Creation, Creator and Causality: Perspectives from Purānic Genre of Hindu Literature

Sivaram Sivasubramanian Jain (deemed-to-be-university), India

Rajani Jairam Jain (deemed-to-be-university), India

Abstract

Inspirited by a growing recognition of the need for an interdisciplinary approach in dealing with science and religion, this article aims to decode the nature of the causal relationship between creator and creation as epitomized in a few select scriptures of Purānic genre of Hindu Literature. The present study is part of an overarching effort to understand how ancient Indian knowledge and culture have supported profound metaphysical inquiries amidst flourishing religious practices. The nature of this work requires the utilization of a research protocol that combines the exploratory interpretation of scriptures and an explanation of causality. Notably, there is a consensus among the Purānas on the fundamental tenet that a primal creator is the eternal cause of the cycle of creation, sustenance, dissolution, and re-creation. Working from this premise, Purānas depict the primal creator as imperceptible, enigmatic, and absolute; hence, a thorough understanding is impossible. With this underlying principle, Purānas provide a metaphysical basis for the Hindu Trinity (Brahma, Vishnu, Rudra), the quintessence of Hindu Theology. This research paper concludes that the Purānas chosen for this study (a) point to a relational causality of creation of this universe that manifests from the unmanifest creator, and (b) proffer an intriguing description of how equilibrium-disequilibrium among gunas influence the cycle of cause-effect.

Keywords: primal creator, creation, relational causality, avyakta (unmanifest), brahmānda (cosmic egg), guna (attribute), Purāna

Introduction

How did the universe come into existence? Did God create this universe? What will be the universe's fate?

Such profound questions on cosmic origins and its destiny have been an essential part of human history across cultures (Miller, 2001a). Inquiries like this resulted in various cultures developing their understanding of how everything came into existence (Primack, 1997). Creation myths of world cultures have aligned with either or both of the two cosmogonic theories that were prevalent many centuries before scientific cosmology became mainstream (Novello & Bergliaffa, 2008 and Paulson et al., 2015a). In one of them, the universe emerges in a single instant of creation, and in another, the universe is eternal, consisting of an infinite series of cycles (Wolchover, 2018). Despite inherent complexities and geographic limitations associated with such primal myths, they have had an intricate relationship with religious beliefs, traditions, and sanctity (Paulson et al., 2015b).

Over the past few centuries, myths have taken a backseat giving way to measurements. With the advancement of empirical techniques and tools, mythical cosmic thoughts have evolved into scientific cosmology (Miller, 2001a). As probable answers to cosmic quests go through methodical scrutiny with observable data, constraints of sectoral views have vanished, and global perspectives have emerged. This transformation from the religious domain into a fullblown scientific exploration has naturally brought Religion and Science together on an interdisciplinary dialogue has on Cosmology (Drees, 2007). There are three noteworthy examples of this pioneering endeavor of integrating two domains. These examples have not only set ground-breaking guidelines for engagement but also have opened up more prospects.

First example is the conference on "Cosmic Questions" sponsored by the AAAS Program of Dialogue on Science, Ethics and Religion held in 1999 at the National Museum of Natural History of the Smithsonian Institution in Washington, D.C. Subsequently, proceedings of this conference were published in the Annals of the New York Academy of Sciences ("Cosmic Questions," 2001). This conference brought together in a public setting scientists, philosophers, historians, and religious scholars to explore contemporary efforts to answer such questions. Some of the questions deliberated at this conference were: Did the Universe have a beginning? Does it matter, religiously? Was the universe designed? What is the Religious reflection on design? The conference recognized the complexity (Miller, 2001b) in dealing with cosmological theories and religious understanding.

Two key takeaways from the conference are (1) with access to far greater observational data, we are better equipped today than our ancestors to investigate the cosmic questions for more comprehensive answers, and (2) religion-science dialogue on cosmology have more reasons to continue.

The second example is a series of events on "The Big Bang and the interfaces of knowledge," organized by Wilton Park in partnership with CERN in 2012, 2014, and 2015. For all these three events, leading experts were invited to examine the different worldviews of science, philosophy, and theology on the Big Bang and consider what they share in terms of understanding. The first event held in 2012 (Big Bang, 2012) focused on "towards a common language." The second event held in 2014 (Big Bang, 2014) focused on "towards a common understanding of Truth." The third and final event in this series, held in 2015 (Big Bang, 2015), focused on "towards a common understanding of Logic."

Two key takeaways from the series of events are (1) pursuing the dialogue for making critical linkages between scientific discovery and religious narratives, and (2) continue the conversation so the next generation of scientists, theologians, and philosophers can articulate a more robust combined interdisciplinary knowledge.

The third example is an intriguing three-part series on "Beyond the Big Bang: Searching for Meaning in Contemporary Physics" organized by Nour Foundation in 2014–15. Subsequently, the Annals of the New York Academy of Sciences published the deliberations from this series ("Beyond the Big Bang," 2015). This series brought together a wide array of leading physicists, philosophers, historians, and writers to explore the multiple scientific and philosophical dimensions suggested by modern physics, with an emphasis on understanding how recent scientific advances impact our enduring search for meaning (Rass, 2015). Two essential topics deliberated in the series included: (1) The Origins of the Universe: Why Is There Something Rather than Nothing? (2) The Unification of Physics: The Quest for a Theory of Everything.

Two key takeaways from this series are (1) science could renew and revive a more inclusive approach to fundamental cosmic questions, and (2) exploring metaphysics as it involves examining inquiries such as the origin.

While the three examples presented a great model for engaging Science and Religion on a broader setting amidst a range of experts to deliberate on fundamental questions of our existence, one could infer there was limited focus on examining how Hindu tradition has considered Cosmic Questions, except for one research paper (Balslev, 2001) presented at the AAAS conference that covered perspectives from Hindu cosmology. This paper focused on the notions of "beginning" and "beginninglessness" in the discourses associated with Indian and Hindu philosophical and religious thought as they relate to cosmology. In this work, the author highlighted how different genres of Hindu literature from vedic to upanishadic to darshana shastra (Indian philosophy) represent cosmology. Further, this paper also briefly mentioned about creation myths and cosmological time cycles in the Purānic genre of Hindu literature. Notably, author also talked about the causality of creation in darshana shastra with specific reference to sankhya and vaisesika.

In fact, outside the broader setting of the three examples presented here, Hindu religious literatures have enchanted several researchers who have interpreted its origin myths, exposition on the nature of ultimate reality, and often have correlated religious thoughts with scientific theories. The paper (Humphrey, 2015) focused on cosmogonic perspectives in rig vedic nasadiya sukta and chandogya upanishad. Another paper (Aggarwal, 2011) highlighted the cosmology, cosmic time scales, and cycles of vishnu Purāna and presented a correlation with the scientific model. According to this paper (Kak, 2001), Puranic cosmology illuminates many ideas of space and time in addition to astronomy and cosmic cycles. Causality of creation as a research theme is primarily used in darshana shastra literature such as sankhya, yoga, mimasa, and nyaya (Sutradhar, 2018; Buxton, 2006; Shaw, 2002; Perrett, 1998). Regardless of the complication associated with Hindu cosmology due to the lack of a central institutionalized authority and one founder to ordain what is acceptable belief and what is not (Raman, 2012), these research papers conclusively demonstrate the immense potential of Hindu religious literature for interdisciplinary conversations with science. Perhaps, not having an institutionalized authority could have helped Hinduism, by making it a living tradition capable of not only augmenting well with individual proclivities in experiencing the divine but also adapting to the intellectual evolution (Edelmann, 2012).

In this context, after carefully considering the research potential derivable from the topics deliberated in the three examples, reflecting on the key takeaways and reviewing the available relevant literature, this paper intends to take forward the discussion on how Hindu religious literature have contemplated on the Cosmic Questions. The premise in which this study seeks to achieve this objective is by decoding the nature of the causal relationship between creator and creation as epitomized in a few select works of Purānic genre among the vast corpus of Hindu religious literature (hereafter, referred to as scriptures). This research work envisages, by exploring such aspects of scriptures, society can get an opportunity to recognize how ancient Indian knowledge and culture have encouraged metaphysical inquiries to coexist with religious traditions harmoniously.

Scope of Research Study

The Sanskrit word "Purāna," although as a single syllable, means "ancient," it can be etymologically derived from two words "Purā" and "nava," meaning "long ago" and "new." There is a famous epithet "purā api navam iti purānam" supporting this derivation. It means "though old, Puranā is also new." This epithet implies that although Purānas contain ancient texts, can be interpreted again freshly and has relevance in the present context. Such an inference seems to be more apt than just "ancient," considering the interest the Purānic texts have generated among scholars in the past many decades (Coburn, 1980). This argument also suggests the flexibility Purānic genre of literature affords, supporting the core of Hinduism, not having a single authority, thus supporting the co-existence of multiple traditions. Despite supporting different traditions with at least two traditions formally distinguishable and appreciation of many-faced nature of truth, Purānic texts do not endorse any comparative superiority (Coburn, 1980). This underlying notion, combined with different ways of interpreting Sanskrit language, in which Purānas are developed, present incredible scope for research. It is further strengthened by its size (about 400,000 verses) and a mix of exciting and varied contents.

Purānic genre of scriptures are popularly known for their encyclopedic nature that weaves the nucleus of Vedic and Upanishadic concepts (Coburn, 1980) with dramatic narrations on cycle of creation and dissolution of the universe, genealogy of gods, life history of royal dynasties, lineages of rishis, earth's geography and significance of Hindu pilgrimages (Rocher, 1986; Katz, 2000). There are eighteen Maha Purānas that are typically classified as per the gunas.

For this research study, a typical classification based on gunas does not help; hence, a sectarian scheme (Rocher, 1986; Katz, 2000) is used. The sectarian scheme is based on whether a Purāna has specifically glorified one of the Hindu Trinity or more than one as the Supreme God or none. Although no classification scheme can be rigidly applied, the sectarian scheme appears more apt in the context of elucidating the connection between creator-creation.

Accordingly, six Purānas chosen for this work are two non-sectarian Purānas namely Brahmānda and Markandeya; three sectarian Purānas namely Brahma, Vishnu and Linga; and one cross-sectarian Purāna, namely Kūrma. All these Purānas offer enormous scope for this research aim and contain cosmogonic notions conducive for answering some of the fundamental Cosmic Questions. They contain both the sarga-primary creation and pratisargasecondary creation phases (Aiyar, 1916) that are primarily useful for explaining cosmic timescales (such as yugas and kalpas – similar to epochs and eons). This research study focuses more on "sarga" and not on timescales. Brahmānda Purāna is famous for its views on cosmogony, detailed narrations of the process of creation, and universal time cycle that covers minor to major duration scales. Additionally, the name "Brahmānda" is quite riveting as it means "cosmic egg" – a term quite familiar to ancient creation myths.

Markandeya Purāna is said to be named after Rishi Markandeya, contain both the sarga and pratisarga that are explained through a dialogue between rishis. It is known for narrative of legends, less religious tone and invocations, and includes some texts on yoga and emancipation. Brahma Purāna, apart from focusing on primary creation, has detailed narratives on Sun and the solar system (in particular earth with its continents and oceans), where Sun god is glorified. It also has a compilation on the significance of pilgrimage sites.

Vishnu Purāna is an essential text for Vaishnavism tradition, in addition to sarga, pratisarga, Vishnu theology, and also has portions on yoga and meditation. Its creation description has parallels with Sankhya philosophy.

Linga Purāna is an important text for Saivism tradition and adore Shiva as Supreme Lord in both alinga (form-less) and linga (form but not of anthropomorphic) shapes. Linga Purāna also discusses the idea of "ardhanārīśvara" (ardha is half; nara-man; nāri-woman; īśvara is the manifest form of Shiva as Rudra), a form of Shiva with one-half male and one-half female body, dual body in one spirit, symbolically implying emancipation from the matter world of dualities.

Kūrma Purāna, although named after one of Vishnu's avatar (kūrma means tortoise), is considered as a cross-sectarian (Rocher, 1986; Katz, 2000). Kūrma, symbolically represent the animal that which can withdraw its limbs, implying the importance of control of senses for liberation. It contains Ishvara Gita, similar to Bhagavad Gita, but presented by Shiva instead of Krishna.

Accordingly, this study, while setting out to analyze six Purānas for notions on the process of creation, aims to unravel the nature of the causal relationship between creator and creation as envisioned in the Purānas. This research work aspires to supplement the ongoing religion-science interactions through meaningful contribution to the interdisciplinary knowledgebase.

Methodology

The current work intends to provide an idiographic causal explanation using a qualitative approach involving two key steps: (a) interpretation of six Purānas for its contextual meaning and (b) making suitable inferences to decode causal relationship between creation and creator. Therefore, this work requires the utilization of a research protocol that combines the exploratory interpretation of scriptures and an explanation of causality.

Consequently, this work needs a two-dimensional methodology with the first step using "pramaanas" (Chandra, 1988; "Epistemology in Classical Indian Philosophy") as means of knowledge for scriptural epistemology and second step involving explication of a causal pattern between creation and creator. The former method relies on an exploratory design that enunciates religious perspectives, whereas the latter leans on an explanatory scheme that uses scientific causal patterns.

First step requires applying relevant "pramaanas," namely, pratyaksha (direct perception); anumaana (inference); tarka (inquiry, reasoning, speculation); yukti (reasoning from circumstances); prayojana (motive or purpose); arthaapatti (presumption); and upamaana (analogy). There may be an intrinsic element of subjectivity in scriptural interpretation despite using pramaanas.

The second step entails a prudent consideration of various causal patterns (such as linear, cyclic, spiral, relational) and identifying the most appropriate that helps in decoding the specific pattern from the description of creator and creation in Purānas. Although causality as an explanation method applies to "empirically observable cause and effect" and not to incomprehensible subjects such as creator God, current work proposes to deduce a causal inference using a qualitative method, philosophically. This paper contends that using scientific concepts in this manner to appreciate theological and metaphysical aspects of scriptures, can offer pioneering vantage points to interdisciplinary research.

Terms and Meanings

This research study sources the e-text of English transliteration of select Purānic texts from The Göttingen Register of Electronic Texts in Indian Languages ("GRETIL") and nonabridged English translations of Brahmanda, Markandeya, Brahma, and Vishnu Purānas from online ("Wisdom Library"). Sources of English translation of Linga Purāna (Shastri, 1951) and Kūrma Purāna (Bhattacharya, 1972). While there are references to translation, wherever possible, this paper attempts a contextual interpretation of select transliterated texts and associated keywords relevant to the purpose of this work.

adhyavasāya - apprehension, perturbation; ādhāra - foundation, support; ādheya being contained; ādaya - that which feeds and sustains; adhikā - superior; ādi beginning, primeval; aja – unborn; ajñeya – unfathomable; alingo – markless (linga is having mark); anādy – without beginning; antam – end; anuvratāh – attached; anvayā - association; asāmprata - not belonging to the present time; asat - nonbeing, nonliving; ātman - the supreme soul; avikāra - immutable; avyakta - unmanifest, unapparent, indiscrete; brahmānda - cosmic egg; dhāraya - holding; hiranyagarbha golden fire and golden womb – symbolic of Brahma as procreator who is one among the Hindu Trinity; jagad – dynamic creation; kāla – time; kārana – cause (kārya – effect); ksobhya – agitation; pralaya and laya – dissolution/ annihilation; mahābhūtam - magnificent creation; mahat - vastness and abundance of subtlety; mulam - root, origin; nitya – eternal, invariable; nivrtta – recede, cessation; param – supreme; parasparā - mutual; paricchinna - confined; prthvya - earth; pradhāna - primeval source; prakrti - creative fundamental force of nature; purușa - supreme soul; sāmye equilibrium, balance (asāmye - disequilibrium, imbalance); sanātanam - primeval and perpetual; sarga – creation; sat – living, being; samkalpa – conception; sarvavyāpinam - omnipresent; sūksmam - subtle; svayambhu - self-existing; triguna - three innate qualities (sattva-goodness, rajas-active, tamas-darkness); upajīvinah - interdependent; utpanna - components born; vigraha - expansion, various forms; vikāra transformation, disorder, agitation, mutable; visesā – discrete objects with their own characteristic features and diversities; vyakta - discrete; yonim - source

Analysis of Select Texts from various Purānas

Reference to transliterated Sanskrit texts of various Purānas used for this research paper are presented in Appendix.

Nature of Creator

Brahmānda Purāna (BndP) conceptualizes the nature of primal cause as unmanifest and calls it Brahman (creator). Brahman has neither beginning nor end; is unborn and subtle; is unfathomable; is the absolute beyond perishable living and non-living entities; is the source and destination of the entire creation and is not belonging to the present time, hence primeval. Strikingly, BndP also proclaims Brahman has three attributes (gunas). BndP describes unmanifest cause as self-existing, and time instigates the effect of manifestation of creation of this universe and its dissolution. Thus, BndP asserts the unmanifest cause is incomprehensible in the context of time. Expression "srjāmīti viniścayaḥ" that appears only in BndP among the Purānas analyzed for this paper can be interpreted as "with certainty, creation originated from the unmanifest cause."

Markandeya Purāna (MarkP) concurs with BndP on the nature of creator but clarifies that not only Brahman's beginning, attributes, and ending are imperceptible and immutable, but it is perceptible in its manifested state. MarkP adds that Brahman is immeasurable, selfdependent, source of this manifest universe, remains unchanged by the power of the three gunas, and pervaded this universe before creation began, during its sustenance and after its dissolution. Brahma Purāna's (BrP) description of primordial cause overlaps with BndP and MarkP but names it as Hiranyagarbha. BrP epitomizes the creator as MahaPurusha, supreme soul of this universe who is self-creating and self-existent. BrP adds that the unmanifest while being a single source of everything expands to infinite diversity as manifest effect. Interestingly, BrP recognizes that MahaPurusha is synonymous with many names and is described differently in Samkhya and Yoga, which belong to the Darshana Shastra genre of Hindu literature that forms the basis for Indian Philosophy.

Vishnu Purāna (ViP) glorifies the supreme imperishable Brahman as Lord Vāsudeva, purest and supreme form of Vishnu, who exists as Pradhāna as indiscrete eternal cause, Purusha as the supreme soul, Vyakta as discrete effect and Kāla as time. ViP explains that these four forms in due proportions cause creation, sustenance, dissolution, and re-creation. Pradhāna has three Gunas that remain in equilibrium before creation and after dissolution. In this way, ViP expounds Lord Vishnu is the source for both cause and effect, implying the effect is preexistent as a potential in the cause but does not manifest until the time of creation.

Linga Purāna (LiP) reveres the supreme soul as Maheshvara, the Lord of Pradhāna, and Purusha, from whom Brahma, Vishnu, and Rudra proceed. LiP describes the supreme soul Maheshvara as both unmanifest cause and manifest effect. LiP extols the supreme Lord as sabda-brahman – imperishable, eternal, and primitive sound AUM (3). In this manner, LiP implies the nature of the primal creator as incomprehensible hence symbolizes as sound and embodies in the form of linga. With this description, LiP connects the supreme Lord to three Vedas (commonly referred to as "Sruti" literature where sound is crucial), namely Rig, Sama, and Yajur. Like the concept of Purusha and Prakrti being intrinsically present in the supreme Lord Vishnu as explained in Vishnu Purāna, Linga Purāna forwards the idea of Siva and Saivi as an essential part of the supreme Lord Maheshvara. Further, LiP adores the unmanifest as unborn, who endowed with Gunas, becomes manifest at the beginning of the creation. Kūrma Purāna (KūrmP) presents a similar narrative on unmanifest as present in other Purānas considered for this research work. However, there are a couple of essential additions to the nature of the primal creator. KūrmP venerates the Brahman as the (a) Supreme Consciousness, which has a direct connection with the Upanishadic notion of the Supreme Brahman and (b) as the regulator of everything.

Nature of Creation

BndP alludes to an unmanifest creator as the eternal cause of this creation that began with vastness and abundance of subtlety and ended with discrete objects. BndP describes the feature of this created universe as dynamic and magnificent with myriad forms of living being and nonliving things. BndP explicates the nature of the causal relationship between creation and creator. The mutable effect (i.e., creation – this universe) dwells in the immutable cause (i.e., unmanifest creator) and is ready to manifest at the time of creation – suggesting that effect is preexisting as a potential in the cause. Equilibrium-disequilibrium among gunas activates such a relationship between cause and effect. BndP elaborates that the relationship between immutable cause and mutable effect is of the nature of supporter-supported, hence interdependent and is equally applicable to how the creation works. Likewise, constituents of this created universe (like galaxy sustains stars which sustain planets which sustain moons) sustain mutually. Earths having entered the sphere of something superior are fed, supported, and confined by that.

MarkP refers to the primal creator as the upholder of the moveable and immoveable universe. Brahman, whose origin is inscrutable, is the cause of every aspect of creation, sustenance, and dissolution of the created universe. MarkP narrates the nature of constituents of this universe with a multitude of created things of various shapes, possessing different characteristics and existent as if appearing perpetual but only temporary.

BrP recounts an intriguing aspect of unity in diversity in the context of the causal relationship between creator and creation. The unmanifest supreme soul remains by itself, and when singleness withers away, diversity begins to manifest yet remains omnipresent. Remarkably, BrP mentions the three gunas of the unmanifest supreme soul are also present in this dynamic manifest creation. Although creation is varied and vibrant, they retain the attributes of the single supreme soul, thus reflecting unity in diversity.

LiP avers that the non-characterized primal creator is the root of this characterized creation. Hence, implying that we could never possibly see the root. Like the notion of supportersupported described in BndP, LiP supports the idea that manifest effect is preexistent as a potential in the unmanifest cause. LiP declares "brahmand" that contains the manifest creation is born of the avyakta.

According to the K \bar{u} rmP, this creation, the cosmos, is the effect caused by the pure unmanifest. Pur \bar{a} na adds that Pradh \bar{a} na and Prakrti are the primal sources of all matter in this creation which contains numerous worlds filled with matter (an $d\bar{a}$) is used in the Pur \bar{a} na to symbolize world within the universe, which is symbolized by brahman $d\bar{a}$) due to omnipresence of primordial supreme soul.

Occurrence of the term "sadasadāt" in all six Purānas chosen for this work look to be significant both in literary and metaphysical context. From a literary angle, the term used to describe the unmanifest seems baffling as it means "nature of the unmanifest cause consists of both being (sat) and nonbeing (asat)." Moreover, use of these phrases together may as well seem paradoxical at first glance, as Purānas elucidate the incomprehensibility of the unmanifest.

Nevertheless, this paper contends that "sadasadāt" may metaphorically imply unmanifest cause as the source of both living (sat) and non-living (asat) things. Representation of "sat" as living and "asat" as non-living is possible through pratyaksha, direct perception of the creation. Therefore, this term has direct implication that omnipresence of the Supreme Soul both as unmanifest creator and in manifest creation. Hence, providing a backing to the unique core concept of Hindu scriptures of viewing the creator and the creation as inseparable, perhaps a state of "unity consciousness."

Did Anything Exist Before Creation Was Triggered?

BndP has an intriguing account on what was the nature of unmanifest cause before effect came into existence, that is, triggering the process of creation. Before manifestation of effect (i.e., universe coming into existence), there was only darkness which was pervaded by the soul of unmanifest cause where three gunas were in a state of equilibrium. BrP reinforces BndP's impression with an explanation of the event at the time of dissolution when all mobile and immobile beings perished at the outset, and only primordial (unmanifest) remained when everything was enveloped in darkness till the re-creation was triggered again.

ViP takes this discussion forward with commentary that uses the method of nullification for the description of the creator. Purāna says there was neither day nor night, nor sky nor earth, nor darkness nor light, nor any other thing, except for one, inapprehensible by intellect, the supreme Brahman in an unmanifest state. It adds that cognition is possible only when gunas attain disequilibrium. ViP declares that "Kāla," the Lord of Time, is without beginning, and its end is unknowable. Kāla controls the cycle of creation, sustenance, dissolution, and re-creation. KūrmP postulates that the unknowable (unmanifest) existed at first before manifestation began.

Trigger for Creation

BndP suggests that gunas became uneven due to loss of their equilibrium, triggering this magnificent creation (universe), which began with the evolution of vastness and abundance of subtlety – the fundamental attribute of this creation. Agitation conceived loss of equilibrium of gunas within the unmanifest cause, prompting creation. Initially, the unmanifest cause enveloped the subtlety, but creation proceeded gradually and eventually ending with discrete objects of matter.

MarkP forwards the idea of linking agitation of Pradhāna with the birth of Brahma, one of the Hindu Trinity. When Pradhāna is agitated, disturbing its gunas, Brahma manifests and contained within the cavity of the cosmic egg (brahmānda). Despite Pradhāna being the birthplace of the universe and devoid of gunas, it assumes the nature of Brahma with rajas guna and engages in creation. Such a captivating idea culminates in the revelation that Pradhāna is the agitator at first, is the thing to be agitated, and is present in the stages of both contraction and expansion.

ViP exalts the role of Vishnu as Hari, the supreme soul, and ruler of this creation, who of his own will, agitated the mutable (matter) and immutable (spirit) principles triggering creation. Such a description on the trigger for creation underlines the Purānic thought that effect preexisted as a potential in the cause. ViP praises Vishnu as Purushottama, who is both the agitator and the thing to be agitated. Purushottama is present in the essence of all matter while remaining as the supreme soul and is extant in both contraction and expansion.

According to the LiP, Mahesvara penetrates Pradhāna and Purusha, agitating them through yoga, resulting in an imbalance of gunas. By entering Prakrti, the primal source of matter, agitation is triggered, manifesting as contraction (withdrawal during dissolution) and expansion depending on Kāla. From this agitation, universal germ is created that grows in the cosmic egg resulting in creation.

KūrmP's narrative on the trigger for creation combines the sketch of ViP and LiP but points to mahat as the universal germ.

Relationship of Gunas and the Cycle of Creation and Dissolution

BndP vividly explains how gunas are related to various stages of progression of the universe, starting with creation. As much as disequilibrium of gunas triggers creation, when gunas move towards equilibrium, it triggers dissolution. So, the cycle of creation-dissolution means the cycle of imbalance and balance of gunas. This premise also implies a cycle of unmanifest cause as creator when gunas are in balance and manifest effect as creation (i.e., universe) when gunas have imbalance. Domination of rajo guna triggers creation, sattva triggers sustenance and progression of the universe through expansion, and tamo guna triggers dissolution through contraction. BndP mentions both expansion and contraction proceed gradually. During expansion, worlds rise from water, whereas during contraction, fire engulfs all worlds from above and sides.

While remaining five Purānas have narrations similar to that of BndP but do not have a detailed explanation except for few inclusions. ViP adds the dimension of time as Kāla Purusha in this relationship of gunas and cycle of creation-dissolution. ViP recognizes that various Purānas call the state of equilibrium of three gunas by different names such as prakrti (primal nature of unmanifest), hetu (primary origin of everything), karana (cause) and param (supreme). LiP highlights that the equilibrium state of gunas is identical with darkness, implying the incomprehensibility of unmanifest. This premise is profound for the notions of creator-creation and their causal connection.

Mutual Relationship among Gunas

While describing the relationship between gunas, all Purānas considered for this study concur that gunas are mutually associated, attached, interdependent, activated, do not forsake each other even for a moment, and always uphold one another. Gunas work to attract one another at the time of creation.

Hindu Trinity

BndP outlines how the unmanifest primal creator conceives the Brahma. Four-faced golden Brahma (symbolically as Hiranyagarbha) appears in the cosmic egg. Brahma is the procreator and one among the Hindu Trinity. Further, unmanifest cause perceives the Hindu Trinity from gunas that are intrinsic. Among the Hindu Trinity, sattva guna is synonymous with Vishnu, rajas with Brahma, and tamas with Rudra. Thus, they are manifestations of gunas that are intrinsic to unmanifest cause and conceived separately due to agitation. MarkP furthers this explanation. As Rudra, the unmanifest dissolves this creation with tamas and goes back to inertia where all gunas are in equilibrium. Although the primal creator possesses three gunas yet is destitute of them. MarkP also makes a significant point that brahma, visnu, and rudra are merely appellations of one imperishable entity.

BrP, while making obeisance to Hindu Trinity, remarks that the unmanifest is both the cause and effect and connect creator-creation to action-consequences of action. LiP, in its outline of Hindu Trinity, also includes consorts of Vishnu and Brahma as Lakshmi and Sarasvati, respectively, with all four conceived from the unmanifest supreme creator. LiP associates Kāla (the Lord of Time) with Rudra and describes Vishnu as thousand-headed (probably based on the Rig Vedic hymn named Purusha Sukta). KūrmP links the Hindu religious symbol of applying holy "tripundra" mark on the forehead, with the Trinity.

Discussions

As explained in six Purānas, the causal relationship between unmanifest creator and manifest creation is dependent on how gunas interact with each other. Imbalance or balance among three gunas triggers an effect. If we consider gunas as three variables, their dominance controls the cycle of unmanifest-creation-sustenance-dissolution. Moreover, all three gunas are present both in the cause and in effect, albeit in different conditions. Such a connection between creator and creation aligns best with the scientific concept on Relational Causality, where the relationship among three gunas causes the effect, and neither the single variable is the cause by itself nor looking at one aspect of their equation gives a holistic view.

Moreover, this reasoning on relational causality is consistent with the Purānic description of the creator as "absolute" and creation as "relative." It implies the relationality of gunas in the manifest effect of this created universe. This study infers such a notion has an esoteric implication in the sense that all aspects of this universe have an inherent relativity, dependent on the observer or inquirer.

Although relational causality is the best fit for the scenarios analyzed, Purānic illumination that one guna dominates at a specific stage in the cycle, linear causality is entirely plausible. Moreover, in furthering the idea of an iterative unmanifest-manifest-unmanifest, cyclic causality may also be applicable. Based on these factors, a pictorial representation is summarized in Figure 1.

Further, this study argues that the simultaneous causality of creation does not seem applicable in this context as Purānas presume creator is eternal. Additionally, there is an inference that concepts envisioned in Purānas may perhaps appear analogous to Big Bounce (Wolchover, 2018) model of physical cosmology.

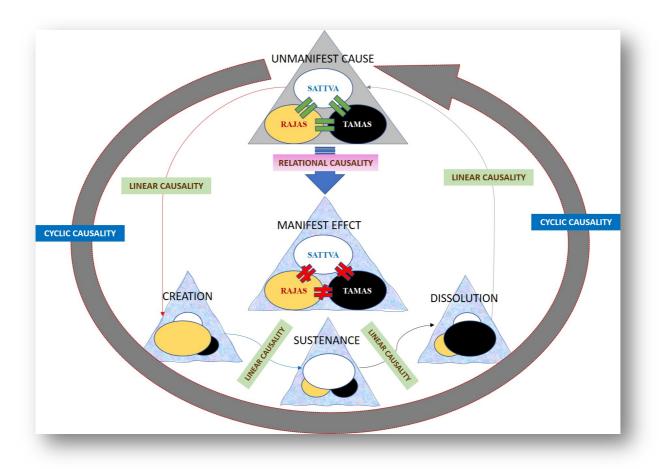


Figure 1: Purānic notion on Creator, Creation, and Causality

Conclusions

This research paper concludes that the six Purānas analyzed for this research work afford a strong case for relational causality between creator and creation.

Based on scriptural texts examined, Purānas establish "nothing can come from nothing," and there was "something" as unmanifest before the universe came into existence. All six Purānas analyzed for this work asseverate a vital notion that equilibrium-disequilibrium of gunas initiated by agitation, hold the key to the cycle of unmanifest cause as the absolute-manifest effect as relative, vis-à-vis, the relationship between creator-creation.

Further, this mechanism bolsters the idea that manifest effect as the universe is identifiable with disorder, and orderliness is synonymous with unmanifest so that the cycle could be orderdisorder. With creation, disorder begins and continues through sustenance. Disorderliness reaches pinnacle just before triggering dissolution, so orderliness restores with the state of unmanifest.

In the light of depicting "brahmānda" as "cosmic egg," Purānas visualize an elliptically curved universe, probably representing the prevalent view among the society of that era.

By reinforcing the theory of preexistence of effect as a manifestation potential in the cause, Purānas align with the Samkhya's philosophical concept of "satkaryavada," as the theory of causation. However, this paper argues that Purānas ratify parinamavada, where the transformed effect is real, but not the vivartavada, where transformation itself is illusory.

In propounding creator as the eternal cause, Purānas assert that the creator is inexplicable on a scale of time. Hence, an accurate and complete understanding of what preceded and what caused the creation of the universe may never be possible. Metaphorically, Purānas represent this view as darkness pervaded everything before creation. Purānas present a profound metaphysical concept on gunas for easy grasp by associating gunas with Hindu Trinity, thus providing a metaphysical basis for theological belief.

Another noteworthy inference is that Purānas espouse the idea of an immutable creator who has expanded to this mutable and dynamic creation that comprises of ungraspable subtlety and discernible entities in myriad forms. By the same token of the supporter-supported relationship between creator and creation, the constituents of the created universe sustain mutually. Possibly, such description is comparable to current scientific understanding that galaxies sustain stars that sustain planets that sustain moons.

Six Purānas chosen for this research study have many insights that are conducive to the theory of causality and drawing parallels with theological and scientific concepts is possible. Moreover, Purānic scriptures embrace a unique core concept of viewing the creator and the creation as inextricable and demonstrate their acquiescence towards cogitation. Conspicuously, the scriptural contents analyzed for this paper establish that ancient culture has indeed encouraged profound metaphysical and causal inquiries amidst thriving religious practices and entrenched those intellectual thoughts in an incredible literary format. Notably, many of the thoughts presented in the Purānas look to be appealing and relevant for further engagement with Science. This study asserts that without such a daring mission, the scholarly heritage will remain masked by the traditional didactic view of Hindu religious literature.

References

- Aggarwal, Y. P. (2011). Cosmic cycles of Hindu cosmology: Scientific underpinnings and implications. *Journal of Cosmology, 13*. Retrieved December 06, 2019 from http://journalofcosmology.com/Contents13.html
- Aiyar, K. N. (1916). The Purānas in the light of modern science, 2nd edition, Theosophical Society.
- Balslev, A. N. (2001). The idea of a "Beginningless" World-process. perspectives from the Hindu tradition. *Annals of the New York academy of sciences*, 950, 97–107. https://doi.org/10.1111/j.1749-6632.2001.tb02130.x
- Beyond Big Bang (December, 2015). Annals of the New York academy of sciences, 1361– Issue 1, 1–73. Retrieved December 06, 2019 from https://nyaspubs.onlinelibrary.wiley.com/toc/17496632/2015/1361/1
- Bhattacharya, A. (1952) The Kūrma Purāna, Part 1. A. S. Gupta (Ed.). All-India Kashi Raj Trust, Varanasi, 1972.
- Big Bang (2012). The Big Bang and the interfaces of knowledge: towards a common language? [WP1180]. Wilton Park, Beau Rivage Hotel, Nyon, Switzerland. Retrieved December 06, 2019 from https://www.wiltonpark.org.uk/event/wp1180
- Big Bang (2014). The Big Bang and the interfaces of knowledge: towards a common understanding of Truth? (WP1316). Wilton Park, Château de Divonne, France. Retrieved December 06, 2019 from https://www.wiltonpark.org.uk/event/wp1316
- Big Bang (2015). The Big Bang and the interfaces of knowledge: towards a common understanding of Logic? (WP1433). Wilton Park, Lucens. Retrieved December 06, 2019 from https://www.wiltonpark.org.uk/event/wp1433
- Buxton, N. (2006). The Crow and the coconut: Accident, coincidence, and causation in the "Yogavāsistha". *Philosophy East and West*, 56(3), 392–408. https://doi.org/10.1353/pew.2006.0032
- Cosmic Questions (2001, December). Annals of the New York Academy of Sciences, 950– Issue 1. Retrieved December 06, 2019 from https://nyaspubs.onlinelibrary.wiley.com/toc/17496632/950/1
- Chandra, S. (1988). A history of Indian logic: Ancient, mediaeval and modern schools Vidyabhusana, (pp. 23). Motilal Banarsidass Publishers.
- Coburn, T. (1980). The study of the Purānas and the study of religion. *Religious Studies*, *16*(3), 341-352. https://doi.org/10.1017/S003441250001235X
- Drees, W. (2007). Cosmology as contact between science and theology. *Revista Portuguesa De Filosofia*, 63(1/3), 533-553. https://doi.org/10.17990/RPF/2007_63_1_0533
- Edelmann, J. B. (2012), The Role of Hindu theology in the religion and science dialogue. *Zygon, 47*, 624–642. https://doi.org/10.1111/j.1467-9744.2012.01278.x
- Epistemology in Classical Indian Philosophy (March 3, 2011). Retrieved December 06, 2019 from https://plato.stanford.edu/entries/epistemology-india
- GRETIL. Retrieved December 06, 2019 from http://gretil.sub.unigoettingen.de/gretil.html#Pur

- Humphrey, R. L. (2015, Spring). Cosmogenesis in ancient Hindu scriptures and modern science. *InSight: Rivier Academic Journal*, 11(1), 1–15. Retrieved December 06, 2019 from https://www2.rivier.edu/journal/RCOAJ_Spring_2015_table.htm
- Kak, S. (2001). The Speed of light and Purānic cosmology. Annals Bhandarkar Oriental Research Institute, 80, 113–123. Retrieved December 06, 2019 from https://arxiv.org/pdf/physics/9804020.pdf
- Katz, T. S. (2000). The devotional mysticism of the Bhagavata Purāna, mysticism and sacred scripture, Oxford University Press (pp. 194). https://doi.org/10.1093/acprof:oso/9780195097030.001.0001
- Konigsburg, J. (2017). Panentheism: A potential bridge for scientific and religious dialogue. In Hill M. & Holtzen W. (Eds.), Connecting faith and science: Philosophical and theological inquiries (pp. 161–182). Claremont: Claremont Press. https://doi.org/10.2307/j.ctvbcd1kg.12
- Miller, J. B. (2001a), Preface, cosmic questions. *Annals of the New York Academy of Sciences*, 950, ix-xii. https://doi.org/10.1111/j.1749-6632.2001.tb02122.x
- Miller, J. B. (2001b), Cosmic Questions and the Relationship between Science and Religion. *Annals of the New York Academy of Sciences*, 950, 309-310. https://doi.org/10.1111/j.1749-6632.2001.tb02148.x
- Novello. M., & Perez Bergliaffa, S. E. (2008). Bouncing cosmologies. *Physics Reports,* 463(4), 127-213. ISSN 0370-1573. https://doi.org/10.1016/j.physrep.2008.04.006
- Paulson, S., Gleiser, M., Freese, K., & Tegmark, M. (2015a), The unification of physics: the quest for a theory of everything. *Annals of the New York Academy of Sciences*, 1361, 18-35. https://doi.org/10.1111/nyas.12860
- Paulson, S., Albert, D., Holt, J., & Turok, N. (2015b), The origins of the universe: why is there something rather than nothing? Annals of the New York Academy of Sciences, 1361, 1–17. https://doi.org/10.1111/nyas.12859
- Perrett, R. (1998). Causation, Indian theories of. In The Routledge Encyclopedia of Philosophy. Taylor and Francis. https://doi.org/10.4324/9780415249126-F055-1
- Primack, R. J. (1997). Cosmology and culture. Centre for Theology and the Natural Sciences Bulletin 17(3), 9-15. Retrieved December 10, 2019 from http://physics.ucsc.edu/cosmo/primack_abrams/COSMO.HTM
- Raman, V. V. (2012), Hinduism and Science: Some Reflections. *Zygon, 47*, 549-574. https://doi.org/10.1111/j.1467-9744.2012.01274.x
- Rass, R. (2015), Beyond the Big Bang: searching for meaning in contemporary physics. *Annals of the New York Academy of Sciences*, 1361, iii-v. https://doi.org/10.1111/nyas.12978
- Rocher. L. (1986), The Purāņas. A History of Indian literature, Fasc. 3., Vol. II., Otto Harrassowitz Verlag (pp. 18–26).
- Shastri (1951). The Linga Purāna, First Edition, Motilal Banarsidass Publishers.
- Shaw, J. (2002). Causality: Sāmkhya, Bauddha and Nyāya. *Journal of Indian Philosophy*, 30(3), 213–270. Retrieved December 10, 2019 from www.jstor.org/stable/23496838

Sutradhar, A. (2018). Causation in Indian philosophy. *IOSR Journal of Humanities and Social Science (IOSR-JHSS), 23*(9), Ver. 3, 35-39 e-ISSN: 2279-0837. https://doi.org/10.9790/0837-2309033539

Wisdom library. Retrieved December 10, 2019 from https://www.wisdomlib.org/Purāna

Wolchover, N. (2018). How the universe got its bounce back. https://www.quantamagazine.org/big-bounce-models-reignite-big-bang-debate-20180131

Author: Sivaram Sivasubramanian Contact email: sivr.sss30@gmail.com

Appendix – Select transliterated texts from six in-scope Purānas

Source: "GRETIL"

Nature of Creator

BndP_1,3.11; 1,4.30 || MarkP_5.11; 44.24; 45.33-34 || BrP_30.58-61; 30.68-70; 30.76-79 || ViP_1,2.12-13; 1,2.16-17; 1,2.20-21 || LiP_1,1.1; 1,1.18-21; 1,3.11-14 || KūrmP_1,1.77; 1,1.92; 1,48.19-21; 1,4.5

Nature of Creation

BndP_1,1.42; 1,3.10; 1,3.36; 1,19.181-182 || MarkP_45.20; 45.27-30; 45.32 || BrP_1.33; 23.34; 30.76-77; 237.19 || ViP_1,2.19 || LiP_1,3.1-3; 1,70.61; 1,70.84 || KūrmP_1,1.93; 1,4.6; 1,48.16;

Did Anything Exist Before Creation Was Triggered?

BndP_1,3.12 || BrP_33.3 || ViP_1,2.23-24 || KūrmP_1,4.9

Trigger for Creation

BndP_1,3.13-14; 1,3.16 || MarkP_46.11-13 || BrP_23.31 || ViP_1,2.29; 1,2.31 || LiP 1,70.76; 1,70.84 || KūrmP 1,4.13-16

Relationship of Gunas and the Cycle of Creation-Dissolution

BndP_1,4.3-5; 3,1.156-159 || MarkP_45.35-37 || ViP_1,2.27; 1,2.33-34; 6,4.34 || LiP_1,70.7-10; 1,70.72-73 || KūrmP_1,4.10

Mutual Relationship among Gunas

BndP 1,4.10-11 || MarkP 46.19 || LiP 1,70.60; 1,70.79-80

Hindu Trinity

BndP_1,3.26; 1,4.6 || MarkP_45.19; 46.14-15; 46.17-18 || BrP_37.19-22 || LiP_1,1.22; 1,2.6-8; 1,70.62-63; 1,70.81; 1,70.85-87; 1,70.90-92 || KūrmP_1,2.89; 1,2.102-4; 1,15.235; 1,25.63; 1,49.45-46