia (CIASA)

Center for Foundational Study Poornaprajna Institute of Scientific Studies, Bengaluru

Date: 20.12.21

Indian Time: 11:00 AM to 3:00PM (Online)

Google Meet link: <https://meet.google.com/top-coun-hrz>

Registration link: <https://forms.gle/5j4dtoTzitdHehJ87>

Prof. Ravi Prakash Arya

Convenor

Chair professor

Maharshi Dayanand Saraswati Chair (UGC)

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Coordinator and Moderator

Visiting Professor, Senior Homi Bhabha Fellow,
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Prof. Madhu Khanna

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Chairperson, Centre for Indic and Agamic Studies in
Asia (CIASA), & Tagore National Fellow, New Delhi.

& Tantra Foundation Library,

New Delhi

Prof. R. Srikanth

Coordinator

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Who really knows? Who shall proclaim it? From where was it born, from where this creation?
Rigveda 10.129.

In recent years there has been a paradigm shift in the dialogues and debates to explore the scientific origin of the cosmos and the ideological similarities between the philosophical ideas on creation theories in the ancient texts such as the Rigveda. The Rigveda is widely acknowledged as the oldest surviving text, composed in Vedic Sanskrit. It is a huge collection of 1028 hymns, divided between ten books (*mandalas*) revealed to a number of sage-poets belonging to the family lineages of rishis. Three influential hymns of the Rigveda, namely the Nasadiya Sukta (Rigveda 10.129), referred to as the hymn of creation; the Purusha Sukta (Rigveda 10.90); and the Hiranyagarbha Sukta (Rigveda 10.121) have been a source of speculation in a large body of commentarial literature both by eastern theologians, western scholars and scientists.

The Nasadiya Sukta (Rigveda 10.129) a short hymn of seven verses, is extremely provocative, in that it raises the perennial question on the mystery of the origin of the universe. A question that is being speculated by a great number of modern cosmologists and scientists. The hymn invokes a search for the origins, through a visionary, mystical yogic experiences rather than logical reasoning. The hymn describes the stage of pre-creation, *Tad-ekam* "That one" which is beyond space and time, dynamic and forceful. The elusive mystery of the primary creative act and the origins of creation is suggestive and inspiring.

The Purusha Sukta (Rigveda 10.90) dedicated to the Cosmic Being or Purusha. The central theme is the sacrifice of cosmic man form whose parts the universe comes in to being. The parts of this body also became the three varnas and the diverse elements of the world. The hymn describes the nature of cosmos as Purusha, who is both imminent and transcendent. From his creative will the world as Hiranyagarbha or Prajapati are projected into manifestation of the universe into space and time. Purusha is all pervasive, has a thousand heads, eyes and legs. All manifestation past, present and

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future are held by him as a hub of a wheel of creation. Creation ensures through the cosmic body of Virat, the omnipresent consciousness that brings about the infinite form of diversity. Through this creation, the hymn embodies the unity of human, cosmic, divine and earth-bound realities.

The third hymn, the Hiranyagarbha Sukta (Rigveda 10.121), the hymn of the “Golden Womb” poetically translated as the “Energy-womb’ of creation. The primal womb, of energy gold in colour, divided itself into two halves, which formed the stars, and earth. This is the supreme seed of all creation, elemental and primal. The hymn charts out a narrative cosmogony but leaves the question of Who (*Ka*) is the god to whom we should offer oblations. The divine being has no name but has a lustrous form of the ‘golden embryo’ that splits into two halves. These three influential hymns in one way complete the story of creation and complement one another.

Aim of the symposium

This symposium aims to bring together scientists and scholars to dialogue and to reflect upon on the integral nature of convergences between modern cosmology and their epistemic foundations and the ancient sacred science of consciousness embodied in the creation hymns from the Rigveda. There are various theories of creation and cosmological models in modern cosmology, for example, the Big Bang theory, the Steady State Model, the Cyclic Universe, the Plasma Universe, the theory based on Wolf Mechanism etc. The symposium aims to explore the convergence between modern cosmological models and the philosophical speculations represented in the creation hymns of the Rigveda. To take an example the concept of cyclic universe has gained recognition in the scientific community in recent times. Can we compare and specify some of the nuances of cyclic universe from the ocean of the Vedic wisdom? Such questions are pertinent to the symposium.

We have identified some of the important questions in modern cosmology which raise epistemic debates among the scientists and philosophers. The methodology used by modern cosmologists is different from the intuitive apperceptions of sages in ancient

India. It is important to note that modern cosmology and its development depend very much on observational results as well as the theories that support the observations. A comparative discourse will unfold the distinctions and similarities and open a discursive site for interdisciplinary studies.

The Themes:

Theme 1: The Ontology of Space and Time

The concept of space and time is needed for the description of any cosmological model as mentioned above. In case of Big bang model, the existence of space time before Big Bang is considered not as a relevant query. But the premise of Big bang model is closely associated with the concept of expansion of the universe. It raises the epistemological issue for example, in the absence of space, time what this expansion means? It is mentioned in Rigveda that the universe is created from the Absolute transcendent source Brahman. The etymological meaning of Brahman is related to with Sanskrit root $\sqrt{B\ddot{r}h}$ which essentially means expansion. If it is related to expansion, then how can we think expansion in the absence of space (as mentioned in Nasadiya Sukta in Rigveda)? In other context Brahman is related to vastness or simply manifestation like blooming of lotus. Can we get more insights from the descriptive passages of the Suktas?

Rishis were focused on a central Question: "From this One-ness State (Atman) - the Original, non-matter, permanent state - how did this ever changing Universe come into being?" Rsis meditated on the origin of the Universe. Many of them are couched in the symbolic language of ancient times. It appears to convey the following message: "Prakrti, this infinitely diverse Universe, could not have come into being from homogenous Purusa or Atma". Birth can take place only in the presence of a heterogeneous mixture of two dissimilar substances, indicating. What does this form of heterogeneity mean? How did it come into being?

Theme 2: Unity and Multiplicity

The developments of modern physics clearly indicate that space, time and causality do not exist at a scale beyond Planck scale (smallest scale in the Universe). So the issue of existence of space, time and causality at everyday level poses a challenge to 21st century physics. This is very much relevant in the context of creation of the universe too i.e. how space, time are generated during the manifestation of the universe? Can we call some insights from Rigveda? It is more appropriate to ask what is the ontological status of space, and time in the context of science as well as in Rigveda?

Theme 3: Order and Chaos

Swami Vivekananda envisaged that universe is created from Chaos which is prevalent in the beginning and order is generated out of chaos. However, he did not specify the meaning of the order chaos. Chaos has definite meaning in the context of modern science. It is associated with the word predictability in contrast to randomness. Again the word Ritam is used in Rigveda which indicates kind of harmony or order exists before creation. So when we say order is created from chaos, we need to specify at what state of reality this may happen. Moreover, we need to study whether the word chaos as associated to predictability can be used in understanding the hymns of creation as envisaged by Swami Vivekananda.

In case of particular cosmological model it is assumed that universe is created from Chaos which is prevalent in the beginning (before creation) and order is generated out of chaos. Chaos has definite meaning in the context of modern science. How this idea is compatible with various hymns of creation? Again the Ritam is used in Rigveda which implies cosmic harmony and order of creation.

Theme 4: Expansion and Contraction of the Cosmos

The concept of space, time is needed for the description of any cosmological model as mentioned above. In case of Big bang model, the existence of space time before

Big Bang is considered not as a relevant query. But the premise of Big bang model is closely associated with the concept of expansion of the universe. It raises the epistemological issue for example, in the absence of space, time what this expansion means? It is mentioned in Rigveda that the universe is created from Brahman. Some authors claim that the etymological meaning of Brahman is related to with the $\sqrt{\text{Brh}}$ dhatu which is essentially related to expansion. If it is related to expansion, then how can we think expansion in the absence of space (as mentioned in Nasadiya Sukta in Rigveda)? In other context people say Brahman is related to vastness or simply manifestation like blooming of lotus. Can we get more insights from those above Suktas?

Theme 5: The Trans-historical age of the present Universe

There exists controversy regarding the estimation of age of the present universe. Can insights from Vedic wisdom enlighten us in this regard?

Theme 6: Energy Fields

As soon as the universe is being manifested, some attributes like various type of fields and their properties, (like electromagnetic field, Gravitational field etc.) are being generated. In modern cosmology especially in the context of Big Bang the seeds of these attributes are considered to be present in the substratum. How far this concept is compatible with those Suktas in Rigveda?

Theme 7: Transcendence- Beyond Space and Time

In the hymns of creation in Rigveda, the concept of existence is considered to be there which is beyond space, time etc. Now what are the characteristics of the existence? Usually, three characteristics are considered to be associated to the existence – Satya, Ritam, Brihat i.e. Truth, Order or harmony or truth in motion and vastness. This existence is un-manifested. So the issue of manifestedness(creation of the universe) vs un-manifestedness needs to be understood. Sankara discussed this in his commentary - “un-manifested (avyakrita) is characterized by the absence

of knowledge of time and space. Of course he discussed this issue in the context of waking and sleep states. It raises several issues in modern cosmology or even in modern science in general. If there is existence beyond space and time, how do we cognize it? If it is beyond cognition, then whether it is beyond the current paradigm of science. It is worth mentioning several authors tried to relate the dark matter and dark energy with un-manifested matter or energy. However, dark matter and dark energy require space and time for their descriptions. Then what is the definition of un-manifestedness in this context?

Questions

1. There are various cosmological models in modern cosmology. However, some cosmological models do not require concept of creation itself. According to these models, the universe is never created but transformed. What the various hymns of creation of Rigveda envisage regarding the issue of creation itself?
2. According to Nasadiya sukta, there was no, space, time before creation of the universe, but space time created once the creation starts. It seems space time created out of no space, no time, whether our Risis gave some insights regarding this matter. What is the substratum of space and time?
3. According to Rigveda the universe is created from Brahman. Brahman is unchanging and permanent - no motion is there. On the otherhand, the universe is always changing. So how motion created from unchanging state?
4. In Mandala 9, the concept of "Soma" is introduced. There is a metaphor: Indra drinks soma and creates the universe. Etymologically soma is related to flowing or making movement, so what is the meaning of this metaphor in this context?
5. Modern cosmology is very much dependent on observation evidences and it predicts the age of the universe and other parameters. Can our Vedic wisdom sheds some light regarding this ?
6. According to Big Bang cosmology, there is a substratum called Quantum Vacuum, where the various characteristics of matter, fields etc are there in the

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seed form. For example, Gravitational force has attractive nature. Whether any Sukta in Rigveda describes this aspect of creation also?

7. The evolutionary aspect of the universe is also described in modern cosmology. Starting from elementary entities bigger and bigger objects like galaxy, planets, solar system, different chemical elements, unicellular objects to multicellular and then to Human being. Is there any such kind of description in Rigveda?

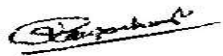
Panel of Modern Scientists

1. **Prof. B.S. Rajpur**, Former Vice-Chancellor of Garhwal and Kumaun University; Former Chairman of U.P. State Council of Higher Education
2. **Prof. Subhash Kak**, Louisiana State University, Baton Rouge, LA 70803, U.S.A.
3. **Prof. R. Srikanth**, Poornaprajna Institute, Bengaluru
4. **Dr. S. Arvinda**, IIT Tirupati
5. **Prof. Sisir Roy**

Panel of Vedic Scholars

1. **Dr. N. M. Raveendran Namboothiri**, Chairmman, Veda Sruta Gurukulam Edappal
2. **Dr. Thottam Sivakaran Namboothiri**, A traditional Vedic Scholar from Kerala
3. **Dr. R. Tyagarajan**, Retired Professor in Sanskrit, Channai
4. **Prof. P.C. Muraleemadhavan**, Director in Chief, Kantaloorsala, Kerala
5. **Mr. Kothamangalam Vasudevan Namboothiri**, Tradiional. Vedic Scholar, Retired from Indian Statistical Service, Govt. of India
6. **Prof. M . Penna**, Dean, Kavi Kalidash University, Nagpur
7. **Prof. Madhu Khanna**
8. **Prof. Ravi Prakash Arya**

All the Deans, Directors, faculty members, research scholars and students are hereby cordially invited to participate in the above Seminar/Symposium.



(Prof. Ravi Prakash Arya)

Maharshi Dayanand Saraswati Chair

Maharshi Dayanand University, Rohtak