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“Māyā” - The Consciousness Causal Model of Psychological Existence

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The physical evolution of an egg into a moth is called metamorphosis. Metamorphosis is a Greek word that means transformation or change. There are four stages in the metamorphosis of a moth: egg, larva, pupa, and adult.

Eggs are laid on plants by the adult female moth. The next stage, when the eggs are hatched, is the larva, also called a caterpillar. The caterpillar eats the plants on which it was hatched. As the caterpillar grows, its skin does not stretch. To accommodate its expanding body, it sheds its skin, or molts, several times throughout this stage. The caterpillar then builds a cocoon by secreting a liquid protein that solidifies into silk when it comes into contact with air, which provides protection. Inside the cocoon, the caterpillar becomes a pupa. It may seem nothing is going on when seen from the outside. But big changes are happening inside. Inside the cocoon, the caterpillar's body breaks down and is reformed into the adult moth. Special cells, called "imaginal discs", develop into the adult's wings, legs, and antennae. This transformative stage can last from a few weeks to several months, or even years, depending on the species. When the transformation is complete, the adult moth emerges from the cocoon. The caterpillar had tiny eyes, stubby legs, and very short antennae. The adults have long legs, long antennae, and compound eyes. The newly emerged moth has a swollen abdomen and damp, crumpled wings. It must pump fluid into its wings to expand and strengthen them before it can fly. The adult moth's primary purpose is to reproduce. Most species live only a short time in this final stage, from a few weeks to a few months, and some giant silk moths don't eat at all. After mating and laying eggs, the life cycle is complete. And this complex, systematic, and ordered cycle of birth and death and metamorphosis happens again and again.

Some questions are very crucial to this book. Does the silk moth know it was the same being through the four ordered stages of its metamorphosis? Does the silk moth remember its earlier stages? Did the silk moth will its metamorphosis? Who or what designed the silk moth to metamorphose in this specific way? Can any of the stages be skipped to become a silk moth faster, or is it ordered in a way that each stage paves the way and is essential for the next stage? Is the silk moth aware of its existence? Does each silk moth have a unique identity based on its wings, color, or other physical characteristics or abilities? Is the silk moth aware of its unique identity and that of others? Can the silk moth think and feel? Can the silk moth love? Can the silk moth feel fear? Does the silk moth desire? Does the silk moth suffer? Does the silk moth desire to be free of fear and suffering? Is each silk moth conscious of the objective world that it senses? Does each silk moth have a subjective experience? Is the subjective experience of each silk moth unique? Is the subjective experience related to its external environment and circumstance, or is the subjective experience of each silk moth isolated from its external environment and circumstance?

What was the purpose of the silk moth in its metamorphosis, to itself and for others? If this metamorphosis is an aspect of Nature’s design, does Nature have intelligence as an intrinsic part of its nature? What is Nature’s purpose?

Does the silk moth ponder over these questions, or are humans the only species of life capable of such pondering? And are humans capable of finding answers to these existential questions?

It seems that humans can not only find answers, but can also validate the answers to know if the answer is the Truth!

Philosophy - Man's Obsession with Knowledge

Of all the living beings on this planet, and this is the only place life exists as we know it, it is only the human being who has been obsessed with learning about his environment and recording it very methodically for thousands of years. Not only do we learn individually, but we also want to share our knowledge with others so that others, too, may learn and gain from the insight. It is also the hope that others will uncover new knowledge that can better explain the circumstances in which we find ourselves. Not just the immediate circumstances of the country, town, village, society, or culture we live in, but questions like, "What is this world that we live in? What is this universe? Is it finite or infinite? How do the stars, suns, comets, asteroids, meteors, planets, and their satellites move? What or who moves them? How long have they been moving like this? How long will they keep moving? Have they been there and moving forever? Will they be there and moving forever? Where did it begin? Where will it end? What existed before it all began, and what will exist when it all ends? When did all this begin? When will all this end? Will it begin again? Who am I who lives and experiences this grand, magical spectacle? Why am I here? Is my purpose about enjoying this spectacle just for a fleeting moment before I die? What happens when I die?"

Some of these questions might have occurred to most of us, but for some others, these are the questions they were obsessed with all their life. They thought that it should be possible for us, as humans, to uncover the answers methodically. They knew that it might not be possible for them to know all the answers within their lifetimes, but they believed that if they methodically knew what they could know, and if they could communicate what they knew to others, then it might be possible, one day, for Mankind to know all the answers.

It was probably thought that it would be impossible to find answers to all these questions because we didn't design or create the universe in which we exist. And that the answers to all these questions can be known only to the designer and the creator of the universe. The answers can be known only if we know the mind of the designer and creator, maybe a God, who must be all-knowing, all-encompassing, and eternal. It was important to them to know, "Is there a God, and if there is, then what is the nature of this God?

They felt suffocated, not knowing. They felt depressed that they found themselves trapped here, in this mysterious maze of the universe, without knowing. They found it unbearable to go through life ignorantly, just doing routine activities like eating, sleeping, defecating, reproducing, working, playing, fighting, and one day dying ignorantly. They did not think humans were condemned to live like insects, plants, or animals. Humans could think. And so, they had to know. They were desperate to know.

The generally accepted explanation for why other forms of life do not ask such questions or seek answers to them is that they are simpler beings when compared to human beings. In other words, human consciousness has complexity, not just for complex subjective experiences but also to know and understand the nature of their experiences. So, while animals and plants are considered sentient beings capable of experiencing pleasure and pain and responding to it, they seem to react instinctively to external sense stimuli to meet their physical needs, for survival, and for pleasure. The instincts being naturally

provided to them, they did not have to know. They do not have to record their life activities and experiences and communicate what they have learnt for posterity.

Animals and plants perhaps had naturally provided instincts for surviving and living. But we did not, and this may be a reason why humans had to know. Instead, we could develop symbolic language and communicate both orally and in written form using sounds and symbols. This natural ability of language gave us the capacity to know, which meant the ability to remember experiences, and use symbolic language, oral and written, to record and communicate these experiences, validate the recorded symbolic language with the experiences, and transmit this validated symbolic language as knowledge far and wide and from one generation to another. The human mind's ability to conceive a language to record experiences was the greatest strength of a human being, not his physical body or his instincts. It must be seen here that all that we call knowledge is just a human conception of the reality of our experience and existence. All knowledge happens in the mind, while the experiential reality happens in Existence. It is this capacity of language to encode experiential reality as a conception of the mind, and transmit it as knowledge, that has helped man survive Nature. It has helped him find ways to clothe and shelter himself, find food, grow food, develop weapons to protect himself, and build vehicles for traveling, and so on. Are we humans special beings that we ask questions about our existence in Existence and seek answers? Why aren't we able to live our lives completely engrossed in the present moment without the bothersome burden of meaning and purpose? We don't know.

The Experience and the Thought of the Experience

In a human being's life experience, two separate events are happening, even if they seem continuous. One is the reality of one's life experience; the other is what one thinks of one's life experience. Now, the question is, is there any contradiction between one's life experience and what one thinks is one's life experience? If there are contradictions, then what one thinks is one's life experience is considered a falsehood. If, after considerable reflection, discussion, debate, justification, and evidentiary support, one can validate that there are no contradictions, then the thoughts become knowledge. It is always the thoughts, the conceptions, and the imaginations of the mind that are on trial to be deemed worthy of being called knowledge.

Knowledge, therefore, is not a modern discovery. Human beings, since ancient ages, have always studied Nature. They have been awed by how the plants, the trees, the insects, the animals, the birds, fish, and even the planets, the sun, and the moon, seemed to follow a natural order. They perhaps thought that there must be some order by which every thing and every being functions. They sought answers that they hoped would give them a sense of completion in knowing the meaning and purpose of one's existence in Existence and of Existence itself. So, they kept raising questions. They wondered. Perhaps, it was only the human being who could wonder thus.

The Dārśanika's Questions

Those who love knowledge and want to methodically uncover knowledge by discovering an underlying order beneath the apparent chaos are called philosophers. In Sanskrit, a philosopher was called a dārśanika, one who provided a darśana, "a way of seeing" the order of Existence. Philosophy, which means love of wisdom, has its etymological origins in Greek philos "love" and sophia "wisdom". Philosophy is a systematic study of fundamental questions concerning Existence, such as "What is that which ultimately

exists?" Pramana-shastra, "epistemology", a branch of philosophy, provides the basis for a rational and critical inquiry that reflects on the processes and methods involved in knowing. It deals with the question, "How do we know what is claimed to be 'what ultimately exists' is knowledge?" Dārśanikas philosophers may have different darśanas philosophies, views, or ways of seeing Existence. The darśanas or schools of thought are based on their nyāyas, "foundational axioms", based on which their knowledge is constructed. The fundamental questions the dārśanikas philosophers asked were:

1. What is the Existence in which the phenomenon that I see with my eyes exists?
2. What explains how Existence behaves so?
3. What explains why Existence behaves so?
4. What is that (phenomenon) I see with my eyes?
5. What explains how that (phenomenon) behaves so?
6. What explains why that (phenomenon) behaves so?
7. What is the eye by which I see the phenomenon?
8. What explains how the eye behaves so?
9. What explains why the eye behaves so?
10. What is the experience of the 'I', the seer, who sees in the mind, the phenomenon that he sees with his eyes?
11. What explains how the experience of the 'I', the seer, in his mind behaves so?
12. What explains why the experience of the 'I', the seer, in his mind behaves so?
13. What (or who) is the 'I', the seer, who experiences in his mind?
14. What explains how the 'I', the seer, behaves so?
15. What explains why the 'I', the seer, behaves so?
16. What is the Existence in which the 'I', the seer, exists?
17. What explains how Existence behaves so?
18. What explains why Existence behaves so?

The eighteen questions that they wanted to know could be broken down into two sets.
The first set of nine questions pertains to understanding the nature (what it is), the process of cause-effect relationships that explain behavior (how it behaves), and the purpose of behavior (why it behaves so)

- of the Existence in which the phenomenon exists
- of the phenomenon that can be seen by the eyes,
- of the eyes that see the phenomenon

Philosophers who sought knowledge of what could be seen with their eyes perhaps understood that to be able to explain the phenomenon, they had to first know all about Existence, to know what caused the phenomenon, and then also know about their eyes, the instruments by which they obtained information about what is happening 'out there'.
The second set of nine questions pertains to understanding the nature (what it is), the process of cause-effect relationships that explain behavior (how it behaves), and the purpose of behavior (why it behaves so)

- of the experience that happens in the mind of the 'I', the seer, after the seer has seen the phenomenon with his eyes,

- of the 'I', the seer, who is experiencing the experience that happens in his mind, and
- of the Existence in which the 'I', the seer, exists.

The philosophers who sought to know the nature of the experience in their minds seemed to have it easier. All the information was readily available to them 'in here', in their minds. They just had to figure out the nature of their experience in their minds, the nature of the 'I' in their minds, and the nature of the Existence in their minds. They thought that this was perhaps an easier and more directly accessible way to understand the nature of Existence.

Existence, The Absolute Causal Entity

The ancient philosophers of Greece, of Mesopotamia, and of the Indo-Gangetic regions did not think that the Existence in which the phenomenon that could be seen by the eyes existed, and the Existence in which the 'I', the seer, existed, were different entities. They believed that this Existence (what ultimately exists) was the same entity that caused both the phenomenon that could be seen with the eyes and the experience that was experienced in the mind by the seer, the 'I'. So, they held this Existence as the Absolute Causal Entity. (In this book, Existence is the Absolute Causal Entity, the Creator, and the universe or Nature is the creation, the created.) This Absolute Causal Entity they called God, or Father, or Allah, or Brahman, or Jehovah, or Tao, or the Great Spirit. So, they wanted to uncover the nature of God, or the nature of Existence, or the nature of the Absolute Causal Entity. There was no difference between God and Existence. They were just different words that referred to the same Absolute Causal Entity.

Axioms for Existential Knowledge

There were four axioms (fundamental foundational truths) that the ancient philosophers believed could not be violated, for even the possibility of knowledge to exist. They were:

- The Absolute Causal Entity was real and existed
- The Absolute Causal Entity was both the source and the cause of the phenomenon that could be seen by the eyes, in the world.
- The Absolute Causal Entity was both the source and the cause of the experience that could be experienced by the 'I', the seer, in his mind
- There is order in the behavior of the Absolute Causal Entity as manifested in Nature.

Material and Spiritual Knowledge

All that could be seen by the eyes was classified as jada matter. This material nature of the world is referred to as prakṛti[1] in Sanskrit. This knowledge of prakṛti they considered material knowledge. Material knowledge was called aparā vidyā, aparā other (than the self), and vidyā knowledge. It was also considered a lower form of knowledge.

.All that was experienced in the conscious mind was called ātmā-anubhava, spiritual experience, where ātmā means the 'I', the seer, the spirit, and anubhava means experience. This knowledge they considered spiritual knowledge. Atmavidyā, atmajñāna, knowledge of the spiritual experience was also called parā vidyā, parā supreme, and vidyā knowledge. A more widely used modern world is psychology from the Greek logos, the study of, and psyche, soul, or mind.

[1] *Prakṛti* is the name for the universe or Nature. The nature of the creator, the Absolute Causal Entity, Existence is *Puruṣa*

For the traditional philosophers, there was no dichotomy between those who studied the "seen" and those who studied the "seer." It was just that studying and understanding the spiritual experience was seen as the gateway to understanding the nature of Existence. The spiritual experience was readily available to all in their own minds. The mind became the object of research and also the laboratory. There was no need for sophisticated instruments to study one's mind. All that the spiritual philosopher needed was the ability to observe one's mind with vairāgya (dispassion, detachment, objectivity), viveka (rational discrimination), and mumuksutva (a deep longing) to introspect, reflect, and get to the truth of the nature of the spiritual experience. They would record their observations, formulate their theories, and validate them through peer discussions and debate. They sought to find the underlying order of their spiritual experiences.

The ancient traditional philosophers who studied and decoded the nature of the seen collated this knowledge and classified it into different subjects, such as astronomy, chemistry, mathematics, logic and reason, biology, food and medicine, politics, and statecraft, etc. However, they regarded the study of the nature of the seer and the nature of the spiritual experience as more fundamental to the human being, for it determined the psychological state of being. The knowledge of the seen was necessary for survival and functional living, but was not considered sufficient for an optimal state of being, for fulfillment. It was the knowledge of the seer that was considered not just necessary but sufficient to enjoy living life.

There was only so much that the body of man needed from the world outside to live a comfortable life. Accumulation of more than what was required for a functional physical life was considered unnecessary, and they devoted their attention to finding the underlying order of the psychological experience in their minds. That their being was in accordance with the spiritual order was the key to the experience of happiness, they thought. It was when their being was not in accordance with the spiritual order that they experienced suffering, they thought.

Internalism

The traditional philosophers could see that the ultimate seeing happened in their minds. To them, there was a seer, a spiritual entity in their minds, that ultimately saw. So, for them, the eyes were mere instruments that brought the sensations to the brain, which converted the sensations into thoughts in the mind that the seer, the spirit, saw in one's mind. This idea that the seeing really happened in one's mind is called internalism. Internalism did not mean that the external world did not exist, or that it was unreal or imaginary. It just meant that the final perception of the external reality happened in one's mind. And it was important to them that this perception inside their minds was not different from what their eyes saw. It was important that this perception inside their minds was not soiled by other thoughts and emotions that also coexisted in their minds.

The entire spectrum of experiences, those that were brought by the senses from the world that could be seen, and the emotions that arose from the spirit within, could be observed in the theatre of the mind by the sole observer inside the mind, the seer, the spirit. They did not have any qualms that the world outside became, ultimately, a subjective experience inside their mind. That was just the way it was.

Animism

The ancient philosophers held that all matter, just like beings, should also have spirits. And that both spirits and matter could be classified according to their,

- nature (prakṛti or svabhāva)
- qualities (gunas)
- properties (saṃskāras)
- behavior (vāsanās)

This aspect of giving spiritual attributes to matter was called animism. They divided the material world into fundamental elements, such as fire, earth, water, air, and aether (sky). [According to Vedānta philosophy of the Indo-Gangetic plains, the five fundamental elements, known as the pañcamahābhūtas[2], were pṛthvī earth, āpaḥ water, agni fire, vāyu air, and ākāśa space or aether or sky.] Each fundamental element was endowed with a specific animistic quality, possessing certain properties, to explain their behavior when they interacted with one another.

In ancient Greek tradition, each fundamental element, i.e., earth, fire, water, and air, had specific qualities and behaviors. Earth was cold and dry, representing stability and the grounding quality associated with the material world and the human body; water was cold, wet, and fluid and linked to emotions and intuition; air was hot and wet, and symbolized movement, the mind, intellect, and inspiration; and fire was hot and dry, embodying transformation, passion, energy, and the upward force of movement. Earth had a quality of moving down, fire of moving up, and the celestial element of aether was considered eternal and pure. The elements were seen to represent qualities in human nature as well. All matter was thought to be composed of varying proportions of these four elements. In this system, there was no void; all space was filled with some combination of these elements. These elements could change into one another by altering their properties. For instance, water (cold and wet) could change into air (hot and wet) if heated, or earth (cold and dry) if it dried out (became frozen).

The four classical elements (earth, fire, water, and air) applied to the terrestrial sphere, where they accounted for "coming to be" and "passing away"[3]. The terrestrial sphere was considered a created entity, a creation by the Creator, and hence subject to change, destruction, and dissolution. The elements followed a vertical cosmological order, with earth at the bottom due to its downward pull, water below it, air above, and a distinct, unchanging celestial element, aether (or sky), was believed to fill the heavens and was the pure essence that the gods breathed.

Paganism

The ancient Greko-Roman and the Indo-Gangetic traditions were spiritual, philosophical traditions. They attributed spiritual qualities to all of Nature, which consisted of spirits with material qualities and matter

[2] The concept of *Pancha Mahabhutas* is systematically discussed and cited in several key Vedic and Vedantic texts. Primary citations can be found in the major Upaniṣads and subsequent foundational texts such as *Taittiriya Upanishad*, Chapter 2, Section 1 (Brahmanandavalli).

[3] The phrase "coming to be and passing away" (or "generation and corruption") is central to Aristotle's philosophy, especially in his works like *Physics* and *On Generation and Corruption* (*De Generatione et Corruptione* - *GC*), addressing fundamental questions about change, substance, and the existence of things, a topic explored by many scholars referencing these core texts.

with spiritual qualities. Many philosophical traditions existed in parallel, which sought to know the truths of our existence in Existence, and they often competed with each other. In spite of their competition and differences in their darshans, these traditions came to be termed as pagan traditions. Pre-Christian pagan traditions worshipped Nature in all its forms as a part of God. And God or Existence was seen as the Creator, the Absolute Causal Entity that governed both the spirits of living beings and the matter of non-living things. And it was the nature of this Absolute Causal Entity that they wanted to uncover.

Religion and Dogma

In the 14th century, in Europe, the Christian Church had gained socio-political prominence. Unlike the Greek philosophical traditions, the Christian Church was a structured, hierarchical Order that controlled the religious and political affairs. The pagan traditions and their disparate philosophies found no formal backing and slowly withered away. The Church adopted some philosophical ideas from the Greek traditions and dismissed others. The Church sought to govern its people according to laws, codes, and moral values that they considered sacred (to give their social laws and codes divine and Godly authority) and therefore beyond question or challenge. The Church was not a knowledge-seeking philosophical institution. The Church wielded tremendous authority and power.[4]

Any man-made socio-cultural laws or codes, which are just human-constructed ideals, that are held so sacred that they are deemed unquestionable, become dogmas over time. Dogmas are core principles, doctrines, or beliefs within a religion, political system, or culture that are authoritatively laid down and accepted by a group as unquestionable truth, often without the need for rational inquiry, justification, discussion, or evidence. While the term dogmatic can have a neutral meaning in a religious context, referring to foundational, settled tenets, it is often used negatively to describe the attitude of a rigid person who holds on to an unchallengeable viewpoint, implying an unwillingness to consider contrary ideas or to rationally discuss evidence that contradicts the dogmas.

In contrast to the dogmatic approach of the Christian Church, the spiritual, philosophical, and pagan traditions were based on discussions and debate, which had to be rooted in rationality, logic, and evidence. In the Vedānta tradition, śānti mantras, found in the Upaniṣads, which are mantras for śānti peace, are recited at the beginning and end of philosophical discourses. The Vedānta tradition is believed to be at least 2500 years old. It is believed that they were passed down orally from generation to generation before they were written down on dried palm leaves. One of the śānti mantras, which is found in the Taittiriya and Katha Upaniṣad, goes:

Oṃ saha nāv avatu

saha nau bhunaktu

[4] The Church was considered a dominant, even authoritarian, power in the 14th and 15th centuries, exerting significant influence over political, economic, and social life in Western Europe. The Pope and high-ranking clergy held immense political power, often more influence than individual monarchs. The Church had its own laws (canon law), could levy taxes (tithes), owned vast amounts of land, and its officials frequently acted as temporal rulers or advisors to kings. The Church was central to daily life, providing spiritual guidance but also enforcing strict moral and ethical codes. Those who disagreed with Church teachings were labelled heretics and could face severe punishments, including execution.

saha vīryaṃ karavāvahai

tejasvi nāv adhītam astu

mā vidviṣāvahai |

Oṃ śāntiḥ śāntiḥ śāntiḥ ||

Om! May God protect us both (the teacher and the student)
May God nourish us both
May we work conjointly with great energy;
May our study be vigorous and effective, and
May we not hate each other because of our arguments.
Om! Let there be peace in us! Let there be peace in our environment! Let there be peace in the forces that act on us![5]

The Upaniṣads form the central texts of the Vedānta tradition of knowledge. The word "Upaniṣad" comes from the Sanskrit word sad to sit, combined with the prefixes upa near and ni down. Upaniṣad literally means to sit down near the teacher to learn spiritual knowledge.

The Dialectic and the Didactic

The Upaniṣads followed the dialectic method, which involves establishing truths through discourse, discussion, and the reasoned examination of opposing viewpoints, often through questioning. The dialectic is also the basis of the Socratic method, where Socrates would question people to uncover contradictions and inconsistencies in their reasoning and guide them to a deeper understanding.

The dialectic method of teaching and learning was called marakata kishora nyāya (monkey-baby analogy)[6]. In this analogy, the baby monkey, the student, is responsible for holding on tightly to its mother, the teacher, while she jumps from branch to branch. The mother monkey does not actively ensure the baby's grip; the baby must make the effort to cling to her. This places the onus of learning on the student, where the student must actively seek to understand the concept taught by the teacher, through questioning. This method does not seek to challenge the teacher or the teaching, but merely to understand the teaching as the teacher has understood it. Only after the teacher and student achieve the same understanding of a concept, the student points out inconsistencies or contradictions in the concept taught by the teacher, to clarify one's understanding of the concept or to come up with a better concept that can resolve the contradiction.

In contrast, the didactic methods are instructional and fact-based, with the teacher as the primary authority who is responsible for the learning of the student. The information is directly conveyed from a teacher to

[5] Translated by Swami Gambhirananda, Published by Advaita Ashram, Kolkata. Source: Wikipedia

[6] The term *Markata Kishora Nyaya* (Monkey-baby Analogy) is a traditional Sanskrit maxim (nyāya) used in Hindu philosophy, specifically in the Vedānta tradition, to illustrate the concept of self-effort in devotion to God. It is not a citation from a single scriptural verse but a widely recognized philosophical teaching. The maxim was propagated by the philosopher Vedānta Desikan (in the Vishishtadvaita tradition) to explain his view on the path of devotion (bhakti).

a pupil as an instruction or to teach a lesson or a moral. The student merely follows the instructions of the teacher. The student cannot question the correctness of the instruction. The didactic method of teaching and learning was called marjara kishora nyāya (cat-kitten analogy). In this analogy, the mother cat is responsible for carrying her kittens to safety. The kittens remain passive and are completely dependent on their mother for their protection and well-being. A mother instructing her child what food must be eaten and what cannot be consumed is a form of didactic teaching. Here, the baby is too small to question the mother's instructions, which are intended for the well-being of her child.

The key difference between the dialectic and didactic lies in their approach to knowledge: dialectic is a collaborative process of seeking truth through reasoned discussion, while didactic is a one-sided presentation of facts or morals. In any system of modern education, both the didactic and dialectic methods are employed. In early childhood education, the teacher employs the didactic method, where the students have to remember, understand, and apply the teachings and instructions, which form the basis of lower-order thinking skills. For example, lower-order thinking skills may involve remembering words, understanding the meaning of words, and applying them to form sentences. But beyond childhood, as the student enters higher education and moves into a university, the teacher is expected to adopt the dialectic method of teaching where the student learns through rational questioning, argumentation, discussion, and debate, which then becomes the basis of higher-order thinking skills, namely reflection, analysis, evaluation, and synthesis. For example, analysis is used to discriminate between what is right and wrong in a given situation. In order to analyse, one needs an evaluative criterion, such as laws or morals. A synthesis involves determining a superset or a broader theory into which the different laws or rules can be merged, such as principles or values.

An enlightened progressive civilization is a system of education and governance built over many centuries, which encourages both the didactic and the dialectic, such that there is no inconsistency or contradiction between what is sought to be achieved didactically and dialectically, which will progressively expand its horizons of knowledge. As civilizations progress, new instruments for gaining information will be discovered. New information will bring new evidence that was not available earlier. New evidence will contradict prevailing knowledge, which will necessitate a review of the prevailing knowledge. If the new evidence falsifies prevailing knowledge, then new knowledge has to be found.

When the system of education or governance becomes didactic, without room for the dialectic, the civilization becomes regressive, where there is a breakdown between the didactic and the dialectic, and between the spiritual and the material. The contradictions brought by new evidence (counter-evidence) or new justifications (counter-reasoning) are dismissed, and the prevailing knowledge is never analyzed, evaluated, or synthesized.

When an individual or an institution, which can be a group of people, seeks to establish authority and wield power, they try to control knowledge. They simplify knowledge into dogmatic, unquestionable beliefs that must be obeyed. When knowledge is controlled through authority and power, thinking is limited to lower-order skills. This leads to groupthink or herd mentality, where different groups cling to their own knowledge without resolving contradictions through dialogue. When contradictions are intentionally not addressed to maintain authority and power, dichotomies emerge.

The modern material philosophers of Europe of the 17th century AD, armed with new instruments and new evidence, sought to develop a modern theory of matter. They found new evidence that contradicted the traditional knowledge of the ancient Greeks, the father figure being Aristotle. The Church had adopted much of the traditional knowledge of the Greeks into its Biblical doctrines. The traditional animistic view of matter could no longer account for the contradictions that the new counter-evidence presented.
The Church preferred the dogmatic traditional view, as it suited their interpretation of the universe. It must be noted that many of the modern materialists were religious and believed in the existence of a God. They were not opposed to the Church on matters of faith. But they could not intellectually accept the dogmas that the Church wanted to preserve on matters of matter.

The Church, at some time, perhaps realized that it couldn't deny the modern materialists their chance at uncovering new knowledge about the universe for very long, because the evidence presented was overwhelmingly in favor of the new science that the modern materialists sought to uncover. The materialists could uncover new knowledge about the nature of matter, but they couldn't interfere with matters of faith and morality, which included the nature of the human soul and its relationship with God. That was to remain the exclusive prerogative of the Church.[7]

The modern materialists or scientists - science being the exclusive study of matter - could study matter independently, although they still had to report on the findings of their studies and take the approval of the Church to ensure that the scientific research did not contradict well-settled matters of Christian theology. Over time, the Church felt that science was not its domain and allowed the materialists to investigate the nature of matter, which had no spirit, while the Church retained the sole control over the nature of the spirit, which had no matter.

Perhaps it was this unstated informal demarcation that heralded the dichotomy in the inquiry into the nature of Existence, which the ancient philosophers and pre-Christian pagans saw as one entity, into matter and spirit. The materialists could investigate the material part of Nature that did not have a spirit, or a soul, or consciousness, or intelligence, or mind, or thoughts, or desires, or a purpose, or will. The philosophy of the study of matter devoid of spirit came to be called materialism. The Church alone could decide on the nature of beings which had a spirit, or a soul, or consciousness, or intelligence, or mind, or thoughts, or desires, or a purpose, or will, including the nature of Existence, the nature of the Absolute Causal Entity, the Father, the God. The philosophy of the study of spirit, devoid of matter, came to be called spiritualism. This dichotomy continues even today, with materialists calling spiritualism unscientific, and spiritualists condemning the rise of modern science and its methods as lacking a soul.

Materialism

[7] The official Catholic position, articulated in documents like the First Vatican Council and Pope John Paul II's encyclical Fides et Ratio, is that faith and reason (including science) are two complementary paths to a single Truth, both originating from God, and therefore cannot genuinely contradict each other. The Church generally supports scientific inquiry, including evolution and the Big Bang theory (proposed by a Catholic priest, Georges Lemaître), but it maintains a role in discussions of morality and ethics, especially concerning the nature of the human person and the origin of the immortal soul, which it views as a spiritual, not purely material, reality. Conflict arose primarily when a scientific finding was perceived as directly contradicting a literal interpretation of the Bible or theological dogma

Seeing and knowing are categorically different. What is sensible to the eyes is the phenomenon, the effect. Causes are conceived in the mind to know the effect that is seen with the eyes. The causes of an effect are not always apparent to the eye.

The eyes can't see, and the brain can't know. They are mere instruments for the Consciousness to see and know.

Cause leads the effect. The effect can never lead the cause.

The telescope cannot see the eye or the seer. The brain cannot see the mind or consciousness.

The clock can never know its design or the purpose of its designer. That which is a human creation cannot see its design or know how and why it was designed so.

The creation can only conceive its design and the purpose of the designer if there is order in the design and if the designer has granted the possibility of such conception!

The human being is a creation with a consciousness capable of conceiving the design of the designer!

"There is no logical way to the discovery of these elemental laws...

There is only the way of intuition, which is helped by a feeling for the order lying behind the appearance."

"You believe in a God who plays dice.

And I in complete law and order in a world that objectively exists.

And which I, in a wildly speculative way, am trying to capture."

- Albert Einstein

Galileo's Observations of Dark Spots on the Sun

Europe was the stage where modern materialists began their journey towards shaping the modern scientific world we live in today. It perhaps started with Nicolaus Copernicus (1473 –1543), who challenged the dogmatic view of a geocentric universe with his heliocentric model.

Then, around 1610, Galileo Galilei (1564-1642), who supported the heliocentric model, trained the newly invented telescope on the sun and observed dark spots, apparently on its surface. Galileo observed and reported that the spots were irregularly shaped and varied from day to day in number and opacity. Moreover, they did not remain stationary but appeared to move regularly across the disk of the sun from west to east. Galileo was sure, based on calculations in mathematical optics, that they were "not at all distant from its surface, but are either contiguous to it or separated by an interval so small as to be quite imperceptible." (Shapin, 15)[8]

The traditional Aristotelian thinking, also embraced by the Church, based on the geocentric model, was that the region above the earth and the moon belonged to the heavens. Therefore, it was held that Nature had different laws for the heavenly realm when compared to the laws that prevailed in the earthly realm. The sun was considered pure and perfect. The sun was also considered changeless and immortal. The circle, in ancient traditional knowledge, was a shape that symbolized perfection. In keeping with this idea of perfection, it was held that the bodies that inhabited heaven were either at rest or, if they moved, they moved uniformly in circular orbits. (Shapin, 15)[9]

It was in the earthly realm that the imperfections presented themselves. All things and beings on earth were subject to change and decay, and hence mortal. Bodies moved in straight lines. The motion was not continuous, and the bodies 'exhausted' their energies after being set in motion and came to rest. Some forcible intervention was required to set the bodies into motion or to accelerate them. (Shapin, 17)[10]

So, when Galileo claimed that he saw dark spots on the sun, no one believed him. There could not be any impurity or imperfection in the sun. The dark spots were seen as blemishes in the sun. This, of course, could never be. It was heaven, after all. Galileo argued in frustration, "Men were, in fact, obliged to call the sun most pure and most lucid, as no shadows or impurities whatever had been perceived in it. But now that it shows itself to us as partly impure and spotty, why should we not call it impure and spotty? Names and attributes are given to the essence of things, as the essence of things is to be determined first, and the names given afterwards. It cannot be that the essence of things is determined first and then names are given." (Shapin, 18)[11]

Galileo was just stating that knowledge cannot be held sacrosanct for all of time. But they should be subject to validation by the findings of reliable observations. In the time of Aristotle, it was acceptable to call the sun pure and clear, without blemish, as no blemish had been observed, or could have been observed in the sun then. The name pure was given to the sun because that was what was observed then. Or perhaps

[8] Steven Shapin, *The Scientific Revolution* (Chicago: University of Chicago Press, 1996), 15
[9] Steven Shapin, *The Scientific Revolution* (Chicago: University of Chicago Press, 1996), 15
[10] Steven Shapin, *The Scientific Revolution* (Chicago: University of Chicago Press, 1996), 17
[11] Steven Shapin, *The Scientific Revolution* (Chicago: University of Chicago Press, 1996), 18

the sun, to the ancient Greeks, just symbolically represented purity of the spirit, as it was the source of pure light.

But now, when Galileo peered into his telescope, he could see far more stars than were ever observed by a human being with his naked eyes. Galileo could see about eighty more stars in Orion's belt than the three that had previously been observed. And the finding from the new observations that the telescope made possible was that the sun was spotty. So why, Galileo wondered, isn't the sun being called impure and spotty, for "names and attributes are given to the essence of things, as the essence of things is to be determined first and the names given afterwards." It did not make any sense to Galileo to persist with the same names or ideas or thoughts when reliable findings from observations revealed that the names or ideas or thoughts ought to change with the new observations.

Galileo also believed that there cannot exist one set of theories for a part of the universe and another set of theories for another part of the universe. In those days, the laws that pertained to the heavens were different from those that prevailed on earth. Galileo thought that there could be only one universal law according to which the entire universe functions.

To prove that he was not lying, he invited other intellectuals and clergymen to see through the telescope and observe the spots in the sun. But they were not willing to accept Galileo's claims easily. Rather, they doubted him and asked, "How could he know that it was not some fault in the telescope that was conjuring up these blemishes in the sun? How could he know with certainty that the spots belonged to the sun and not somewhere near the moon, in the earthly realm?" [12](Shapin, 20)

Galileo was challenging the prevailing Aristotelian dogma. Galileo was a nobody then, an upstart. Aristotle was considered the greatest philosopher, and the fountain of knowledge that was known then flowed from Aristotle, the fountainhead. Galileo's claims were not readily accepted. But Galileo introduced a new way of thinking about knowledge. It entailed the following principles, which became foundational for the modern scientific method:

- **Evidence Over Authority:** Findings from reliable observations and mathematically and logically disciplined reasoning must prevail over old knowledge that could not account for the findings. If the old theory or explanation is falsified by new observations or new reasoning, then the theory ought to be held false. The new findings ought not to be dismissed to preserve old knowledge. A new theory that is consistent with the new observations or new reasoning should be determined, which should become knowledge.

- **Public Validation:** The findings from new observations and/or reasoning must be made public to others who may want to validate or falsify them. The process by which findings were made from new ways of observation or reasoning was also to be made public for validation or falsification. Any new theory or explanation that took the place of the traditionally held knowledge was also to be made open to the public for validation or falsification.

- **Universal Applicability:** Knowledge was to be held universally applicable. There could not be different laws operating in the same universe.

[12] Steven Shapin, *The Scientific Revolution* (Chicago: University of Chicago Press, 1996), 20

The Metaphor of the Mechanical Clock

The mechanism of the clock symbolized anti-animism. For Aristotle, Nature was composed of the elements of earth, water, air, and fire; each had its "natural motion," the way it was "in its nature" to move. For the element of earth, its natural motion was to descend in a straight line towards the center of the earth, and this it would do unless the earthly body encountered either an obstacle that blocked its path or a push that acted on it in another direction. Natural motion tended to move the body towards its natural place. Aristotle was, of course, well aware that all sorts of nonrectilinear motions occurred. These were called violent motions, motions against the nature of a body, to be accounted for by the action of external forces, such as might be imposed on a stone by a person's throwing it upward or parallel to the ground. But it was held that we cannot learn about natural motions by considering those motions artificially forced on a body. Aristotelians also held that objects such as the sun, moon, and planets, as well as the elements of Nature such as fire, earth, water, and air, were objects created by Nature and hence their motions were natural. However, the devices, machines, tools, and other appliances created by humans were contrived and artificial. It was also held that human capacities to create and human creations were far inferior to Nature's creative capacities and its creations. (Shapin, 28)[13]

So, for Aristotle and his followers, all matter had an essential nature. Bodies naturally moved to fulfil their natures, to transform the potential into the actual, to move toward where it was natural for them to be. Just as the acorn's development into the oak was the transformation of what was potential in the seed into what was actual as a tree, so too the fall of an elevated stone was the actualization of its potential, the realization of its nature. There was a tendency in the traditional Aristotelian knowledge to attribute soul-like aspects of beings, based largely on human experience, to bodies of matter to explain their movement. For that reason, one may loosely refer to such traditional views of matter as animistic, attributing soul-like properties (the Latin anima means soul) to natural objects and processes. (Shapin, 29)[14]

The modern scientists were against the application of aspects of spiritualism to materialism, which they held to be absurd. They held that matter had no desires, no will, no intent, and no purpose. Any explanation that attributed spiritual or animistic qualities to matter was held to be unintelligible, in the sense that the explanation does not provide for an intelligent or rational understanding of the phenomenon that occurred in material bodies.

The mechanism of the clock symbolized intelligent design. When the modern materialists claimed that Nature had no intelligence, they were arguing against matter, or objects, or things, having a soul that had a will to deliberate upon the state of its existence and move towards a state that was its natural place. Modern materialists sought to separate the study of matter that had no soul and therefore no will or intelligence from the study of the being that had a soul, and an ability to think and deliberate upon its state of existence, and therefore will its state of existence. To further move away from this Aristotelian view that Nature, and its elements such as earth, air, fire, and, water, had a soul and therefore a will to move towards its natural state, modern scientists looked for a mechanical machine that could move perfectly and orderly according to its design, without any human intervention, and without having any will of its

[13] Steven Shapin, *The Scientific Revolution* (Chicago: University of Chicago Press, 1996), 28
[14] Steven Shapin, *The Scientific Revolution* (Chicago: University of Chicago Press, 1996), 29

own. The mechanical machine, an artificial human creation, could then represent the modern scientific view that all of Nature's movements were in accordance with its design, and that the need for a soul or will or intelligence for it to move and for Nature's will to intervene for it to move perfectly was entirely unnecessary.

The modern materialists were not arguing that Nature did not have a design built into it. Rather, it was their very purpose to uncover this design. Their emphasis was on the design of Nature and not on the intelligence that designed it. And it was not their remit to know if there was any 'Intelligent Designer' behind the design. All they were claiming was that material Nature and all its constituents, whether they were natural bodies such as the sun, the planets, and the earth, or man-made devices, completely and mechanically obeyed, without any randomness that could be attributed to the will of a soul, the design of Nature. They wanted to establish that Nature had an inherent design and order built into it, and all of Nature behaved uniformly according to this design.

The difference between intelligence being built into the design of a mechanism and having the intelligence to make choices must be understood. The former is an attribute of a mechanism, and the latter is the attribute of a being with a soul that has a will to determine its actions.

The mechanism of the clock symbolized order. Modern science allows for the classification of different types of matter based on their nature, qualities, properties, and behavior. For example, acids and alkalis can be classified as different types of matter based on their qualities, properties, and behavior. Different acids, like sulphuric acid or hydrochloric acid, are further sub-classifications of acids based on their qualities, properties, and behavior. The same classification can be done for mammals and reptiles based on their qualities, properties, and behavior of their physical bodies. If there were no order in the qualities, properties, and behavior of matter, then assigning them specific words, categorizing them, and determining the cause-and-effect relationships would not be possible. Knowledge, then, is just about uncovering the underlying order and expressing this order in terms of words (for qualitative descriptions) and numbers (for quantitative descriptions).

We are able to say, "Water boils at 100 degrees centigrade when the external atmospheric pressure is 1 atm", only because the quality, property, and behavior of water are consistent and in order all the time. If there were no underlying design or order in the quality, property, and behavior of water, then the above statement would not be possible. In other words, the conditions for knowledge demand that there can be no randomness.

Intelligence, in general, can be seen as orderly movement or change with, or towards, a purpose. If a machine is designed to move orderly, we say the machine has a design but no intelligence, as it has no purpose of its own. Whereas human beings and other beings are said to have intelligence as, and if, they move orderly with, or towards, a purpose. Beings with a conscious soul could decide their own purposes, while machines could not. Beings were considered masters of their purposes and used their will to move towards their purpose. Matter was just a slave of its design, and to modern materialists, Nature was just a slave of its design, without intelligence and therefore without a purpose of its own.

In a way, modern materialists were just restating their non-animistic and mechanical philosophy of what they considered Nature to be – a non-intelligent, ordered mechanism that was a slave of its design. Many of the modern materialists believed in the existence of a God who designed Nature with His intelligence,

but they focused exclusively on understanding the underlying design of Nature. It was left to the Church to understand the intelligence of God and Man and the relationship of purpose between God and Man. Many others, in their excitement over the newfound freedom to uncover Nature's design, forgot all about or found no use anymore for the Intelligent Designer.

Mechanical clocks were present in Europe by the late thirteenth century, and by the middle of the fourteenth century, weight-driven mechanical clocks had become a fairly standard feature of larger cities. Early clocks typically had their workings exposed to full view, and consequently, the relation between the movements of hands indicating time and the mechanical means by which these movements were produced was well understood. The clock enabled the time of the day to be known to all people. It was extremely accurate. There was no need to calculate the sun's exact position in the sky to interpret the time.

The mechanism of the clock symbolized the universal uniformity of Order. The mechanical clock served the purpose of dismantling the Aristotelian idea that the creations of Nature were more perfect than the creations of Man. It served as a model of the modern materialistic view that the movements of material objects, whether naturally or artificially created, have to follow the same universal natural laws. It is important to note here that the modern materialists believed that Nature, which to them was material in nature, was ordered according to Natural Laws. It was this order, this Natural Law, that they were setting out to decipher.

Moreover, there was no need for any external intervention or any force to be applied on the clock for it to function. It did not revert to any 'natural' state of its own volition or in accordance with the will of Nature. It merely worked according to the design created by Man for its functioning and according to the Laws of Nature that governed matter.

The metaphor of the mechanical clock was so convincing that in 1605, the German astronomer Johannes Kepler (1571-1630) announced his conversion from his former belief that the "motor cause" of planetary motion was "a soul". "I am much occupied with the investigation of the physical causes. My aim in this is to show that the machine of the universe is not similar to a divine animated being, but to a clock." (Shapin, 33)[15]

For Boyle the analogy between the universe and the Strasbourg clock was both exact and fertile: "The several pieces making up that curious engine are so framed and adapted, and are put into such a motion, that though the numerous wheels, and other parts of it, move several ways, and that without any thing either of knowledge or design; yet each part performs its part, in order, to the various ends, for which it was contrived, as regularly and uniformly as if it knew and were concerned to do its duty." (Shapin, 33)[16]

[15] Steven Shapin, *The Scientific Revolution* (Chicago: University of Chicago Press, 1996), 33
[16] Steven Shapin, *The Scientific Revolution* (Chicago: University of Chicago Press, 1996), 33

Figure 1: Painting of the astrological clock of Strasbourg made in 1573

The mechanical clock had succeeded in drawing many philosophers, who had earlier believed that only a great, intelligent soul could be behind the movements of the universe, to the view that the natural material universe could be just mechanical, inanimate, soulless, unintelligent, and unpurposive of its own. The natural universe had intelligence built into it, in the form of its design, but was not intelligent of its own accord. It merely functioned according to the design built into it. The discovery of that natural design was to be the purpose of the natural philosophers.

Uniformity and Regularity of Nature's Design

"The clock was also an exemplar of uniformity and regularity. If philosophers saw the natural world as exhibiting orderly patterns of movement, then the mechanical clock was available as a model of how regular natural motions might be mechanically produced. Machines in general had a determinate structure: the materials and motions required to make them, and to make them go, were knowable by human beings and, in principle, specifiable. That is to say, machines were accounted wholly intelligible. This meant that the material universe had regular and uniform order built into its design. Therefore, they believed that if they could uncover the inherent design in the motion of one object, then it had to apply uniformly and regularly across the whole material universe. Never before had Man conceived that he would be able to know the entirety of Nature's design." (Shapin, 36)[17]

Empiricism and Realism

The philosophers of the seventeenth century, who then began to provide mechanical explanations, set themselves in opposition to the tradition that ascribed to nature and its components the capacities of purpose, intention, or sentience. The observable whole, they believed, was exactly equal to the sum of the observable parts. There could not exist anything that was not real, or not observable, that was needed to be able to explain any natural (mechanical) phenomenon. This principle came to be known as empiricism[18] (should be observable) and realism (should exist). So, to explain the working of the mechanical clock, all one needed to know was all the parts that made up the clock and how they were designed to interact.

They knew that matter could be categorized into different types based on their behavior, but it was not the traditional animistic principle they embraced. They thought that each type of matter was made up of more fundamental particles that weren't observable to them then, but that it was these micro-particles or corpuscles (as they called the sub-atomic particles then) that determined their nature, qualities, properties, and behavior. Robert Hooke expressed the hope that through improvements in the microscope "we might eventually see the figures of the compounding particles of matter", and his colleague Robert Boyle even more cautiously concurred: "If we were sharp-sighted enough, or had such perfect microscopes, as I fear are more to be wished than hoped for, our promoted sense might discern . . . the particular sizes, shapes and situations of the extremely little bodies" that are, for example, the cause of the specific qualities, properties and behaviors of different types of matter. Similarly, Hooke held out the possibility that the microscope might definitively take away the legitimacy of talk of "occult" qualities by making visible those "small machines of Nature" by which effects are actually achieved. A mechanical account of Nature was then given its limiting form and content: to specify the shape, size, arrangement, and motion of the material constituents of the things concerned. (Shapin,[19] 50)

[17] Steven Shapin, *The Scientific Revolution* (Chicago: University of Chicago Press, 1996),36

[18] Empiricism is a philosophical theory that asserts that all human knowledge is derived solely or primarily from sensory experience and empirical evidence. It emphasizes the role of observation and experience, as opposed to innate ideas or abstract reasoning, in the formation of concepts and beliefs.

[19] Steven Shapin, *The Scientific Revolution* (Chicago: University of Chicago Press, 1996), 50

The Role of Mathematics and the Shift from an Inquiry into Physical Causes

That Nature was ordered according to universal laws was what the material (natural) philosophers believed. It was these laws that they were setting out to decipher. This order was perfect in that there was nothing random or irregular. If Nature's behavior were to be random, then there would be no point in knowing anything.

Knowledge is a symbolic representation, in words and numbers, of what is seen. Words are used for qualitative descriptions. The rose is red. The color red is a qualifier that describes a kind of flower called a rose. There are five roses. Five is a number that describes quantity. Qualitative descriptions are very subjective, whereas quantitative descriptions are objectively definitive.

Mathematics was a language in which the order could be deciphered and described in objective (based on the principles of empiricism and realism) and definitive (quantifiable) terms.

Modern natural philosophers turned to Pythagoras, and especially to Plato (ca. 427–347 BC), to legitimate a mathematical treatment of the world, quoting Plato's dictum that "the world was God's epistle written to Mankind" and that "it was written in mathematical letters." Galileo argued that natural philosophy ought to be mathematical in form because Nature was mathematical in structure. Modern natural philosophers widely agreed that mathematics was the most certain form of expression of knowledge, and for that reason, one of the most highly valued. (Shapin, 58)[20] [This is not surprising because astronomy, which was a special interest of the modern materialists, required a high degree of mathematical specialization to be able to trace the orbital trajectories of natural bodies.]

Kepler discovered that the structure of the planetary system followed a geometrical order. And he offered a reason why it did so: "God, in creating the universe and regulating the order of the cosmos, had in view the five regular bodies of geometry as known since the days of Pythagoras and Plato, and . . . He has fixed, according to those dimensions, the number of heavens, their proportions, and the relations of their movements." A mathematically inclined astronomer, Kepler, thought that the creator God was a mathematician. "The Creator had employed the principles of geometry to lay out planetary distances. The mathematical harmony of the spheres was a substantive feature of how the world was created and what principles governed its motions. Nature obeys mathematical laws because God used these laws in designing Nature." (Shapin, 59)[21]

The idea that Nature obeys mathematical laws gave confidence to those promoting a mathematical conception of natural philosophy. This confidence reached its highest early modern development in the 1687 Philosophiae naturalis principia mathematica of Isaac Newton (1642–1727), the English title of which was The Mathematical Principles of Natural Philosophy. The world-machine followed laws that were mathematical in form and that could be expressed in the language of mathematics. Mathematics and mechanism were to be merged in a new definition of proper natural philosophy.

There was now no room for notions of divine purpose in this homogenized world "where abstract bodies move in an abstract space." Only material causes existed in this abstract, homogenized world. All natural

[20] Steven Shapin, *The Scientific Revolution* (Chicago: University of Chicago Press, 1996), 58
[21] Steven Shapin, *The Scientific Revolution* (Chicago: University of Chicago Press, 1996), 59

processes were now conceived to take place on a fabric of abstract space and time, self-contained and without reference to local and bounded human experience. In the Principia, Newton wrote down the definitions of terms necessary for the new practice**: "Absolute, true, and mathematical time, of itself and from its own nature, flows equably without relation to anything external. . . . Absolute space, in its own nature, without relation to anything external, remains always similar and immovable."** This new science was being written at a great pace. The substratum of Nature – Existence, the Absolute, the Unbounded, and the Whole - that allowed for this mathematical perfection was rendered possible by divorcing experiences that were subjective, particular, or irregular. (Shapin, 58-59)[22]

Newton went on to describe the laws of motion of all bodies in the universe, which he described as a lawful characterization of the mathematical regularities of Nature, laws "deduced" (as Newton claimed) from the actual observed behavior of bodies. The aim was physical certainty, and the tool for achieving that certainty was mathematics. Yet the price of that conception of science included, at times, a disengagement from inquiry into physical causes. So, Newton freely acknowledged that "I have been unable to discover the cause of . . . gravity from phenomena, and I feign no hypotheses". He meant "only to give a mathematical notion of those forces, without considering their physical causes". This mathematization of the universe stood against the quest for causes, mechanical and material or otherwise. One interpretation of the Newtonian enterprise thus has it setting aside causal inquiry in favor of mathematical formulations of the regularities observable in Nature, while another interpretation celebrates Newton's expansion of the scope of causal mechanical explanation. Crucially, however, Newton reintroduced, or at least put new stress on the role of, immaterial "active powers" in a properly constituted natural philosophy, especially in accounting for effects whose reduction to mechanical principles he considered impossible or improper: magnetism, electricity, capillary action, cohesion, fermentation, and the phenomena of life. (Shapin, 63)[23]

Let's take Newton's first law of motion: Newton's first law of motion, also known as the law of inertia, states that an object at rest will remain at rest, and an object in motion will remain in motion with the same speed and in the same direction unless acted upon by an unbalanced force. We need to understand a few terms.

Inertia is defined as the tendency of an object to resist changes in its state of motion (whether at rest or moving). An object will change its state of motion (start moving, stop moving, or change speed or direction) only when an external, unbalanced force acts upon it.

Some examples are:

- A book sitting on a table will remain at rest unless someone picks it up or pushes it.
- A ball rolling across a floor will continue moving in a straight line at a constant speed unless it encounters friction, bumps into something, or is acted upon by another force.
- When a car suddenly stops, a person inside continues moving forward due to inertia, until the seatbelt (or other force) stops them.

[22] Steven Shapin, *The Scientific Revolution* (Chicago: University of Chicago Press, 1996), 58-59
[23] Steven Shapin, *The Scientific Revolution* (Chicago: University of Chicago Press, 1996), 63

Was Newton not restating what Aristotelians have held for ages: that bodies have "natural motion", the way it was "in their nature" to move? Aristotelians perhaps interpreted this behavior of bodies by projecting a will that sentient beings have onto material objects. They could not explain the motion of bodies without giving some sentience or will to them. All that the modern philosophers may have done is to replace the sentience or will that Aristotelians thought a body possessed to be able to determine its natural state, with an idea of natural design that is built into every speck of matter. There was no need for the material body to have any purposeful intelligence or will of its own to make this determination.

The causes for the motion of the mechanical clock were explainable, intelligibly and entirely. All the parts of the mechanism of the clock were empirically visible. The designer of the clock was a human being, and so it was possible to decipher the interactions among all the gears and weights that caused the movements of the hands of the clock. But what if the clock's mechanism – the system of gears and weights - was covered and not empirically visible? What if the clock was designed by an alien intelligence and sent to us in an 'unmanned' plane with its mechanism hidden?

So, if only the face of the clock with its hands and markings were exposed to us, would we be able to come up with a causal explanation of the clock's motions? And if we imagined some gears and weights that caused the regular and uniform motion of the hands of the clock, then wouldn't that be considered spooky and occult, too, because the gears and weights were hidden and invisible? And there could be many different mechanisms by which the clock's motion could be explained. And if so, how do we know with certainty which causal explanation was the correct explanation?

There are no certain answers, except that those causal explanations that lend themselves to simplicity, mathematical balance, and symmetry are taken to be the most likely explanations, especially when they could be seen to cohere with other known theories and laws.

Newton thought it was "absurd" to regard gravity as acting between bodies at a distance, without the mediation of material bodies, and he persistently tried to find a modus operandi for how gravitational attraction was conveyed through a medium, but he failed to do so. Yet even without that causal physical mechanical theory, gravitational attraction was not regarded as wholly unintelligible: its intelligibility resided in the lawful account of its action. The law of gravitation could be used for explanatory ends even if no mechanical cause could be specified. (Shapin, 64)[24]

Fact-founded causal knowledge was endemically incapable of the kind of certainty associated with mathematical demonstration, and those who expected physical inquiry to yield causal certainty on the model of pure mathematics were labeled deluded dogmatists. They stood accused of a category mistake—conflating inquiries into real, sensible matter and its effects, with the abstract realm of mathematics, causality, and reason. (Shapin, 112)[25]

[It must be appreciated that the fundamental research in fields such as chemistry and biology is different from that of physics, which was the focus of the modern materialists, as also the focus of this book. The modern materialists wanted to provide a causal explanation of how the universe operated.

[24] Steven Shapin, *The Scientific Revolution* (Chicago: University of Chicago Press, 1996), 64
[25] Steven Shapin, *The Scientific Revolution* (Chicago: University of Chicago Press, 1996), 112

Fundamental research in chemistry is carried out by studying the structure and reactions of atoms and molecules to develop new theories using methods like controlled experiments, theoretical modeling, and observations of chemical changes, all of which could be done in a laboratory. In contrast, fundamental research in physics focuses on the general laws of Nature that apply to all areas of the universe, from subatomic particles to the movement of planets. Research on fundamental forces, energy, and the movement of matter through space and time relies more heavily on complex mathematical equations, theoretical frameworks, and sophisticated experimental apparatus to test the theories and their predictions. The core difference lies in their focus: chemistry on molecular-level interactions and reactions, and physics on the broader principles governing the universe.

Chemistry research involves making observations to develop theories, while physics often develops theories first using mathematics and then seeks to observe and confirm them in nature or through experiments. Chemistry research involves making observations and studying reactions and changes in substances that are often visible or occur readily; that is to say, both the effects and their causal entities are empirically visible. The challenge is to get the causal explanations right. Physics studies phenomena like gravity and subatomic interactions, where the causal entities are not directly visible. Hence, producing the causal explanation becomes that much more difficult. The mathematically determined causal explanation, without empirical sensibility of the physical existence of the causal entities, can lend itself to debates and arguments. It is possible that multiple hypotheses and theories exist at the same time and often compete with each other to be embraced as knowledge.]

Hooke was against experiments and preferred a mathematical demonstration: If, as the clock metaphor suggested, we infer from manifest facts to hidden causal structure, then we have to accept that a number of causal theories may be conceived that can explain the same facts. There is no proof but only probability in such inferences. Hooke said he had an alternative optical theory different from Newton's that could account for the same effects "without any manner of difficulty or straining". Newton's theory was, Hooke confessed, an "ingenious" hypothesis, "but I cannot think it to be the only hypothesis; nor so certain as mathematical demonstrations". (Shapin, 116)[26]

Newton's expectations of physical certainty arose from the mathematical rather than experiential foundations of his natural philosophical practice. He rejected physical theories unless they could be mathematically "deduced", but those theories that could legitimately be so deduced were to be spoken of with absolute confidence, not with the caution of the probabilist. (Shapin, 116)[27]

[26] Steven Shapin, *The Scientific Revolution* (Chicago: University of Chicago Press, 1996), 116
[27] Steven Shapin, *The Scientific Revolution* (Chicago: University of Chicago Press, 1996), 116

The Problem of Inductive Reasoning – the Leap of Faith

Deductive reasoning involves drawing specific conclusions from general premises held to be true. Here is an example:

Premise 1: All Frenchmen like red wine

Premise 2: Pierre is a Frenchman

Therefore, Pierre likes red wine

The first two statements are called the premises of the inference, while the third statement is called the conclusion. This is a deductive inference because it has the following property: if the premises are true, then the conclusion must be true too. In other words, if it's true that all Frenchmen like red wine, and if it's true that Pierre is a Frenchman, it follows that Pierre does indeed like red wine. In deductive reasoning, the premises of the inference entail the conclusion.

Inductive reasoning is like taking a leap of faith to reach a higher truth based on a conclusion that is arrived at from a limited set of observations. So, we may observe that five metals do conduct electricity and take an inductive leap of faith to state that all metals should conduct electricity, and then keep believing it is true until it is invalidated.

Scientists use inductive reasoning whenever they move from limited data to a more general conclusion, which they do all the time. Consider, for example, Newton's principle of universal gravitation, which says that every body in the universe exerts a gravitational attraction on every other body. Now obviously, Newton did not arrive at this principle by examining every single body in the whole universe - he couldn't possibly have. Rather, he saw that the principle held for the planets and the sun, and for objects of various sorts moving near the earth's surface. From this data, he inductively inferred that the principle held for all bodies. Again, if this inference was an inductive one, which it is, the fact that Newton's principle holds for some bodies doesn't guarantee that it holds for all bodies. Let’s take Newton's law of universal gravitation. The equation for universal gravitation takes the form:

$$F = G\frac{m_1 m_2}{r^2},$$

where F is the gravitational force acting between two objects, m_1 and m_2 are the masses of the objects, r is the distance between the centers of their masses, and G is the gravitational constant.

Newton may have mathematically deduced this relationship from a table of observations made by astronomers for a few bodies, such as the sun and the earth, and the moon. However, from this mathematical relationship, he made the following statement, which we know as Newton's law of universal gravitation.

“Gravity is a force of attraction between any two particles in the universe, and every particle attracts every other particle in the universe with a force that is proportional to the product of their masses and inversely proportional to the square of the distance between their centers of mass. Separated objects attract and are attracted as if all their mass were concentrated at their centers.”

The publication of the law has become known as the "first great unification", as it marked the unification (and the universalization) of the many previously described phenomena of gravity on Earth with known astronomical behaviors.

Please note that from a set of observations held to be true for a few objects, one may deduce a particular conclusive relationship between the variables for those objects. But then, to go from particular (a few objects that were observed) to the general (all the objects) is inductive reasoning, a leap of faith!

The law of gravitation is a part of classical mechanics and was formulated in Newton's work Philosophiæ Naturalis Principia Mathematica (Latin for 'Mathematical Principles of Natural Philosophy' (the Principia)), first published on 5 July 1687. The first test of Newton's law of gravitation between masses in the laboratory was the Cavendish experiment conducted by the British scientist Henry Cavendish in 1798. It took place 111 years after the publication of Newton's Principia and approximately 71 years after his death.

Newton's law was later superseded by Albert Einstein's theory of general relativity, but the universality of the gravitational constant is intact, and the law continues to be used as an excellent approximation of the effects of gravity in most applications.

Although inductive reasoning is not logically watertight, it nonetheless seems like a perfectly sensible way of forming beliefs about the world. The fact that the sun has risen every day up until now may not prove that it will rise tomorrow, but surely it gives us very good reason to think it will. If you came across someone who professed to be entirely agnostic about whether the sun would rise tomorrow or not, you would regard him as very strange, if not irrational. But what justifies this faith we place in induction? (Okasha, 24)[28]

As human beings, we are perhaps innately attuned to seeking order, finding order, and knowing this order, perhaps even as a means of survival and for a sense of security. As the Aristotelians held, human contrived devices can fail to operate as expected, or societies may be in conflict and chaos even if the laws were designed to maintain harmony, but perfect order was to be expected in Nature, the creation of God. This assumption of perfect order is the first axiom, or the first universal premise, which is held to be true, based on which we attempt to know. We are therefore attracted to order, to beauty and symmetry, to balance, to cycles of days and nights, to the orderly movement of the stars and the planets, and to the orderly rhythms of sounds in musical compositions. We want to believe that everything is in order, but we do not yet know all of the order and therefore see many irregularities. Einstein was famously supposed to have said, “God did not play dice with the universe.” He believed that there was absolute certainty and nothing left to randomness, to chance. It is that underlying structure of certainty and order that was to be known. Whatever one may see as chaos, or as irregularity, or as disorder, only means that our knowledge has not yet evolved to see the entire order.

For example, if one were to toss a coin with one’s fingers outdoors and in windy conditions, it is impossible to predict with certainty what the outcome of the toss would be. This is because there are too many unknown and variable forces acting on the coin while it spins in the air, moves with the wind, rolls on the ground, and finally comes to rest on one of its sides. But if all the forces acting on the coin are known and

[28] Samir Okasha, *Philosophy of Science: A Very Short Introduction* (Oxford University Press, 2002), 24

determined, then it may be possible to compute the outcome of the toss. Or, if the toss of the coin is performed by very accurate machines in conditions of vacuum, and a computer-generated program were to call the toss, it may do so with perfect certainty. So, the apparent disorder in the outcome of the toss in natural conditions is not because there is an underlying disorder, but because we do not know all the values of the changing forces acting on the coin at every point in time to be able to predict the outcome. It must be seen that the unpredictability of the relationship between effort and outcome is due to a lot of unknown or incomputable variables that may affect the outcome. This does not mean perfect order doesn't exist or cannot be determined in the relationship between cause and effect.

Take a billiards game. Let's say there are twenty balls in different positions scattered randomly. But the exact position of each ball is known. The weights, sizes, and other parameters are known. The friction of the table on the balls is known. The forces that come into play when the ball strikes the sides of the table are known. Can a player, when he strikes a ball with another ball, which strikes many other balls, know the exact positions of all the balls on the table after they come to rest? It may involve solving for hundreds of unknown variables and equations. A billiards player may not be able to make all the computations to decide the perfect strike based on the desired end positions and execute it perfectly. So, a billiards player takes a chance based on his expertise and experience. But a computer-modelled machine may be able to calculate the exact positions and strike the ball such that each of the balls comes to rest in the exact positions that were foreseen in the calculation.

So, knowledge proceeds from three axioms (that are held to be foundational truths):

Axiom 1: There is perfect order in the relationship between cause and effect

Axiom 2: This order between cause and effect is applicable universally

Axiom 3: The universe is bound and is finite.

The implication of Axiom 3 is that there can be only a finite number of objects within a finite boundary – it could be zillions, but yet finite and not infinite. Mathematically, suppose one wants to solve for all the variables in the universe, so that we can claim to know all the laws operating in the universe. In that case, one can solve for all unknown variables with certainty only if one can develop at least the same number of equations as the unknown variables. Hence, this can happen only in a finite, bound system of the universe. Knowledge is not possible in an infinitely unbound universe, or in an unordered universe, or in a finite but unbound universe. Only in a bounded, finite, and ordered system can there be laws like the conservation of mass, energy, and momentum, etc. (Balakrishnan)[29]

Therefore, if all the objects are known and their cause-and-effect order is known, then we will be able to predict with certainty all the outcomes of the interactions between them. Then we will see the universe in perfect order, beauty, and symmetry. We would not see any chaos, for chaos only represented our lack of knowledge, or our ignorance, of the underlying order, not the non-existence of the underlying order.

The term entropy is often misunderstood. Entropy is not a measure of chaos or disorder that exists. There is no existential chaos or disorder. Entropy is a measure of our ignorance of the underlying order. It simply

[29] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

means that we do not have the information about the underlying order, or that the form of matter has changed from the more predictable, concrete, and static to more unpredictable, fluid, and dynamic states.

The 18th-century Scottish philosopher David Hume (1711-1776) questioned the rationality of inductive inference. He scoffed at the very idea of calling it reason. According to him, it was just a wild guess that humans tend to take by habit or by nature to assure themselves that there is an underlying order and that we can know the underlying order. And this assumption of the underlying universal order (uniformity of Nature was what he called it), which is taken to be true, was again nothing but a consequence of inductive reasoning. He argued that we do see some order in Nature, like the sun rising and setting every day, very reliably and predictably over the thousands of years that Man has watched and recorded the rising and setting of the sun. So, by "brute habit" (Okasha, 24) we extend our knowledge of the past, which is a specific set of observations that had certainly occurred, to the entire span of time in the future, to say that there is a universal order, and that because of this universal order the sun will certainly rise and set in the same way as it had done in the past. This projection of past certainty into a future certainty by assuming an underlying order to be true was irrational, he claimed. He argued that there was no rationale for the assumption of an underlying order. We do it maybe because we want to feel psychologically secure in having 'known' an order, but just our want to feel secure does not make the assumption rational.

Hume was right. We assume this order. This assumption is the most fundamental axiom upon which we can go about the task of collating knowledge. Why do we want to collate knowledge? Because we want to be able to reliably predict the future based on the past. It is to be noted that all knowledge is about what has happened in the past. By finding an order in past knowledge and extending this order to the future, we are trying to determine the future. And knowledge, based on the observed order of the past, is the only way to predict the future.

The influence of Hume's argument is not hard to understand. Normally, we think of science as the very paragon of rational enquiry. But science relies on induction, and Hume's argument seems to show that induction cannot be rationally justified. If Hume is right, the foundations on which science is built do not look quite as solid as we might have thought. This valid criticism of the philosophical basis of modern material knowledge, which we call science, is known as Hume's problem of induction.

Philosophers have responded to Hume's problem in different ways. Some people believe the key lies in the concept of probability. This suggestion is quite plausible. For it is natural to think that although the conclusions of an inductive inference do not guarantee the certainty of the conclusion, they do make it quite probable. So even if scientific knowledge cannot be certain, it may nonetheless be highly probable. But then, wasn't knowledge about certainty? Isn't probability just a mathematical language to disguise uncertainty in the garb of certainty? How does a high probability of some event happening in the future give us more confidence that it will? Isn't probability based on instances of some event having occurred in the past? Isn't it inductive reasoning to think that it is highly probable that it will happen in the future, not because of the certainty of the existence of an underlying order, but because of the probability of the existence of an underlying order?

Despite Hume, science continued to pursue inductive reasoning to come up with a hypothesis. And then if the hypothesis was validated, and it was seen to be more reliable in predicting how the future would be, it would be called knowledge. And when anyone could falsify the hypothesis, then it wouldn't be called

knowledge anymore, and would be swept away into the annals of history. A search for new knowledge to replace the old falsified knowledge would begin in all earnestness.

For deduction to happen, we need general premises held to be true. These are called axioms in mathematics. An axiom is a statement that is assumed to be true without proof, serving as a fundamental building block for a mathematical system. Axioms provide the foundation upon which all subsequent mathematical reasoning and proofs are built.

An example of an axiom in geometry is: A straight line can be drawn between any two points and represents the shortest distance between the two points, where a line is a straight, one-dimensional figure that extends infinitely in both directions, with no width or depth and a point, represented by a dot, is a location in space that has no size, shape, or dimension. This definition will seem so true until we realize that we exist in a three-dimensional space reality where zero-dimensional, one-dimensional, two-dimensional, or four-dimensional objects cannot physically exist.

Anti-Realism – the Opposition to Realism

The basic idea of realism is straightforward. Realists hold that science aims to provide a true description of the world, where they believe the causes to be real material objects that should necessarily be observable. This may sound like a fairly innocuous doctrine. For surely no one thinks science is aiming to produce a false description of the world. But that is not what anti-realists think. Rather, anti-realists hold that science aims to provide a true description of a certain part of the world - the 'observable' part. As far as the 'unobservable' part of the world goes, it makes no odds whether what science says is true or not, according to anti-realists. Anti-realists say that realists develop ‘truths’ based on what they have been able to observe. (Okasha, 59)[30]

It is agreed that we haven’t been able to observe all of the universe. Therefore, whatever we know as knowledge today could be invalidated in the future as more of the world becomes observable with advancements in technology. Therefore, anti-realists claim that it is not possible at all to know whether we know, until we can observe the entire universe. In other words, we have to first be able to observe the universe as a God may see it, from outside of the universe, and not from within. Only after this is achieved can knowledge be possible, according to the anti-realists.

Let’s take the metaphor of the mechanical clock. The mechanical clock does not have a soul, will, or intelligence of its own to move. The parts of the mechanical clock did not come together by accident to serve no purpose of their own. It was designed by an intelligent designer, a human being, to serve his specific purpose: knowing the time. Since a human being, the intelligent designer, designed the clock, he knows all the parts of the clock, how they have been put together, how the parts work together, and for what purpose the clock was built. In imagining the universe to be like a mechanical clock, and to be able to know with certainty the design of the universe, one necessarily has to be the intelligent designer, or God. However, our situation is like that of a small gear inside this clock, which cannot see all of the parts of the clock, or how it was all put together, or for what purpose. Can a small gear inside the clock, and

[30] Samir Okasha, *Philosophy of Science: A Very Short Introduction* (Oxford University Press, 2002), 59

limited to seeing only some parts of the clock, be able to know the entire design that came from a human designer's mind? Or that it was for the purpose of letting him know the time of the day?

It was using such arguments that the anti-realists thought that the claim made by mechanical realists that they could know the universal laws was ill-founded.

The Role of Experiments

Experiments helped to record observations without the interference of other variables, and they were also used to validate knowledge that emerged from inductive reasoning. To ensure that the experiments and other tests that were carried out to validate a hypothesis were not deliberately contrived to produce evidence that supported the hypothesis, they were often authenticated by public testimony, including the naming of reliable witnesses, the public display of relevant expertise, and the use of narrative techniques designed to make empirical statements look like indubitable axioms. (Shapin, 84)[31]

Some of the most celebrated early experimental performances were Galileo's "inclined-plane experiments," in which balls were rolled down a smooth ramp to provide the empirical warrant for the mathematically expressed law of fall.

What would be the answer of a common man (not scientifically inclined) based on his everyday sense experiences of life if he were asked the question, "What would happen if a feather weighing 10 g and a ball weighing 10 kg were to be dropped simultaneously from the same height?" The man may answer, "The feather would be carried away by the wind, and the ball will fall right beneath where it was dropped." And if a second question were asked, "What would happen if a ball weighing 5 kg and a ball weighing 10 kg were to be dropped simultaneously from the same height?" the man may answer, "The heavier ball will hit the ground faster than the lighter ball, maybe in half the time taken by the lighter ball."

But Newton had reasoned that the mass of the object had nothing to do with its acceleration, and that any object, irrespective of its mass, would have the same acceleration due to gravity, which equals 9.81 m / s^2, provided no other forces are acting on the object.

It was not common sense experience that a feather weighing 10 g and a ball weighing 10 kg, when dropped from the same height, would land on the ground at the same time. The feather would be subject to the forces of the wind blowing about and the friction of the air, and would float and fly, and flow wherever the winds took it, before landing on the ground quite far away from where it was dropped. On the other hand, the 10 kg ball would fall in a straight line and land on the ground at a point directly below where it was dropped from. And it may have occurred to the common man that the heaviness of the object would determine how fast it could travel.

But if Newton was to be believed, then according to his laws of motion, both the feather and the ball would have to fall in a straight line and land directly below where they were dropped from. And if they were both dropped from the same height simultaneously, they would hit the ground at the same time, falling in straight lines right beside each other from the time they were dropped until the time they landed.

[31] Steven Shapin, *The Scientific Revolution* (Chicago: University of Chicago Press, 1996), 84

If Newton's law had to be validated, then an experiment had to be conducted where the unwanted interference of the wind and the friction of the air had to be eliminated. This unwanted interference is called noise. In a vacuum chamber, the noise is emptied. Then, when the feather and the ball are dropped simultaneously from the same height, they are seen to fall in straight lines beside each other, both hitting the ground at the same time. And the same phenomenon would be observed with the 5 kg and 10 kg balls as well.

So, how did Newton know this law, when the sense experience of Newton would have been the same as the common man's sense experience? Newton had extensively observed the motion of different bodies, such as the sun and the moon, and the other planets. And he had recorded his observations meticulously. And from his observations, Newton had 'deduced' an order, a pattern in the motion of bodies. And based on this pattern, he could reason that the mass of the body had nothing to do with its acceleration. This orderly pattern he could then formulate mathematically, which he applied inductively as a universal law.

Knowledge of the underlying causal order was a conception that happened in Newton's mind based on extensive observations and an unrelenting search for a pattern based on a conviction that there had to be a universal order in the motion of bodies. The knowledge emerged in his mind. It is called an insight.

[The word "insight" originated in English around the 12th century and is a compound word formed from the prefix "in" and the noun "sight". It literally means "inner sight" or "seeing inward". The original meaning in Middle English (c. 1200) was "sight with the 'eyes' of the mind, mental vision, understanding from within", a "penetrating understanding into the hidden nature".]

Einstein called it intuition. [We'll look at what intuition is later in the book.] Knowledge that emerged from patterns in the mind as intuition could not be gained from observations of the phenomenon, the effect, or from sense experiences.

Few modern practitioners, however keen they might be on the foundational role of experience, were also aware of the inherent unreliability of the senses alone. Galileo famously applauded Copernicus for making "reason so conquer sense that, in defiance of the latter, the former became the mistress of [his] belief." And Robert Hooke, himself a prolific inventor of scientific instruments, while noting the "narrowness and wandering" of the senses of fallen man, lauded the role of the telescope and the microscope in correcting their infirmities and extending their empire. The progress of knowledge was referred not simply to an expanded role for sense but to a studied correction of sense, perhaps by mechanical instruments, and then a studied correction of the conception of the pattern of order that emerges in the mind, by reason, such that the conception offers the most suitable explanation of the empirically observed phenomenon, which when validated several times by others, and not falsified even once, can be called causal knowledge. (Shapin, 93)[32]

[It is important to note the shift in thinking. The modern materialists initially believed that the causal entities had to be real and empirically observable to be considered natural mechanical philosophy. Later, they felt that this criterion was impeding the progress of scientific knowledge. They then accepted causal explanations based on mathematical, and not physically real and empirically observable, causal entities, as long as the explanation could be validated in the physically real and empirically observed phenomenon.

[32] Steven Shapin, *The Scientific Revolution* (Chicago: University of Chicago Press, 1996), 93

The entire notion that scientific knowledge is founded on empiricism and realism is based on the causal entities being empirical and real. This is clearly a misconceived notion. It is only the observed phenomenon that was always empirical and real. The causal entities were conceived in the mind to explain the phenomenon and to know the underlying order. The causal explanation of the empirically observed phenomenon occurred in the mind, when seen by the 'mind's eye' as an intuition or an insight. Causes of motion, such as gravity or space-time, are not empirical entities; rather, they are conceptual entities, conceived in the mind.]

Experimental facts testified to a unitary order of nature that was causally responsible for those facts. The facts of the experiments were visible or tangible, whereas the causes they testified to were not accessible to the senses. How then was it proper to move from the one to the other? How was it proper to speak respectively of matters of fact and their physical causes? (Shapin, 101)

Here again, the metaphor of the clock was drawn on to express the varying degrees of confidence one might repose in matters of fact and in hypotheses one might frame about the underlying causes of those facts. We see a clock sitting on the mantelpiece. Observing the regular movement of its hands, we have knowledge of effects. When reliably observed and communicated, these count as matters of fact. Such conditions being met, we can have certainty of these facts, for practical purposes, as certain as the results of mathematical or logical demonstration. But suppose the inner workings of the clock are securely enclosed in an opaque box and are practically inaccessible to our inspection. We cannot then have similarly certain knowledge of what causes produce these effects. That the causes are mechanical in nature is something we can be reasonably assured of (according to mechanical philosophers), but how exactly the mechanical bits and pieces are arrayed is a matter of only probable knowledge. Our informed guesses at how the clockwork produces its manifest effects have an irremediably theoretical and hypothetical character. With an actual clock, we could, if we really wanted to, take the box apart and pry into its workings. We could ask clockmakers how they do their work. But for Nature, we cannot do the same because we just do not have direct sensory access to Nature's hidden causal structure. We must infer the causal workings from intuitive insights as we cannot interrogate God, the great clockmaker. The knowledge of effects, the regular movement of the hands of the clock, has no relation to the knowledge of the causes, except that the knowledge of the causes must consistently explain the knowledge of the effects. (Shapin, 101-102)[33]

So, in offering a probable account of how the world machine worked Descartes—who elsewhere insisted on the high degree of certainty of his mechanical explanations—said: "Just as an industrious watch-maker may make two watches which keep time equally well and without any difference in their external appearance, yet without any similarity in the composition of their wheels, so it is certain that God works in an infinity of diverse ways, without it being possible for the mind of man to be aware of which of these means He has chosen to employ. . . . And I believe I shall have done enough if the causes that I have listed are such that the effects they may produce are similar to those we see in the world, without being informed whether there are other ways in which they are produced." (Shapin, 101-102)[34]

[33] Steven Shapin, *The Scientific Revolution* (Chicago: University of Chicago Press, 1996), 101
[34] Steven Shapin, *The Scientific Revolution* (Chicago: University of Chicago Press, 1996), 101

The modern materialists insisted that experience is to be seen as the authority for knowledge, and not the book or the people of the book. All they were pleading for was to ensure that the knowledge found in books that was created by authoritative people in the past should not be taken for granted as a dogma, but should be constantly validated or falsified in direct experience or through experiments to ensure that the knowledge of the past continues to remain knowledge in the present. Knowledge has to always be rescued from becoming a dogma, an unvalidated knowledge from the past. Past knowledge becomes present dogma when its ability to provide an intelligible explanation of the phenomenon in the present, based on present experiential or experimental evidence and rational justification, has long ceased.

This dictum applied fully to the knowledge they were creating anew and committing to books. It does not mean that the book of knowledge should be discarded and all inquiry should begin anew. It just meant that the book of knowledge should be understood and then validated in experience by whoever is keen to know.

What was Knowledge for?

The modern materialists set off to create new knowledge of the material universe, knowledge that could explain the working of the universe just as a clockmaker could explain the working of his clock based on the design of its mechanical parts and their mechanical interactions. It was the explanation of the causes of the observed phenomena in Nature that they were after. But was the knowledge created by the modern materialists really new? Could it provide a causal explanation? If it did, is this knowledge certain? What was the knowledge for?

Much of the knowledge was just a description of the phenomenon, the pattern in which the stars and planets moved, an answer to the question, “What is that (phenomenon) I see with my eyes?” And it was only a part of the description of the phenomenon, for it did not describe the entire nature of the phenomenon, the nature of all the parts involved in the phenomenon.

Even to describe the movement of the earth around the sun, the nature of the earth and sun, as well as all other entities involved in the movement, had to be described. The description of the phenomenon was incomplete without an understanding of the nature of matter that made up the sun and the earth.

To understand the nature of matter itself, materialists had to go beyond what could be seen superficially by the eyes. They had to uncover the metaphysical nature of matter to be able to explain the different types of matter that made up the sun and the earth, and their categorization in terms of their qualities, properties, and behavior. Materialists had to know the basic structure of matter in terms of atoms and molecules, and then uncover the structure of the atom itself and discover its sub-atomic particles, such as protons, neutrons, and electrons. The atom then becomes a phenomenon to be described and understood. The sub-atomic constituents of the atom then become a phenomenon to be described and understood.

What started as a search for a causal explanation of the movement of the earth around the sun at the macrocosmic level became a search for a causal explanation of the phenomenon at the microcosmic level of the atom and the sub-atomic particles. And materialists, even today, are trying to discover answers to these fundamental questions.

Scientists discovered that matter could be made up of different elements, where each element was made up of atoms, where the atom of each element had a specific atomic structure with a different number of protons, neutrons, and electrons. And Mendeleev discovered an underlying order in the arrangement of

the elements - Mendeleev's table. Further modifications to Mendeleev's table became what we now know as the Modern Periodic Table.

The modern periodic table organizes elements by their atomic number, arranged in 7 horizontal rows called periods and 18 vertical columns called groups. The atomic number was always a whole number, and it represented the number of protons in the nucleus of an atom of that element. This structure, refined by Henry Moseley in 1913, allows scientists to predict an element's properties and is a fundamental tool in chemistry.

Elements in the same group have similar chemical properties due to the same number of valence electrons, while elements in the same period are arranged by increasing atomic number and show a gradual change in properties. The table's structure also reveals patterns in chemical and physical properties. For example, metals are generally on the left, and non-metals are on the right.

The periodic table had many blanks, as many elements were unknown then. The periodic law states that properties are a periodic function of atomic number. This order, stated mathematically as a periodic function, based on the atomic number, led to the search for the missing elements. And slowly, but surely, they were found. The elements discovered after 1913, all with atomic numbers greater than 42, include both naturally occurring elements found in trace amounts and synthetic elements created in laboratories. And it was also found that the properties and behavior of the newly discovered elements were as Moseley had predicted it.

Based on a lot of further research, scientists began to understand the material structure of the sun, the nuclear reactions that occurred in the sun, the heat, and the light that was propagated from the sun to the earth, by which life is sustained on earth. Yet we have not really understood the physical cause by which the earth moves around the sun. Newton's laws of gravitation were mathematical in nature. He was not able to determine the physical entity that caused gravitation, an attraction between any two bodies.

The principles of realism and empiricism, the bedrocks of modern science, demanded that the entities that caused the movement of the earth around the sun should be real and be seen by the eyes or sensed by instruments. Albert Einstein's general theory of relativity modified Newton's gravitational law. In Einstein's general theory of relativity, spacetime is a four-dimensional continuum that provides a coordinate system for events in the universe. The presence of mass and energy within the universe "curves" this "fabric of spacetime", and this curvature is what we perceive as gravity.[35]

So, is this fabric of spacetime real and empirically sensible? No, the "fabric of spacetime" is a misleading analogy for the reality of spacetime, which is not a physical substance but rather a mathematical framework describing the geometry of the universe that is curved by mass and energy, based on which we can predict the motion of bodies in the universe. The bending of starlight around massive objects, a key prediction of general relativity, provides observational evidence for the theory of curvature of spacetime, and not for the physical entity that causes gravitation. The "fabric of spacetime" is just a mathematical framework. We do not know of, and have not yet seen, the physical causal entity of gravitation.

[35] Relativity: The Special and the General Theory, Albert Einstein, 1916

At the sub-atomic level, at the level of electrons and protons, there was a quantum universe that posed new challenges to our understanding of physics and how objects moved. The electrons could have 'spin', and they seemed to move in ways different from what could be described at the ordinary scale. Then began a whole new science called quantum mechanics, which extensively uses probability models to determine the momentum and position of a quantum particle. It seems as if the quantum particles do not travel in straight lines, but move in some kind of coordinated behavior, which is called quantum entanglement, as if they were waves.

Many theories seek to bridge the gap between classical physics and quantum physics, such as string theory. String theory is a theoretical framework in physics that replaces zero-dimensional point-like particles with one-dimensional objects called strings. These strings are believed to be the fundamental building blocks of the universe, and through their different vibrational states, they appear as distinct particles with properties such as mass and charge. The theory is a candidate for a unified theory that can merge quantum mechanics and general relativity, though it has yet to be experimentally confirmed and requires extra dimensions to exist. String theory, too, is a mathematical construct that is a work in progress, as it has not yet been experimentally verified.

So, we have not really been able to answer the question, "What is that (phenomenon) 'I' see with my eyes?" in the sense that we do not have a full description of all the parts involved in producing the phenomenon. And, we have not been able to answer the question, "What explains how that (phenomenon) behaves so?" as it requires that the physical causes be known to really exist and be empirically observable, not merely as mathematical models. (Mathematical validation is just the indication of an underlying order, and does not necessarily validate the physical existence of the abstract entities supposed in the mathematical model.) And of course, the question "What explains why that (phenomenon) behaves so?" was never a question that science ever considered it could answer. Purposes and intelligence belonged to the intelligent designer, not to the design built into a mechanism.

In effect, the scientific knowledge we have today is based on probability and is uncertain; it does not satisfy the principles of realism and empiricism. So, what was natural knowledge for? Specifically, to what ends was a reform of natural knowledge undertaken in the seventeenth century?

Bacon's justification was that the fundamental material research would lead to fundamental material knowledge, which would lead to practical and applied research, which would lead to many inventions or solutions that would lead to an improvement in the lives of people (Shapin). So, the practical inventions of modern science are touted as the achievements of scientific knowledge. And there is no doubt that in the last few centuries, there has been tremendous progress in scientific inventions. We have electricity, the electric bulb, the motor, engines, planes, ships, submarines, nuclear power, wind energy, solar energy, phones, telecommunication, radio, television, internet, computers, machines, robots, and artificial intelligence. All these have made life easier and comfortable, rescued people from back-breaking hard labor, and in general led to tremendous increases in wealth and prosperity in the world. In medicine, we have been able to find cures for many diseases. We can perform complex surgeries like organ transplants that have enhanced the health, life spans, and well-being of people.

Bacon was not wrong.

For the Global Positioning System (GPS) to function accurately, satellites orbiting at high speeds and lower gravity levels must have their onboard atomic clocks continuously corrected. Based on the special relativity effect, due to their high velocity, the satellites' clocks run slightly slower than clocks on Earth. Based on the general relativity effect, because they are farther from Earth's gravitational pull, the satellites' clocks run slightly faster. Without these real-time relativistic corrections, the system would accumulate positional errors of several kilometers per day, making it useless for navigation.

Quantum mechanics, developed in the early 20th century by scientists like Max Planck, explains the behavior of matter and energy at the atomic and subatomic levels. This foundational theory has led to many of modern society's most important technologies. The invention of the transistor in 1947 relied on an understanding of quantum mechanics. The theory is essential for understanding how semiconductors, like silicon, can be precisely manipulated to control the flow of electricity. This enabled the creation of microchips, which are the fundamental building blocks of all modern computers, smartphones, and other digital electronics.

The theoretical basis for the laser ("Light Amplification by Stimulated Emission of Radiation") was predicted by Einstein in 1916. Lasers were not invented until 1960, after the quantum physics of stimulated emission was fully established. Today, lasers are ubiquitous, found in everything from optical storage devices (DVDs) and fiber optics to medical surgery and barcode scanners.

Technologies like Magnetic Resonance Imaging (MRI) rely on the quantum property of "spin" in atomic nuclei. MRI machines use powerful magnetic fields to manipulate the spin of hydrogen atoms in the body's water molecules. The signals emitted by the atoms allow doctors to create detailed, non-invasive maps of soft tissues.

But Bacon was not entirely right either.

It is very interesting to note here that Man had already invented complex appliances much before the fundamental laws of science had been discovered by scientists and philosophers. Engineers had always been several centuries ahead of philosophers. Man had been able to design and use things before he came to ‘know’ the laws by which they worked. The Great Pyramid of Giza was built around 2600 BC, supposedly in just 26 years, when around 1500 AD, modern scientists and philosophers were yet to uncover the fundamental laws of motion of matter.

Numerous key inventions of the modern era were developed through trial and error, long before the scientific community fully understood the underlying principles governing their function. This practice of applied science preceding theoretical science was a powerful engine of the Industrial Revolution and beyond. Consider the following cases:

The invention and improvement of the steam engine is one of the most prominent examples of an invention preceding its theoretical explanation. Thomas Newcomen developed the first practical steam engine in 1712 to pump water out of mines, and James Watt later made significant improvements in the 1760s to increase its efficiency. The laws of thermodynamics, which explain the relationship between heat, work, and energy, were not established until decades later. Nicolas Léonard Sadi Carnot formulated the foundational principles in 1824 by observing the operation of the steam engine itself.

The Wright brothers famously achieved powered, controlled flight with their Flyer in 1903, primarily through hands-on experimentation. The brothers painstakingly built and tested kites, gliders, and wings in a wind tunnel they designed themselves to gather data. Their key innovation was a system of three-axis controls, allowing a pilot to steer effectively. While they built on the work of earlier pioneers, the Wright brothers developed their designs through practical experimentation rather than a complete theoretical understanding of modern aerodynamics. It would be decades before the field of fluid dynamics matured to fully explain the physics of their achievement.

The earliest permanent photographs were created in the 19th century using trial-and-error chemical processes. Joseph Nicéphore Niépce produced the first permanent image in 1826 after years of experimenting with light-sensitive materials, including bitumen. Louis Daguerre and William Henry Fox Talbot also developed their own photographic processes in the 1830s through chemical experimentation. The science of photochemistry—the chemical reactions that are initiated by light—was not a developed field of study during the initial invention of photography. Early photographic inventors had to empirically find and test their light-sensitive materials.

Guglielmo Marconi developed the first commercially successful long-distance wireless telegraphy system without a full grasp of how radio waves propagated across long distances. After reading about Heinrich Hertz's experiments with electromagnetic waves, Marconi built a practical system for communication in 1895 and achieved the first transatlantic radio transmission in 1901. Marconi's transatlantic transmission succeeded even though scientific theory at the time predicted that radio waves would travel in straight lines and be blocked by the curvature of the Earth. The existence and function of the ionosphere, which reflects radio waves and allows for long-distance communication, were not fully understood until the 1920s.

Early refrigeration systems were created by observing the cooling effects of evaporating liquids, long before the comprehensive laws of thermodynamics were articulated. Scottish professor William Cullen demonstrated artificial refrigeration in 1755, and American inventor Jacob Perkins later built the first practical vapor-compression refrigeration machine in 1834. Early inventors understood the practical process of using phase changes to create cooling. However, the theoretical principles that govern this process and define a refrigeration cycle were mathematically described later in the 19th century by scientists who studied heat and work.

The first compass was invented in China between the 2nd century BC and the 1st century AD. European mariners adopted the technology in the 14th century AD, allowing for extensive ocean navigation away from land. It was not until William Gilbert published De Magnete in 1600 that the scientific study of magnetism began. He theorized that the Earth itself was a giant magnet, explaining why the compass needle always points in the direction of the north pole.

Alessandro Volta created the first electric battery in 1800, generating and storing electrical current without a complete understanding of the chemical processes involved. The scientific principles of electrochemistry, which explain how different metals and electrolytes react to create an electric charge, were developed over the following decades through the work of scientists like Michael Faraday and Humphry Davy.

The concept of vaccination was known and practiced decades before Louis Pasteur developed the modern germ theory of disease in the 19th century. The discovery of the first antibiotic, penicillin, was an accidental observation years before scientists understood its mechanism of action. The discovery of quinine as a treatment for malaria preceded the modern understanding of pharmacology and parasitology. The use of anesthetic agents to allow for painless surgery was demonstrated and adopted based on practical results, not a prior theoretical understanding of neurobiology.

Much of the research done today in universities and the laboratories of companies is applied research. The scientists conduct research based on experimentation and trial and error to find solutions to problems. And more often than not, a successful 'breakthrough' invention leads to an enhancement in theoretical knowledge.

It was true that the natural philosopher's role was conceived mainly as dealing with what were called "secondary" or "efficient causes", that by which an effect is brought about—for example, identifying the movement of one material body as the efficient cause of another's movement, the effect. And it was acknowledged to be true that a superficial orientation toward such causes might lead practitioners to ignore "final causes," the ultimate causes of movement, the ultimate prime mover of the universe, or that by which and for the sake of which movement occurred.

Bacon believed that a proper and profound natural philosophy offered solid assurance of God's existence and attributes. That was the sense of Bacon's claim that "natural philosophy, which is after the word of God, is at once the surest medicine against superstition, and the most approved nourishment for faith, and therefore she is rightly given to religion as her most faithful handmaid." That nature showed solid evidence of design—that it was artfully contrived—was wholly accepted by mechanical philosophers. This train of inference was the basis of the most pervasive seventeenth-century argument for the existence and intelligence of a God—the argument from design—which linked the practice of science to religious values from the early modern period through the nineteenth century. (Shapin, 139)[36]

The clock metaphor again. Imagine that one is walking along a road and finds a watch lying on the ground. Taking it apart, one observes how intricately its mechanical parts are put together and how well adapted they are to the evident function of the watch in telling time. In just the same way, those who observed and reflected on the natural world were confronted with the solid evidence of design and the inescapable conclusion that there was an intelligent designer, one whose intelligence was unimaginably greater than that of the human artificer.

A mechanical conception of nature could support belief in the existence of God at the most fundamental levels. We are to understand that a watch with moving hands and gears was at some point set in motion. We are also to accept that its parts do not move themselves and are utterly dependent on an external motive agency. However intricately its parts are formed and adapted for the purpose of telling time, the watch cannot actually perform that function until its mechanical elements are externally animated. So, if we are to accept the physical legitimacy of a mechanical conception of nature, then all the pervasive evidence of motion in the world is testimony to the animating work of a creator God. (Shapin, 148)[37]

[36] Steven Shapin, *The Scientific Revolution* (Chicago: University of Chicago Press, 1996), 139
[37] Steven Shapin, *The Scientific Revolution* (Chicago: University of Chicago Press, 1996), 148

Matter cannot move itself. It can be moved by contact with another bit of moving matter, but ultimately, movement has to have an origin that is itself not material. That was its final cause, and many mechanical philosophers maintained that a mechanical understanding of nature would lead us to the recognition of a final cause that was itself not natural or material but supernatural, not material but spiritual. The proper study of nature led "from Nature up to Nature's God." [Nature's Absolute Causal Entity]

The more we learn about the world-engine, the more we are persuaded not just of the existence of a creator God but also of his creative wisdom. No such engine could conceivably have come into existence by the chance concurrence of corpuscles. In the 1670s, the French Cartesian Nicolas Malebranche (1638–1715) agreed: "When I see a watch, I have reason to conclude that there is some Intelligent Being, since it is impossible for chance and haphazard to produce, to range and position all its wheels. How then could it be possible that chance, and a confused jumble of atoms, should be capable of ranging in all men and animals, such abundance of different secret springs and engines, with that exactness and proportion?" (Shapin, 143)[38]

Descartes believed that the scope of mechanical accounts was crucially limited. Explanations of the human body were, for Descartes, not the same thing as explanations of human beings, for there was something about human beings that could not be comprehended by an account of the body's matter and motion. We do not feel ourselves to be machines, and Descartes agreed that we are not. We feel ourselves to exercise will, to have purposes, to move our bodies in response to our purposes, to be conscious, to make moral evaluations, to deliberate and to reason (that is, to think), and to express the results of our thought in language—none of which Descartes reckoned that machines can do.

That human beings have these attributes and can do these things arises from their dual nature: as far as their bodies are concerned, they are matter in motion, but they also have minds, and the phenomena of the mind are not ultimately to be accounted for by matter in motion. The world itself contains two qualitatively different realms, that of matter and that of mind. The uniqueness of human beings flowed from the mysterious interaction between what could be encompassed within a mechanical framework and what could not. Human beings have purposive minds, and purposive minds, after all, move matter. (Shapin, 159)[39]

Realism and Idealism

"There is a very ancient debate in philosophy between two opposing schools of thought called realism and idealism. Realism holds that the physical world exists independently of human thought and perception. Idealism denies this - it claims that the physical world is in some way dependent on the conscious activity of humans. To most people, realism seems more plausible than idealism. Realism fits well with the common-sense view that the facts about the world are 'out there' waiting to be discovered by us, but idealism does not. Indeed, at first glance, idealism can sound plain silly. Since rocks and trees would presumably continue to exist even if the human race died out, in what sense is their existence dependent on human minds? In fact, the issue is a bit more subtle than this, and continues to be discussed by philosophers even today." (Okasha, 58)

[38] Steven Shapin, *The Scientific Revolution* (Chicago: University of Chicago Press, 1996), 143
[39] Steven Shapin, *The Scientific Revolution* (Chicago: University of Chicago Press, 1996), 159

Idealism is wrongly interpreted as a claim that the existence of the physical world is in some way dependent on the conscious activity of humans. (We have already discussed that internalism posits that our perception of the reality of the physical world happens in our minds.) Idealism is not about the question of the existence of the physical world without a human mind; rather, it is about the possibility of the existence of order in the physical world independent of a conscious mind capable of designing that order, both in the things of matter and in the beings of spirit. It is not about whether the physical world of matter that can be seen by the eyes of a physical body is real, but about whether the physical world, including the physical body, is the Absolute Causal Entity. Even the materialists did not accept that what was just seen by the eyes was the essence of matter. They peered inside matter to discover a whole new universe of atomic and sub-atomic particles that seemed to exhibit 'quantum' behavior quite different from the behavior of 'classical' physical bodies. We are not yet certain of the causal bodies that cause these different motions. And yet somehow, we want to believe that matter alone can explain the cause of the qualities, the properties, and the behavior of material phenomena.

Idealism has another interpretation in philosophy. The normative view of philosophy - what the phenomenon ought to be or should be. Most religions, including Christianity, advocate the normative aspect of philosophy. What should the nature of an ideal God be if He does exist? What should be the ideal way of life for Man? What should an ideal society be? What are the ideal values of a moral man or society? Normative philosophy provides ideals or standards that an individual, a community, or a system should live up to to be considered ideal.

The debate between realism and idealism in today's context can be stated as: Could the physical brain, a material hardware, have created the spiritual consciousness that is necessary to design an ordered universe? Or did the consciousness design the order both in the brain and in the physical universe such that we as conscious beings could perceive the order in the physical universe with our eyes, and through the brain in our minds? In simpler words, is it matter over mind, as modern material neurologists claim it is, or is it mind over matter, as the ancient spiritual philosophers claimed it always was?

If a robot can have a subjective experience of emotions based on its thoughts, actions, and achievements, then realism wins the debate. On the other hand, if it necessarily takes a human mind - with a consciousness capable of a subjective experience of emotions based on its thoughts, reason, actions, and achievements - to write software like the OS and other application software that operates the CPU (like physical hardware brain) that instructs and controls the movements of the robot to perform activities in the physical world, then idealism wins the debate! [AI can write software and even interact with other humans, yet it is just a software designed by a conscious human being for that very purpose.]

If matter with no consciousness or no intelligence of its own could create consciousness and intelligence, wouldn't that be the epitome of what can be called occult, spooky? This is a question the materialists have to answer.

Realism is a metaphysical view of the nature of matter based on conceptual causal entities, based on the assumption that they must be real. And that the reality of these causal entities would be revealed in the future. It explains the nature of matter and its observed behavior. Ontology is a branch of philosophy that provides a metaphysical view of the nature of the spirit, of being, and of existence in Existence. It explains

the nature of the spirit that causes the psychological behavior in the mind. The ontological interpretation of idealism is spiritualism.

The etymology of the word idealism comes from the ancient Greek idein, meaning ‘to see’ or ‘to behold’. The question is: Is an order or an ideal at all possible without consciousness first beholding ideas in the mind? If the order is not possible without the conscious mind of a designer, what then is the nature of the mind of that Absolute Designer who has been given names such as the Absolute Causal Entity, or Existence, or God, or Father, or Brahman, or Allah, or Tao, or Jehovah?

The ancient spiritual philosophers may have known then that the search for material causal knowledge and truths would ultimately lead back to one’s self, the causal entity within the mind. And they probably sought to start the search for the Absolute Causal Entity within their own minds to discover the nature, qualities, properties, and behavior of the self in their minds, the knowledge of which was called self-knowledge or ātmā-jñāna. [The word "universe" comes from the Latin word universum, meaning "all things," which is composed of uni- ("one") and versus ("turned"). Therefore, its literal meaning is "turned into one" or "turned into a whole".]

When they understood the nature of the spirit, the self in their minds, they likely also grasped the nature of the Absolute Spirit, which brought an end to their quest for knowledge to discover the Truth. Based on this knowledge of the Truth, they could proclaim in the Bible that, “God has made Man in His own image,” or as Adi Sankarācārya proclaimed in his Advaita Vedānta, that, “Jagat Mitya, Brahman Satya.” “Jagat Mithyā, Brahman Satya” translates to ‘The world is an illusion, Brahman is the Truth'. This is also the claim of ontological idealism – the illusion is real, but it is not the reality of the Absolute Causal Entity! The phenomena in the world are like that of an illusion created by a magician; however real its appearances, it is only an illusion caused by the magician. Hence, they called material knowledge aparā-vidyā and spiritual knowledge as parā-vidyā, supreme knowledge or knowledge of the nature of the magician, the Supreme Being!

The ancient spiritualists wanted to understand what caused suffering, the chaos inside the mind, and what caused the mind to be in order. They thought that this suffering was an illusion, and that if they could see Māyā, the order behind the illusion, then their suffering would cease. To reveal Māyā, they had to invoke Yama, the Hindu Lord of Death, to destroy the darkness of ignorance within their minds.

They had to endure the suffering, but they finally understood Māyā. They taught what they had known and realized, and prayed that others, too, might see this order and liberate themselves from suffering. The Pavamāna Mantra (pavamāna meaning "purified, strained"), also known as pavamāna abhyāroha (the purification of the being leading to its abhyāroha, lit. "spiritual ascension”), is an ancient mantra found in the Bṛhadāraṇyaka Upaniṣad, part of the Yajur Veda.

asato mā sadgamaya,

tamaso mā jyotirgamaya,

mṛtyormā'mṛtaṃ gamaya.

From falsehood lead me to truth,

From darkness lead me to light,

From death lead me to immortality.[40]

It is to be noted that Māyā is just an inversion of Yama, the Hindu lord of death. It must also be noted that death was never about the physical death of the physical body. The ancients knew that the physical body would die. The immortality they sought was of their being, which came from the death of ignorance in their minds.

It is into the nature of the human being and the human mind that we have to delve into to understand the nature of the Absolute Causal Entity. Idealism is just the principles of realism applied to the mind. Except that whatever happens inside the mind is seen by the seer, the spirit. The sensory eyes merely bring sensations from the world outside into the brain. The brain then presents the sensations to the seer, the spirit, who witnesses it all, alone, in the theatre of his mind.

The ancient spiritual philosophers engrossed themselves in seeking answers to the phenomena that they experienced in the theatre of their minds as the sole subjects after their eyes had sensed and communicated the sensations through the brain into their minds. One may call it a subjective experience to differentiate it from an objective experience that could be empirically sensed by many at the same time. But these philosophers sought to study the experience that happened exclusively in their minds, of which they alone could be aware, with the same objectivity with which the materialists studied the natural phenomenon. To make sense of any experience, natural or spiritual, one had to maintain an adequate distance from the experience. Being too far away and removed from the experience or being too close and entangled in the experience makes observing, for studying, impossible. [If you want to read a book, it has to be held at a distance that allows the text to be read. Holding it too near or far away from the eyes does not allow for readability.] For this, they had to detach their self from the entanglement with the desires, thoughts, and emotions in their minds.

Why were the ancient philosophers seeking knowledge of the phenomenon that happened in their minds? Because they wanted control and mastery. First, they wanted control and mastery over their external circumstances so that they may survive, enjoy the sensations of pleasures, and avoid pain. They could see that the sensations of pleasure were very fleeting and that the sensations of pain however fleeting were unbearable. So, pleasure was worthy of desire, and pain was not desirable. And they could see that their actions in life, from the perspective of their body, stemmed from desire - to enjoy pleasure was a desire, and to avoid pain was also a desire. Then they turned inwards to control and master their internal circumstances.

They knew that there was very little the body needed in terms of food and shelter to survive and thrive. And they also observed that their subjective experiences were not always in conformity with their physical dispositions. They experienced happiness sometimes, and sometimes they suffered. Oftentimes, even when the needs and wants of the body had been satisfied, they experienced suffering. And sometimes when they experienced happiness, they almost forgot to satisfy the needs and wants of the body. Again, in terms of the spiritual experience that happened in their minds, they desired happiness, and they desired to avoid suffering.

[40] Source: Wikipedia

They discussed with each other and observed that the desire to enjoy pleasure and avoid pain with respect to the body and enjoy happiness and avoid suffering with respect to the mind applied to all the human beings they observed and studied.

Then, based on their observations, they inductively inferred that the desire to enjoy pleasure and avoid pain with respect to the body and enjoy happiness and avoid suffering with respect to the mind applied to all human beings, who were conscious of their experience. This being conscious of one's experience of pleasure and pain or of happiness and suffering happened in their minds. And that whatever was conscious resided in the mind. The sensations of the body, of pleasure and pain, could be neutralized if these sensations were numbed with anesthetics. The happiness and suffering of the mind could be neutralized when that which was conscious went to sleep.

They then made the universal inductive inference: The desire to enjoy pleasure and avoid pain with respect to the body, and the desire to enjoy happiness and avoid suffering with respect to the mind, applied universally to all conscious beings. Each conscious being could choose what constituted pleasure and pain with respect to the body, and what constituted happiness and suffering with respect to the mind. This choice was made in accordance with the desire that emanated in the mind of the conscious being.

It was this inference that made spiritualism, for them, parā-vidyā, and materialism aparā-vidyā. They wanted knowledge of and mastery over the phenomenon that happened in the mind, such that they could experience happiness and cease suffering.

And they thought that it was the control and mastery over desire that held the key to a state of bliss, where they felt liberated from suffering. That experience of liberation from suffering was what they held to be the human purpose. In that experience of liberation, they knew, they had found meaning to their existence and also gained the knowledge of the purpose of Existence itself. This mastery of the subjective experience to gain an understanding of the nature and purpose of Existence was impossible in aparā-vidyā alone.

[It must be stressed, at the cost of repetition, that in the Vedānta tradition, both aparā-vidyā and parā-vidyā were just two aspects of Nature. Aparā-vidyā was about what was seen and parā-vidyā was about the seer. There was no dichotomy, and, therefore, no fundamental conflict between the two streams of knowledge, as both belonged to the same river that was Nature. Aparā-vidyā could not delve into the question of the nature of Existence, while parā-vidyā held that possibility.

Aparā-vidyā was seen as necessary, but not sufficient. It was parā-vidyā that satisfied the necessary and sufficient condition. Aparā-vidyā was limited to giving man his physical liberation by his gaining the knowledge to satisfy his physical needs. However, parā-vidyā gave man his spiritual liberation by gaining the knowledge to control and master his subjective experience. In parā-vidyā, it is clearly understood that aparā-vidyā was an essential and necessary step to be accomplished before parā-vidyā could be initiated. They believed that aparā-vidyā enabled the stomach to be full and not hungry, so that parā-vidyā could then be initiated in a mind that was empty and hungry.]

But, today, in the era of modern science, there is a tremendous philosophical discord, rather a conflict, between the scientific understanding of Nature and the spiritual understanding of Nature. There is a huge conflict between materialism and spiritualism. We have people in camps of knowledge, almost as enemies,

in an attempt to dominate and win, and even destroy, the knowledge of the other camp. And, if one may say so, today, there is a domination of materialism over spiritualism.

We live in a world of binaries, of 'OR' thinking. Either this is true, or that is true. The ancient philosophers had 'AND' thinking. They thought that Truth was that where there was no dichotomy between right and wrong, or good and bad. Satya or Truth, in their definition, had to be inclusive and not exclusive.

Satya or Truth had to include knowledge of the nature of God, the Absolute Causal Entity! Only then, the "final causes", the ultimate causes of movement, the ultimate prime mover of the universe, or that by which and for the sake of which movement occurred, would be known!

Spiritualism

The Truth was never about what is seen with the eyes. That's ordinary seeing, where the seer, in his seeing with his eyes, sees the seen. Truth was always about an extraordinary seeing, where the seer sees without his eyes. When the seer's mind is emptied, the seer in his seeing sees the seer as a reflection in his mind.

In ordinary seeing, when the mind is not empty and not still, the distinction between fiction and Truth, and between madness and wisdom, is blurred, and the mind is unable to discriminate, and therefore often mistakes one for the other.

In extraordinary seeing, the seer sees the love of the purest nature – a love that flows without conditions, a love that flows from his being, a love that is his very essence, and a love into which he could drown and yet be eternal!

In such seeing, the seer is liberated from seeking love in, and from, this world!

What was Materialism About?

This chapter provides a summary of the main discussions in the section on "Materialism" in this book. This allows an informed reader to dive into the section on "Spiritualism" without reading the section on "Materialism". This chapter can be skipped if the earlier parts of the book have been read.

The Philosopher's Questions

A philosopher of Existence is concerned with knowing the nature of Existence and seeks explanations for the following questions:

1. What is the Existence in which the phenomenon that I see with my eyes exists?
2. What explains how Existence behaves so?
3. What explains why Existence behaves so?
4. What is that (phenomenon) I see with my eyes?
5. What explains how that (phenomenon) behaves so?
6. What explains why that (phenomenon) behaves so?
7. What is the eye by which I see the phenomenon?

8. What explains how the eye behaves so?

9. What explains why the eye behaves so?

10. What is the experience of the 'I', the seer, who sees in the mind, the phenomenon that he sees with his eyes?

11. What explains how the experience of the 'I', the seer, in his mind behaves so?

12. What explains why the experience of the 'I', the seer, in his mind behaves so?

13. What (or who) is the 'I', the seer, who experiences in his mind?

14. What explains how the 'I', the seer, behaves so?

15. What explains why the 'I', the seer, behaves so?

16. What is the Existence in which the 'I', the seer, exists?

17. What explains how Existence behaves so?

18. What explains why Existence behaves so?

The eighteen questions that they wanted to know could be broken down into two sets.

The first set of nine questions pertains to understanding the nature (what it is), the process of cause-effect relationships that explain behavior (how it behaves), and the purpose of behavior (why it behaves so)

- of the Existence in which the phenomenon exists
- of the phenomenon that can be seen by the eyes,
- of the eyes that see the phenomenon

Philosophers who sought knowledge of what could be seen with their eyes perhaps understood that to be able to explain the phenomenon, they had to first know all about Existence, to know what caused the phenomenon, and then also know about their eyes, the instruments by which they obtained information about what is happening 'out there'.

The second set of nine questions pertains to understanding the nature (what it is), the process of cause-effect relationships that explain behavior (how it behaves), and the purpose of behavior (why it behaves so)

- of the experience that happens in the mind of the 'I', the seer, after the seer has seen the phenomenon with his eyes,
- of the 'I', the seer, who is experiencing the experience that happens in his mind, and
- of the Existence in which the 'I', the seer, exists.

The philosophers who sought to know the nature of the experience in their minds seemed to have it easier. All the information was readily available to them 'in here', in their minds. They just had to figure out the nature of their experience in their minds, the nature of the 'I' in their minds, and the nature of the Existence

in their minds. They thought that this was perhaps an easier and more directly accessible way to understand the nature of Existence.

Existence, The Absolute Causal Entity

The ancient philosophers of Greece, of Mesopotamia, and of the Indo-Gangetic regions did not think that the Existence in which the phenomenon that could be seen by the eyes existed, and the Existence in which the 'I', the seer, existed, were different entities. They believed that this Existence (what ultimately exists) was the same entity that caused both the phenomenon that could be seen with the eyes and the experience that was experienced in the mind by the seer, the 'I'. So, they held this Existence as the Absolute Causal Entity. (In this book, Existence is the Absolute Causal Entity, the Creator, and the universe or Nature is the creation, the created.) This Absolute Causal Entity they called God, or Father, or Allah, or Brahman, or Jehovah, or Tao, or the Great Spirit. So, they wanted to uncover the nature of God, or the nature of Existence, or the nature of the Absolute Causal Entity. There was no difference between God and Existence. They were just different words that referred to the same Absolute Causal Entity.

The Axioms for Existential Knowledge

There were four axioms (fundamental foundational truths) that the ancient philosophers believed could not be violated, for even the possibility of knowledge to exist. They were:

- The Absolute Causal Entity was real and existed
- The Absolute Causal Entity was both the source and the cause of the phenomenon that could be seen by the eyes, in the world.
- The Absolute Causal Entity was both the source and the cause of the experience that could be experienced by the 'I', the seer, in his mind
- There is order in the behavior of the Absolute Causal Entity as manifested in Nature.

The Axioms for Material Knowledge

The axioms that are necessary for knowledge of the material universe, which explain the first set of nine questions, are:

Axiom 1: There is perfect order in the relationship between cause and effect

Axiom 2: This order between cause and effect is applicable universally

Axiom 3: The universe is bound and is finite

The implication of Axiom 3 is that there can be only a finite number of objects within a finite boundary – it could be zillions, but yet finite and not infinite. Mathematically, suppose one wants to solve for all the variables in the universe, so that we can claim to know all the laws operating in the universe. In that case, one can solve for all unknown variables with certainty only if one can develop at least the same number of equations as the unknown variables. Hence, this can happen only in a finite, bound system of the universe. Knowledge is not possible in an infinitely unbound universe, or in an unordered universe, or in a finite but unbound universe. Only in a bounded, finite, and ordered system can there be laws like the conservation of mass, energy, and momentum, etc.

Therefore, if all the objects are known and their cause-and-effect relationships are known, then we will be able to predict with certainty all the outcomes of the interactions between them. Then we will see the universe in perfect order, beauty, and symmetry. We would not see any chaos, for chaos only represented our lack of knowledge, or our ignorance, of the underlying order, not the non-existence of the underlying order.

The term entropy is often misunderstood. Entropy is not a measure of chaos or disorder that exists. There is no existential chaos or disorder. Entropy is a measure of our ignorance of the underlying order. It simply means that we do not have the information about the underlying order, or that the form of matter has changed from the more predictable, concrete, and static to more unpredictable, fluid, and dynamic states.

Modern Materialism and Its Limitations

Materialists sought to explain the design of the universe as a mechanical system, such as a clock, where all the parts that made up the clock were real and could be seen with the eyes. Therefore, they believed that they could understand the underlying design of the universe by observing and deducing the workings of the universe, just like one could decipher the design of a clock if one could see how all the parts of the system work with each other. The idea that what they saw with their eyes is real is called realism. And the idea that knowledge emanates from sense experiences of what could be seen is called empiricism.

However, the materialists could not see all the parts of the universe, as they were inside the universe and not outside it. [One could see all the parts of a clock only if one were outside the clock.] And even the parts of the universe that they could see were ultimately comprised of quantum entities that could not be definitely observed. Hence, the causal explanation, the design of the universe, comprising causal entities such as space-time, gravity, etc., was conceived in the mind. This happened through a process of intuition. Then they validated their mental conceptions, the causal theories, to see if they could reliably explain the phenomenon they saw with their eyes. If these theories were reliably validated, they could then inductively infer the universal laws by applying the theories to the entire universe. They could do this because they held as an axiom - the order between cause and effect is applicable universally - that the universe was based on a unitary underlying design.

Even today, science has not been able to address the questions of:

- What is it: This requires seeing and describing all the parts of the universe (macro and micro)
- How is it: This requires knowing how all the parts come together to produce what is observed as a phenomenon (the effect)
- Why is it: This requires knowing the purpose of the universe.

Materialists also held that the universe had an intelligent design built into it, but that the universe did not have an intelligence of its own to make choices according to a purpose and move orderly towards it. And they were ambiguous or rejected the idea of an “Intelligent Designer” or a “God” who designed and created the manifest universe.

The Tradition of Knowledge in the Indo-Gangetic Plains

The Buddha

The tradition of spiritual knowledge in the Indo-Gangetic plains dates back many thousands of years, possibly even thousands of years before the birth of Siddhartha around 500 BC. Siddhartha was a reformist, and just like the modern materialists, wanted to rescue knowledge from the prevailing dogma. It had become dogma because it was not renewed through validation and falsification, and was not restated in light of societal changes, including shifts in lived cultural practices and spoken language. When authoritarian bodies adopt prevailing knowledge, they codify it as laws or moral instructions to be followed without question. Siddhartha restated, reestablished, and rescued ontological philosophy from the prevailing dogmatic codes posing as normative philosophy. He rescued knowledge, an understanding of what is, from religious ritualistic codes of what should be. Siddhartha reestablished spiritualism, just like the modern material philosophers reestablished materialism. Siddhartha came to be called the Buddha, the Awakened One, for he had found a way to break free from the shackles of suffering in his mind. Buddha had reformed the prevailing knowledge of the Vedas, which had become ritualistic and dogmatic. The word Veda literally means knowledge and is derived from the Sanskrit root vid "to know".

Adi Sankarācārya

Then came Sankara, around 700 AD, who later came to be called Adi Sankarācārya (from Adi, the first, and ācārya, teacher of the institution that Shankarācārya has become today). Buddha's teachings had also stagnated over many centuries and had become largely ritualistic under the religion of Buddhism. Sankara reformed the dogma that Buddhism had become and gave a new interpretation to the Upaniṣads, which was also called Vedānta. Vedānta literally means the end of the Vedas, for it was appended at the end of each of the four major branches of the Vedas – the Rigveda, the Yajurveda, the Atharvaveda, and the Samaveda. The Vedas, even today, are seen as ritualistic religious texts, while Vedānta is seen as an ontological philosophical text. Vedānta is seen as the essence of knowledge. Sankara established Advaita Vedānta in his interpretation of the Upaniṣads. Advaita is a doctrine that establishes that the nature of one's existence as an individual spirit, ātman, is not separate from the nature of Existence, or Brahman. Atman, according to Advaita, is a part of Brahman and never apart from it. Advaita is a non-dual interpretation of Vedānta from 'a' meaning not, and 'dvaita' meaning two-ness or duality.

Non-Dualism

This doctrine of nonduality is seen in other spiritual traditions as well. It is seen in Christian mysticism, in Sufism, an Islamic mystic tradition, in Zen Buddhism, and in Taoism. The phrase "God created Man in His own image", stemming from Genesis 1:27, is a foundational concept in Abrahamic religions. Chuang

Tzu says, “Great knowledge sees all in one. Small knowledge breaks down into the many.”[41] The Sufi poet Rumi says, “You are not a drop in the ocean. You are the entire Ocean in a drop.”[42]

Chinese Zen master Huangbo Xiyun says, "If you seek the Buddha outside the mind, the Buddha becomes your enemy"[43]. This saying emphasizes the core Mahayana Buddhist principle that the awakened nature of one’s self is not a physical object or external deity to be found through external searching, rituals, or study of scriptures alone. The teaching directs practitioners inward. True awakening is a matter of realizing one's own inherent nature, which is already present within the mind (or heart-mind, shin in Japanese). Looking outside the self for salvation or enlightenment creates a conceptual separation between the "seeker" and the "sought". This duality is seen as a fundamental illusion caused by ignorance in Buddhism.

The mind of Man was seen as the way to understand the mind of the Intelligent Designer. It was the same idea of inductive reasoning that the modern materialists had used to know the order of the universe.

Recall that knowledge is based on inductive reasoning, which is founded on the following axioms:

Axiom 1: There is perfect order in the relationship between cause and effect

Axiom 2: This order between cause and effect is applicable universally

Axiom 3: The universe is bound and is finite

These axioms are applicable in spiritualism as well. Rather, it is possible that the modern materialists had adopted these axioms from the ancient spiritualists.

The Oral Tradition of Ancient Knowledge

The Vedic and Upanishadic tradition was an oral tradition. The oldest Vedic hymns in the Rigveda were orally composed between approximately 1500 and 1200 BC[44]. The hymns were meticulously preserved through a strict teacher-to-student oral transmission using complex recitation techniques, which ensured exceptional fidelity and accuracy. Scholars believe the Vedas were first written down after 500 BC, but the oral tradition of mantras and slokas remained the primary and most authoritative form of transmission for centuries.

Oral traditions are highly vulnerable to corruption over time, so specialized methods were created to ensure perfect memorization and recall. Mantras serve as an advanced form of mnemonic device through features that help with accurate memorization. The chants were crafted with precise meters and melodies, making them easier for the human brain to store and retrieve. This is similar to how song lyrics are easier to

[41] Source: Zhuangzi (The Book of Chuang Tzu), Chapter 2, titled "Qi Wu Lun" (Discussion on Making All Things Equal or Adjustment of Controversies.) This specific wording is a translation by Thomas Merton from his 1965 work, The Way of Chuang Tzu

[42] It is often considered a modern interpretation or a paraphrase of Sufi concepts regarding the "microcosm" reflecting the "macrocosm" and attributed to Rumi

[43] Widely attributed to the Chinese Zen Master Huangbo Xiyun (Huang-po Hsi-yun), from the Tang Dynasty. It appears in the collection of his teachings, the *Chün-chou P'ei Hsiu Ch'an-shih yü-lü* (Record of the Sayings of Zen Master P'ei Hsiu of Chün-chou), commonly known in English as *The Zen Teaching of Huang Po on the Transmission of Mind*

[44] Source: Wikipedia

remember than spoken prose. To prevent any alteration of the text, elaborate recitation techniques called pathas were developed. These methods involve repeating words in different sequences and combinations (e.g., chanting words forward, backward, and in a circular manner), reinforcing memory and ensuring the text remains unchanged. The effectiveness of a mantra is believed to depend on the correct sound and intonation, known as swaras. In oral tradition, specific tonal accents are used, where even a slight change in pitch can change the meaning. This focused attention on pronunciation further helped recall and safeguard the text's integrity.

The ancients had taken great care and trouble to ensure that the knowledge they had gained was preserved and transmitted accurately. They had made the pursuit of knowledge the purpose of their lives. They must have thought that the human being was special. They thought Man was a being designed to know the nature of his existence in Existence. And that if this was known, Man could know the nature of Existence.

It was the nature of the seer in the mind of Man that they sought to know.

Jada, the Non-living Matter, and Jiva-ātman, the Living-Being

The Non-Living Matter, and the Living Being

In Sanskrit, one of the oldest languages of India and the language in which the philosophical texts of the Upaniṣads, which is also called Vedānta, are written, jada is the word for anything bereft of experience. Jiva-ātman is the word for the living being that can have a subjective conscious experience, where jiva means living, and ātman is the name for the subject, the conscious being that experiences.

Things are generally seen as inanimate objects or items that do not possess life. They are made up of matter, which is jaḍa, inert, lacking sentience or consciousness. They do not undergo biological life processes such as eating, resting, sleeping, working, defecating, or reproducing. They do not have intelligence as they cannot think, remember, or introspect. They lack will, and they cannot make choices or act on their own. They do not have desires or a sense of purpose or meaning. They have no experience. They do not feel pain or pleasure. They do not experience happiness or suffering. They do not have emotional feelings that are related to their circumstances.

Beings, on the other hand, don’t just exist. They live. They participate in basic life processes such as eating, resting, sleeping, defecating, reproducing, etc. Some beings engage in more complex actions and may form groups to perform their activities more efficiently. They are aware and conscious, in some way or the other, of their existence. They have memory. They remember their thoughts and feelings, and therefore, they can think. Advanced beings like humans may find it meaningful to have a purpose in life and to be able to orient their thoughts and feelings to achieve their purposes. Beings are classified into kingdoms of life forms based on shared characteristics, including bacteria, archaea, protists, fungi, plants, and animals.

Sentience and Consciousness

Beings are said to have sentience and/or consciousness. There seems to be no agreed-upon way to differentiate between sentience and consciousness, but sentience is a fundamental property of all living beings. Sentience is the capacity to have subjective experiences, feelings, and awareness that are unique and exclusive to that being. However, sentience is also seen by some as limited to the capacity to have

subjective experiences of pleasure and pain based on sensations. Sensations are external stimuli that can be sensed by the sense organs of a living being. The living being may also respond to sensations in some way that can reduce pain and enhance pleasure. Human beings, which are classified as belonging to the animal kingdom, can perceive and respond to sensations such as light sensed by the eyes, smells sensed by the nose, touch sensed by the skin, sounds sensed by the ears, and tastes sensed by the tongue. Plants, fungi, and bacteria also have some form of sentience. Consciousness includes sentience but encompasses a much broader variety of subjective experiences, involving higher thinking abilities and a range of emotional feelings.

The ancients had a broad classification of things and beings.

- Things were inert and had no sentience or consciousness.

- Plants were sentient living beings that had a natural instinctive response to sense stimuli for obtaining food, for reproduction, and for defence mechanisms for survival. But they did not have a mind and therefore no desire.

- Animals and birds, too, were sentient with natural instinctive responses to sense stimuli for obtaining food, reproduction, and defence mechanisms for survival. They also had a mind, and therefore they had desires, they had intelligence to make choices, and they had emotional experiences.

- But it was the human being who had, besides the sentience of animals, a mind with a higher consciousness, with not just desires, but the desire and the ability to know. It was this desire to know and conduct one's life by knowing that differentiated the human being from all other living beings. Consciousness is a fundamental aspect of the human being that enables the human being to witness and experience the cognitive and psychological processes of thinking, feeling, conceiving ideas, reflecting, validating, knowing, and learning the underlying causal order of the physical and spiritual phenomena that are perceived by the being in the mind.

The body of all living beings was inert matter, or jaḍa. The brain, part of the body, was also considered jaḍa, inert matter. Hence, when a person died, the bodily remains were referred to as mere jaḍa. It was the human mind that was the object of study for the ancient philosophers who sought parā-vidyā.

[We may have some appreciation of the consciousness of other living beings, including plants and animals, in terms of their response to external stimuli and their patterns of living. But we do not know the range, texture, and depth of subjective experiences that plants and animals have. Are trees, which live for thousands of years, capable of having a higher consciousness than humans? Is the consciousness of whales, which live in the ocean for hundreds of years, higher and different than human consciousness? We do not know. Therefore, the rest of the book will be restricted to understanding human consciousness.]

The Human Subjective Experience

The human subjective experience, consisting of pleasures and pains, feelings, emotions, thoughts, desires, hopes, will, intentions, meanings, and purposes, is exclusive to each human being. While the sense stimuli may be the same for two different beings, it cannot be assumed that the subjective experiences are the same. One human being may classify the subjective experience of the sensation as pleasurable while another may classify it as painful.

The subjective experience may be dependent on the external sense stimuli, or it may be independent of the external sense stimuli. It is possible that a person can be aware of a feeling of suffering, sorrow, or fear even in the absence of stimuli that can cause these experiences or in the presence of stimuli that can cause pleasure. For instance, a person may feel sad when immersed in thoughts of his break-up with his lover even while having his favorite ice cream. It is also possible that a human can feel joy even in the absence of stimuli that can cause these experiences or in the presence of stimuli that can cause pain. For instance, a person may feel joyous when immersed in thoughts of having secured his dream job even when he has broken his arm and is in pain.

Sensations can be sensed by every human being, assuming that all humans have all the sensory abilities. Therefore, the world of matter, to which the sensations belong, can be objectively studied by all. However, the subjective experience of pleasure or pain and the thoughts and emotions intertwined with the sensations are experienced exclusively by that subject alone. These subjective experiences cannot be shown to others or cannot be seen by others. Even the subject cannot see his subjective experience empirically in the conventional way of seeing with the eyes. But there is no denying the subjective experience that the subject experiences.

The Metaphor of the Humanoid Robot

The modern materialists used the metaphor of the mechanical clock to provide clarity about their philosophy of materialism. The questions the modern materialists were concerned with were about the material world they saw with their eyes. However, the questions the ancient spiritualists were concerned with were about the spiritual experience that the 'I', the seer, experienced in his mind. Let's recall the questions.

1. What is the experience of the 'I', the seer, who sees in the mind, the phenomenon that he sees with his eyes?
2. What explains how the experience of the 'I', the seer, in his mind behaves so?
3. What explains why the experience of the 'I', the seer, in his mind behaves so?
4. What (or who) is the 'I', the seer, who experiences in his mind?
5. What explains how the 'I', the seer, behaves so?
6. What explains why the 'I', the seer, behaves so?
7. What is the Existence in which the 'I', the seer, exists?
8. What explains how Existence behaves so?
9. What explains why Existence behaves so?

The above set of nine questions pertains to understanding the nature (what it is), the process of cause-effect relationships that explain behavior (how it behaves), and the purpose of behavior (why it behaves so)

- of the experience that happens in the mind of the 'I', the seer, after the seer has seen the phenomenon with his eyes,

- of the 'I', the seer, who is experiencing the experience that happens in his mind, and
- of the Existence in which the 'I', the seer, exists.

The Humanoid Robot

We need a new metaphor in the modern age to answer the questions of ancient spiritualists. The ancient spiritualists held that "God created Man in His own image". We have an advantage over the ancient spiritualists – the advance of technology. We have created a humanoid robot in our own image, except for one aspect of consciousness, which allows us to have subjective experiences, which the robot can't because it lacks consciousness. But the humanoid robot enables us to reject all its aspects that are also found in the human being as not consciousness. Then we may study human consciousness, that which makes us beings, for what being is. The metaphor of the humanoid robot will show that the philosophical basis or axioms of ancient spirituality were the same as those of modern materialism, modified only to account for the fact that spiritualists were studying the seer while the materialists were studying the seen.

Let's just take the statement, "God created Man in His own image," to be a true premise. Let's also assume that "Man has made the humanoid in his own image" is also true. Now we are the intelligent designers of the humanoid, and we know all about the design of the humanoid. Our objective is to understand the design of Man as designed by the Intelligent Designer, God. Then the next steps would be:

- Let's see if the way we designed the humanoid correlates with the way God designed us.
- If it does, then, using induction, let's apply this design to the entire universe and see if it holds.
- If it does, then it may be possible to apply the same design to God or Existence.

If they all hold, then we may have a basic idea of a Unified Theory of Existence, one where there is no dichotomy between matter and spirit, and between materialism and spiritualism. Then maybe with our modern technology and knowledge, we can fill in the details.

The Humanoid Robot and the Human Being

Let's do a comparative analysis between the human being and the humanoid. Both the human being and the humanoid have sthūla-śarīra (gross body) and sūkṣma-śarīra (subtle body). Sthūla-śarīra is the physical, material body, while sūkṣma-śarīra is the non-physical, non-material body. The sthūla-śarīra is about physiology, and the sūkṣma-śarīra is about psychology. The sthula and sūkṣma śarīras have an interconnected, interdependent relationship. This is called a psychosomatic relationship. Derived from the Greek words psyche (mind) and soma (body), it highlights the deep, interconnected relationship between mental and physical well-being.

The ancient Greek philosophers and the rishis of the Indo-Gangetic region held that the spirit was the being that experienced and lived, while the body was just a material vehicle for the spirit to function in the material world. They gave prominence to the psyche over soma. If not, they could, or would, have called it a soma-psychotic relationship. The word, as we have seen, was very important to the ancients. And in an oral tradition, every syllable was significant to ensure that knowledge was not distorted.

[Modern materialists who study the brain are called neurologists. Neurologists tend to think that every human experience, including that of the psyche, is just an effect produced by the material reactions that

occur in the brain. For them, it is just a somatic (sthula) interconnection and interdependency, where causes originate in the brain, and the effects are seen in the brain. They do not recognize the sūkṣma at all as having any real existence, for the sūkṣma is not empirical. And so, they dismiss any theory that suggests the existence of the sūkṣma as non-science. When they do not accept the existence of the sūkṣma, they have to necessarily dismiss any theory that posits the sūkṣma as an original causal entity.]

- Sthūla-śarīra for the humanoid (also called hardware) has a mechanical body similar to that of the human physical body. The humanoid can be imagined to have electromechanical devices built for all physiological functions except those of excretion and reproduction. It needs some form of material energy (electricity) to sustain and function. The humanoid's hardware also decays over time.

The humanoid has a CPU (Central Processing Unit), a hardware that can be compared to the brain. The CPU works in conjunction with the RAM (Random Access Memory) and the SSD (Solid State Drive). The RAM has limited memory space, is very fast, and is used to do active tasks in the present moment. The SSD has a much larger memory space, is relatively slower, and is used as back-up memory for inactive, longer-term storage. Information is retrieved from the SSD and is made available to the RAM by the CPU when needed to perform active functions.

Sthūla-śarīra for the human being is the physical body that is visible to the senses (can be empirically seen), and is made of flesh, bones, and other material elements. It undergoes six changes: birth, sustenance, growth, modification, decay, and death. It needs food (material inputs) to sustain and function. For functioning and performing actions in the material world, the human body has organs of perception (sense organs – eyes for seeing, nose for smelling, ears for hearing, skin for touch, and tongue for taste) and organs of action (hands for grasping, feet for movement, mouth for speech, anus for excretion, and reproductive organs for procreation).

The brain is another organ of the human being that receives sensory inputs and controls and coordinates the functions of the human body. The brain, too, is made up of matter and can be empirically sensed and studied. The brain also controls other intermediate organs that sustain the physiology of the body, such as the functions of the heart, lungs, stomach, etc. A nervous system (an elaborate system of interconnected wiring) is used by the brain to receive and send signals to the intermediate organs, and to the organs of perception and action. The brain may have separate areas that perform specialized functions for managing the physiology of the body. The brain also has a physical structure for active memory to perform functions in the present, and backup storage memory for use when it may be needed later.

- Sūkṣma-śarīra for the humanoid (also called the software) is just the Operating System, the various intermediate software (middleware) for managing the hardware of the humanoid, as well as other application software that enable the humanoid to perform functions and interact with the world outside.

A humanoid robot runs on a complex software stack that coordinates hardware, sensors, and artificial intelligence to enable perception, movement, and decision-making. The software is modular, with different layers handling specific functions, often built on the Robot Operating System (ROS). The ROS and middleware form the foundational layer that allows all other software components to communicate and function. Then there is software for perception, for motion and control, and high-level decision making and Artificial Intelligence (AI).

Decision-making and AI include Human-Robot Interaction (HRI) software that handles communication and interaction with people. This includes:

- Natural language processing (NLP) for understanding speech.
- Speech generation for responding verbally.
- Emotion recognition for interpreting human cues.

Sūkṣma-śarīra for the human being is the more subtle, non-physical body that is invisible to the physical senses. It is associated with the mind and psyche. It is considered a complex system of in-built natural intelligence that coordinates all voluntary and involuntary functions of the human being, including those of the body.

- It controls the brain and, therefore, the conscious and subconscious memory functions.
- It controls and coordinates the five organs of perception (jnanendriyas), the five organs of action (karmendriyas), and the five vital forces of life, namely prana (circulation of air), apana (elimination of impurities), samana (metabolism), udana (communication), and vyana (circulation of energy throughout the whole body).
- It is also responsible for the control of the three states of consciousness, namely waking, dreaming, and deep sleep. The waking state of the consciousness is managed in the antahkarana, which is part of the sūkṣma-śarīra.
- The spirit, or the jiva-ātman, is part of the antahkarana.
- All the experiences of the human being are collated in the memory layer, called citta.
- Māyā, like the Robot Operating System, controls and manages the entire sūkṣma-śarīra, as also the experiences of the jiva-ātman, the spirit, in the antahkarana. Māyā controls the sūkṣma-śarīra, including the jiva-ātman.
- The sūkṣma-śarīra controls the stuhla-sharira, the body as a psychosomatic two-way interrelationship (receives sense inputs from the jnanendriyas, sense organs of sthūla-śarīra, processes it, and sends outputs to the karmendriyas, organs of action) to interact with jagat, the world. (Note: the pronouns used for the jiva-ātman are he, his, etc., throughout this book without any gender bias.)

For clarity, this layered organization of the human being is depicted in Figure 2 below:

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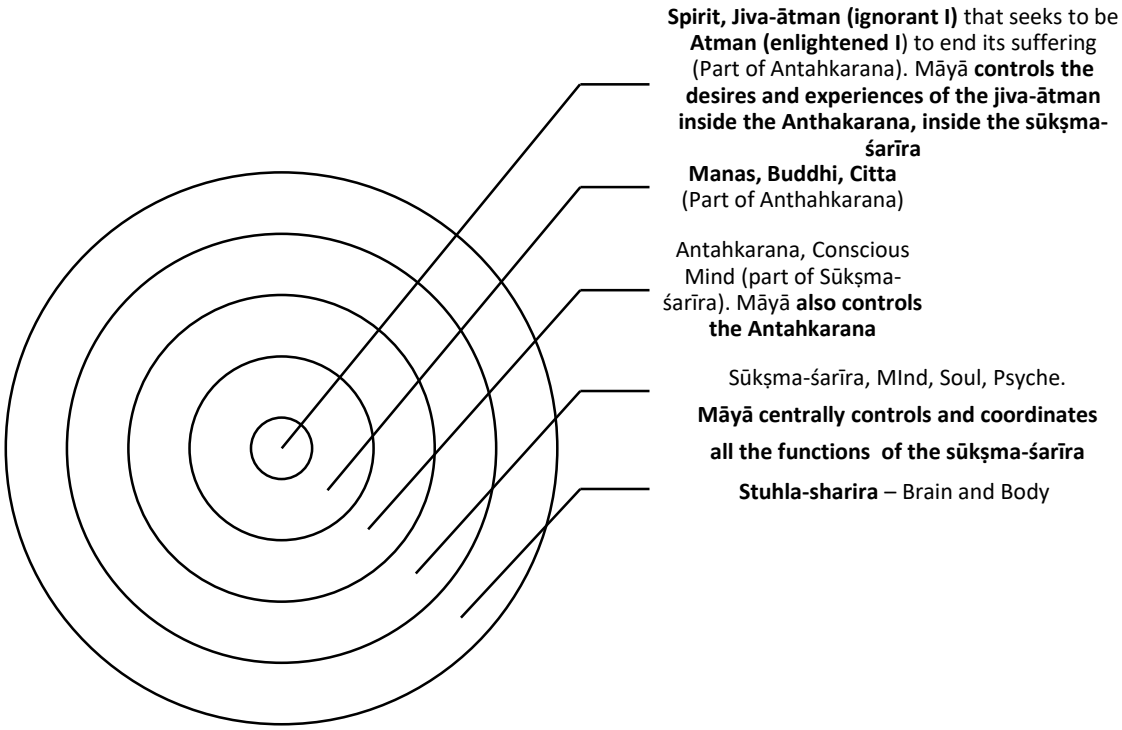

Figure 2: Schematic representation of the sūkṣma-śarīra (mind, psyche, soul) under the control of Māyā

The sthūla-śarīra physical body is likened to a vehicle for the jiva-ātman to travel on the physical roads of the jagat world. The sūkṣma-śarīra mind, psyche, or soul, is likened to a vehicle for the jiva-ātman to travel on the subtler karmic psychological roads of saṃsāra.

The sūkṣma-śarīra is like the software middleware that controls and manages the physical mobility of the vehicle as well as the psychological experience of the jiva-ātman as he moves around jagat and saṃsāra. The jiva-ātman is conscious of his psychological experiences. The jiva-ātman has desires about where and how he travels in the jagat world. The desires, too, are controlled and managed by Māyā.

In the modern world, the study of the sūkṣma-śarīra is called cognitive psychology.

[Psychologists like Sigmund Freud and Carl Jung were first psychologists and then materialists, much like the ancient spiritualists. Modern psychologists, on the other hand, tend to be materialists and, like neurologists, attempt to interpret psychological behavior as the consequence of the functioning of the brain.]

Let's reflect on the comparison made above between the human being and the humanoid.

a. Human beings are the intelligent designers of the humanoid. Human beings designed all the parts of the humanoid, both the hardware and software, and assembled it to perform functions. Like the mechanical clock, all the parts of the humanoid acted as a single system to satisfy the purpose of the human being. The mechanical clock's purpose was to inform the human being of the time of day. The clock had no desire, or will, or purpose, or intelligence of its own. But it functioned just as designed. The mechanical clock has no imagination that it was designed by and for the human being.

The humanoid, too, like the mechanical clock, has no desire, or will, or purpose, or intelligence of its own. But it functions just as designed. The humanoid has no imagination or subjective experience, to know that it was designed for the human being.

b. It is the software of the humanoid that runs inside the hardware CPU that causes the CPU to function and coordinate other hardware of the humanoid's body to perform actions. A humanoid can record its interactions in memory and learn. All of its experiences, including its learning, can be stored in its memory. The entire software apparatus and information in the body of Humanoid A can be transferred into the body of Humanoid B (assuming the hardware of the two humanoids is the same or compatible). One will not be able to tell the difference between Humanoid A and B, and B can continue interacting and learning, exactly from where A's interactions and learnings were terminated, and the transfer of software and data was made from A to B.

c. The memory and data of humanoid A can also be transferred to a higher version of the humanoid, as long as compatibility is maintained.

d. Since we, human beings, have designed the humanoid, we know all about the design, especially the design of its software and how they all interact as a complete system.

e. If a humanoid were to be sent in a spaceship to another planet which has human-like life forms, but say 30,000 years behind where we are now, and if the humanoids were controlled from earth, the inhabitants of that planet wouldn't be able to tell if the humanoid was just a robot or a living being. They may regard the humanoids as having tremendous abilities and may see the humanoid as a conscious living being, even as a God that has descended on their planet to guide them. Only we, the designers of the humanoid, know that the humanoid, unlike us, has no subjective conscious experience. It is just as inert as a mechanical clock, just jaḍa.

f. It is possible for us, the designers of the humanoid, to know what it has learnt through its experiences on earth or on another planet. We can also learn and know from the experiences and learnings of the humanoid.

The humanoid does not care to know who it is, what the design is, how all the parts work together as a system, and why (for what purposes) it was designed so. It is only the human being who wants to know, "Who am I? What is my design? What is my purpose? What is the purpose of Existence that designed me?" The human being cares because there is an 'I', a being, a spirit, that exists in the mind of the human being, the subject that has conscious experiences. The jiva-ātman, the spirit, the subject experiences his emotions when he interacts with the world that he sees, or when he dreams. Some emotions lead to the desired happiness, while others lead to undesired suffering, in the jiva-ātman. Hence, he seeks to know, "Who am I that suffers, and how is this suffering caused, and how is this suffering to be ceased, and what will I experience when all suffering ceases?" If not for the suffering, perhaps the human being too wouldn't care to know, "Who am I?" Perhaps, we suffer because we were made to know.

Many before Sankara and Buddha knew the answers to these questions and sought to pass them down. However, the knowledge eventually became dogma, the language grew quaint, and the circumstances and socio-cultural context of the world changed. For Buddha and Sankara as well, the dogmas were accessible, with teachers capable of reciting the words of scriptures. Yet they had to rely on their buddhi (intellect),

viveka (discrimination), vairāgya (dispassion) to see with detachment (objectivity), with titikṣā (endurance), with the śraddhā (faith), with samādhāna (focused attentiveness), and with mumukṣutvam (intense yearning) to be liberated from duḥkha (suffering). They sought the reality of the lived experience of the cessation of duḥkha. The knowledge was just a means. [And in the light of their lived experience, they corrected the dogmatic didactic and reestablished the dialectic.] And what was the object they sought to understand? The subject 'I' had to see the subject himself. The seer had to see the seer. Sankara referred to his investigation into the nature of the self as "Tattva Viveka," which literally means a discriminative inquiry into the truth of the question, "Who am I?"

This question, "Who am I?" has been asked by every man who has suffered and who has sought to be liberated from suffering. In Buddhavamsa, the Pali canonical text, a lineage of multiple Buddhas is named, all of whom preceded Gautama Buddha. This question will continue to be asked as long as Man lives and suffers, and the answers will be the same, and yet the language, context, and form of expression will change.

The Principle of "Neti Neti"

Buddha and Sankara approached the problem of circularity in the inquiry of "Who am I?" more or less in the same way. The circularity is that the 'I' had to see the 'I'. The modern materialists had an easy task. They had to see the world outside with their eyes and find a causal explanation for the phenomenon they saw. But, how does the 'I' that exists inside the mind see the 'I'? At best, one could see the thoughts in the mind.

Sankara applied the method of negation and discarded whatever the 'I' could not be. "Neti neti" is a Sanskrit phrase meaning "not this, not that". Sankara formulated a line of inquiry for Tattva Viveka based on neti neti as below:

a. 'I', the jiva-ātman, am ignorant of the truth of who 'I' am.

[In this book, the ignorant 'I' is called jiva-ātman. When the jiva-ātman learns the truth of "who am I?" he becomes ātman. The ātman does not undergo any change. It always was the ātman. Only ignorance changes into wisdom. In ignorance, the ātman is called jiva-ātman, and in wisdom, when the ignorance is dropped, ātman is what he really is, was, and will be.

ātman + ignorance of his reality = jiva-ātman

Jiva-ātman – ignorant assumptions of his reality = ātman

b. The jiva-ātman exists in the mind, and the seeing happens in the mind. The eyes of the body only bring sense stimuli to the brain, which converts them to thoughts in the mind. The 'I' sees the thoughts in the mind, and specifically in the antahkarana.

[Remember, this is the basis of internalism. In internalism, there was no doubt about the existence of the 'I' or that the 'seeing' happened in the mind.]

c. There are three states in which a person normally exists – waking, dream, and deep sleep. The 'I' exists in all three states as below:

- Waking: I am awake. I am conscious of my thoughts from the world, as well as my memories.

- Dream: I am dreaming. I am conscious of my thoughts in a dream after I have slept. I sometimes remember the dream I had even after waking up. So, it is the same I that exists when awake and when dreaming.
- Deep sleep: I am in deep sleep. I am not conscious of anything in deep sleep; I don't remember my existence while in deep sleep. None of the thoughts or emotions that existed when awake or while dreaming are there in deep sleep. I don't remember what happened in my deep sleep when I wake up. And yet I feel refreshed when I wake up from deep sleep. And when I wake up, I recover my state of existence, which is the same as before I went into deep sleep. So, it is the same I that exists when awake, when dreaming, and in deep sleep.

d. I Aham see Idam that. The perceiver cannot be the perceived. The subject cannot be the object. So, anything I see, I am not.

Therefore, I am

- not the body, the sthūla-śarīra
- not the mind, the sūkṣma-śarīra
- not the world, the jagat.

[When Sankara said "Jagat mithyā" or "The world is an illusion or the world is unreal", it meant that the world was not the reality to the inquiry of "who am I?" The thinking that "I am the world" is an illusion. Sankara was not dismissing the world as such as an illusion.]

- not the three states of waking, dream, and deep sleep.
- not Māyā that controls the sūkṣma-śarīra

Mind-Mirror Principle

In Vedānta, the mind mirror principle uses the analogy of a mirror to resolve the problem of how the 'I' can see the 'I'. Normally, one also cannot see one's own face or one's eyes. But one can see one's face and one's eyes as a reflection in a mirror.

The antahkarana conscious mind is seen to be like a mirror that reflects the thoughts of the world to the 'I', the seer. Then the mind must also be able to reflect the reflection of the 'I' to the 'I'.

However, to see the true reflection of the face in the mirror, the following conditions apply:

- The mirror must be perfect and clean. If the mirror is physically distorted or unclean, the reflection is also distorted.

- The mirror must be still and not moving.

- There must be no other object, or smoke, or haze between the eyes of the face and the mirror. These would also prevent a clear reflection.

The same conditions apply to the mind. Ordinarily,

- There are too many thoughts, desires, and emotions in the mind. Unless this 'noise' is removed from the mind, the 'I' will only see some thought or other in the mind, along with its own reflection. Hence, the mind is imperfect.

- The mind is moving and not still.

(Unlike the mirror, the mind does not have physical characteristics, so the condition of physical deformation or physical dirtiness for the mirror does not apply to the mind.)

Ego, the identity-attachment of the Jiva-ātman

In the ordinary, imperfect mind, the reflection of the 'I' gets mixed up with the reflection of the thoughts of the world, emotions, and desires. The jiva-ātman, in ignorance, does not have the viveka (discrimination) and vairāgya (dispassion, objectivity) to distinguish between the reflection of the ātman 'I', and the reflection of the jagat world, in the antahkarana conscious mind. The jiva-ātman then thinks, "I am the thought or desire or emotion". If the jiva-ātman had the capacity to discriminate, he would have rightly thought, "In this 'mixed-up' picture in my mind, I am ātman, and that is the world".

The jagat world is material in nature. It undergoes six changes: birth, sustenance, growth, modification, decay, and death. In thinking, "I am the thought or desire", which are all reflections of the world, the jiva-ātman creates a false identification. And now, because the jagat is changing, decaying, and moving towards death, the jiva-ātman also sees the reflection of jagat changing, decaying, and dying. The jiva-ātman then lives in fear and insecurity, since he has ignorantly identified his self, ātman, with the reflection of the jagat world. Then he tries to prevent his psychological death by clinging to his falsely assumed identities in his mind. This attachment of the jiva-ātman with his falsely assumed identities in his mind is called identity-attachment.

The behavior of the jiva-ātman, where he cannot let go of anything that he has attained in the world, including the thoughts of the world he has identified with, is called possessiveness. He cannot have enough. The jiva-ātman is greedy for more because he thinks more the better for the longevity of his identity, which, in his ignorance, he thinks is his reality. He will hate, fear, and destroy anyone who threatens his possessions or his identity. This possessive behavior of the jiva-ātman is called ahaṃkara or ego.

Having possessions is not the problem; possessiveness caused by ignorance is the problem that causes this existential crisis for the jiva-ātman in the antahkarana conscious mind. In psychology, the existential crisis one experiences, where there is tremendous suffering and where consequently there is a collapse of assumed identities, is called depression.

We saw that the world of matter undergoes six changes: birth, sustenance, growth, modification, decay, and death. In the youthful phase of the jiva-ātman's identity-attachment, i.e., the periods of birth, sustenance, and growth, the jiva-ātman experiences sukham, sukha, happiness. It is in the later stages when the decaying and movement towards death happen that insecurities, fears, and depression are experienced as duḥkham, duḥkha, suffering. The desperate jiva-ātman jumps from one identity-attachment to another to save his self from extinction. The duḥkha suffering is as transient as sukha happiness. But the duḥkha is felt far more intensely than sukha. The fears and suffering, even for a moment, seem unbearable and leave a much deeper scar in the citta memory of the jiva-ātman.

The world is real and perfectly in order. The 'I' is real and perfectly in order. However, in the mind of the jiva-ātman, the reflection of the 'I' gets entangled with the thoughts, the reflection of the world, and gives rise to the ahaṃkara ego. In ahaṃkara, the jiva-ātman suffers in a chaotic world. This distortion of reality, an illusion that happens in the mind, is created by Māyā. So Māyā is the cause of the illusion, and the illusion gives rise to ahaṃkara, the ego in the jiva-ātman. The ego craves for sthira steady nitya eternal sukha happiness. But because of the transient nature of his false identity-attachments, he lives in asthira unsteadiness, anitya impermanence of sukha happiness. The ahaṃkara ego of the jiva-ātman creates in the antahkarana a life of duḥkha scarred by memories of impermanence of happiness.

The jiva-ātman has to find a way to detach and break free of all his attachments in the mind. He has to break free of the control of Māyā. He has to remove all the false identities he has accumulated and gain his true identity as ātman.

It can be seen that,

- jiva-ātman = the reflection of the ātman in the imperfect mind-mirror
- thoughts of the world as chaotic = the reflection of the world in the imperfect mind-mirror
- jiva-ātman + thoughts of a chaotic world = rise of ahaṃkara or ego, which seeks order and stability in the world.
- ahaṃkara or ego causes the effect of duḥkha or suffering as jiva-ātman's psychological experience in the mind-mirror.
- ahaṃkara or ego is caused by ignorance of reality.
- ahaṃkara or ego desires to cease suffering, because this experience of suffering is contrary to his expectations of sthira nitya sukha, or steady eternal happiness.
- The ahaṃkara of the jiva-ātman then tries to create his order in the world of chaos so that he can ensure the longevity of his identities to ensure the longevity of his sukha. He is possessive and insecure about his identities, and attaches and clings to them, desperately.
- He uses his power to suppress and oppress others who threaten the identities he is attached to.
- Others who bear the brunt of suppression and oppression that comes with the use of power also suffer and go into depression. They see the jiva-ātman as arrogant, drunk with rage and power.
- Everyone suffers in life in this world.
- Some who can't bear this suffering anymore seek liberation from life in this world.
- They see that the imperfect mind-mirror is the root cause of suffering. Māyā is the cause of the imperfect mind-mirror. Ignorance is the root cause.
- They seek to understand the nature of Māyā to perfect the mind-mirror and remove ignorance.

- They think that the perfected mind-mirror will then reflect the reality of the 'I' as ātman and the reality of the world in order. Only then, they believe that the spiritual experience of the ātman will be one of ānanda, or love-bliss, a heightened, purified, steady, eternal form of sukha.

Buddha's Noble Truths

Buddha was one such person who could not bear the suffering that he saw in life in this world any longer. He was a prince, yet he found no joy in living a life of mere sensual pleasures that were transient in nature. He found it meaningless.

Before proceeding further on what Buddha found as a solution, let's see the four steps in a quality control program in a production process in a factory. These are: Define, Detect, Control, and Prevent.

Define: Any quality control program would have a definition of what parameters the product should conform to. So, any non-conformance is defined as a defect. And it must be possible to detect that defect to control that defect. What is not in one's control at all is not a defect.

Detect: Then potential defects that can occur are identified, and set-ups are created to detect the occurrence of the defects.

Control: If a defect is identified, it is controlled by checking all the items in that batch and isolating the defective products.

Prevent: Then a root cause analysis is done to identify the causes and the root cause that led to the defect. The causes, including the root cause, are eliminated to prevent the defect from occurring again.

Buddha's first noble truth is: Life as a human being is marked by duḥkha, suffering, pain, and dissatisfaction.

Duḥkha is a realistic assessment of life that includes physical and mental suffering, such as birth, aging, sickness, death, sorrow, and not getting what one wants. It also refers to a more subtle form of suffering: the dissatisfaction caused by the impermanence of even happy moments. According to Buddha, there are three types of duḥkha:

- **Ordinary suffering (duḥkha-duḥkha):** This includes the physical pain we typically associate with life in this world, such as illness, old age, and death. (Pain is caused by physical deformation or decay of the body, including the brain.)
- **Suffering from change (viparinama-duḥkha):** This refers to the suffering caused by the impermanence of pleasure. A happy experience is ultimately unsatisfactory because it is transient, i.e., it will change and ultimately end.
- **Conditioned suffering (sankhara-duḥkha):** This is a more subtle form of suffering that arises from egoic clinging to the idea of a permanent, separate self, based on identity-attachment. The ego lives in a delusion and suffers.

Taṇhā, Identity-desire as the Cause of Dukkha

The Causes of Suffering

Buddha also identified the cause and root cause. According to Buddha, the cause of duḥkha (suffering, unsatisfactoriness) is desire, and specifically taṇhā, craving. These are rooted in ignorance, avidyā, avijjā, about the true nature of reality, leading to upādāna identity-attachment, where one clings to impermanent things as if one's existence depended on the attainment and possession of these impermanent things. This inevitably results in suffering, as the nature of things in the world is of impermanence.

To re-state the above for clarity, duḥkha, or suffering, is a consequence of:

1. Ignorance, avidyā, avijjā of

a. The reality of one's existence and the reality of Existence

b. The impermanent nature of the things and thoughts of the world, which are subject to change, decay, and death.

2. Taṇhā, identity-desire, a desire to gain a permanent, separate identity from the world

3. Upadana, identity-attachment, a desperate clinging to things and thoughts from the world to satisfy taṇhā, identity-desire

The Evolution of Desires

Desiring a permanent, separate identity from an impermanent, changing, decaying, dying world is a contradiction. This contradiction causes suffering. The contradiction arises from ignorance. Ahaṃkara or ego, that arises in a person with identity-attachment, then desires to cease suffering, because this experience of duḥkha, suffering, is contrary to his expectations of sthira steady nitya eternal sukha happiness.

The desires that arise in the mind also evolve in three phases: Taṇhā, Chanda, and Sunyata.

1. **Taṇhā desires** are identity-desires, where the jiva-ātman thinks, "My existence has no meaning without attaining that identity as my reality." Identity-desires cause identity-attachments. For example, "I want to become a CEO" is an identity desire that leads to "I am the CEO", an identity-attachment. He seeks sukha, happiness, by attaining the love and attention of others as a validation of the identity he desired and attained.

The jiva-ātman is seen to have ahaṃkara, ego, where he is so attached to his identity that he thinks that it is the power of the attained identity alone that can secure sukha, happiness, in a chaotic world of fear and insecurity. The jiva-ātman does not realize that it is the ignorance of reality that leads to the perception of a chaotic world and the insecurity of identity. This ignorant perception then causes the fear and insecurity that it perceives in the world. The cumulative chaos in the world is then nothing but the cumulative fears and insecurities of each jiva-ātman in the mind inside, which is transmitted into the world outside.

Taṇhā creates a contradiction in one's mind between

1. What I think I am – the conception of my identity

2. What I think others think I am – others' conception of my identity

When these don't correspond, there is suffering. In taṇhā, one seeks to destroy the other person, or one seeks to reform the other person. In destruction and reformation, there is a desire to change the conception of others according to one's conception. This is the cause of all conflict and war among human beings.

We never really love anyone for the reality of who they are. We only love our concept of who the other is. And when the reality of the other contradicts our concept of the other, we try to change the other. We rarely change our concept of the other. To do that, the conceptions have to be dropped altogether, and the reality sought to be understood.

Empathy and compassion can only begin when the reality of the other is sought to be understood as they are. That can begin only when one has empathy and compassion to see the reality of one's self as one is, without any identity-desire for a permanent separate self in terms of the world. Compassion follows empathy. Only after one has understood the reality of one's self and gained self-empathy can one have the self-compassion to determine what is the righteous choice one has to make in life, such that duḥkha is eliminated. And only after one has understood the reality of the other and gained other-empathy can one have the other-compassion to determine what is the righteous choice one has to make in a relationship with the other, such that duḥkha is eliminated for the other.

[The analogy of a doctor treating his sick patient is useful to understand empathy and compassion. Irrespective of what the patient may say his sickness is, the doctor has to diagnose and determine the root cause of the unhealthy symptoms. This understanding of the root cause is empathy. With empathy, the doctor may prescribe medicines that alleviate or eliminate the root cause. This prescription, as an act to relieve suffering, is compassion.]

The nature of taṇhā desires determines the quality or character of a person who, in ignorance of his reality, acts out of ahaṃkara or ego. Taṇhā can also be called egoic desires.

2. **Chanda desires** arise from wisdom, where, after having realized the nature of one's reality and the reality of Existence, the avidyā, avijjā, ignorance of the jiva-ātman is dropped.

Chanda desires are not identity-desires, but functional desires where the jiva-ātman has known his real identity as ātman and experiences sukha love, happiness, and peace from within his being. He does not think, "My existence has no meaning without attaining that identity as my reality," for he has realized that sukha does not belong to the world, but is inherent in his reality as ātman.

Chanda desires do not cause identity-attachments. For example, "I want to play the role of the CEO that I have been given to the best of my ability and for the well-being of the people who depend on my playing my role with integrity" is a functional desire, and "I happen to play the role of a CEO" is a functional attachment.

There is clarity in the mind that "I am ātman, the source of my sukha, happiness. I play the role. I am not the role." This is also called detached-attachment. There is detachment from seeking any identity or happiness from the role. There is a passionate attachment to the role out of happiness in order to function and enjoy playing the role to the best of one's ability. "If I am a shepherd, I will enjoy tending to the sheep;

if I am a king, I will enjoy serving my people and defending their well-being; if I am a teacher, I will enjoy teaching, etc."

He experiences sukha, happiness, and cares for the well-being and sukha of others. He functions and lives out of empathy and compassion for his well-being and that of others.

Chanda desires are the foundations for morality, virtuous living, and a life of integrity. The idea of the middle way and the eight-fold path of Buddhism is founded on chanda desires. The middle way is the way of life of a person who has extinguished all taṇhā. One is said to be jīvanmukta, liberated from all duḥkha suffering while living in a body. This is samādhi, where one has existential trust in Existence and surrenders to it. Greeks call this stoicism. A jīvanmukta is a stoic.

3. **Sunyata** in the cessation of all desire, including chanda desire. One experiences no duḥkha and experiences ānanda, sthira nitya sukha. In this experience of ānanda, there is no contradiction between "who I think I am" and "who I really am!" Then one enters mahasamādhi, nirvāṇa, mokṣa, when the body is given up, at the end of the karmic cycle of saṃsāra.

To summarize,

1. All of this duḥkha, suffering, a defect in life, is produced in the conscious mind.

2. The ignorant belief in a permanent, separate self or a permanent, separate identity to be gained from the world and the ignorant pursuit of such an identity based on identity-desires, which leads to identity-attachments, is the root cause of suffering.

3. When this attachment is broken, the ignorance is dropped, and the reality is seen in one's mind-mirror. In other words, in śūnyatā, one achieves the state of the perfected purified mind-mirror, which is still and without impurities; all thoughts, emotions, and desires that were a reflection of the jagat world are emptied. In śūnyatā, in this perfect mind-mirror, the jiva-ātman sees his reflection as ātman, his existential reality, without any duḥkha, i.e., without any contradiction between the conception of its identity and the reality of his identity.

The movement of desires from identity-desires taṇhā, to functional-desires chanda, to cessation of all desires in śūnyatā is ordered and, as we shall see, controlled by Māyā. Māyā is then responsible both for the creation of illusion in ignorance and the removal of the illusion in wisdom. Māyā introspects and finds the root cause: ignorance. Then there is kaizen, a continuous improvement until one is liberated from saṃsāra, the karmic cycle of duḥkha, suffering.

Vipassana and The Zen Story of the Empty Cup

In scientific experiments, such as the demonstration of a feather and a heavy ball falling with the same velocity and parallel to each other in straight lines and hitting the ground at the same time when dropped simultaneously from the same height, a vacuum chamber had to be created. All the 'noise' that could have interfered with the motion had to be removed to observe the order in the motion.

It is the same with śūnyatā. In the famous koan of the empty cup, a university professor visits the Japanese Zen master Nan-in to learn about Zen. The professor, full of his own academic knowledge and opinions, speaks at great length about his views while the master listens quietly. When Nan-in serves tea, he pours his visitor's cup full, then continues to pour until the tea overflows onto the table and the professor's robes. Alarmed, the professor yells, "It's full! No more will go in!" Nan-in stops pouring and replies, "Like this cup, you are full of your own opinions and speculations. How can I show you Zen unless you first empty your cup?"[45]

The teacup, once emptied, is not annihilated. It remains a cup, but is now open and receptive. This parallels the Buddhist understanding of śūnyatā. Things are "empty" not in the sense of being nothing, but in the sense of being empty of a permanent, separate self or identity that is of the world.

Buddha calls it vipassanā – the right seeing. When all the ignorant seeking of an identity ends, the right seeing begins. The concept of detachment, Neti-neti, too, is a way to create the vacuum chamber of śūnyatā in one's mind. Sunyata is not no-self, or no-mind. It is just a mind that is emptied of false-self and false-conceptions of the self. The jiva-ātman has to empty his antahkarana conscious mind to make way for the ātman to be seen. Once emptied, the cup can be filled with anything - not just tea, but a fresh and direct perception of reality. This represents the infinite potential that arises from emptiness. The mind is no longer limited by the jiva-ātman's own concepts, and the jiva-ātman is free to experience "tathata" suchness, or "purnata" fullness - the reality of one's existence and the reality of Existence as it is. [This reality of the self, as we shall see, is nitya eternal or permanent. However, it is not separate or independent, and it does not belong to the world that is seen.]

Existence, too, like Nan-in, can only fill one's mind and reveal its reality when the cup of one's mind is fully emptied.

[45] A common source for its English retelling is *Zen Flesh, Zen Bones* by Paul Reps and Nyogen Senzaki (1957/1985), though it's often shared in books, blogs, and online articles as a parable for learning and letting go of preconceptions.

The Yogas of Bhakti, Karma, Jñāna, and Raja

Yoga and Reflection

The word yoga comes from the Sanskrit root yuj, meaning "to join," "to yoke," or "to unite". The antahkarana conscious mind is the intermediary layer between the jiva-ātman, the spirit, and the material body-world. Without this intermediary layer, no conscious life is possible. Therefore, the ancients thought that there must be no contradiction or falsehood in the joining of the spirit with the world when living a life. And since the mind is the seat of knowledge, which is nothing but conceptions made up of qualitative (language) and quantitative (numbers) descriptions of reality, it is an absolute necessity that there are no contradictions between the conception of reality and reality. This is the essence of reflection.

The analogy of seeing one's face as a reflection in the mirror may be useful here. Let's say a person A has never seen a mirror or looked into it. This means that he is completely ignorant of the reality of his face. Others may describe his face with words or make a portrait, yet one doesn't know one's own face. Then a mirror is presented to him, and he sees a face in the mirror. Yet, he can't be sure it is his face beyond any doubt. He will have to validate the image in the mirror with the reality of his face. And since he doesn't know the reality of his face, he cannot validate it. He can believe the image in the mirror to be his face, but there will always be a doubt. He has to figure out a way to eliminate all doubt. There could be a defect in the mirror, or what he believes to be a mirror may not be a mirror at all, or there may be other possibilities that the image in the mirror is not the exact representation of the reality of his face.

But he has seen the face of person B, his friend. If he were to stand next to B and then look in the mirror, he would see the reflection of B in the mirror. Now he can compare if the image of the B's face in the mirror is the same as the reality of the B's face, and then validate or falsify. Then he can say he knows his face because he knows that the image in the mirror reflects the reality of his face. But his memory of his face in the mind is still not the truth of his face. The face changes, the mirror can decay, etc.

Truth is knowledge of That Reality which is eternal and changeless. Truth should be available for falsification to everyone, and yet it should be unfalsifiable.

The Yogas and the Metamorphosis of a Belief into the Truth

The metamorphosis of a concept from a belief to the Truth takes the following staged course, where at each stage the conception has to be validated without any contradiction or falsification until it becomes Truth.

1. **Bhakti Yoga:** I believe it to be so. This is just a belief that one's hypothesis of 'what is it?' or 'how is it so?' or 'why is it so?' is true. This is called bhakti yoga in Vedānta. In bhakti yoga, one enjoins one's conception of reality in the mind with the reality based on an unvalidated belief that has occurred in one's mind. (Balakrishnan)[46]

2. **Karma Yoga:** I have faith it is so. The hypothesis, which was a belief, now has rational justification, i.e., through logical reasoning. It is based on evidence that can be seen or experienced. If any part of the

[46] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

reasoning is falsified or there is counter-evidence, then the belief cannot become faith. (To be able to have faith in one's belief to say, 'All metals conduct electricity,' the evidence of a few metals that conduct electricity must be demonstrated in an experiment.) This is called karma yoga in Vedānta. In karma yoga, one enjoins one's conception of reality in the mind with reality based on reasonable justification and actionable evidence that can be seen or experienced by oneself. Faith is the self-validation of one's belief. Faith is unfalsified (uncontradicted) self-validation of belief in action. (Balakrishnan)[47]

3. **Jñāna Yoga:** I know it is so. Faith becomes knowledge when others also validate the hypothesis in their experiences. This is called jñāna yoga in Vedānta. In jñāna yoga, one enjoins one's conception of reality in the mind with reality based on reasonable justification and actionable evidence that can be seen or experienced by others. Knowledge is validation by others of one's belief. Knowledge is unfalsified (uncontradicted) validation of belief in action by others. (Balakrishnan)[48]

4. **Raja Yoga**: I trust it is so. When knowledge is coherent, reliable, predictable, and is eternally unfalsifiable or eternally uncontradictable, then knowledge becomes Satya Truth. This is called raja yoga in Vedānta. In raja yoga, one enjoins one's conception of reality in the mind with reality based on reasonable justification and actionable evidence, except that Truth is the knowledge of the reality of Existence or the reality of the Absolute Causal Entity that is eternal and changeless. (Balakrishnan)[49]

Satya, the Truth

Truth is existential trust in the nature of Existence. Truth then becomes the foundational basis for the validation of all other forms of knowledge. In raja yoga, all other yogas coalesce to become One. This Oneness is the essence of non-duality – that there is only one Existence and that there is no separate existence apart from Existence. This same idea is expressed in Buddhism - no existence as a separate permanent self (no-self), and in Advaita Vedānta - Brahman alone is Satya, and that Jagat exists (separately, or permanently) apart from Brahman is Mitya!

This knowledge of the reality of one's existence in Existence is available to falsification to everyone and to anyone who cares to falsify. They must seek the reality of "Who am I?" themselves, within themselves, and if anyone sees a contradiction in this knowledge, they can falsify it. And as we shall see later, everyone will seek to know, validate it in his self, know it as the Truth about his self, and know the nature of the Absolute Causal Entity, Existence or God!

Therefore, spiritual knowledge is Truth for the one who sought it, knew it, validated it as a direct experience within one's own self, and then inductively inferred the conclusion about the nature of God. Hence, the ancients called it parā-vidyā. It is necessary and sufficient because it was knowledge of the Absolute Causal Entity, which alone is eternal.

How is spiritual knowledge available to everyone and anyone for validation and falsification? There is,

1. The reality of who I am – the ātman.

[47] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[48] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[49] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

2. There is a conception of who I think I am, and the jiva-ātman says, "I am that."

If there is a contradiction between the reality of who I am, point (1), and who I think I am, point (2), then the jiva-ātman experiences duḥkha, suffering. If there is no contradiction, the jiva-ātman experiences sukha, happiness. If this experience of sukha is reliable, steady, and eternal, then that identity of the jiva-ātman that brings it sthira steady nitya eternal sukha happiness, or love-bliss, or ānanda is his real identity or reality.

In other words, Satya, the Truth, is the validated and uncontradictable knowledge of the underlying absolute reality of all things and all beings.

Antahkarana, the Inner Workings of the Conscious Mind

There is no suffering experienced in the deep sleep state, and the state of dreaming is not in one's control. It is only when one is in a waking state of consciousness that one has desires and wants to attain the object of his desire. The mind has a purpose, and intentions, plans, and actions in the world follow to attain the object of desire. This waking state of one's consciousness is what one calls life.

One has to look into the inner workings of one's mind to understand how all of this happens. Sankara did. He describes the following four faculties of antahkarana, which may be considered to be the conscious mind. It must be remembered that the anthahkarana is controlled by Māyā, a kind of operating system of the entire mind, the sūkṣma sharira. The mind controls the brain and the body. Without this apparatus, coordination between the thought "I want to walk there," and the consequent movement of the body and legs is not possible. The four faculties of the antahkarana, controlled and coordinated by Māyā, are:

- **Manas:** The faculty of the human conscious mind that processes the sensory inputs from the external world as lower-order thinking skills, i.e., remembering, understanding, and applying. (Balakrishnan)[50]
- **Buddhi:** The faculty of the human conscious mind that is called intellect and is capable of higher-order thinking skills of analysis, evaluation, and synthesis. It has the capabilities of reflection, reasoning, logic, and discrimination. This is the faculty that is used for the validation and falsification of hypotheses or beliefs. (Balakrishnan)[51]
- **Jiva-ātman as ahaṃkara:** The existential state of jiva-ātman in the conscious mind in ignorance of his reality, in ahaṃkara or ego.
- **Citta:** Memory - the conscious, the subconscious, the unconscious, and the super-conscious memory. (Balakrishnan)[52]

These are the four faculties needed to think in order to know. It is the same four faculties that are used to determine material knowledge, "What is that I see with my eyes?" and spiritual knowledge, "Who am I?"

[50] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[51] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[52] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

Emotions – Navabhavas and Navarasas

The world is reflected as thoughts in the mind-mirror. What about the emotions? To whom do the emotions belong?

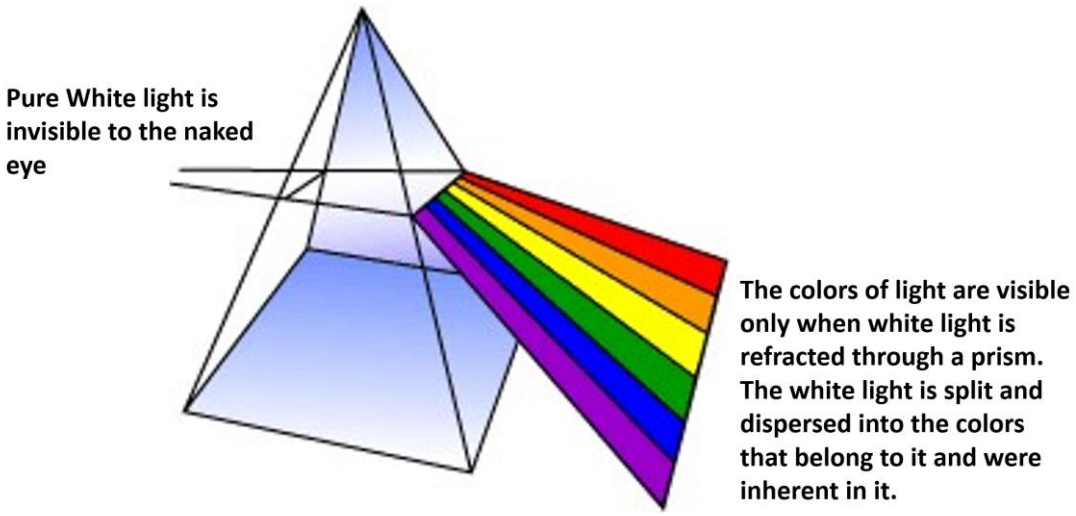

Figure 3: Pure white light being dispersed through a prism

The pure white light contains all the colors that are visible when dispersed through a prism as shown in Figure 3. The white light doesn't reveal itself to the naked eye.

The entire jagat world that is seen by the eyes is because of the colors dispersed by the things of matter when the white light of the sun falls on it. Without the light of the sun, we will not see anything in the jagat world. This white light and the colors dispersed by the things are material, made up of matter, perhaps photons.

In the same way, the jiva-ātman sees all the thoughts and desires in his antahkarana conscious mind. What illuminates these thoughts, which are not material but belong to the mind? It is the conscious light that emerges from the jiva-ātman that illuminates the thoughts that the jiva-ātman sees in the mind-mirror.

The thoughts have their source in the jagat world. Emotions do not have their source in the jagat world. The jiva-ātman's conscious light that illuminates the thoughts is the source of all the emotions. The emotions that are experienced may be seen as dispersions by the mind-mirror, just like a prism disperses white light into colors. If so, desires then are just an association of emotions and thoughts reflected in the antahkarana. The jiva-ātman then chooses those desires that reflect the possibility of happiness in the

future and does not desire those thoughts that reflect the possibility of suffering in the future. (Balakrishnan)[53]

Navabhavas and Navarasas

Navarasas, "nine emotions," are a fundamental concept in ancient Indian performing arts, literature, and aesthetics. The theory was primarily developed by the sage Bharata Muni in his seminal work, the Natya Shastra, meaning the shastra scriptures of natya dance, written between 200 BC and 200 AD.

The rasas are emotional flavors that are evoked in the audience based on the bhava that the performer feels. In other words, the feelings experienced by a person are the bhava, which is expressed as a rasa, which the audience experiences.

Chanda Bhavas and Rasas

The nine bhavas and their corresponding rasas are as shown in Table 1 below:

Bhava	Rasa	Description
Rati (Love, pleasure)	Shringara	The emotion of romance, beauty, delight, and attraction.
Hasa (Mirth, joy)	Hasya	The emotion of humor, laughter, comedy, and amusement.
Shoka (Sorrow, grief)	Karuna	The emotions of sadness, compassion, and pity
Krodha (Anger)	Raudra	The emotion of anger and indignation.
Utsaha (Heroism, enthusiasm)	Vira	The emotion of courage, bravery, valor, and confidence
Bhaya (Fear, anxiety)	Bhayanaka	The emotions of fear, anxiety, and insecurity.
Jugupsa (Disgust, aversion)	Bibhatsa	The emotion of revulsion, repulsion.
Vismaya (Wonder, surprise)	Adbhuta	The emotion of astonishment, awe.
Shama/Nirveda (Peace, tranquility)	Shanti	The emotion of peace, tranquility, serenity, and calmness

Table 1: Bhavas and Rasas

[53] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

All of these are chanda bhavas or rasas, which are needed for functional living, without the ahaṃkara ego, as shown in Figure 4. The navabhavas and navarasas are functional non-egoic emotions one feels in an interaction with the other.

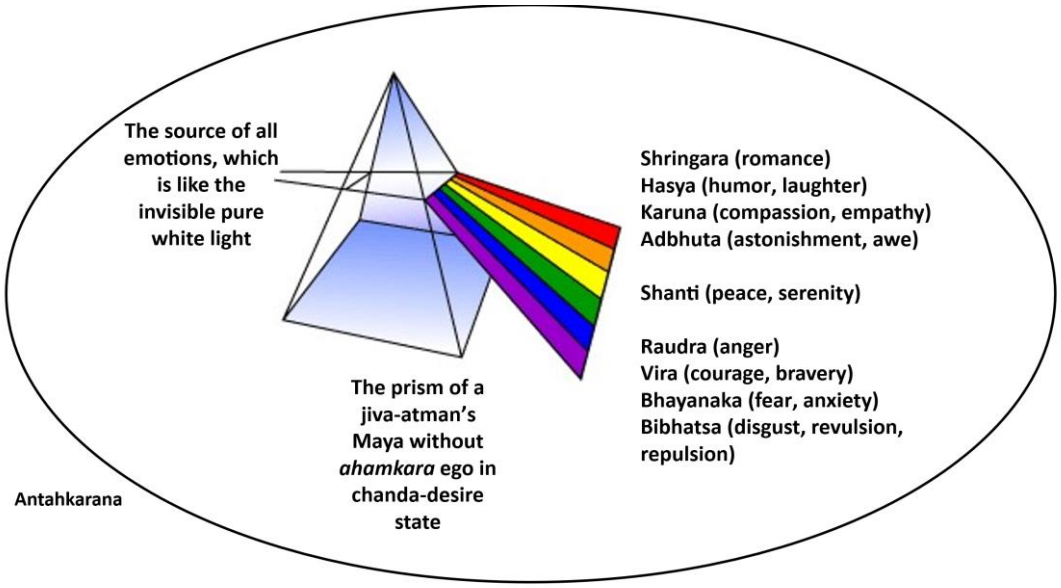

Figure 4: The functional emotions of a person without ahaṃkara or ego

Tanha Bhavas and Rasas

Then what are the emotions of an egoic person?

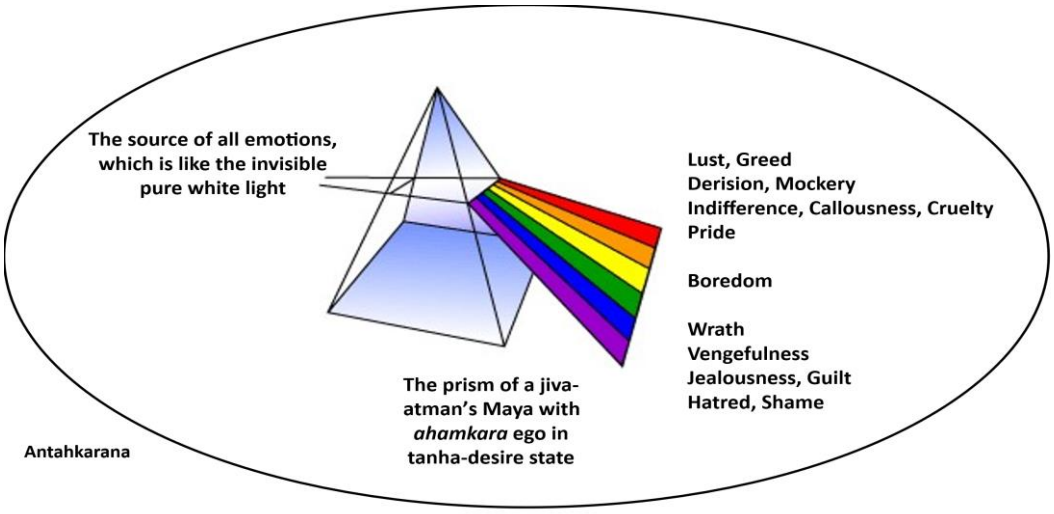

Figure 5: The distorted emotions of an egoic person in taṇhā-desire states

The dominant emotions experienced by an egoic person in the taṇhā-desire states are as shown in Figure 5. They are egoic distortions of the chanda bhavas or rasas. They are as shown in the table below:

Chanda Bhava / Rasa	Egoic or Taṇhā Bhava / Rasa

Shringara: The emotion of romance, beauty, delight, and attraction.	Lust, Greed
Hasya: The emotion of humor, laughter, comedy, and amusement.	Derision, Mockery
Karuna: The emotions of sadness, compassion, and pity	Indifference, Callousness, Cruelty
Adbhuta: The emotion of astonishment, awe.	Pride
Shanti: The emotion of peace, tranquility, serenity, and calmness	Boredom
Raudra: The emotion of anger and indignation.	Wrath
Vira: The emotion of courage, bravery, valor, and confidence	Vengefulness
Bhayanaka: The emotions of fear, anxiety, and insecurity.	Jealousness, Guilt
Bibhatsa: The emotion of revulsion, repulsion.	Hatred, Shame

Table 2: The emotions of a person in egoic taṇhā-desire states (Balakrishnan)[54]

Śūnyatā and Ānanda

What are the emotions of a person in śūnyatā, without any identity-desire?

[54] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

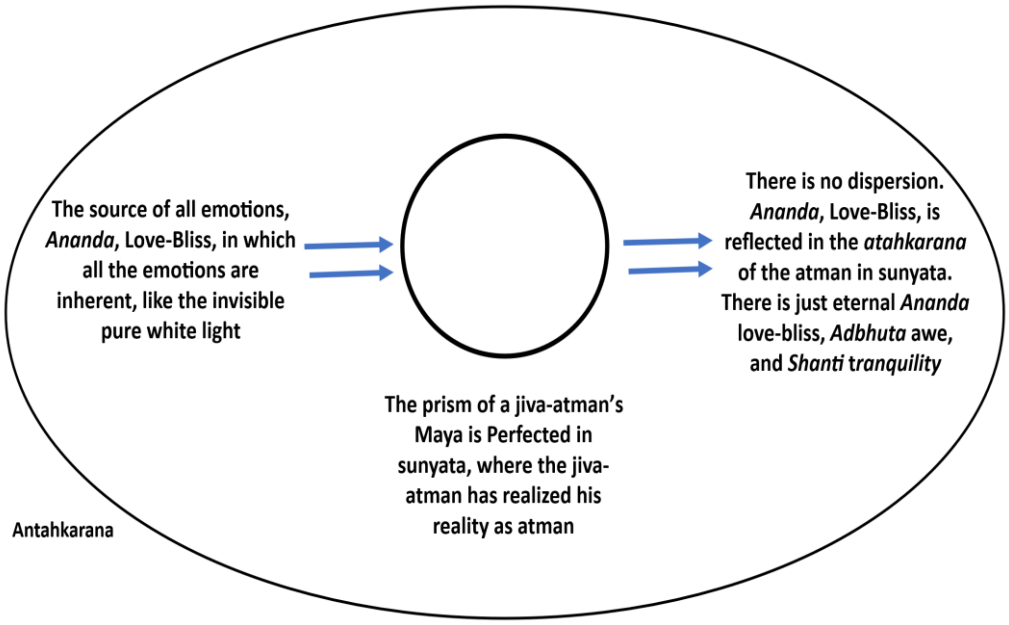

Figure 6: The emotions of a person in śūnyatā, the state of nirvāṇa, mokṣa, mahasamādhi

In śūnyatā, the jiva-ātman's Māyā or mind-mirror has been perfected and experiences Ānanda without any distortion, as shown in Figure 6. This experience of ānanda is an experience of the purest (non-romantic) love, highest bliss, and a profound feeling of awe, trust, and gratitude. The ātman experiences ānanda, a sukha of the purest form, which is sthira steady, and nitya eternal without any trace of duḥkha.

The nature of taṇhā-desire is that it cannot be quenched by knowledge. It can only be exhausted by the attainment of the identity that one desires and by validating whether the attainment of that identity fulfilled one's being eternally. Taṇhā-desire is not the attainment of an object. It is the attainment of an identity in the hope that it will destroy the taṇhā-emotions within one's being. The hope is that one will find sthira nitya sukha by gaining the identity which will draw in the attention, love, and worship of others. And yet, taṇhā emotions (lust, greed, derision, mockery, indifference, callousness, cruelty, shame, guilt, boredom, wrath, vengefulness, jealousy, hatred, etc) are the very emotions one uses to attain the desired identity by destroying anyone who stands in the way of the attainment of the desired identity.

The only way to find out one's real identity is to desire every identity there is to be attained in the world and attain them, and then validate if it fulfils one's being eternally. When all taṇhā-desires are exhausted, and chanda-desires are also exhausted as not eternally fulfilling, then when there is no more desire, in śūnyatā, all emotions are coalesced into its very source, the pure white light of all emotions, ānanda, love-bliss in which one finds purnata fullness. One finds oneself eternally immersed in ānanda love-bliss, adbhuta awe, and śānti tranquility. This is Nirvāṇa!

Then, finally, the world, the body, and life itself are found to be unnecessary in that sthira nitya ānanda. And when they are given up, one enters mahasamādhi!

Māyā desires every identity-desire there is in the jagat world, attains it, exhausts it, and moves on to the next until all desires are exhausted, where one experiences in śūnyatā the nirvāṇa of purnata fullness without any delusionary identity.Radioactive Decay: The Concept of Reincarnation of Matter

Unstable and Stable Atoms

The nucleus of an atom is not a static, unchanging object. For many elements, it is a dynamic system that undergoes spontaneous transformation: changing, decaying, radiating energy, and effectively "dying" to become a different element. This process is called radioactive decay. There are stable and unstable nuclei.

Stable Nuclei: In some atoms, the number of protons and neutrons creates a perfect, stable balance, and the nucleus remains intact essentially forever. Examples include Carbon-12 and Oxygen-16.

Unstable (Radioactive) Nuclei: In many other atoms, the nucleus is unstable. This could be due to having too many protons, too many neutrons, or simply being too heavy. This imbalance makes the nucleus "want" to rearrange itself into a more stable configuration.

To achieve stability, the unstable (or radioactive) nucleus spontaneously transforms itself. This is not a gradual wearing down but a sudden, random event. There are several ways this can happen, but the three most common are:

Alpha (α) Decay: The nucleus ejects a cluster of 2 protons and 2 neutrons (which is a helium-4 nucleus). This reduces the atom's mass and changes its identity. For example, Radium-226 decays into Radon-222 by emitting an alpha particle. The alpha particle carries away a significant amount of kinetic energy.

Beta (β) Decay: In a neutron-rich nucleus, a neutron can transform into a proton, ejecting an electron (called a beta particle) and an antineutrino in the process. This changes the element because the number of protons increases. For example, Carbon-14 (6 protons, 8 neutrons) decays into Nitrogen-14 (7 protons, 7 neutrons) via beta decay. The ejected electron and antineutrino carry away energy.

Gamma (γ) Decay: Sometimes after an alpha or beta decay, the nucleus is left in an "excited" state with excess energy. It instantly releases this energy in the form of a high-energy photon called a gamma ray. This doesn't change the element's identity, but it brings the nucleus down to its stable, ground state.

The energy is carried away by these emitted particles (alpha, beta, gamma) as kinetic energy and electromagnetic radiation.

When a radioactive atom decays, it doesn't just vanish. It transforms into a different atom, known as a daughter nuclide.

This new atom might be stable, and the process ends. More often, this new atom is also radioactive, and the process continues through a decay chain until a stable isotope is finally reached. A perfect example is Uranium-238. It begins a long decay chain, transforming through elements like Radium, Radon, and Polonium, before finally ending as stable Lead-206 as below:

Uranium-238(radioactive) → ... → Radium-226 (radioactive) → Radon-222 (radioactive) → ... → Polonium-210 (radioactive) → Lead-206 (stable).

Half-life of Atoms

The rate of this natural decay is measured by the half-life, the time it takes for half of a sample of radioactive material to decay. This varies enormously from one element to another:

Polonium-214: Has a half-life of 0.000164 seconds. It "dies" almost instantly.

Carbon-14: Has a half-life of 5,730 years. This is why we can use it for radiocarbon dating of ancient organic materials.

Uranium-238: Has a half-life of 4.5 billion years—about the age of the Earth. It's a very slow "death."

The rule is: The more radioactive an element is, the shorter its half-life.

Think of it like this: High Radioactivity = "Frantically Unstable", hence Short Half-Life = "Dies Very Quickly". An element that is highly radioactive is undergoing decay at a very high rate. Because the atoms are decaying so rapidly, it doesn't take long for half of them to disappear. Hence, a short half-life.

Low Radioactivity = "Sluggishly Unstable", hence Long Half-Life = "Lingers for a Long Time". An element with low radioactivity has atoms that decay very infrequently. It takes a very, very long time for half of them to decay. Hence, a long half-life.

If half-life means the time taken for half the number of atoms in a sample to decay fully, does it mean that in double the time, all the atoms will decay fully?

Radioactive decay is a statistically derived calculation (based on empirical observations of samples) that follows an exponential decay pattern, not a linear one. This means that after each half-life, half of the remaining atoms decay.

Let's say you start with 1,000,000 atoms of a substance with a half-life of 1 year.

· After 1 half-life (1 year): Half have decayed. You have 500,000 atoms left.

· After 2 half-lives (2 years): Half of the remaining 500,000 decay. You have 250,000 atoms left.

· After 3 half-lives (3 years): Half of the remaining 250,000 decay. You have 125,000 atoms left.

And so on. As you can see, after double the half-life (2 years), you still have a quarter of your original atoms! The number of atoms approaches zero but never quite reaches it in a finite time. This is why we can still find naturally occurring radioactive elements with long half-lives (like Uranium-238) on Earth—they haven't all decayed away yet. In theory, to have all atoms decay would take an infinite amount of time. In practice, after about 10 half-lives, the amount of material remaining is considered negligible for most

Do stable atoms also undergo decay, or are they eternally stable? Based on current theoretical models, even "stable" atoms might decay, but over timescales so vast they are practically meaningless compared to the age of the universe.

Radioactive atoms release ‘unbalanced’ energy to become more stable. And the energy release continues in a very ordered path until the energy is ‘perfectly balanced’. More unnecessary energy leads to more instability.

The more unnecessary energy, the higher the radioactivity, and therefore faster is the change or movement. The faster the movement towards decay, the shorter its half-life. Less unnecessary energy means less instability, and slower the movement towards decay. This means longer half-life. A perfectly stable atom means stillness.

Examples of truly stable nuclei: Carbon-12, Oxygen-16, Iron-56

Some radioactive nuclei transform into more stable radioactive nuclei and then finally into a stable nucleus. So, the "goal" of the decay process is to reach a stable configuration.

For all practical purposes—chemistry, biology, engineering, geology—these nuclei are permanent and do not decay.

However, there's one environment where "stable" atoms can and do transform: the interior of stars. In the extreme temperatures and pressures of a star's core, stable nuclei can undergo nuclear fusion (like hydrogen fusing into helium) or neutron capture (adding neutrons to create heavier elements). This isn't "radioactive decay" in the traditional sense, as it's not a spontaneous process; it's a forced transformation driven by immense energy. But it does mean that even the most stable atoms are not eternal inside a star.

Some theories in physics (Grand Unified Theories) suggest that even the proton, the building block of all nuclei, might not be eternal. If this is true, then yes, all matter would eventually decay into energy. The process would be unimaginably slow. If protons decay, their half-life is theorized to be around 10^{34} years or more. To put that in perspective, the universe is only 1.3 x 10^{10} years old.

Over timescales so vast they are essentially meaningless (like 10^{1500} years!), there is a hypothetical probability via quantum tunneling that all matter could transform into its most stable state: iron-56. Later, even these iron "stars" could theoretically tunnel into black holes, which would then evaporate.

The Grand Timeline for Material Stability

1. Now to Billions of Years: Radioactive elements decay along their chains, transforming until they become stable isotopes like lead or iron. The universe becomes darker and colder.
2. Trillions of Trillions of Years (Theoretical): If proton decay is real, all remaining atomic matter slowly dissipates into energy and light particles.
3. An Almost Unimaginable Eternity: The universe approaches a final state of dissolution — a uniform, cold, dark void, with only energy remaining.

So, in the most grand, theoretical, and long-term sense, the natural process of radioactive decay is just the first, relatively rapid step in a possible cosmic journey where all matter may ultimately transform into more fundamental forms of energy.

The Axiom of Reincarnation

Law of Karma, Saṃsāra and Reincarnation

Just like matter is subject to change over time according to the laws of science, the psyche is also subject to change over time according to the law of karma. Māyā, which controls the movement of the sūkṣma-śarīra psyche from one psychological state of existence to another, does so according to the law of karma. The law of karma culminates in one knowing one's reality.

The sūkṣma-śarīra is the soul that is reincarnated into multiple physical bodies. The cycle of one lifetime of a sūkṣma-śarīra as a human being is called the cycle of saṃsāra. The path that the soul needs to take in future reincarnations to complete the karmic psychological cycle called saṃsāra is available in the citta memory within the soul.

The reincarnation of the suskhma-sharira cannot be validated empirically, but is seen as an intuitive revelation when in śūnyatā. [Intuition is discussed in detail later in the book. For now, intuition may be thought of as a pattern that emerges in one's mind; a pattern that reveals the underlying causal order that can explain the observed phenomenon or behavior.] And this idea of multiple reincarnations is necessary for order, which is necessary for knowledge. It's the Axiom of Reincarnation for a causal explanation of human psychological behavior.

The causal entities in materialism, such as gravity or space-time, also cannot be validated empirically. The causal explanation, which describes the causal entities, also emerges in the mind as an intuition. The axioms of materialism also cannot be validated or proved empirically, as they are taken to be true for knowledge to be established. Causal entities, causal explanations, and axioms are based on intuition – a revelation that happens in the mind that is seeable only by the mind's eye as a subjective experience. These axioms are accepted because they provide a causal explanation of the empirically observable phenomenon.

In the same way, human psychological behavior is empirically observable. One can observe one's behavior and that of others in the world. The causal entities, such as will, intention, thoughts, and desires, are not empirically observable. The sūkṣma-śarīra, the soul, the mind, the psyche, is the causal entity that cannot be empirically observed. The axiom of reincarnation also cannot be empirically validated.

So, if reincarnation, which is the basis of spirituality, which supposes the existence of the sūkṣma-śarīra, or soul, or psyche, independent of the body that can transmigrate into multiple physical bodies is criticized as non-science, and even as nonsense, because the causal entity, the soul, and its conscious spirit, or the process of transmigration is not empirically determinable, then science too should be dismissed as nonsense because its causal entities are not empirically determinable.

[Space-time, or gravity, or mass of a body are all only conceptual entities. They are not empirically validated. They are accepted because they enable an explanation of the empirically observed phenomenon of weight or motion.

Similarly, Puruṣa, the nature of the Absolute Causal Entity that causes Prakṛti, the nature of the universe, that causes the material and the psychological behavior, cannot be empirically determined. Only the material and psychological behavior that are observed as phenomena are empirically determinable. The

causal entities and the causal explanations are validated if they can reliably and coherently explain material or psychological phenomena.]

The law of karma and the cycle of saṃsāra are the causal explanations of human psychological behavior. The causal entities (jiva-ātman, sūkṣma-śarīra) in the law of karma, and the cycle of saṃsāra, including the axiom of reincarnation, are intuitive revelations in the mind that, like causal entities and causal explanations of science, cannot be empirically determined or proved.

Knowing and seeing belong to two different categories. Seeing happens with the eyes, knowing happens without the eyes, in the mind's eye!

Axioms of Intelligence

Therefore, the four axioms necessary for a Unitary Existential Order of both matter and psyche (or mind) are:

1. **Axiom of Order:** There is perfect order in the relationship between cause and effect. (Balakrishnan)[55]
2. **Axiom of Universality**: This order between cause and effect is applicable universally
3. **Axiom of Finiteness:** The universe is bound and is finite.
4. **Axiom of Purpose:** There is an ordered change or ordered movement of both matter and psyche in time until a state of perfect existential stability is reached. (Balakrishnan)[56]

We saw earlier that intelligence can be defined as ordered movement with or towards a purpose. Then, all the above four axioms taken together may be called the Axioms of Intelligence. (Balakrishnan)[57]

Axiom 1 and Axiom 2 necessitate that there is perfect universal order in the relationship between cause and effect, not just for matter but also for the psyche. This necessitates that there is a law of karma that governs the movement of the psyche towards the purpose of existential stability. **This necessitates the axiom of reincarnation as a child-axiom of Axiom 1, Axiom 2, and Axiom 4.** (Balakrishnan)[58]

The ordered change of the psyche happens in one spiritual lifecycle, with multiple physical reincarnations to complete the cycle of saṃsāra in accordance with the law of karma. This general agreement of the law of karma and of the axiom of reincarnation is seen in almost all ancient spiritual traditions.

Bhagavad Gita - Chapter 2, Verse 27: "Death is certain for one who has been born, and rebirth is inevitable for one who has died. Therefore, you should not lament over the inevitable". Chapter 2, Verse 22: "As a person puts on new garments, giving up old ones, the soul similarly accepts new material bodies, giving up the old and useless ones". Chapter 8, Verse 6: "Whosoever at the time of death, leaving the body, departs, he attains that very state of being, being ever-occupied by that thought". [The jiva-ātman will continue the life journey of saṃsāra in a new physical body from the point in the saṃsāra cycle where the

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old physical body was discarded.] Chapter 2, Verse 12, 13: Krishna assures Arjuna that the soul is eternal and will continue to exist after the body perishes.

The Mayans believed death was not the end, but part of a continuous cycle of death and rebirth. They saw the spirit as a form of energy that transforms rather than dies.

Thinkers like Pythagoras, Socrates, and Plato believed in the transmigration of the soul, or metempsychosis.

Reincarnation of Sūkṣma-śarīra, the Psyche

The Law of Karma is for the sūkṣma-śarīra what is accepted as the knowledge of radioactive decay of matter. The sūkṣma-śarīra or psyche is being naturally transformed from asat, a psychological state of unstable existence in ignorance, to sat, an eternally stable psychological state of existence in wisdom. What happens to one's psychological state of existence in such a transformation from an ignorant being to a wise being? One transcends one's existence from being in nitya duḥkha (eternal suffering which is unstable) to nitya sukha, or ānanda (an experience of love-bliss of the purest form which is eternally stable).

We are changing every moment, from the time of physical birth to physical death. One may say that one is growing up, but ultimately one is hurtling towards physical death. And we seem to die a mini-death every day we go to sleep, when the 'I' disappears, and then the same 'I' returns when we wake up. Then, physical death is only slightly different from a mini-death in deep sleep. When the 'I' wakes up from deep sleep, the 'I' remembers the past of the current physical lifetime in a specific physical body.

When death happens, the sūkṣma-śarīra, the psyche, the total mind apparatus, the soul, along with the jiva-ātman in the antahkarana, and the citta memory 'departs', leaving behind only the jaḍa, the inert lifeless material body. The sūkṣma-śarīra, along with Māyā, which is the controller of the sūkṣma-śarīra, then takes a reincarnation in a new body so that it may continue the process of transformation from asat to sat. [This is why the snake is a symbolic way to represent Māyā, or kundalini; the snake sheds its skin many times in the course of its lifetime.]

Then Māyā of the sūkṣma-śarīra that takes on a new physical body restarts the journey of transformation of its psychological state of existence. Māyā knows exactly where the journey has to restart because it has the citta memory.

[This is like watching a movie of say 90 mins over many sittings. Let's say you watch for 20 minutes in the first sitting. You remember the point where you stopped the first sitting, then come back the next day, fast-forward the movie to the point where you left off, and restart watching the rest of the movie. The Māyā of the same soul born in a new baby body restarts the journey when the body has grown sufficiently to restart the psyche's journey.]

Reincarnation and Rebirth

The difference between rebirth and reincarnation is this:

Reincarnation: A jiva-ātman, which is born in the human body for the very first time, takes multiple reincarnations in the same human body until it completes the transformation to reach the perfection

possible as a human being. The completion of the cycle of reincarnations of the jiva-ātman in a human form, as a human being, is mahasamādhi, or mokṣa, or nirvāṇa. In mahasamādhi, one experiences sthira nitya sukha or ānanda. In the complete cycle of saṃsāra, one's existence is transformed from being in nitya duḥkha (eternal suffering, which is asat, existentially unstable) to nitya sukha, or ānanda (an experience of love-bliss of the purest form, which is sat, existentially stable).

Rebirth: Then the jiva-ātman takes a rebirth into a physical form that allows for further evolution of the psyche. This rebirth is not in a human form again, for that process has been completed. The psyche, soul carries the jiva-ātman into a rebirth as a different being with a different physical form, where it has to further take many reincarnations to complete that cycle.

The cycle of rebirths and reincarnations will happen until the psyche and the jiva-ātman ultimately transform into the most fundamental form of consciousness.

For example, a jiva-ātman in a monkey may take several reincarnations to complete the spiritual life cycle of the jiva-ātman in the monkey form. After completion of the monkey's spiritual life-cycle, the jiva-ātman, along with the sūkṣma-śarīra and Māyā apparatus, takes a rebirth in a human form. Then it reincarnates several times, through physical births and deaths, taking on a different human body each time it reincarnates, until it completes the spiritual lifecycle for the human form. This spiritual lifecycle is known as saṃsāra.

We saw that the natural process of radioactive decay is just the first, relatively rapid step in a possible cosmic journey where all matter may ultimately transform into the most fundamental form of material energy. Similarly, the completion of the cycle of saṃsāra as a human being is just another step in the cosmic journey where all conscious beings may transform into the most fundamental form of conscious energy or consciousness.

Does this idea of rebirth and reincarnation of souls into 'higher' forms of life conflict with science? It does not. Rather, it is in line with Darwin's theory of evolution. Darwin's theory of evolution proposes that all species of life descended from common ancestors and evolved over time. This happens through a process of natural selection, where organisms with advantageous, heritable traits are more likely to survive and reproduce, passing those traits on to their offspring.

Darwin's theory is often used to contradict the idea of an intelligent designer. But what is the mechanism of natural selection if not the idea of an underlying order? Natural selection is the idea that genetic mutation happens randomly, but that those genes that are best adapted to their natural environment are likely to survive, and the survivors are likely to pass on their genes to their offspring, which enables them to thrive. This is a theory based on order. If there were randomness, then Darwin's theory of evolution would not be possible. Genetic information of the survivors would be randomly passed on to the offspring. Some genes may thrive in the same environment, while other similar genes may die. Some zebras would be able to lay eggs. Some elephants may be able to fly.

[It must be seen that no one can explain randomness. An explanation is possible only if there is an underlying order. We may not know all of the underlying order, and the aspects we do not know we may call random. But that there is an underlying order without any randomness is the basis of knowledge, including Darwin's theory of evolution.]

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The Law of Karma – The Causal Explanation for Psychological Behavior

A human being is capable of self-awareness. The spiritual journey of the jiva-ātman from ignorant assumptions of one's self to wisdom in discarding all the ignorant assumptions is called the cycle of saṃsāra. The ordered process of the cycle of saṃsāra by which a jiva-ātman moves from false identities to discover his real identity is called the law of karma. The law of karma, like the law governing radioactive decay, is just about moving from an unstable version of oneself to a more stable version of oneself until one finds eternal stability. In the case of the radioactive element, the atom seeks material stability and gives off material energy to become more stable. In the case of the jiva-ātman, he seeks spiritual stability and sheds the false identities acquired ignorantly.

The jiva-ātman, in getting to know his real identity, through a journey of life as a human being in this jagat world, has to try out every possible identity until every false identity is falsified as a contradiction between,

Conception: What 'I', the jiva-ātman, think 'I' am, and

Reality: What I am

In scientific knowledge, too, the same idea applies, where every possible hypothesis that can explain the reality of the phenomenon has to be tried out and validated or falsified repeatedly, until one hypothesis emerges that remains unfalsifiable. The hypothesis is validated or falsified using reason, logic, and empirical evidence from experiences and experiments. A hypothesis is deemed to be a better candidate for becoming knowledge if it is reliable, can be used to predict behavior, and coheres with other validated knowledge. Coherence is important because the entire universe is seen as one mechanism. Hence, if the clock can be seen as acting according to one design, the parts of the clock also have to cohere into that underlying design. Balance, symmetry, and simplicity are also important considerations.

Truth is knowledge of the nature of the Absolute Causal Entity. There is no contradiction between scientific knowledge and spiritual knowledge as long as the Truth of the Absolute Causal Entity or God, or Existence, or Brahman, or Allah is seen as metaphysically or ontologically determined, following the due processes for validation.

Science only has a problem with a religiously imposed idea of God, a dogma that has to be accepted as faith without any validation. Spirituality too has a problem with a religious idea of a God who has to be propitiated to intervene to grant one's destiny. Science has no problems with an Existence established as a Natural Order, which does not have to interfere or intervene in the running of the universe. The naturally established order takes care of the running of the universe of matter or the universe of conscious beings. And it doesn't make any difference to science or spirituality what one calls Existence in their own languages and cultures or what one calls the Natural Order inherent in Nature. In Vedānta, they called the Natural Order Māyā.

Both scientific and spiritual knowledge have problems with dogmas, whether societally adopted over time or religiously imposed. Science refreshes its knowledge in time to save itself from becoming scientific dogma. Spirituality must too, else it easily lends itself to becoming religious dogma.

Difficulties of Spiritual Knowledge

Spirituality, like science, is knowledge of Existence, specifically the nature of man's existence. It seeks to understand the psyche of the human being. If so, one must demand that it provide at the very least a plausible causal account of the psyche of the human being, which even science does not claim to have.

Science has an advantage in its ability to produce knowledge. Science is about seeing that, the other, with one's eyes and making sense of it in the mind, as a conception. Everyone can see that, and can collaborate to validate or falsify knowledge.

In spirituality, 'I' has to make sense of the behavior of the 'I' in one's mind and determine the reality of the 'I'. There are several problems here,

1. All the sense organs are outside the mind in the body and are oriented to seeing that, the other outside. Then how is one to make sense of one's self in one's mind if the self is the seer in the mind?
2. Even if somehow, a Buddha or a Sankara saw the reality of their self in their own mind, how does one validate their claims? How does one know, much less validate, that the self that Buddha saw is the same self that Sankara saw? If one just had to believe in Buddha or Sankara, without any ability to validate it, then it becomes dogma.
3. Even if Sankara and Buddha happened to be friends and one day sat next to each other, looking at the sun rising from the ocean, and wrote down their theses of what they saw, they would produce two different accounts of what they saw, and to add to the difficulty, in different languages. Maybe Sankara could have exchanged his theses with Buddha and vice versa, and they could have agreed that both their theses were the same except for the language and the difficulty of semantics. But they were talking about the reality of the self in their own minds. Now, if this happened to everyone within their lifetimes, then everyone could have studied and validated their theses. But this doesn't seem to be the case.
4. Then there is the question of why one should know. In science, not everyone knows the theories and laws established by the scientists who collaborated with each other. But everyone uses appliances, machines, the internet, planes, TV, and so many other inventions that behave according to the knowledge established in science. And these appliances are working evidence in the ordinary lives of every person that makes their lives richer, better, easier, faster, etc. This is the utilitarian argument that Man has to know science because it is useful. Not every man has to know science, but Mankind as a whole has to invest in producing scientific knowledge through the efforts of scientists and material researchers, as the knowledge so produced is useful to all of Mankind. But there is, besides the utility value of scientific knowledge, the hope that science can explore newer frontiers in space and know more about Existence, not just from the perspective of earth but from the perspective of distant galaxies.

Responses to the Materialist's Skepticism

The teachers of spirituality answered these questions fully. They said,

i. Knowing any subject that belongs to the world outside is aparā-vidyā. One may know history, chemistry, sociology, physiology, law, farming, etc. This knowledge will make the physical living

of the body in the world outside easier. It is necessary, but not sufficient, for psychological fulfillment.

ii. One is experiencing one's self every second of one's conscious life. And this experience is exclusive to one's self inside one's mind. This is the spiritual experience that needs to be understood. Spirituality is not about some psychic paranormal abilities.

iii. Even if one thinks it is not important to know, the law of karma, which is the law governing the movement of the chakras, states of psychological existence of human beings, will ensure that one will come to know one's self when it is time. This law of karma is as reliable and predictable as any law of science. The laws of motion describe the movement of material bodies. The law of karma describes the movement of the psyche inside the brain. The entire Existence is made in one order, and that order is called Māyā. In understanding Māyā, in understanding the cycle of saṃsāra and the law of karma, one understands the order of the human mind or human psyche. In other words, it is the causal explanation of human behavior that modern psychology is also seeking.

The cycle of saṃsāra is like the periodic table classification of matter. Just like every element can be identified by its nature, qualities, properties, and behavior, and classified as metals, acids, alkalis, etc, every human psyche can be identified by its chakras, gunas, saṃskāras, and vāsanās.

Just as an understanding of the elements of matter and their interactions helps in practical applications without hazards, understanding the chakras of the human psyche helps in practical human interactions without suffering.

iv. The Materialist's Category Error: The fundamental error is to demand that the "seer" - the subjective, conscious experiencer - must be found within the field of the seen. This is a logical and categorical impossibility. It is like using a telescope to find the astronomer's eye. The eye that sees cannot itself be seen by the telescope; it is the prerequisite for seeing with the telescope.

The seer sees the others in the world outside with his eyes. The others can at best see the seer's eye. No one can see the seer except the seer. And this happens when the mind-mirror has been perfected in śūnyatā, where only the seer exists in front of his perfect mind-mirror, which then reflects his reality.

With just the body, eyes, and the brain, no seeing is possible. The conscious seer inside the mind, the jiva-ātman, is the one who sees. A robot too can see mechanically, but the seeing of the jiva is a conscious seeing that leads to the subjective experience of the jiva-ātman.

v. Man is a being created to know. He needs knowledge almost as a means of survival and to carry on with the affairs of day-to-day life. Either he knows or is dependent on the knowledge of others, such as in science. A spirit cannot live with doubt about its state of existence forever. If the existential doubts raised in the mind are not resolved by the intellect of the mind, the very doubt would progress to become suffering, and would become a deep depression, an existential crisis.

It is this existential crisis in each psychological state of existence that causes the shift to the next psychological state of existence, as an experience of spiritual awakening, where a new identity is found in a burst of intuition until all psychological states of existence are exhausted, where, in śūnyatā, the real identity is revealed.

Knowing the nature of an existential crisis and the psychological shifts will help Mankind deal with it with empathy and compassion.

vi. It is not possible for one to know one's reality unless Māyā reveals one's reality. And Māyā is ordered to do so in time, according to the law of karma.

Let's go back to the analogy of different objects falling in gravity. Imagine each one of us as a different leaf of many types of trees in a garden, called the universe. And imagine that each leaf is conscious and can see what is happening to itself and to the other leaves as it is falling from the trees. Each leaf has a different mass and is subject to external factors, such as wind and atmospheric friction. So, each leaf will float in the wind and fall in different places at different times. All of this will be seen as random relative motion with respect to each other caused by unknowable random variables such as the drift of the wind and friction. But in a vacuum chamber, all of the leaves will witness an order in their movement, falling the same way, at the same time, at the same place, over the same height.

How did Man know of this underlying order, when all he could also see was apparent chaos? First, he was given an insight into this pattern or order in his mind. Then he confirmed this insight in an experiment. Then he described it in words and numbers as a Law of Motion. This insight into the underlying order is intuition. Man has intuition. Man's mind is therefore designed to know. The insight into the order could not have emerged from the outside, for there is no order in the effects that are empirically seen. The order emerges first in the mind and is then seen in the effects when the 'noise' is eliminated.

From the perspective of a leaf that is falling naturally (not in a vacuum chamber) in a garden, this intuition is the equivalent of seeing its own motion and that of the other leaves from a state of altered consciousness, as if it were seeing the leaves falling inside a vacuum chamber from outside the vacuum chamber. Or as if some Absolute Being were witnessing the order in the change, where the Absolute is the cause of the order in the change, but is completely removed from the change.

This intuition that comes from a state of altered consciousness is managed by Māyā.

A mechanical clock, or any of its parts, can never discover the order in the change of its movements, unless the clock or the components of the clock had consciousness, and the nature of that consciousness could have an intuition of the design of Man and the purpose of the design. And this too is not possible unless Man had created the clock with the capacity of intuition to decipher the design and purpose of its designer, Man. And there is no reason to design a clock with the capacity of intuition, unless it was part of the purpose of Man that the clock should know its design and the purpose of Man, the intelligent designer.

The mechanical clock that Man designed is incapable of knowing its design or the purpose of Man, its creator. It is jaḍa inert matter, without a jiva-ātman conscious being.

Man, a conscious being, capable of knowing, can know his design, the design of the universe, and the nature of Existence. Man was designed as a conscious being capable of knowing not for Man's sake but to serve the purpose of His Creator, which too can be inferred. He knows because he is made to know. (Balakrishnan)[59]

[59] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

Citta Memory, and Pratibha Intuition

Māyā controls the shukshma-sharira mind, which comprises citta memory, manas lower-intellect, and buddhi higher-intellect.

Citta, the memory layer of the sūkṣma-śarīra, total mind, psyche, or soul, consists of:

1. Conscious Memory
2. Subconscious Memory
3. Unconscious Memory
4. Superconscious Memory

This is indicated in Figure 6 below:

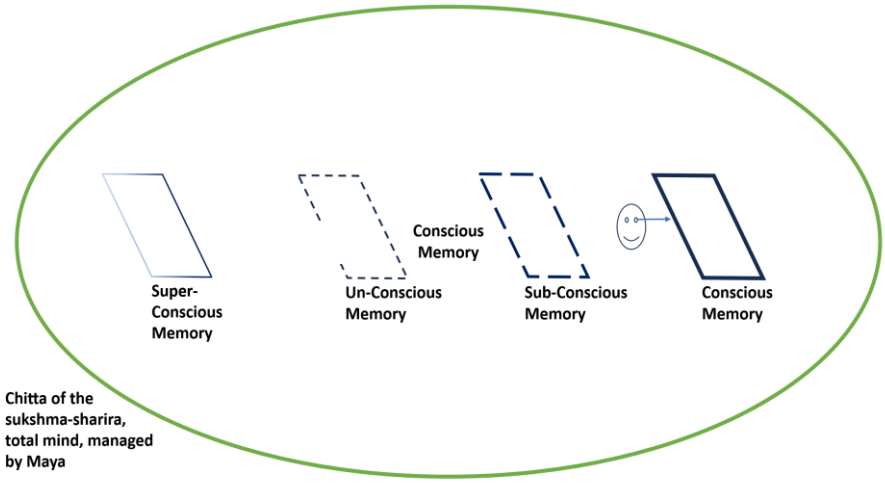

Figure 6: The layers of memory of the human mind (Balakrishnan)[60]

The conscious memory is part of the antahkarana, the conscious mind, and is accessible to the jiva-ātman in the conscious waking state. The subconscious, unconscious, and superconscious memories are part of the sūkṣma-śarīra, total mind, and are not directly accessible to the jiva-ātman.

The conscious memory is like the RAM, which is used during the waking state to think and act. The subconscious memory, unconscious, and superconscious are like the deeper storage memory.

1. The conscious memory is used to collect imprints of thoughts from experiences of the world in the waking state.
2. These imprints are passed on to the subconscious memory. In the subconscious memory, the following process happens:

- Imprints are collected over a period of time

[60] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

- Patterns of the imprints collected over a period of time are formed. This is how hypotheses are created, which becomes the first step of 'knowing', when the hypotheses are validated.
- Pratibha intuitions are formed as patterns of several validated hypotheses.
- Instincts are formed as patterns of several validated intuitions.

The subconscious memory is used to process imprints and convert them into instincts over the course of one physical lifetime, within the cycle of saṃsāra.

Let's take the example of driving a car.

Initially, the concept of driving itself is not known. One is completely ignorant and says, "I don't know (that) I don't know (driving)." Then, when one is learning, one drives the car consciously. The conscious thinking is, "I know, I don't know (driving)." Then the act of driving is repeated again and again, through different scenarios in a driving school, so that the subconscious begins to know the patterns. Then the conscious thinking is, "I know, I know (driving)." [Note that the first part, "I know," is the conscious memory, and the second part, "I know driving," comes from the subconscious memory.] Then, in the final phase of learning, one drives without conscious thinking, completely relying on the subconscious. Then the conscious thinking is, "I don't know, I know driving." Here, one drives without conscious effort, even talking to co-passengers while driving. This is when the learning has become an instinct in the subconscious memory. The instinct of the subconscious memory becomes an imprint for the unconscious memory. The subconscious and unconscious memory are not a part of the ahtahkarana but are a part of the sūkṣma-śarīra. At this stage, knowledge has become an instinct. This means that one's knowledge has been validated several times, and never falsified, and that one instinctively trusts one's driving without knowing. [In the Zen tradition, this is called 'no-mind', where the conscious mind is not necessary anymore for a particular activity. It has been ingrained into the subconscious as an instinct. So, when we see animals and say they are acting from instinct, it means they have learnt from their experiences over several lifetimes that it has become an instinct.]

3. The instincts of the subconscious memory are passed on to the unconscious memory as imprints. In the unconscious memory, the following process happens:

- Imprints are collected over a period of time
- Patterns of the imprints collected over a period of time are formed as hypotheses that emerge from the unconscious.
- Intuitions are formed as patterns of several validated hypotheses. (Balakrishnan)[61]
- Instincts are formed as patterns of several validated intuitions. (Balakrishnan)[62]

The unconscious memory is used to process imprints and convert them to instincts over several physical lifetimes, as reincarnations, in the cycle of saṃsāra. (Balakrishnan)[63]

[61] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[62] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[63] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

The validated instincts of the unconscious memory over a complete spiritual lifecycle, such as the cycle of saṃsāra for the human being, are passed on to the superconscious memory as imprints. These imprints are the Truths that have been learnt over an entire spiritual lifecycle. (Balakrishnan)[64]

The Truths then become the initial instincts when the human being evolves into a higher, perhaps more complex, being. For that higher, more evolved form and being, an ordered cycle of learning and knowing will be followed. (Balakrishnan)[65]

The jiva-ātman has no access to the subconscious, unconscious, or superconscious memory as they are outside the antahkarana. It is Māyā who has access to the subconscious, unconscious, and superconscious memories. Māyā does the integration of memories, patterns, intuitions, and knowledge in the subconscious, unconscious, and superconscious memory. (Balakrishnan)[66]

It is using these layers of memory that Māyā determines the psychological evolution of the sūkṣma-śarīra or soul in the cycle of saṃsāra. (Balakrishnan)[67]

The Development of the Intellect – Manas, Buddhi, and Siddhi

Children tend to begin learning by thinking at the concrete level, where they need concrete objects to develop their thoughts. Even adults use concrete acting to develop concrete learning first, which later becomes abstract. Abstract thinking and knowing is where one doesn't need the support of concrete objects to communicate, think, or learn. Driving a car is a good example of concrete thinking and learning. It is not possible to learn to drive a car by listening to the driving teacher explain driving in a classroom by giving a lecture. This concrete thinking and learning ability is called lower-intellect or manas. At the level of manas, only lower-order thinking skills and abilities are developed, such as remembering, understanding, and applying. (Balakrishnan)[68]

Some subjects cannot be learnt concretely. Learning advanced theoretical physics (e.g., quantum mechanics), or advanced mathematics (e.g., calculus), or philosophy requires a person to have a mind capable of abstract thinking. One listens to a lecture in a classroom, which happens initially as a manas activity (remembering, understanding, and applying). Then, to imbibe the knowledge that is seen as words in a book or heard as sounds of a lecture, activity has to happen in the conscious mind, with the support of buddhi, the higher-intellect, which has the abilities for higher-order thinking skills, such as reflection, which is the backbone of higher-order thinking. It is only with the ability of reflection, the ability to compare thoughts of the phenomenon with the reality of the phenomenon, plans with results, potential actions with possible consequences, that abilities such as analysis, evaluation, and synthesis are possible. For example, in analysis, when making policy, one has to weigh policy options with desired outcomes and also account for potential hazards and risks. In evaluation, one may have to come up with a framework for analysis if the prevailing framework is insufficient. In synthesis, one may have to analyze two different frameworks for the evaluation of a problem and come up with a synthesis to solve the problem. Economic policy decisions of a government may use frameworks such as capitalism or socialism, and come up with

[64] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
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[67] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[68] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

a blended policy that might be most appropriate for the country's development. Applied research is another good example of buddhi abilities. (Balakrishnan)[69]

We saw that the patterns for the questions of the manas emerge from the subconscious citta. Unresolved questions of the manas are answered by the buddhi if one has already developed buddhi, or if not, then one relies on the buddhi of others. Answers to questions of the buddhi also emerge in the subconscious citta, as we saw in the examples of economic policy making or applied research.

Then there is also siddhi, where the buddhi has grappled with a complex problem for almost an entire lifetime, and even many lifetimes, and where patterns begin to emerge from the unconscious memory. We saw that deeply learnt subconscious knowledge, which has become an instinct, is stored in the unconscious as imprints by Māyā. And patterns from imprints in the unconscious that happen over several lifetimes become pratibha intuition for the siddhi. Siddhi is just buddhi receiving intuitions from the unconscious memory. (Balakrishnan)[70]

Māyā's Will: The Basis of Determinism

Māyā controls the entire mind or sūkṣma-śarīra. It also controls the jiva-ātman's psychological experience inside the conscious mind, antahkarana. It is Māyā's will that the jiva-ātman experiences as his will. The jiva-ātman cannot choose his will. Māyā controls the movement of the psyche by controlling the will. This is the basis of the idea of determinism. (Balakrishnan)[71]

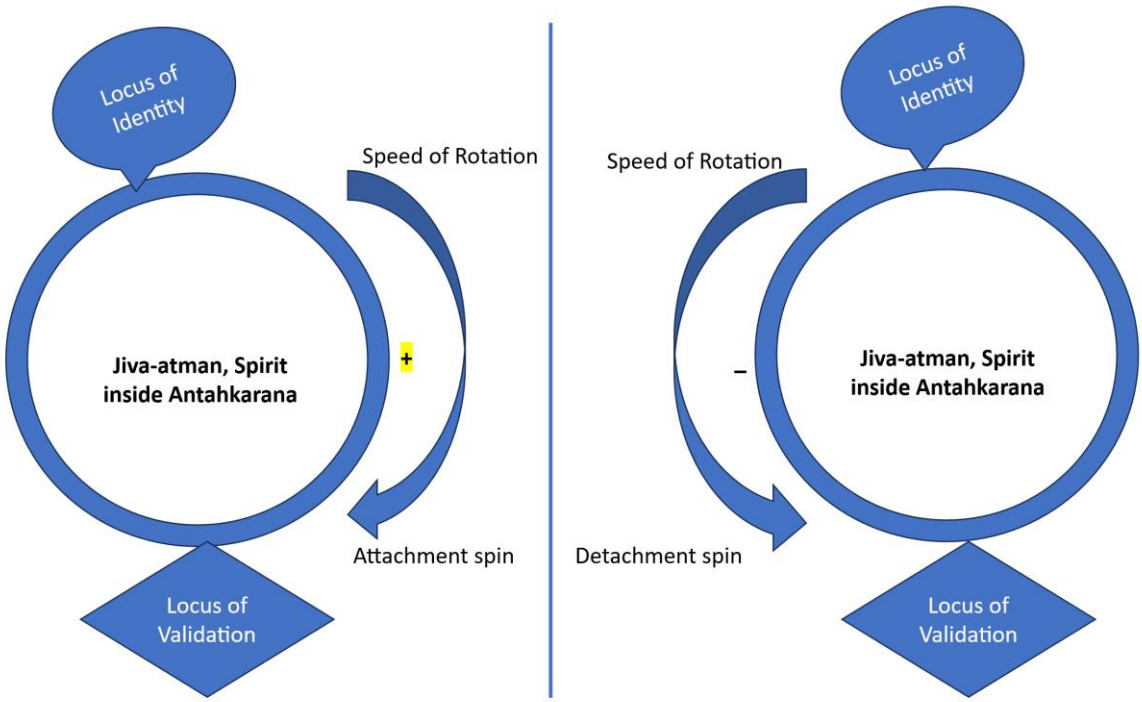

Figure 7: Māyā's Will -The controls that govern the movement of the psyche

[69] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[70] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[71] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

through the cycle of saṃsāra

Māyā exercises the following controls to govern the psychological movement of the jiva-ātman through the cycle of saṃsāra as indicated in Figure 7 above:

1. **Locus of Identity**
2. **Locus of Validation**. [This is also indicated as the direction of rotation where (+) refers to attachment, and may be seen as clockwise spin, and (-) refers to detachment, and may be seen as counter-clockwise spin.]
3. **Speed of rotation** of the antahkarana.

Using these controls, Māyā provides the jiva-ātman with taṇhā identity-desires. These controls present themselves as the will to the jiva-ātman. (Balakrishnan)[72]

The jiva-ātman is conscious, but ignorant of his reality. He is also ignorant that his will is presented to him and is controlled by Māyā. Because of his ignorance, he owns up to every experience as if he were the owner and thinks, "I did that. That success is due to my effort. It was my goal to attain that achievement". The jiva-ātman thinks that the will of Māyā is his own will. This ignorance of the jiva-ātman that causes him to see his self as the owner gives him his sense of a separate identity. (Balakrishnan)[73]

The jiva-ātman ignorantly thinks that he is the owner of his will, his thoughts, his emotions, his desires, his body, and the things in the jagat world. It takes just a little bit of reflection to know that the jiva-ātman was provided with the entire assembly of the mind and body, and all arrangements and provisions for his journey in space jagat, and time kāla were determined by Existence and Māyā.

Effectively, the only difference between a human being and a humanoid is the conscious jiva-ātman capable of experiencing happiness or suffering. A humanoid, too, is fully controlled by its Robot Operating System and can even be remotely controlled, but it does not have a conscious jiva-ātman capable of subjective experiences. The human being is a jiva, a conscious living entity, whereas a humanoid is jaḍa, inert matter. [The memory layers, the intellect layers, and the clock are just like the AI software of the humanoid that is learning. Māyā controls the learning experiences and the learning process. It is Māyā that is learning and knowing, because it is ordered that Māyā perfect herself.] (Balakrishnan)[74]

Māyā has the capacity to think by operating the manas lower-order thinking abilities, buddhi higher-order thinking abilities, and citta memory. Māyā also has an internal clock-counter to ensure an orderly supervision and governance of the sūkṣma-śarīra. The jiva-ātman merely witnesses and experiences the choices made by Māyā as an act of thinking. The jiva-ātman has no will. The jiva-ātman has no control over Māyā. (Balakrishnan)[75]

[72] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[73] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[74] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[75] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

So, the entire illusion of a life experience is provided for the jiva-ātman as he journeys in jagat space, and kāla time by Māyā. Māyā is responsible for the entire illusion, and because of ignorance of the jiva-ātman, he thinks the illusion is his reality and says,

- This is my life
- These desires, thoughts, and emotions are mine
- The body is mine, and my thinking is mine
- It's my will, and I will exercise my will to attain what I desire in this world.
- I have to achieve and attain something in the world to gain an identity and become worthy of their love and attention
- I have to be ambitious and successful and be seen as a winner in life
- I can be happy only when I am seen as a winner, and I will suffer if I am seen as a loser.

In reality, Māyā is thinking and moving from ignorance to wisdom. The conscious jiva-ātman is just experiencing and identifying with Māyā's ignorance. Māyā's ignorance causes the 'noise' in the mind. This 'noise' of the ahaṃkara ego creates the illusion that the jiva-ātman exists as an independent, separate, and permanent self. Māyā's ignorance causes her to learn to remove her ignorance. Māyā's learning is the ego-noise of the ahaṃkara. Māyā's constant movement (or the lack of stillness) is Māyā desiring and thinking. Māyā's movement prevents the jiva-ātman from recognizing his true nature in the mind-mirror. (Balakrishnan)[76]

The ego or ahaṃkara is created by Māyā's ignorance. The ego or ahaṃkara is also destroyed by Māyā's wisdom when she learns. The birth, sustenance, peaking, decaying, and death of the ego are managed and controlled by Māyā. (Balakrishnan)[77]

Let's understand what each of the components of 'will' is:

- **Locus of identity:** This can be extrinsic or intrinsic.

Extrinsic locus of identity is taṇhā identity-desire. With an extrinsic locus of identity, the jiva-ātman, not knowing his reality, desires to gain an identity from a source external to his self. (Balakrishnan)[78]

We saw, based on the Neti Neti principle described earlier, that for the jiva-ātman in the conscious mind, there are three possible known external sources of identity – the body, the mind, and the world. In the extrinsic locus of identity, the jiva-ātman moves from body-identity-desire to mind-identity-desire, and to world-identity desire. Only after acquiring these identities can he validate whether the externally gained identity was his reality or not. He has to eliminate through falsification (bhakti, karma, jñāna, or raja yogas) all possible false-identities to determine his reality. (Balakrishnan)[79]

Each phase of an identity-desire is called a chakra. As the identity-desire is validated or falsified in kāla time, the jiva-ātman moves through lokas and patalas. The phases of bhakti (a new belief in a new identity) and karma (self-validation of that belief in one's own experience) are called lokas. In the phases of jñāna (validation by others) and raja (emergence from the three yogas without being falsified), the newly

[76] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
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[78] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[79] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

acquired identity is subject to far more scrutiny, and the jiva-ātman feels unsettled and experiences oppression by others during the jñāna yoga phase, and if falsified, goes into depression in the raja yoga phase. The phase of depression is an existential crisis as the identity is being demolished in the mind. The phases of oppression and depression, where the jiva-ātman experiences suffering, are called patalas. (Balakrishnan)[80]

Through intuition, the next identity-desire is created, and the jiva-ātman enters the next chakra. He moves into the next chakra, seeking the newly desired identity in addition to the one already acquired. So, when he moves from the body-identity chakra into the mind-identity chakra, he carries the body-identities with him. These identities go through the process of validation and falsification in the lokas and patalas of that chakra in kāla time. (Balakrishnan)[81]

When all the extrinsic loci of identities are eliminated, the jiva-ātman seeks validation of his intrinsic locus of identity. (Balakrishnan)[82]

- **Locus of Validation**: This can be external (or extrinsic) or internal (or intrinsic).

This determines where the validation of the identities gained is sought. Is it from other people in the world? Or is one seeking the validation in his own mind?

An extrovert, with an extrinsic locus of validation, seeks validation from the world of others. He seeks to be seen as powerful, as he has seen that the world grants validation to those in power. He seeks to gain those possessions, positions, and people that attract the attention of other people to him. When all his extroverted attempts to gain validation have failed, he gives up all the identities gained in the phase of extroversion. (Balakrishnan)[83]

The emergence from depression is called a spiritual awakening. It can be seen that the mind is heavy with depression. When one comes out of a depression, one feels tremendously light and acquires a new buoyancy. A spiritual awakening can be compared to the energy released by the unstable radioactive element in the process of becoming a stable element. The unnecessary false-identity that the jiva-ātman was carrying is discarded. There is a tremendous spiritual energy that is released when the identities are given up. (Balakrishnan)[84]

An introvert, with an intrinsic locus of validation, having exhausted the extroverted validation seeking, now attaches to the external identities of world, mind, and body based on giving love. His heart is full of love, and he now validates whether the love that he seeks to project in the world through his external identities is validated in his mind as an experience of happiness. Again, these identities are tested through the four yogas. And when they are falsified, one gets depressed, and the false identity is dropped in each chakra. (Balakrishnan)[85]

[80] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[81] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[82] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[83] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[84] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[85] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

The nature of suffering and depression in the extroverted and introverted phases of the saṃsāra cycle is different. In the extroverted phase, one seeks to gain further identities and absorbs spiritual energy from other people through power over others and attention from others. In the introverted phase, one seeks to lose identities if one doesn't love carrying the identity. (Balakrishnan)[86]

The depression in the introverted phase stems from the scarcity of identities to be dropped and the point of life in this world without identities. One starts to lose trust in life and sees nowhere else to go. When all external identities have been dropped, as an introvert, there is tremendous depression. When one is awakened from this great depression, there is an intuitive understanding of one's reality that comes from the unconscious. This is the phase of chanda-desire, a phase of samādhi. And when the chanda-desires are also dropped, one enters mahasamādhi, which marks the completion of the human spiritual lifecycle of saṃsāra, also called nirvāṇa[87], mokṣa, fanaa, khalis, etc. (Balakrishnan)[88]

- **Speed of rotation** of the antahkarana: This is a symbolic representation to indicate the potential Māyā has and the spiritual or conscious energy that it needs to draw to operate the antahkarana and the sūkṣma-śarīra. (Balakrishnan)[89]

The Māyā of every jiva-ātman goes through the chakras in the ordered sequence of the law of karma. However, because of the inherent differences in energy, each Māyā and consequently the antahkarana of each jiva-ātman has a 'faster' or 'slower' relative speed. This may be seen as some kind of quantification of conscious energy in terms of

- how many desires one has in each chakra phase
- how much of validation one seeks in each chakra phase

During the extrinsic validation phase, the speed of rotation may be seen as a quantification of ambition, and during the intrinsic validation phase, this may be seen as a quantification of passion. (Balakrishnan)[90]

The Māyā with a higher relative speed of rotation will have a higher ambition than a Māyā with a lower speed of rotation. So, for instance, during the body-identity phase, a Māyā with a lower speed of rotation will have desires to maintain the fitness of the body to 'look good' to his friends. A Māyā with a higher speed of rotation will have desires to be seen as 'handsome' and to be appreciated as such. A Māyā with a very high ambition will seek to be seen as 'glamorous' and may then pursue desires to become a 'celebrity' with a huge fan following.

It must be noted that the parent desire of body-identity will have many child desires that comprise the entirety of the identity-desire attainment and validation path followed by Māyā. Therefore, a Māyā with a relatively higher speed of rotation will have a higher spiritual energy to be able to churn through all the desires, attain them, and then seek validation. A person with higher ambition has a higher speed of rotation,

[86] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

[87] The word "nirvāṇa" comes from Sanskrit, combining nis, meaning "out", and vāti, meaning "to blow," to mean "blown out" or "extinguished". The term's origin is rooted in the metaphor of a candle flame being extinguished, symbolizing the release from suffering, desire, hatred, and ignorance. The concept was used across several ancient Indian traditions but was adopted by Buddhism as the ultimate goal of the spiritual path.

[88] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

[89] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

[90] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

and the desires seem insatiable relative to others with a lower ambition. [In a sense, a higher speed of rotation can be compared to a more radioactive element with a shorter half-life.] (Balakrishnan)[91]

If the desire were just about the fitness of the body, it would be a chanda desire. It is the identity that 'I am my body' and 'I want others to validate my body' that makes it a taṇhā desire.

The Cycle of Saṃsāra

One spiritual lifecycle of the jiva-ātman, consisting of many physical lifecycles as reincarnations, is called the cycle of saṃsāra. It consists of two phases – the attachment phase and the detachment phase. (Balakrishnan)[92]

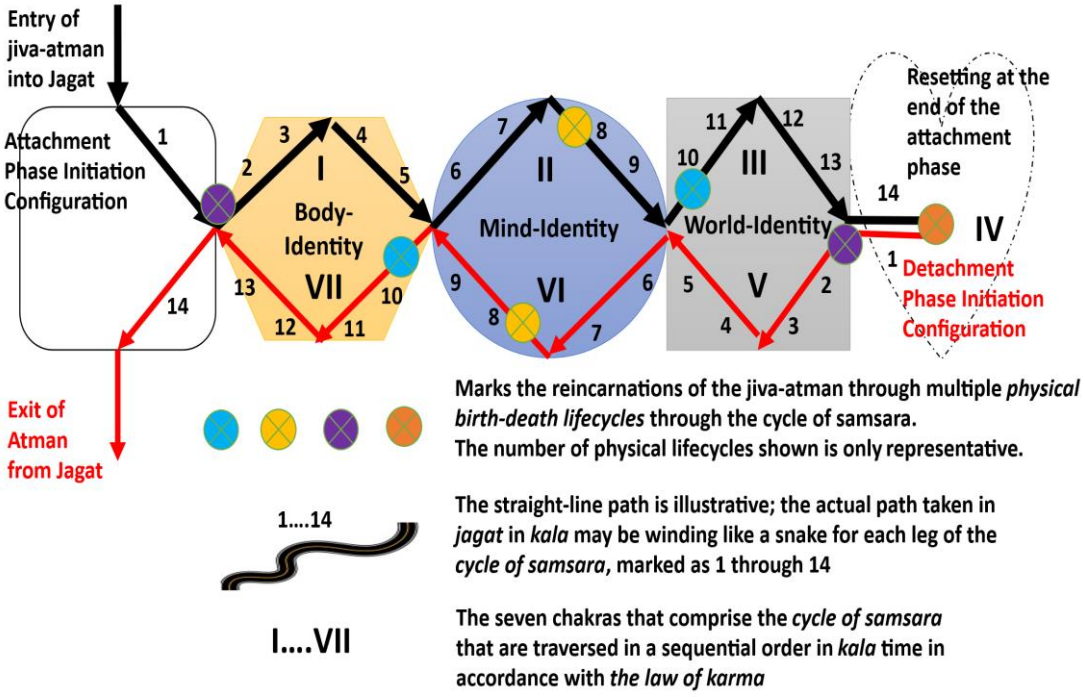

Figure 8: The Cycle of Saṃsāra as the jiva-ātman moves through the Chakras I - VII

[A brief overview of how Māyā controls the antahkarana conscious mind and causes the psychological states of existence as the jiva-ātman traverses through the cycle of saṃsāra is discussed here and is shown in Figure 8 above. The details of the chakra (nature) of the psyche and corresponding qualities (gunas), properties (saṃskāras), and behavior (vāsanās) are discussed later. This discussion is the causal explanation of the psychological behavior of human beings and forms the core of this book.] (Balakrishnan)[93]

The rotation of Māyā with an extrinsic locus of validation may be seen as an attachment phase ('+'), and the rotation of Māyā with an intrinsic locus of validation may be seen as a detachment phase ('-') of the

[91] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[92] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[93] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

cycle of saṃsāra. The attachment and detachment phases are made up of seven chakras that are traversed in a sequential order in kāla time in accordance with the law of karma.

- **Attachment phase of the cycle of saṃsāra: The cycle of saṃsāra is managed by Māyā as below:**

a. **Initiation Configuration for Attachment Phase:** The target speed of rotation (the potential of Māyā) is set at the beginning of the attachment phase of the cycle of saṃsāra as its maximum. [Each Māyā will have its own maximum speed of rotation, as we have discussed earlier.] This enables Māyā to set its 'goals' for the extrinsic locus of identity and validation. The potential of each jiva-ātman is fully realized through the experiences it has while journeying through each chakra in kāla time.

The speed starts at maximum. The locus of identity is extrinsic. The locus of validation is extrinsic. This is a phase of identity-attachment ('+'). (Balakrishnan)[94]

b. **First Chakra Phase:** The speed of rotation is set to 1 and increases from 1 to 'low speed'. The locus of identity and validation is extrinsic. This is the body-identity attachment phase. This is a phase of identity-attachment ('+'). Spiritual energy is gained from the attention that one seeks and gets from others. (Balakrishnan)[95]

[A speed or conscious energy level of zero means absolute stillness, perhaps achieved only when the mind slips into deep sleep, where the sense of 'I' is non-existent. Absolute stillness is not possible in a living conscious mind. The concept of zero is not the absence of any-thing, just like infinity is not the presence of every-thing. We are finite, living in a finite universe. So, stillness of the conscious mind should be understood as the maximum perfection possible of the mind-mirror. So, stillness or emptiness of the conscious mind that can humanly be achieved is symbolically represented as '1'. It just denotes the closest a conscious mind can ever get to absolute stillness or zero.]

c. **Second Chakra Phase:** The spiritual energy gained by the validation from others in the first chakra phase accelerates the speed of rotation to 'medium speed', and this speed is largely maintained in this phase. The locus of identity and validation is extrinsic. The body-identity of the earlier phase is retained, but it is the secondary identity, as it is seen as necessary but not sufficient to reach the potential. The mind-identity becomes the primary identity. This is a phase of identity-attachment ('+'). Spiritual energy is gained from the attention that one seeks and gets from others. (Balakrishnan)[96]

d. **Third Chakra Phase:** The spiritual energy gained by the validation from others in the first and second chakra phases accelerates the speed of rotation to the 'maximum speed', and this speed is largely maintained in this phase. The locus of identity and validation is extrinsic. The body-identity and mind-identity of the earlier phases are retained, but are the tertiary and secondary identities, respectively, as it is seen as necessary but not sufficient to reach the potential. The world-identity becomes the primary identity. This is a phase of identity-attachment ('+'). Spiritual energy is

[94] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[95] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[96] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

gained from the attention that one seeks and gets from others. One attains one's potential in the attachment phase in this chakra. (Balakrishnan)[97]

e. **Fourth Chakra Phase:** All the identities gained in the attachment phase are ultimately falsified. The spiritual energies gained in the first three chakras are released, and one feels that one has been spiritually awakened. One feels a tremendous sense of peace. The locus of identity and validation is set to 'none'. The speed is reset to 1. This marks the completion of the attachment phase.

The journey from here on marks the beginning of the detachment phase of the saṃsāra cycle. (Balakrishnan)[98]

- **Detachment phase of the cycle of saṃsāra: The cycle of saṃsāra is managed by Māyā as below:**

f. **Initiation Configuration for Detachment Phase as part of the transition in the fourth chakra:** The target speed of rotation (the potential of Māyā) is set as 1 at the beginning of the detachment phase of the cycle of saṃsāra. [The Mayas of each jiva-ātman will have the same target reference speed of 1 during the detachment phase.] This enables Māyā to set its 'goals' for the extrinsic locus of identity and intrinsic locus of validation. The potential of each jiva-ātman is fully realized through the experiences it has while journeying through each chakra in kāla time.

The speed starts at 1. The locus of identity is 'none'. The locus of validation is intrinsic. This is a phase of identity-detachment ('-'). (Balakrishnan)[99]

g. **Fifth Chakra Phase:** The speed of rotation is reset to the 'maximum' achieved in the third chakra and decreases from the 'maximum speed' to 'high speed'. The locus of identity is extrinsic, and validation is intrinsic. This is the world-identity detachment phase. This is a phase of identity-detachment ('-'). Spiritual energy is released when the identity is falsified. The world-identity is dropped, but is not entirely removed. (Balakrishnan)[100]

h. **Sixth Chakra Phase:** The spiritual energy released in the fifth chakra decelerates the speed of rotation to 'medium speed', and this speed is largely maintained in this phase. The locus of identity is extrinsic, and validation is intrinsic. The world-identity detached in the earlier phase becomes a secondary detached identity, as it is seen as unnecessary but not sufficient to reach the potential. The mind-identity becomes the primary identity. This is a phase of identity-detachment ('-'). Spiritual energy is released when the identity is falsified. The mind-identity is dropped but is not entirely removed. (Balakrishnan)[101]

i. **Seventh Chakra Phase:** The spiritual energy released in the sixth chakra decelerates the speed of rotation to 'low speed', and this speed is largely maintained in this phase. The locus of identity is extrinsic, and validation is intrinsic. The world-identity and mind-identity detached in the earlier phase become tertiary and secondary detached identities, as it is seen as unnecessary but not sufficient to reach the potential. The body-identity becomes the primary identity. This is a phase

[97] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[98] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[99] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[100] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[101] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

of identity-detachment ('-'). Spiritual energy is released when the identity is falsified. The body-identity is dropped but is not entirely removed. (Balakrishnan)[102]

j. **Samādhi Phase:** The spiritual energy released in the seventh chakra decelerates the speed of rotation to 1. The locus of identity is intrinsic, and the locus of validation is intrinsic. All the identities gained in the attachment and detachment phase are also removed from the subconscious mind.

The mind becomes perfect. The perfected patterns are transferred to the unconscious. The conscious and subconscious memories are no longer necessary in the end stage of samādhi, because the process of learning and knowing has been completed. One experiences sthira nitya sukha or ānanda or pure love-bliss. (Balakrishnan)[103]

This is the phase of chanda desire when all taṇhā desires have been dropped. One attains one's potential in the detachment phase in this chakra.

k. **Mahasamādhi Phase:** When the body is finally given up, this perfected unconscious memory is transferred to the superconscious memory. The unconscious memory is no longer necessary. Jiva-ātman transcends Māyā, the perfected mind. Citta, the conscious, subconscious, and unconscious memories, are also transcended. The jiva-ātman realizes its real self as ātman and is liberated from the cycle of saṃsāra. (Balakrishnan)[104]

As we will see, the law of karma will continue to operate until all beings are liberated.

The Experience of Sukha, Happiness, and Duḥkha, Suffering

When does one experience happiness, and when is suffering experienced while the jiva-ātman courses through the cycle of saṃsāra?

Happiness is the experience of fulfillment, and suffering is the experience of non-fulfillment. The phases of happiness are called lokas, and the phases of suffering are called patalas. (Balakrishnan)[105]

Three aspects determine the experience of happiness and suffering:

a. **The expectation:** The speed of rotation during the (+) phase or the (-) phase, which determines the nature and quality (the mixture of the body, mind, and world identities) of the identity-attachments and the expected levels of happiness – low, medium, or high. (Balakrishnan)[106]

b. The outcome:

The extrinsic validation in an experience of happiness in gaining the attention, the adulation from others, leads to emotions such as romance, laughter, compassion, and awe during the (+) phase. (Balakrishnan)[107]

[102] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[103] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[104] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[105] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[106] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[107] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

The intrinsic validation in an experience of happiness in the emotions such as romance, laughter, compassion, and awe that emerge from within during the (-) phase. (Balakrishnan)[108]

c. **The target:** The goal that was set at the beginning of the attachment phase or at the beginning of the detachment phase. (Balakrishnan)[109]

The jiva-ātman seeks a steady experience of happiness of a quality and magnitude that was set as his target at the initiation phases. Steadiness is when the mind is relatively still, i.e., the outcomes have to match the expectations. (Balakrishnan)[110]

During the attachment phase, since the speed of rotation accelerates from 1 to low, then to medium, and finally reaches maximum, which is the target or goal, the outcomes do not always match the expectations, as the expectations tend to accelerate faster than the outcomes. Then one has to gain more identities in addition to those already gained to ensure that the outcomes match the expectations. The thinking of the jiva-ātman is that 'whatever I have gained is necessary but not sufficient to reach the target'. (Balakrishnan)[111]

The extrovert with an extrinsic locus of validation seeks the attention of others as a validation of his identity and expects to receive expressions of positive emotions from others. The extrovert validates his identity as an outside–in process. The extrovert thinks his attainments outside will bring-in happiness from outside. The extrovert will seek to gain more attainments and identities to increase his happiness to reach the goal. The extrovert is always at the mercy of the attention granted by others. Hence, he seeks power to control and manipulate the attention of others towards him. It's all about ambition and success during the attachment phase. (Balakrishnan)[112]

During the detachment phase, since the speed of rotation decelerates from maximum to medium to low and finally reaches 1, which is the target or goal, the outcomes do not always match the expectations, as the expectations tend to decelerate faster than the outcomes. Then one has to lose more identities in addition to those already lost to ensure that the outcomes match the expectations. The thinking of the jiva-ātman is that 'whatever I have lost was unnecessary but not sufficient to reach the target'. (Balakrishnan)[113]

The introvert with an intrinsic locus of validation expects to experience the positive emotions that emerge from within as a validation of his identity. The introvert validates his identity as an inside–out process. The introvert thinks his happiness inside should determine his identity outside. The introvert will seek to lose attainments and identities if he does not find happiness within. He does not care to be deemed worthy by others if he does not deem himself worthy from within. The introvert is never at the mercy of others, nor does he control or manipulate others. He just expects to function in this world out of love, never for love. At the same time, when he functions out of love, he does not expect to be hated. This contradiction that he sees in the world, where he comes out of love and yet the world hates him, pushes him to the depths of suffering until he loses all his identities. And when that happens, he achieves śūnyatā, a perfect mind-

[108] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[109] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[110] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[111] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[112] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[113] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

mirror. When śūnyatā is achieved, ānanda, which emerges from his self, engulfs the jiva-ātman in sthira nitya sukha. It's all about passion and love, and ultimately about the passion for eternal unconditional love. (Balakrishnan)[114]

[The body-building and weight-management analogy may be useful. One needs to gain muscle (love) without accumulating fat (identities). In the attachment phase, one thinks that the calorie intake is insufficient to gain muscle, and ends up eating a lot of carbs and gaining fat without building muscle. In the detachment phase, one goes on a high-protein and low-carb diet regimen. At the end, all the excess fat (identities) is shed, and the targeted muscle strength (love) is gained. Initially, it will seem as if the ignorant excess carb consumption was unnecessary. But in the final analysis, one may see that the carb consumption was necessary for survival and growth in a period of high metabolism, and that the muscles could be gained only after this foundation of survival and growth had been built.]

The Story of the Tenth Student

In this story from the Vedānta tradition, a teacher has to take her ten students across the river on a tour. She appointed one student as the monitor, who had to make sure that all students crossed the river safely. She walked in front, the monitor behind her, and all the other students followed the monitor in a line, in order. On crossing the river, the monitor is asked to check and report if everyone is safe. The monitor makes the students line up, and points at each student and counts, saying the numbers loudly so that the teacher could hear, "One, two, three, four, five, six, seven, eight, nine." The monitor starts panicking and counts again, "One, two, three, four, five, six, seven, eight, nine." And again. Now the monitor has no more doubt. The monitor knows one student is missing, and maybe that student was drowning.

The monitor rushes to the teacher with eyes streaming with tears, "O teacher! Please forgive me. I have failed in my duties. The tenth student is missing and could be drowning." The teacher smiles. She asks the monitor to line up the students and do the count again in her presence. The monitor does so. The monitor goes again, student by student, touching each of them, while counting, "One, two, three, four, five, six, seven, eight, nine." The monitor looks at the teacher, desperate to be proven wrong. The teacher takes the hand of the monitor, puts it on the head, and says, "Ten!"

The monitor, now relieved of the ignorance that caused suffering in guilt, laughs at the folly where one's own existence had been completely forgotten and was counting everyone else, hoping to find one's self.

The teacher's name was Māyā, and she was taking the jiva-ātman for a guided tour of jagat in the vehicle of his antahkarana.

[114] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

Chakras, Gunas, Saṃskāras, Vāsanās, and the Lokas and Patalas

Chakras represent the psychological state of existence of a jiva-ātman. They represent the identity assumptions of the jiva-ātman and are validated or falsified in the loka and patala phases of kāla time. Kundalini is the path traversed by the jiva-ātman in kāla time, represented as a winding snake.

Just like the different elements in a periodic table, which are classified according to their nature, qualities, properties, and behavior, the progress of the jiva-ātman in the cycle of saṃsāra follows an ordered sequence of change in the chakra (nature) of the psyche with corresponding changes in qualities (gunas), properties (saṃskāras), and behavior (vāsanās). (Balakrishnan)[115]

The chakra represents the personality. The persona[116] of the jiva-ātman is what others will perceive the jiva-ātman as, based on the roles he plays. (Balakrishnan)[117]

The Attachment Phase of the Cycle of Saṃsāra

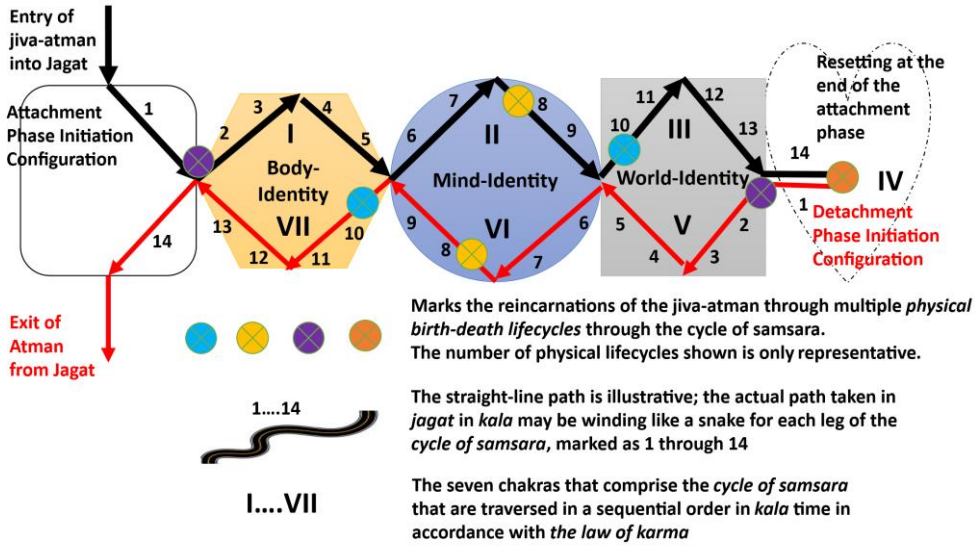

Figure 9: The Attachment Phase of the Cycle of Saṃsāra covers the legs 1 – 14 through the chakras I - IV

[115] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

[116] In this book, personality is described in detail. It should not be confused with persona. A persona is a type of mask that represents the outward-facing aspect of one's personality. While personality includes a person's deeper traits, feelings, and thoughts, the persona is the specific social role or "mask" that individuals consciously or unconsciously wear to interact with the world and fit into different situations.

The word "persona" comes from the Latin word for a theatrical mask worn by actors to represent a character. Carl Jung described the persona as the social mask we wear to present a certain image to others. It's the part of our personality that is visible to others and designed to suit the specific social role we are playing, such as a professional, a parent, or a friend. The persona is specific, often situational, and may not be the person's complete or true personality.

[117] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

A man who wants to live without fear

seeks power over others,

for he thinks others are the source of his fears!

Initiation Phase: Atala Patala

The jiva-ātman enters leg 1 of the attachment phase called the atala patala.

Guna (Quality): All gunas are in the potential state, but are uncoordinated, as the intellectual development has not been initiated. (Balakrishnan)[118]

Saṃskāras (Properties):

During the initiation of the antahkarana for the attachment phase, the following configurations are made:

1. Target speed of rotation: Maximum. This is the speed the jiva-ātman has to attain, and will attain, at the end of the attachment phase.
2. Locus of identity: Extrinsic
3. Locus of validation: Extrinsic Intellectual development:

1. The manas, buddhi, and siddhi are blank. This is the state of tabula rasa[119].
2. The citta memory - the conscious and the subconscious are blank. But since the citta is blank, it has a lot of capacity to absorb, remember, and process the memories. However, the intellectual development has not yet happened, and the processing of memories is done emotionally, and the intentions and actions are based almost entirely on emotions and feelings.
3. Māyā is initiating all its functions for the development of the body and mind.

Vāsanās (Psychological Behavior)

This is the jiva-ātman that is perceiving the world for the very first time as a human being, with the Māyā of a human being. He is fascinated by the jagat and wants everything. This is also the state of total ignorance, avidyā. So, he has all the identity desires of the body, mind, and world, and wants to attain everything he finds fascinating.

Since the intellectual development has not been initiated, the antahkarana conscious mind cannot adequately ‘join’ or ‘yoke’ the jiva-ātman to the jagat. There is a complete lack of coordination between desires and actions.

[118] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

[119] The mind is a "blank slate" at the first incarnation in a human birth, and all of its memory contents are built up through experience and sensory input from the outside world. While John Locke popularized the idea in the 17th century, the concept of a blank initial state of the mind was discussed by earlier philosophers like Aristotle. But the mind has the capacities that are inherent for the development of knowledge – memory, language, mathematics, reasoning, etc.

And since the speed of rotation is very high, which means the desires are changing very rapidly, the antahkarana's ability to give attention (attention span) is very low. (Balakrishnan)[120]

Kāla (Time) and Yoga (Status of Identity Validation)

Since this is a phase of total avidyā, the jiva-ātman in the antahkarana has the highest ahaṃkara or ego - the speed of rotation is maximum, identity-desires are all encompassing, and the intellectual capacities have not yet developed. In ahaṃkara ego, the jiva-ātman thinks that he is the most perfect being there can be. The world of others, though, oppresses and suppresses the jiva-ātman, as they perceive the uncoordinated actions as those of an imperfect, unstable, lowly being.

There are no expectations of desired psychological experiences yet.

The outcome, though, is that he experiences nitya eternal duḥkha suffering as a consequence of the inability to attain any identity-desire due to the lack of development of the mind. The emotions he experiences, as an outside-in experience due to the extrinsic locus of identity and validation, are those of lust, greed, derision, mockery, indifference, callousness, cruelty, shame, boredom, wrath, vengefulness, jealousy, and hatred. The jiva-ātman suffers tremendously, goes into depression, and finds life unlivable. He blames the people around him and holds them responsible for the suffering experienced. Now, depending on the speed of rotation, and the support, or lack of it, from society, the jiva-ātman may just accept and cope with the suffering, or if the speed is very high, he may seek to express the hatred, the wrath, the jealousy in disproportionate and unjustifiable actions which may be seen as those of a psychopath. (Balakrishnan)[121]

[This may be seen as symptoms of ADHD, and there could be a high correlation between psychopaths and ADHD symptoms. All jīvātmans that enter human life for the first time go through this state of psychological existence. Now, depending on the speed and circumstances, only a few may become criminals or psychopaths. Those with relatively lower speeds may just go through this phase without much expression other than what may be seen initially as hyperactivity, which too is suppressed over time. Most such jīvātmans simply go unnoticed and undiagnosed.] (Balakrishnan)[122]

This extreme suffering in this initiation phase is called atala patala, patala being a lower psychological realm of existence, where one suffers.

The jiva-ātman has to find a way to overcome his fear and dread of the world. He has to gain power over others by acquiring the abilities of might and deceit to be feared and dreaded. Only then, the jiva-ātman can experience sthira nitya sukha in this world. Or so he thinks.

[120] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[121] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[122] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

Survival: Bhu Loka in the Mooladhara (Root) Chakra

Chakra (Nature of Personality): Mooladhara, the spiritual baby and toddler

The jiva-ātman now traverses the legs 2 & 3 of the mooladhara (root) chakra called the bhu loka.

After the initiation phase in leg 1, the shukshma-sharira, along with the jiva-ātman, is reincarnated in another human body. The seed takes root. Perhaps, the suffering of the jiva-ātman in the seed phase enabled it to grow a root and hold firmly to the earth, bhu loka. Loka is a psychological realm of existence where it experiences a period of happiness.

Guna (Quality): Tamas (+)

The only identity is that of the body. "I am the body and I have to survive!"

In leg 2, survival of the body is paramount, so one identifies with the needs and wants of the body. This guna quality of identity-attachment to the body is called tamas. Since the orientation of the identity-desire is one of attachment, it can be represented as tamas (+). The antahkarana conscious mind just reflects the needs and wants of the body.

In leg 3, with tamas (+) guna quality, one's identity-desires are related to that of the body – food, survival, and physical strength. The dominant desires are in terms of eating, drinking, and doing. One thinks, "I am strong, I can do that heavy lifting job, I can run fast, etc." (Balakrishnan)[123]

Saṃskāras (Properties)

In the bhu loka phase, the following configurations are made by Māyā:

1. Speed of rotation: Starts at 1 and slowly accelerates towards the 'low' speed to be reached at the end of leg 3.

2. Locus of identity: Extrinsic

3. Locus of validation: Extrinsic

Intellectual development: Manas (+), Conscious (+)

1. The manas – lower order thinking skills are activated.

2. The citta memory - the conscious and the subconscious are blank. But since the citta is blank, it has a lot of capacity to absorb and remember. The conscious memory is largely used, and the subconscious patterns begin to form. (Balakrishnan)[124]

Vāsanās (Psychological Behavior)

1. The intellectual development is in the very initial stages: manas – lower order thinking skills; speed of rotation is low; low desire levels; not too many memories of experiences for patterns of knowledge to

[123] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[124] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

develop. Personality characterized as 'dull'; inertia: resistance to change, laziness, ignorance, confusion, and lack of self-motivation; cannot think or make independent decisions; will follow the commands and instructions of an authority figure without question. (Balakrishnan)[125]

2. Contributes to society by physical actions – workers, soldiers, guards, etc.

Kāla (Time) and Yoga (Status of Identity Validation)

In bhu loka, validation happens as bhakti yoga in leg 2 and karma yoga in leg 3.

1. Expectation of psychological experience may be classified as low (* *)[126] - avoidance of physical suffering and peace. Negative emotions like fear and anger are experienced if physical needs and wants are not met.
2. The outcomes are largely in line with the expectations.

   Since outcomes are in line with expectations, the identity-attachment, based on tamas (+) guna, is validated.

Growth: Vitala Patala in the Mooladhara (Root) Chakra

Chakra (Nature of Personality): Mooladhara, the spiritual boyhood phase

The jiva-ātman now traverses the legs 4 & 5 of the mooladhara (root) chakra called the vitala patala.

The spiritual toddler has become a boy.

Guna (Quality): Tamas (+)

The only identity is that of the body. "I am the body, and I have to develop the abilities of my body!"

In leg 4, in the phase of boyhood, the jiva-ātman has to please and match up to the expectations of the authority figures, obey their instructions, and gain their approval. The 'boy' jiva-ātman is trying to fit in in the world of adults and authority figures.

[Remember, the spiritual boy may well be a physical adult of 50 years. In the spiritual model, the personality (cognitive and emotional development) is shaped not by the development of the brain[127] with

[125] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

[126] ***High, Low, Medium*** represent the quality of the psychological experience based on the development of the antahkarana to become capable of having and appreciating the experiences. ***'*' or '?' or '!'***: The number of '*' or '?' or '!' represents the quantity or intensity of the psychological experience, where '*' represents happiness, 'I' represents suffering, and '?' represents an oscillating or mixed experience of happiness and suffering

[127] Piaget's and Erikson's models poorly explain human cognitive and psychological development based on the epigenetic, brain, and physical age-based development model. According to their theories, a human being learns both concretely and abstractly in one physical lifetime. All cognitive and emotional development happens, according to them, in phases of ages of the growth of the brain, provided a nurturing environment is available. They do not account for so many humans who operate their entire lives from manas with very low abilities to think, and very poorly developed emotional awareness, even when they come from well-to-do families, and where the development of a sibling has been remarkably and positively different, given the same environment. However, their staged models can be easily adapted to a spiritual lifecycle model, and then they lend themselves to much better explainability.

physical age, but is based on the identity development in each phase of the spiritual life cycle.](Balakrishnan)[128]

In leg 5, with tamas (+) guna quality, one's identity-desires are related to that of the body – food, clothes, sex, attractiveness, physical strength, athleticism. One thinks, "I am strong, I am beautiful, I am the fastest runner, etc."

Saṃskāras (Properties)

In the vitala patala phase, the following configurations are made by Māyā:

1. Speed of rotation: Starts at 'low' and largely maintains the speed
2. Locus of identity: Extrinsic
3. Locus of validation: Extrinsic

Intellectual development: Manas (+), Conscious (+) + Subconscious (+)

1. The manas, lower-order thinking skills, are developed further. The manas becomes fully developed at the end of leg 5. The manas can remember, understand, and apply whatever it learns from the world. The thinking is largely concrete, and learning is based on seeing and doing. The abstract thinking and higher-order thinking skills of buddhi have not yet been initiated. Conceptual thinking, learning abilities have not yet been initiated. (Balakrishnan)[129]
2. The subconscious has begun to form patterns from the earlier phase of survival, and subconscious intuitions guide the manas. The desires are stronger and more specific. (Balakrishnan)[130]

Vāsanās (Psychological Behavior)

1. Cannot reason, and make independent decisions, as only manas has developed. There is a dependency on those who know to show the way to attain the desires. There is a tendency to cling to people for validation all the time – identity validation, to provide know-how, and to validate if they are doing it right. They fear that others whom they depend on will abandon them if they are not seen as worthy of their attention and support. (Balakrishnan)[131]
2. The thinking has not matured to be able to read books and gain conceptual knowledge by themselves. They learn by watching. Even the academic education they may have obtained is largely on lower-order thinking skills, and given that they were learning in a contextual setting of a classroom, with teachers, and fellow students. They tend to do very poorly in subjects such as physics, mathematics, or philosophy. They are likely to perform well in subjects such as chemistry, history, languages, music, etc., as long as the learning is of a concrete form and not abstract. For example, one may be able to sing very well without understanding the theory of music. (Balakrishnan)[132]

[128] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[129] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[130] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[131] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[132] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

3. They are only able to express themselves based on their experiential contexts, and they think their personal experiential knowledge should be or is the way it is for everyone. They cannot understand or communicate in general conceptual terms. They find it extremely difficult to explain their difficulties or problems to others outside their experiential framework. In a sense, 'what I see is what I get' and 'what I have seen and experienced should be the only way others are seeing and experiencing'. They assume that their desires, emotions, and intellectual ability are the way the psyche and intellect of other people should be or ought to be. (Balakrishnan)[133]

4. Since they cannot understand and conduct their lives based on higher conceptual frameworks like principles, policies, values, etc., they develop rules according to which they think everyone must conduct their lives. And they are very rigid about the rules, and are not able to evaluate if the rules have relevance in different contexts and with different people. This may be seen as classic OCPD behavior. (Balakrishnan)[134]

They tend to pick on people around them if they have violated their rules, unaware that their rules are not universally applicable to everyone. And they think that those who don't follow these rules are not good people or that they cannot be relied on. However, they cannot reflect and self-introspect that this is having an adverse impact on their ability to act purposefully. (Balakrishnan)[135]

They also cannot see that they are often violating some of these rules they so fastidiously impose on others. The ability to reflect is a part of buddhi, and they don't have it yet. (Balakrishnan)[136]

5. They often play victim in a bid to gain sympathy and attention from others.

6. The most important skill they have is the ability to imitate, mimic, and sympathize with others. [Actors have this skill where they can easily play complex roles and deliver lengthy dialogues, without necessarily having conceptually understood the essence of their characters, and what they are saying. This skill enables them to succeed in professional settings, in spite of their other intellectual and emotional shortcomings, where they face tremendous difficulties in intimate personal relationships. (Balakrishnan)[137]

7. They have a tremendous ability to remember the minutest details for years. Remember, their minds are very young if seen from the span of a spiritual lifecycle. (Balakrishnan)[138]

8. They are often seen by perceptive people as superficial and hypocritical, while the truth is they are doing their very best to live up to the expectations of others. It is just that they don't have any clue what the expectations of others are, especially if they are stated in terms of ideas, principles, values, laws, or morals. The instructions to them have to be very concrete and didactic. They cannot engage in a dialectic discussion.

[133] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[134] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[135] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[136] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[137] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[138] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

9. They do very well in jobs like communication, marketing, acting, singing, etc. They are not very good people managers, and their subordinates may hate their obsessive monitoring, as they lack the ability to communicate why they want something done. They communicate in terms of what and how they want something done, focusing on the how.
10. They may be seen to engage in fits of tantrums, due to a poorly developed ability of expression.

Kāla (Time) and Yoga (Status of Identity Validation)

In this vitala patala, identities are falsified through jñāna yoga in leg 4 and raja yoga in leg 5.

1. Expectation of psychological experience may be classified as low (* * *)[139] and is based on receiving sukha (concrete visible expressions of positive validation) from others for achievements based on physical, concrete attainments.
2. Outcomes of psychological experience may be classified as low (? ? ?) and are based on mixed experiences of sukha and duḥkha. Dukkha is a consequence of the inability to self-validate, lack of concrete validation from others, and lack of knowledge to direct efforts towards goals. They are consumed with raudra (anger), bhayanaka (fear, anxiety), bibhatsa (disgust, revulsion, repulsion), jealousy, guilt, etc.

This identity was merely necessary and not sufficient. The survival and growth instincts that have been gained in this chakra are transferred to the unconscious memory as imprints.

[139] ***High, Low, Medium*** represent the quality of the psychological experience based on the development of the antahkarana to become capable of having and appreciating the experiences. ***'*' or '?' or '!'***: The number of '*' or '?' or '!' represents the quantity or intensity of the psychological experience, where '*' represents happiness, 'I' represents suffering, and '?' represents an oscillating or mixed experience of happiness and suffering

Adolescence: Bhuvar Loka in the Svadhishthana (Sacral) Chakra

Chakra (Nature of Personality): Svadhishthana, the spiritual adolescent

The jiva-ātman now traverses the legs 6 & 7 of the svadhishthana (sacral) chakra called the bhuvar loka.

The spiritual boy has reached adolescence.

Leg 6 is a period of intuition, which emerges from the depression experienced in the previous leg, where there was a dependency on the buddhi of others. In the bhuvar loka, development of the buddhi is initiated, and complete development of the buddhi is achieved at the end of the svadhisthana chakra phase in leg 9.

[The chakra is said to have 'opened' when the jiva-ātman exits the chakra and enters the next chakra. So, one may say that the mooladhara chakra has 'opened' when the jiva-ātman 'enters' the next chakra, i.e., the svadhisthana chakra. The jiva-ātman remains in the svadhistnaha chakra until leg 9, where the identities formed by gunas of the svadhisthnana chakra are validated or falsified through raja yoga.]

Guna (Quality): Primary: Sattva (+), Secondary: Tamas (+)

The primary identity is that of the mind. "I am the thoughts (knowledge) of my mind, and I have to know!" The identities and patterns of the tamas (+) guna are secondary identities.

If the jiva-ātman has to attain the world, then it has to know about the world. The means have to be known to attain the ends. One learns to attain things and ultimately 'become someone' worthy of the love and attention of others. Thoughts and knowledge become means to attain possessions to attain an identity in the world of others. This quality of identity-desire of the thoughts of the mind is called sattva, and since the nature of the identity-desire is one of attachment, it can be represented as sattva (+). One desires and gets attached to identities such as "I am a Ph.D. I am a scientist, I am a bureaucrat, I am a writer, etc." (Balakrishnan)[140]

Sattva guna can happen only after the needs and wants of the body have been taken care of. So, one necessarily has to start with tamas guna, body-identities, and then move to sattva guna. When one seeks knowledge as an identity, then sattva becomes a primary guna, and tamas becomes a secondary guna. Then one wants to be identified as a person of knowledge, and also for one's physical aspects. (Balakrishnan)[141]

Saṃskāras (Properties)

In the bhuvar loka phase of the svadhishthana chakra, the following configurations are made by Māyā:

1. Speed of rotation: Starts at 'medium' and largely maintains the speed
2. Locus of identity: Extrinsic
3. Locus of validation: Extrinsic

Intellectual development: Buddhi (+) + Manas (+), Conscious (+) + Sub-Conscious (+)

[140] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[141] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

1. The manas – lower-order thinking skills have been developed fully. The manas can fully remember, understand, and apply whatever it learns from the world. The abstract thinking and higher-order thinking skills of buddhi are now initiated. Conceptual thinking and learning abilities such as reflection, analysis, evaluation, and synthesis are initiated in leg 6 and are further developed in leg 7. (Balakrishnan)[142]

2. The patterns of intuition from the subconscious emerge and guide the buddhi to gain knowledge. (Balakrishnan)[143]

Vāsanās (Psychological Behavior)

1. The intellectual development further progresses in the bhuvar loka. One will be able to think and make independent decisions. The other jīvātmans in this chakra collaborate to create new knowledge.

2. The thinking has matured to be able to read books and gain conceptual knowledge by themselves. They tend to do very well in subjects such as physics, mathematics, or philosophy. They are likely to perform well in other subjects such as chemistry, history, languages, or music, etc, with a greater emphasis on theoretical and abstract than just the practical and concrete. (Balakrishnan)[144]

3. They can understand or communicate in general conceptual ways. In a sense, 'what I think is what I get'.

4. They can understand and conduct their lives based on higher conceptual frameworks like principles, policies, values, morals, etc. At the peak of leg 7, they tend to engage in abstract discussions with peers who are similarly inclined.

5. They can reflect and self-introspect on their behavior and actions that are having an adverse impact on their ability, and that of others, to act purposefully.

6. They can take responsibility for the effects of their actions. This comes only with the ability to reflect. They can engage in 'plan-do-check-act' analysis to minimize errors and contradictions. (Balakrishnan)[145]

7. They do very well in jobs like applied research, planning, design, teaching, etc.

8. They tend to be very possessive (and even miserly) about whatever they consider as means to attainments and power. They are very careful about spending money in general and do not prefer extravagant spending unless it is seen as an investment.

9. They value material, emotional, and intellectual security.

10. Although they may be knowledgeable, they look up to the powers that be to direct their actions. The means cannot decide the ends. Ultimately, the ends decide the means. It is power that they ultimately seek, but are yet to get there. In this sense, they too are seen as hypocrites, because while they serve the powers that be, even immorally as part of their duty, they seek to preach morality to others. They

[142] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[143] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[144] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[145] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

are loyal to their masters in deed, while they have conceived of integrity only as a thought. They may even see themselves as helpless victims of power in this loka. (Balakrishnan)[146]

11. They would have developed the capacities and sensitivities for shringara (romance), sensuality, hasya (humor, laughter), karuna (compassion, empathy), and adbhuta (astonishment, awe). (Balakrishnan)[147]

Kāla (Time) and Yoga (Status of Identity Validation)

In this bhuvar loka, identities are validated through bhakti yoga in leg 6 and karma yoga in leg 7.

1. Expectation of psychological experience may be classified as medium (* *)[148] based on experiences of sukha happiness from others for identities and achievements largely based on intellectual attainments.

2. The outcomes are largely in line with the expectations.

Since outcomes are in line with expectations, the identity-attachment, based on sattva (+) guna primary and tamas (+) secondary guna, is validated.

[They are not of the same quality as the emotions experienced in the detachment phase with chanda-desires, as we will see later. One may see the entire phase of attachment as a phase of being in love with the body-mind-world framework of identities. The detachment phase is a phase of being in love without the body-mind-world framework of identities.

The knowledge of sattva (+) guna is for the attainment of possessions and identities in the world to gain validation from others. Its orientation is that of power to attain glory, fame, attention, and love from others.

The knowledge of sattva (-) guna is for the attainment of unconditional love within oneself, where there is no orientation towards power to attain glory, fame, attention, and love from others.] (Balakrishnan)[149]

[146] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

[147] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

[148] ***High, Low, Medium*** represent the quality of the psychological experience based on the development of the antahkarana to become capable of having and appreciating the experiences. ***'*' or '?' or '!'***: The number of '*' or '?' or '!' represents the quantity or intensity of the psychological experience, where '*' represents happiness, 'I' represents suffering, and '?' represents an oscillating or mixed experience of happiness and suffering

[149] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

Youth: Sutala Patala in the Svadhishthana (Sacral) Chakra

Chakra (Nature of Personality): Svadhishthana, the spiritual youth phase

The jiva-ātman now traverses the legs 8 & 9 of the svadhishthana chakra called the sutala patala.

The spiritual boy has entered the phase of youth.

Guna (Quality): Primary: Sattva (+), Secondary: Tamas (+)

The primary identity is that of the mind. "I am the thoughts (knowledge) of my mind, and I have to know the means to power!" The identities and patterns of the tamas (+) guna are secondary identities.

In leg 8, in the phase of youth, the jiva-ātman has to please and match up to the expectations of the men of power, obey their instructions, and gain their approval.

However, it is not about knowledge of the world anymore. It is about knowledge of power by which one gains the world. One learns about power, which is the use of might and deceit to control other people and gain their possessions and their attention.

Saṃskāras (Properties)

In the sutala patala phase of the svadhishthana chakra, the following configurations are made by Māyā:

1. Speed of rotation: Starts at 'medium' and largely maintains the speed.
2. Locus of identity: Extrinsic
3. Locus of validation: Extrinsic

Intellectual development: Buddhi (+) + Manas (+), Conscious (+) + Sub-Conscious (+)

1. The development of manas, buddhi is completed in leg 9.

2. The subconscious has begun to form patterns from the earlier phase of knowledge, and subconscious intuitions now guide the buddhi. The desires are stronger and more specific, and oriented towards power. (Balakrishnan)[150]

Vāsanās (Psychological Behavior)

1. One notices that the validation of one's identity by others, through which one seeks to attain the sukha happiness from others, shifts towards those in better positions of power. Therefore, one seeks to serve those in power to seek their validation and, in turn, rise to better positions of power. One does not perceive oneself and the use of one's knowledge from the perspective of a 'helpless victim of those in power' anymore. One now seeks to be useful to those in power for the sake of power in return. (Balakrishnan)[151]

[150] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[151] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

2. They constantly find themselves comparing their social status with other men of knowledge, overtly or covertly. And in social interactions, they see the entire hierarchy of power in the following order from top to bottom:

i. The most powerful

ii. Other men of power seeking to become the most powerful

iii. The men of knowledge who are useful to the men of power

iv. The men of knowledge who serve the men of knowledge who are useful to the men of power

v. The men of physical abilities who serve the men of knowledge

vi. The men of physical abilities.

In the earlier phase, the jiva-ātman was at (iv) in the hierarchy, and in this phase, they seek to climb to (iii).

3. As one gets closer to power, there is competition for the position-based identity and the validation that others can grant. Hence, there is a tendency to cling to people of power. They fear that others will overtake them without the attention and support of the men of power. Sycophancy, flattery, tendency to please, and active collusion are traits that can be seen in this phase. During legs 4 & 5, with just tamas (+) guna, it was more about mimicking to survive. Here it is done with the knowledge to gain favors. (Balakrishnan)[152]

Kāla (Time) and Yoga (Status of Identity Validation)

In this sutala patala, identities are falsified through jñāna yoga in leg 8 and raja yoga in leg 9.

1. Expectation of psychological experience may be classified as medium (* * *)[153] based on receiving sukha from others for identities and achievements based on intellectual attainments, and to be seen as the front-runner among peers

2. Outcomes of psychological experience may be classified as medium (! ! !) based on experiences of nitya duḥkha. Dukkha is a consequence of the inability to win favourable positions in status hierarchies from the powerful. They are consumed with raudra (anger), bhayanaka (fear, anxiety), bibhatsa (disgust, revulsion, repulsion), jealousy, guilt, etc.

This identity was merely necessary and not sufficient. The knowledge instincts that have been gained in this chakra are transferred to the unconscious memory as imprints.

[152] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

[153] ***High, Low, Medium*** represent the quality of the psychological experience based on the development of the antahkarana to become capable of having and appreciating the experiences. ***'*' or '?' or '!'***: The number of '*' or '?' or '!' represents the quantity or intensity of the psychological experience, where '*' represents happiness, 'I' represents suffering, and '?' represents an oscillating or mixed experience of happiness and suffering

Ambition: Svarga Loka in the Manipura (Solar Plexus) Chakra

Chakra (Nature of Personality): Manipura, the spiritual 'man of ambition'

The jiva-ātman now traverses the legs 10 & 11 of the svadhishthana (sacral) chakra called the svarga loka.

The energy of youthfulness turns into ambition.

Leg 10 is a period of intuition, which emerges from the depression experienced in the previous leg, where there was a dependency on the power of others. In the svarga loka, siddhis to gain power are initiated and are fully developed at the end of the svadhisthana chakra in leg 13.

Guna (Quality): Primary: Rajas (+), Secondary: Sattva (+), Tertiary: Tamas (+)

The primary guna rajas (+) is that of identity-attachment with the world. "I am the ruler of the world (people and possessions), and I have to rule!" The identities and patterns of the sattva (+) and tamas (+) guna are secondary and tertiary.

In leg 10 and in leg 11, power over others is paramount. The jiva-ātman just does not want to attain the world; he wants to control to world to remove all suffering within. This quality of identity-desire for the world is called rajas, and since the nature of the identity-desire is one of attachment, it can be represented as rajas (+). One desires and gets attached to identities such as "I am a CEO, I am the Head, I am the King, etc."

One wants power to be seen as a person who can control and grant other people their lives. One wants to be worshipped by others, almost like a mini-God. One then wants to occupy positions of power. The bigger the position of power, the scarcer the position, the more sought after it is. These positions of power and status in society grant them attention wherever they go. (Balakrishnan)[154]

Celebrities with natural talent, like singers, who identify with the ability of their body, could have tamas guna and may have millions of fans. But the guna quality of rajas is associated with political power - the quality that grants them the ability to control other people. This is the use of guile, deception, and manipulation. Power of a political kind is acquired only if a person has rajas guna quality - the ability and the willingness to use might and deception. A rajasic person will do anything for the power over other people, and will expect to be treated like God, to be worshipped and obeyed. People with rajas guna will flaunt their power, subtly or overtly, but they will make sure you know they are powerful and that they can destroy you if you come in their way. People who occupy positions of power in corporations, governments, institutions, and sometimes even families and identify themselves as "I am a CEO, or a President, or a Chairman, etc," have rajas guna. (Balakrishnan)[155]

Rajas guna can happen only after the needs and wants of the body have been taken care of first, and then the needs and wants of the mind are also taken care of. So, one necessarily has to start with tamas guna, then move to sattva guna to enter rajas guna. (Balakrishnan)[156]

[154] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[155] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[156] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

A rajasic person does not care so much for knowledge or aspects of his body as much as he cares about power. So, rajas guna becomes the primary guna, and sattva and tamas the secondary and tertiary gunas. Then one wants to be identified as a man of power, knowledge, and also for one's physical aspects, in that order. (Balakrishnan)[157]

[It is important to understand that it is about personality and not persona. Personality is who one thinks one is and or wants to be, and wants to be identified as such by others. Persona is about how they are seen by others. A CEO may or may not have rajas guna. A technocrat could be a CEO with sattva guna, and may not use the power of the position, or deception or manipulation to control others. If so, his personality is sattva. Others may see him through the lens of the position he occupies and think he has rajas guna.

This book is about finding out the reality of the question, "Who am I?" The chakra or gunas define the personality and not the persona. If a person with rajas guna is not in the position of power he desires, he is likely to suffer miserably.]

Saṃskāras (Properties)

In the svarga loka phase, the following configurations are made by Māyā:

1. Speed of rotation: Starts at 'high' and largely maintains the speed, and accelerates to its maximum at the end of leg 11.
2. Locus of identity: Extrinsic
3. Locus of validation: Extrinsic

Intellectual development: Siddhi (+) + Buddhi (+) + Manas (+)), Conscious (+) Subconscious (+) + Unconscious (+)

1. The manas – lower order thinking skills and buddhi – higher order thinking skills have been developed.
2. Siddhi is now initiated, where the unconscious provides intuitions to the buddhi based on patterns formed from the earlier phases and drives the subconscious and conscious. Siddhi is just buddhi with intuitions coming from patterns in the unconscious. (Balakrishnan)[158]

Vāsanās (Psychological Behavior)

1. They would have developed the capacity for lust, greed, derision, mockery, indifference, callousness, cruelty, boredom, wrath, vengefulness, jealousy, and hatred towards others.

Others would love them for their shringara (romance), hasya (humor, laughter), karuna (compassion, empathy), adbhuta (astonishment, awe), śānti (peace, serenity), raudra (anger), and vira (courage, bravery).

[157] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[158] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

Their capacity for this double-facedness born of mimicry, intellectual insight into what others want, and the use of might and deceit to control their lives to serve them and be subservient to them is their greatest achievement. (Balakrishnan)[159]

2. The psychopath of leg 1, who acted out of fear and dread of others, becomes the sociopath in leg 11 who is feared and dreaded by others. (Balakrishnan)[160]

3. One just wants to retain the power and enjoy svarga heaven, where all pleasures of the world, of the body, and of the mind are enjoyed. One just has to desire. Desires are almost immediately granted by the world. (Balakrishnan)[161]

Kāla (Time) and Yoga (Status of Identity Validation)

In svarga loka, identities are validated through bhakti yoga in leg 10 and karma yoga in leg 11.

1. Expectation of psychological experience may be classified as high (* *)[162] based on receiving sukha from others for identities and achievements based on occupying positions of power.

2. The outcomes are largely in line with the expectations.

Since outcomes are in line with expectations, the identity-attachment, based on rajas (+) primary and sattva (+) guna secondary and tamas (+) guna tertiary, is validated.

Defeat: Talatala Patala in the Manipura (Solar Plexus) Chakra

Chakra (Nature of Personality): Manipura, the spiritual phase of an adult

The jiva-ātman now traverses the legs 12 & 13 of the manipura chakra called the talatala patala.

The rush of youthfulness mellows, and the adult emerges.

Guna (Quality): Withdrawal of gunas (qualities) starting with Tamas(+), then Sattva (+), and finally Rajas (+)

All the gunas that were gained in the earlier phases are dropped gradually, starting with tamas (+), then sattva (+), and finally rajas (+) as the identities associated with these gunas are falsified. (Balakrishnan)[163]

Saṃskāras (Properties)

In the talatala patala phase of the Manipura chakra, the following configurations are made by Māyā:

1. Speed of rotation: Maintains the maximum speed attained in the earlier leg

2. Locus of identity: Extrinsic

[159] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[160] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[161] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[162] ***High, Low, Medium*** represent the quality of the psychological experience based on the development of the antahkarana to become capable of having and appreciating the experiences. ***'*' or '?' or '!'***: The number of '*' or '?' or '!' represents the quantity or intensity of the psychological experience, where '*' represents happiness, 'I' represents suffering, and '?' represents an oscillating or mixed experience of happiness and suffering
[163] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

3. Locus of validation: Extrinsic

Intellectual development: Siddhi (+) + Buddhi (+) + Manas (+), Conscious (+) + Subconscious (+) + Unconscious (+)

1. The development of manas, buddhi, and siddhi of the attachment phase is completed in leg 13.

2. The development of siddhi progresses further and is completed in leg 13, where the unconscious provides intuitions to the buddhi based on patterns formed from the earlier phases and drives the subconscious and conscious. (Balakrishnan)[164]

Vāsanās (Psychological Behavior)

1. The psychological behavior is the same as described in the earlier leg, except that there are fierce challenges to the position of power. Challengers conspire and collude to oust the 'king' from the throne or the position he occupies.

2. The health of the body may begin to fail, and yet the 'king' will seek to continue to rule. The mind also begins to fail, and yet the 'king' will seek to continue to rule. And until the 'king' is dragged out or overthrown, the 'king' will seek to continue to rule.

Kāla (Time) and Yoga (Status of Identity Validation)

In this talatala patala, identities are falsified through jñāna yoga in leg 12 and raja yoga in leg 13.

1. Expectation of psychological experience may be classified as high (* * *)[165] based on receiving nitya sukha from others for identities and achievements based on occupying, sustaining, and enhancing positions of power

2. Outcomes may be classified as high (? ? ?) based on mixed experiences of sukha and duḥkha, based on having lost the position of power, or after being ousted from it by rivals, as

a. In time, others, a man with more potential, or a group of men, collude to topple and overthrow the king.

b. The king also realizes that although everyone is a slave to the power of the king, the king is a slave of the attention and validation of others, which is, was, and never will be about being loyal or devoted to a person. The loyalty was only to the position of power one occupied.

c. There are kings and kings. Some kings are slaves of other kings.

They suffer.

Being 'in love with' without 'being in love' comes with conditions set by the world. In this world, love is transactional, reciprocal, and conditional. People only love their concept of a person. And the person only

[164] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

[165] ***High, Low, Medium*** represent the quality of the psychological experience based on the development of the antahkarana to become capable of having and appreciating the experiences. ***'*' or '?' or '!'***: The number of '*' or '?' or '!' represents the quantity or intensity of the psychological experience, where '*' represents happiness, 'I' represents suffering, and '?' represents an oscillating or mixed experience of happiness and suffering

loves his concept of others. And then it's a quid-pro-quo game – "If you validate me, I will validate you. You scratch my back, I'll scratch yours." Love is traded. It is transactional. And when others don't see any further utility in giving love, when the position of power is lost, then one suffers and sees the pointlessness of the 'transactional' thinking, which is a fundamental aspect of rajas (+) guna. However, one has to attain the position of power and then lose it to see the pointlessness of an identity assumed as one's self based on the position of power. (Balakrishnan)[166]

The mask of two-facedness is ripped out, and the face is revealed. The lust, greed, derision, mockery, indifference, callousness, cruelty, wrath, vengefulness, jealousy, and hatred of others outside are reflected in the feelings of fear, disgust, shame, guilt, anxiety, dread, and humiliation inside.

In the withdrawal of gunas starting with tamas(+), then sattva (+), and finally rajas (+), all the identities gained in the attachment phase are given up as unnecessary and insufficient.

The power instincts that have been gained in this chakra are transferred to the unconscious memory as imprints. The unconscious (+) consolidates all the patterns of the attachment phase as instincts. (Balakrishnan)[167]

Peace: Oasis in the Anahatta (Heart) Chakra

Chakra (Nature of Personality): Anahatta, the spiritual man of peace.

The jiva-ātman now traverses the legs 14 of the anahatta (heart) chakra.

The ambitious energy turns into restful peace.

This is the final leg of the attachment phase.

Guna (Quality): Nirguna (No qualities)

Saṃskāras (Properties)

In this leg, the following configurations are made by Māyā:

1. Speed of rotation: Reset from maximum to 1.
2. Locus of identity: None
3. Locus of validation: None

Intellectual development: Unconscious (+) instincts

1. The intellect comprising siddhi, buddhi, and manas is seen as not useful anymore and is also withdrawn along with the gunas. The patterns of the siddhi (+) are transferred to the unconscious (+) as instincts.

[166] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[167] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

Vāsanās (Psychological Behavior)

1. In this phase, the suffering experienced in the earlier phase is released as a great spiritual awakening. Tremendous peace is felt.

Kāla (Time) and Yoga (Status of Identity Validation)

No yoga, since all faculties of the intellect have been withdrawn. This is the last stage of the jiva-ātman in the attachment phase. He rests in peace, and the physical body, too, is withdrawn.

This completes the first half of the cycle of saṃsāra.

The Problem of Relativity in Modern Psychology

Modern psychology is largely based on:

i. Neurological study of the development and functioning of the brain

ii. Cognitive and emotional development models based on physical age

iii. Genetic transmissions as underlying causes of psychological behavior

iv. Social conditioning as a critical factor and influencer of psychological behavior

The spiritual causal model, on the other hand, proposes that:

i. The jiva-ātman is managed by Māyā in the mind of the brain. He is given one identity after another, in an ordered process called the cycle of saṃsāra. In this psychological movement through chakras, there is an ordered development of the memory and intellect such that the reality of his identity is discovered after all other false identities that result in suffering in life experiences are eliminated. The identity that results in sthira nitya sukha or steady eternal happiness is then the real identity. (Balakrishnan)[168]

ii. The spiritual model has very little to do with the physical brain, or physical age, or genetics, or life experiences as causes. These factors play a role not as causes but as the conditions in which the jiva-ātman has to experience sukha and duḥkha to determine his reality through a process of validation or falsification of his identity through different yogas, viz., bhakti, karma, jñāna, and raja that occur in a sequential order in kāla time. (Balakrishnan)[169]

iii. In the spiritual model, there is the key aspect of the jiva-ātman going through all the chakras, which make up one complete spiritual lifecycle called the cycle of saṃsāra, in multiple physical bodies. This means that the next physical life and its circumstances are determined such that there is a continuation, progression, and completion of the cycle of saṃsāra. Not every movement into a new chakra requires reincarnation of the jiva-ātman. The chakra shift may also happen in the same body. But in the case of a reincarnation, Māyā uses the patterns of the earlier phases in unconscious memory to continue the cycle of saṃsāra beginning from where it had stopped in the previous incarnation. (Balakrishnan)[170]

[168] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[169] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[170] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

The spiritual model can pose a huge problem for modern psychoanalysts, who do not accept the existence of a spirit or a causal explanatory model where the spirit reincarnates several times to complete its psychological evolution. Remember, the mind or psyche is nothing but the soul or the sūkṣma-śarīra. The soul or sūkṣma-śarīra managed by Māyā is the vehicle for the spirit, the jiva-ātman. The physical body is just the skin that is shed multiple times. Without the sūkṣma-śarīra, the body, including the brain, is just jaḍa, inert, lifeless matter. (Balakrishnan)[171]

Let's see an example of three jīvātmans, A, B, and C, with different maximum speeds of rotation of 100, 1000, and 10000, respectively as shown in Table 3 below. In our example, A, B, and C reincarnate and take on a different physical body at the end of each chakra phase of the attachment cycle.

Phase	Reincarnation	Jiva-atman A Speed (Potential 100)	Jiva-atman B Speed (Potential 1000)	Jiva-atman C Speed (Potential 10000)
Initiation (Leg 1) – Undeveloped mind	1	100	1000	10000
Mooladhara (Legs 2 & 3) – Manas mind	2	Accelerated from 1 to 30 at the end of leg 3	Accelerated from 1 to 300 at the end of leg 3	Accelerated from 1 to 3000 at the end of leg 3
Svadhisthana (Legs 6 & 7) – Buddhi mind	3	Accelerated from 50 to 70 at the end of leg 7	Accelerated from 500 to 700 at the end of leg 7	Accelerated from 5000 to 7000 at the end of leg 7
Manipura (Legs (10 & 11) – Siddhi mind	4	Accelerated from 80 to 100 at the end of leg 11	Accelerated from 800 to 1000 at the end of leg 11	Accelerated from 8000 to 10000 at the end of leg 11

Table 3: The problem posed by the different speeds of the antahkarana for different jīvātmans

The following points can be made from our earlier discussion based on the spiritual model:

1. **Initiation Phase:** The speed of rotation of the antahkarana conscious mind is at the maximum for each jiva-ātman at 100, 1000, and 10000, respectively. The cognitive faculties of the psyche are undeveloped. Since they all have maximum desires (maximum speed), they all exhibit low attention spans and uncoordinated actions. Therefore, all three jīvātmans will exhibit ADHD symptoms. All jīvātmans undergo suffering and depression due to repression by society. (Balakrishnan)[172]

[171] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[172] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

However, from a modern psychology perspective, the speed of A at a maximum speed of 100 could be seen as relatively slow when compared to the speed of B at a maximum speed of 1000, and the speed of C at a maximum speed of 10000 could be seen as abnormally high.

If B is taken to be the normal, then A may be seen as exhibiting symptoms of autism, while C will be seen as a psychopath.

2. **Mooladhara Phase:** The speed of rotation of the antahkarana conscious mind is at 'low' for each jiva-ātman at 30, 300, and 3000, respectively. Since the cognitive faculties of the psyche are at the manas, lower-order thinking skills stage, and since they are all in the phases of survival and growth, all jīvātmans will mimic the world around them as a survival instinct. (Balakrishnan)[173]

However, from a modern psychology perspective, the speed of A at a speed of 30 could be seen as relatively slow, when compared to the speed of B at a speed of 300, and the speed of C at a speed of 3000 could be seen as abnormally high and as they grow up physically:

- As children, all of them may be seen to exhibit symptoms of autism
- Then, as boys A and B may be considered underdeveloped, and C may be seen as having ADHD
- Then, as adolescents, A may be an average student, B may be a high-performing student, and C may be seen as a genius at singing or acting.

3. **Svadhisthana Phase:** The speed of rotation of the antahkarana conscious mind is at 'medium' for each jiva-ātman at 50, 500, and 5000, respectively. Since the cognitive faculties of the psyche are at the buddhi, higher-order thinking skills stage, and since they are all in the phases of knowledge acquisition, all jīvātmans will know about the world around them. (Balakrishnan)[174]

However, from a modern psychology perspective, the speed of A at a speed of 50 could be seen as suited for abstract subjects like higher mathematics which needs the mind to be relatively still and attentive, when compared to the speed of B at speed of 500 who may be better suited for applied knowledge areas like engineering, and the speed of C at a speed of 5000 may well be a college drop-out but may have mastered the art of reading other people and influencing their behavior without any need for a college education.

4. **Manipura Phase:** The speed of rotation of the antahkarana conscious mind is at 'maximum' for each jiva-ātman at 100, 1000, and 1000, respectively. Since the cognitive faculties of the psyche are at the siddhi, higher-order thinking skills stage guided by the unconscious intuition, and since they are all in the phases of power acquisition, all jīvātmans will control and manipulate the world around them. (Balakrishnan)[175]

   However, from a modern psychology perspective, A at a speed of 100 could be seen as suited to become the CEO of a small private company. B, at a speed of 5000, may be better suited to become

[173] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[174] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[175] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

the CEO of a large multinational company. C, at a speed of 10000, may well become a megalomaniac dictator like Hitler.

And if we are to also account for multiple reincarnations, and the speeding-up done by Māyā to catch up with, and continue, the spiritual evolution in each reincarnation, then there may be no way for modern psychology to 'normalize' their understanding of the development of the human psyche. (Balakrishnan)[176]

But if one sees human behavior as an effect of spiritual evolution of identity-desires and identity-attachments, then through this insight, we may be able to develop the empathy and compassion to develop a better appreciation of human behavior. Then the rigidity of 'normalizing' human behavior and classifying exceptions as symptoms of pathology may well become unnecessary. So too will the need for normalizing character and classifying people as good and bad, or moral and immoral. (Balakrishnan)[177]

The Detachment Phase of the Cycle of Saṃsāra

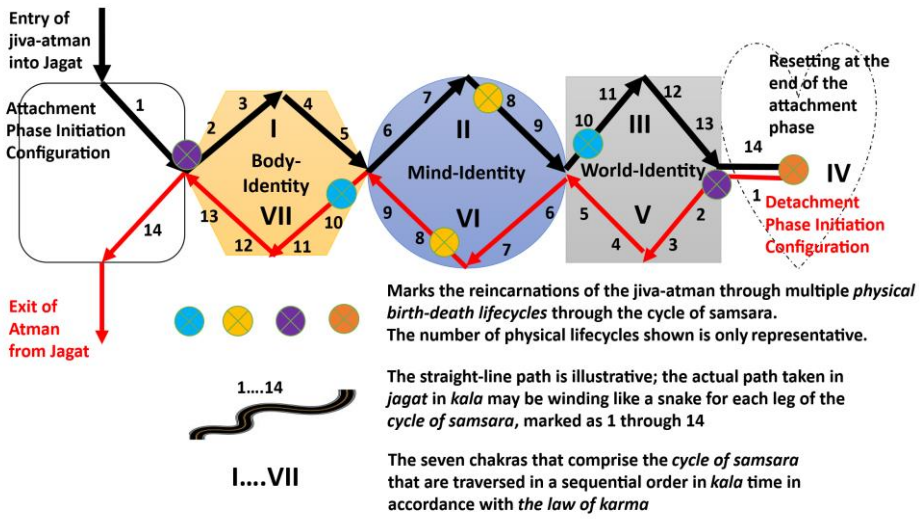

Figure 10: The Detachment Phase of the Cycle of Saṃsāra covers the legs 1 – 14 through the chakras IV -VII

A man who has known that there is, there was, and there will be nothing to fear is in love unconditionally and eternally!

John 8.32: You shall know the Truth and the Truth shall set you free.

[176] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[177] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

Initiation Phase: Joyfulness in the Anahatta (Heart) Chakra

The initiation phase of the detachment phase of the cycle of saṃsāra may be seen as the Christian idea of "born again".[178] The jiva-ātman is "born again" and reincarnated in a new physical body to complete the second half of the cycle of saṃsāra. (Balakrishnan)[179]

In the detachment phase, the jiva-ātman has to go through the same phases of the chakras, with just the following three changes:

1. The locus of validation is intrinsic. This can be seen as an orientation of identity-desire with detachment or a '(-)' spin.

   [The attachment phase was falsified. Now, the jiva-ātman has to experience life all over again, reborn, and must check if the real identity can be realized based on an intrinsic locus of validation.] (Balakrishnan)[180]

2. The path of kundalini is in reverse; world-identities or rajas (-) is first checked and dropped if unnecessary, then sattva (-) is checked and dropped if unnecessary, and lastly tamas (-) is checked and dropped if unnecessary.

3. The speed of rotation starts from the maximum it had reached in the previous attachment phase and decelerates to the target of 1. This target setting of 1 happens in the initiation phase of the detachment phase.

Guna (Quality): Nirguna (Uncoordinated)

This means there are no gunas. However, this is a state of uncoordinated nirguna, as the intellectual development is yet to be initiated. [It must be noted that the initial configuration for the attachment phase was: 'all identity desires or all gunas'.]

[178] The term "born again" primarily refers to spiritual transformation. In a Christian context, being "born again" refers to a personal, supernatural spiritual transformation in which an individual recognizes his sinfulness and need for salvation, repents and turns away from their old way of living, accepts and puts faith in Jesus Christ as his personal Lord and Savior, receives the indwelling of the Holy Spirit, This is seen as a new, spiritual life that brings about a radical change in the desires and conduct. This concept is rooted in the New Testament, specifically in the Gospel of John, chapter 3, where Jesus tells Nicodemus, a Jewish leader, that "unless one is born again, he cannot see the kingdom of God". The trinity of God, the Son, and the Holy Spirit in Christianity can be seen as the trinity of Brahman, Atman, and Māyā in Vedānta.

The Bhagavad Gita 17.14 says, "Respect for the twice-born, for teachers and for the wise, and those who are embodiments of purity, straightforwardness, continence, and non-violence, and to learn from them, this is said to be the penance of a seeker." The idea of "born again" is echoed in the Bhagavad Gita as well.

Similarly, Brahman may be seen as Allah; Māyā as the angel Gabriel (Jibril); sūkṣma-śarīra, soul, mind, psyche as "nafs"; and ātman as "ruh".

[179] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

[180] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

Saṃskāras (Properties)

During the initiation of the antahkarana for the detachment phase, the following configurations are made

1. Target speed of rotation: 1. This is the speed the antahkarana has to attain at the end of the detachment phase.

2. Locus of identity: None

3. Locus of validation: Intrinsic

[Recall that the introvert with an intrinsic locus of validation expects to experience the positive emotions that emerge from within as a validation of his identity. The introvert validates his identity as an inside–out process. The introvert thinks his happiness inside should determine his identity outside. The introvert will seek to lose attainments and identities if he does not find happiness within. He does not care to be deemed worthy by others if he does not deem himself worthy from within. The introvert is never at the mercy of others, nor does he control or manipulate others. He just expects to function in this world out of love, never for love. At the same time, when he functions out of love, he does not expect to be hated. This contradiction that he sees in the world, where he comes out of love and yet the world hates him, pushes him to the depths of suffering until he loses all his identities. And when that happens, he achieves śūnyatā, a perfect mind-mirror. Ānanda, which emerges from his self, engulfs the jiva-ātman in sthira nitya sukha. It's all about passion and love, and ultimately about the passion for unconditional eternal love.]

Intellectual development

1. The manas (-), buddhi (-), siddhi (-) is blank. In the detachment phase, the intellect has to learn to decelerate the speed of the antahkarana from maximum to the target of 1, and hence the '(-)' symbol. In the initiation phase, the intellectual development is not initiated. It is initiated only in the next leg.

2. The unconscious has the instincts from all the falsified identities from the attachment phase. These instincts then protect a being from physical or spiritual harm.

3. Māyā is initiating all its functions for the development of the body and mind.

Vāsanās (Psychological Behavior)

This is the jiva-ātman that is perceiving the world for the 'second time' with the Māyā of a human being. However, he has all the instincts from the attachment phase to guide him this time. However, there are no conscious memories of his experiences from the attachment phase. (Balakrishnan)[181]

And since the speed of rotation is 1, which means the mind is at its perfected state, the attentiveness is very high. There is very little need for the jiva-ātman to 'yoke' with the body, except for the needs of the body. Hence, the jiva-ātman's actions in this phase seem uncoordinated to others.

Kāla (Time) and Yoga (Status of Identity Validation)

There are no expectations of desired psychological experiences yet.

[181] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

The outcome, though, is that the jiva-ātman is experiencing the nitya sukha, or ānanda of the purest form. This is the state it will reach at the end of the detachment phase, after the completion of the cycle of saṃsāra. Since the intellectual development has not been initiated, the antahkarana conscious mind cannot adequately 'join' or 'yoke' the jiva-ātman to the jagat. The experience is not validated as yoga. (Balakrishnan)[182]

In psychology, this is seen as autism, a pathology. If one really understands this phase, this is the experience of samādhi of a liberated human being. The only difference is that this is a goal-setting phase, where the jiva-ātman is ignorant that this is the experience that validates the real identity. In samādhi, the same experience is reached in wisdom, as coordinated and established nirguna. (Balakrishnan)[183]

One experiences inner joy with deep focus, enhanced sensory perceptiveness, emotional fulfilment, and a sense of peace and euphoria that can be different from neurotypical joy. External triggers are not necessary to induce this intense, and sometimes overwhelming, euphoria. It is often connected to the "flow" state achieved when completely engrossed in a special interest, where external needs like hunger or sleep may fade away. Even ordinary positive sensory experiences, such as the feel of soft grass, the sound of a favourite song, or the smell of a favourite meal, can induce this sense of euphoria. However, one may suffer when external environments are overwhelming due to sensory overload, social demands, or unexpected changes. This suffering can manifest as stress, anxiety, meltdowns, or shutdowns, and can be intensified by factors like bright lights, loud noises, social interactions, and unpredictable situations. [184]

Passion: Mahar Loka in the Vishuddha (Throat) Chakra

Chakra (Nature of Personality): Vishuddha, the spiritual 'man of passion'.

After the initiation phase in leg 1, the sūkṣma-śarīra with the jiva-ātman is reincarnated in another human body.

The jiva-ātman now traverses the legs 2 & 3 of the vishuddha chakra called the mahar loka.

The man of passion emerges and gives expression to the love that springs within.

Guna (Quality): Rajas (-)

The only identity is that of the world. "I am the redeemer of this world of suffering! The kingdom of God shall prevail on earth as it is in Heaven, where there are no kings, only the children of God playing in love!"

In leg 2, this guna quality of identity-attachment to the world is called rajas. Since the orientation of the identity-desire is one of detachment, it can be represented as rajas (-). The antahkarana mind just reflects the love one desires to express in the world.

[182] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[183] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[184] Source: Internet search engines.

In leg 3, with rajas (-) guna quality, one's identity-desires are related to that of redemption of the world; to rid the world and fellow men of the suffering they experience in the rule of the powerful, mighty, and deceitful. (Balakrishnan)[185]

Saṃskāras (Properties)

In the mahar loka phase, the following configurations are made by Māyā:

1. Speed of rotation: Starts at maximum and largely maintains this speed.
2. Locus of identity: Extrinsic
3. Locus of validation: Intrinsic

Intellectual development: Manas (-), Conscious (-) + Unconscious (+) instincts

1. The manas – lower order thinking skills are activated.
2. The citta memory - the conscious is blank, and the subconscious is being formed, it has a lot of capacity to absorb and remember.
3. The unconscious (+) has the instincts of the attachment phase and guides the progress of the jiva-ātman through the chakras. Much of the thinking is guided by passions and the instincts that come from the unconscious (+). (Balakrishnan)[186]

Vāsanās (Psychological Behavior)

1. The intellectual development is in the very initial stages: manas – lower order thinking skills; speed of rotation is maximum; high desire levels; not too many memories of experiences for patterns of knowledge to develop (except for instincts from the unconscious from the attachment phase); largely guided by feelings. Personality characterized as fiercely passionate, intrinsically motivated, will do what he loves, energetic, and will seek to change others towards love. Will make independent decisions based on love. Will not follow the commands and instructions of anyone if the love in his heart or the instincts from the unconscious command him not to. He will submit to the will within, never to anyone's will outside, out of fear or for favour. (Balakrishnan)[187]

   [Remember, this is a jiva-ātman which has feared and dreaded the world, and then made the world fear and dread him, which too was falsified. The unconscious instincts guide and repel the jiva-ātman away from power, or to fight against power, not towards it.] (Balakrishnan)[188]

2. Contributes to society by thoughts and actions against the powerful, by rebelling against power. Powerful Kings are always afraid of the rise of a man who can inspire the people to stand up to the King! (Balakrishnan)[189]

[185] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[186] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[187] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[188] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[189] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

Kāla (Time) and Yoga (Status of Identity Validation)

In mahar loka, validation happens as bhakti yoga in leg 2 and karma yoga in leg 3.

1. Expectation of psychological experience may be classified as low (* *)[190] based on experiencing sukha from within, based on identification with concrete actions and roles of (rebellious) expression played in the world (such as journalists, activists, artists, poets, rebels). It is about whether the role one is playing is in line with one's passion.
2. The outcomes are largely in line with the expectations.

Since outcomes are in line with expectations, the identity-attachment, based on rajas (-) guna, is validated.

Betrayal: Mahatala Patala in the Vishuddha (Throat) Chakra

Chakra (Nature of Personality): Vishuddha, the 'betrayed man'.

The jiva-ātman now traverses the legs 3 & 4 of the vishuddha (throat) chakra called the mahatala patala.

The passionate man will be betrayed by the world he sought to redeem from suffering. And he suffers, for he cannot understand how one's love can meet, not refusal but betrayal!

Guna (Quality): Rajas (-)

The only identity is that of the world. "I am the redeemer of the world, and I have to redeem the world!"

In legs 4 & 5, there is a sense of unease that his sense of fellow-suffering is misplaced, for the people who seem to be suffering don't seem to want to do anything about their suffering. They do not want to rise against the oppressors and free themselves. Rather, he sees that they can be made to cower and submit by the use of might and fear, or they can be made to accept their suffering as their fate and cooperate, or worse, they can be bought off with the deceit of favors and rewards and made to become traitors who betray their own fellow men.

Saṃskāras (Properties)

In the mahatala patala phase, the following configurations are made by Māyā:

1. Speed of rotation: Starts at 'high' and largely maintains the speed
2. Locus of identity: Extrinsic
3. Locus of validation: Intrinsic

Intellectual development: Manas (-), Conscious (-) + Sub-Conscious (-) + Unconscious (+) instincts

[190] ***High, Low, Medium*** represents the quality of the psychological experience based on the development of the antahkarana to become capable of having and appreciating the experiences. ***'*' or '?' or '!'***: The number of '*' or '?' or '!' represents the quantity or intensity of the psychological experience, where '*' represents happiness, 'I' represents suffering, and '?' represents an oscillating or mixed experience of happiness and suffering

1. The manas, lower-order thinking skills, are developed fully in leg 5. The abstract thinking and higher-order thinking skills of buddhi have not yet been initiated. Conceptual thinking, learning abilities have not yet been initiated. (Balakrishnan)[191]

2. The subconscious has begun to form patterns from the earlier phase, and subconscious intuitions guide the manas (-). The desires are stronger and oriented towards outcomes and not merely efforts. (Balakrishnan)[192]

3. The unconscious (+) has the instincts of the attachment phase and guides the progress of the jiva-ātman through the chakras. (Balakrishnan)[193]

Vāsanās (Psychological Behavior)

1. Experiences of betrayal of love lead to loss of trust in others. One is confused, suffers, and goes into depression.

2. Seeks to move away from society to understand the nature of men, which causes them to betray the love inherent in them for possessions and powers that bring comforts and attention but no joy. [Remember, he only knows this as instincts, and has not yet figured out the entire spiritual order. Also, there are no memories of his past life experiences to guide him. And he doesn't know that the intuitions and instincts that guide him towards detachment are working in the others as attachment.] (Balakrishnan)[194]

3. His fears about the world are contrary to the love in his heart. Since he doesn't know his reality yet and that of others, he blames others first and then blames himself. He loses trust in himself. He has to know his self to regain the trust.

Kāla (Time) and Yoga (Status of Identity Validation)

In this mahatala patala, rajas (-) identities are falsified through jñāna yoga in leg 4 and raja yoga in leg 5.

1. Expectation of psychological experience may be classified as low (* * *)[195] based on experiencing sukha from within, based on identification with concrete outcomes (the earlier phase was just about actions) of roles played to reform the world.

2. Outcomes of psychological experience may be classified as low (? ? ?) based on mixed experiences of sukha and duḥkha within, based on identification with concrete outcomes of roles played to reform the world. Dukkha is based on the non-achievement of the outcomes due to a lack of conceptual grasp of

[191] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[192] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[193] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[194] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[195] ***High, Low, Medium*** represents the quality of the psychological experience based on the development of the antahkarana to become capable of having and appreciating the experiences. ***'*' or '?' or '!'***: The number of '*' or '?' or '!' represents the quantity or intensity of the psychological experience, where '*' represents happiness, 'I' represents suffering, and '?' represents an oscillating or mixed experience of happiness and suffering

the reality of one's self and that of others. One is consumed with raudra (anger), bhayanaka (fear, anxiety), bibhatsa (disgust, revulsion, repulsion), guilt, etc.

"I am not the Redeemer," is the conclusion one reaches when one sinks into depression. This identity was merely unnecessary and not sufficient, and is dropped.

The instincts that have been gained in this chakra are transferred to the unconscious memory as imprints. (Balakrishnan)[196]

Seeking: Jana Loka in the Ajna (Third Eye) Chakra

Chakra (Nature of Personality): Ajna Chakra, the 'seeker of the self'.

The jiva-ātman now traverses the legs 6 & 7 of the ajna (third eye) chakra called the jana loka.

The betrayed man wanders away from the world of others and seeks to know his self.

Leg 6 is a period of intuition, which emerges from the depression experienced in the previous leg. As the false identity is dropped, the unnecessary spiritual energy is released, and one experiences a spiritual awakening. When spiritual energy is released, there is a deceleration.

One emerges lighter and buoyant with a newfound intuition.

Guna (Quality): Primary: Sattva (-), Secondary: Rajas (-)

The primary identity is that of the mind. "I am the thoughts (knowledge) of my mind, and I have to know myself. I am the chosen one!" The identities and patterns of the rajas (-) guna have been falsified and dropped, but linger as secondary identities in the subconscious until the jiva-ātman knows his reality and has validated it.

This is a phase of seeking of one's self, to know the cause of one's suffering, where there is a realization that the nature of the suffering is such that its resolution can only be found in self-knowledge.

Saṃskāras (Properties)

In the jana loka phase of the ajna chakra, the following configurations are made by Māyā:

1. Speed of rotation: Starts at 'medium' and largely maintains the speed
2. Locus of identity: Extrinsic
3. Locus of validation: Intrinsic

Intellectual development: Buddhi (-) + Manas (-), Conscious (-) + Sub-Conscious (-) + Unconscious (+) instincts

1. The manas (-), lower-order thinking skills for detachment, have been developed fully. The abstract thinking and higher-order thinking skills of buddhi (-) are now initiated. Conceptual thinking and

[196] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

learning abilities such as reflection, analysis, evaluation, and synthesis are initiated in leg 6 and are further developed in leg 7.

2. Much of the thinking is guided by buddhi (-) and the intuitions that come from the subconscious (-).
3. The unconscious (+) has the instincts of the attachment phase and guides the progress of the jiva-ātman through the chakras. (Balakrishnan)[197]

Vāsanās (Psychological Behavior)

1. The intellectual development further progresses in the jana loka. One will be able to think, reflect, and make independent decisions. One will seek knowledge to understand the behavior of others and oneself.
2. To make up for the loss of trust in the world of others, one completely begins to think that there is a special bond between Existence and oneself.
3. The thinking has matured to be able to read books, attend courses, and gain conceptual knowledge by themselves. Books of philosophy, spirituality, poetry, etc., become the source of knowledge.

[In the bhuvar loka phase, one's buddhi is used to develop policies to administer and organize the affairs of the world as directed by the men of power (rajas +). Bureaucrats who develop policies, scientists engaged in applied research fall in this category.

In the jana loka phase and beyond, one's buddhi is used to develop frameworks based on love (and not power) as the underlying principle. Philosophers and scientists who discover fundamental laws of the universe and the psyche fall in this category.] (Balakrishnan)[198]

4. One begins to withdraw from extroverted friends and activities such as parties, socializing, and networking (seeking to meet and make new friends or business partners). One even withdraws from intimate family relationships. Others may find this behavior as aloofness or withdrawal due to lack of self-esteem and status, or due to failures and setbacks. But one discovers trust and joy in solitude and in discovering the secrets of the workings of Existence. One begins to think that the suffering experienced in the earlier phases of detachment was a way of Existence to guide one towards purity. (Balakrishnan)[199]
5. The capacity and sensitivities for shringara (romance), hasya (humor, laughter), karuna (compassion, empathy), and adbhuta (astonishment, awe) for one's self and for Existence find new meanings.

Kāla (Time) and Yoga (Status of Identity Validation)

In this jana loka, identities are validated through bhakti yoga in leg 6 and karma yoga in leg 7.

[197] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[198] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[199] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

1. Expectation of psychological experience may be classified as medium (* *)[200] based on experiencing sukha from within, based on identification with actions and roles that are based on intellectual and spiritual seeking
2. The outcomes are largely in line with the expectations.

Since outcomes are in line with expectations, the identity-attachment, based on sattva (-) guna primary and rajas (-) secondary guna, is validated.

The subconscious rajas (-) entertains the hope that he has been chosen by Existence to know his self and the relationship with Existence and that ultimately he will find liberation, and through his liberation, he will liberate the suffering of others in the world. (Balakrishnan)[201]

The deep distrust in others that was experienced in the previous phase is replaced by a faith in Existence! (Balakrishnan)[202]

The Dark Night of the Soul: Rasatala Patala in the Ajna (Third Eye) Chakra

Chakra (Nature of Personality): Ajna, the 'existential distrust' phase

The jiva-ātman now traverses the legs 8 & 9 of the ajna chakra called the rasatala patala.

The seeker has entered the phase where the seeking will cease, for he will have nothing to hold on to for his existence – not the world, not the mind, and not even Existence. He loses all trust in his existence in Existence.

Towards the end of leg 9, he will see nothing but darkness in his mind. (Balakrishnan)[203]

Guna (Quality): Primary Sattva (-), Secondary Rajas (-)

"I have known my self, and I have to be the chosen one!" The primary identity is that of the mind. The identities and patterns of the rajas (-) guna are secondary identities.

However, it is not about knowledge of the world anymore. It is about becoming the 'chosen one' by which one redeems the world. The identity-attachment is with the outcome of the knowledge gained in the seeking phase, not merely in the knowing. (Balakrishnan)[204]

Saṃskāras (Properties)

In the rasatala patala phase of the ajna chakra, the following configurations are made by Māyā:

1. Speed of rotation: Starts at 'medium' and largely maintains the speed.

[200] ***High, Low, Medium*** represents the quality of the psychological experience based on the development of the antahkarana to become capable of having and appreciating the experiences. ***'*' or '?' or '!'***: The number of '*' or '?' or '!' represents the quantity or intensity of the psychological experience, where '*' represents happiness, 'I' represents suffering, and '?' represents an oscillating or mixed experience of happiness and suffering

[201] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

[202] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

[203] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

[204] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

2. Locus of identity: Extrinsic

3. Locus of validation: Intrinsic

Intellectual development: Buddhi (-) + Manas (-), Conscious (-) + Sub-Conscious (-) + Unconscious (+) instincts

1. The manas (-), lower-order thinking skills for detachment, have been developed fully. The abstract thinking and higher-order thinking skills of buddhi (-) are now further developed. Conceptual thinking and learning abilities such as reflection, analysis, evaluation, and synthesis are fully developed in leg 9.

2. Much of the thinking is guided by buddhi (-) and the intuitions that come from the subconscious (-).

3. The unconscious (+) has the instincts of the attachment phase and guides the progress of the jiva-ātman through the chakras.

Vāsanās (Psychological Behavior)

One tends to think, "I am enlightened. I am God. I am love-bliss." A person with knowledge of the scriptures or one who has self-knowledge (conceptually only without direct experience) probably has the biggest ego. (Balakrishnan)[205]

1. He has learnt all there was to know about his self and about the relationship of his self with Existence. But the knowledge was always only a means to an end. Now doubts start to creep in about the purpose of self-knowledge. Even the books of self-knowledge lose meaning without the knowledge of the purpose. (Balakrishnan)[206]

2. Others, even friends, start to distance themselves from him. He, too, does not enjoy any engagement with anything he once loved in the world, and lived to express this love in the world. (Balakrishnan)[207]

3. The world around him becomes chaotic to the point that there is not even one activity that seems meaningful or purposeful. Everything and everyone is just dying, and dying ugly, desperate, hate-filled, fear-filled, anxiety-filled deaths. Everyone is just pretending, manipulating, deceiving, and living in fear. There is no authenticity. He thinks, "A life in this world, a life in the mind, and a life in the body are pointless. God, or Existence, or whatever conjured up this universe, is a sadist. He cannot be capable of love if this world of fear and deceit were all there is! And if, for some reason, even after death, he would be punished in Eternal Hell, so be it, for at least one would have removed all doubt about the nature of Existence." (Balakrishnan)[208]

4. There is nothing left to try out anymore. It was not about hoping that one's desire would come true. Now there was no desire to even hope!

[205] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[206] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[207] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[208] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

5. The only desire was to hope for death. But he knew that if there was anything that he had control over in this life, it was his death! And he may even decide to give up his body to see if the afterlife would be able to provide any answers, because life didn't.

Kāla (Time) and Yoga (Status of Identity Validation)

In this rasatala patala, identities are falsified through jñāna yoga in leg 8 and raja yoga in leg 9.

Expectation of psychological experience may be classified as medium (* * *)[209] based on experiencing sukha from within as an experiential outcome of the identity as the knower of one's self; to be validated as the chosen one in an experience of God within

The expected experiential outcomes can be:

- I will be able to guide others to enlightenment.
- I will find myself in ānanda (love-bliss) all the time, as all my wishes will be fulfilled
- I will know what will happen in the future.

When one lives one's life with the above expectations, others are bound to think he is insane. (Balakrishnan)[210]

[There is a possibility that one may have expectations such as

- Everyone will seek me for wisdom
- I will be venerated like a saint or a rishi

But these expectations arise from an extrinsic locus of validation, and are more characteristic of the sattva (+) guna that is an aspect of the sutala patala phase of the svadhishthana chakra.]

1. Outcomes of psychological experience may be classified as medium (! ! !)[211] based on experience of nitya duḥkha from within, based on identification with identities and expected outcomes as the knower of one's self, as the Chosen One. Dukkha is based on the non-achievement of outcomes due to a lack of experiential validation of one's identity. They are consumed with bhayanaka (fear, anxiety), bibhatsa (disgust, revulsion, repulsion), hatred for one's existence in Existence.

And when the expected outcomes are not attained and one has seemingly exhausted all avenues, it is quite natural that depression will set in, and one can go insane. [This is true for not just spiritual seekers but also for people seeking material attainments - like power, position, wealth, and seeking extrinsic validation as in the talatala patala phase of the manipura chakra. But this very insanity is a process by which the ego-

[209] ***High, Low, Medium*** represents the quality of the psychological experience based on the development of the antahkarana to become capable of having and appreciating the experiences. ***'*' or '?' or '!'***: The number of '*' or '?' or '!' represents the quantity or intensity of the psychological experience, where '*' represents happiness, 'I' represents suffering, and '?' represents an oscillating or mixed experience of happiness and suffering

[210] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

[211] ***High, Low, Medium*** represents the quality of the psychological experience based on the development of the antahkarana to become capable of having and appreciating the experiences. ***'*' or '?' or '!'***: The number of '*' or '?' or '!' represents the quantity or intensity of the psychological experience, where '*' represents happiness, 'I' represents suffering, and '?' represents an oscillating or mixed experience of happiness and suffering

structure (all the thought structure that makes you think 'I deserve it, and what is happening is not fair') is dismantled.] (Balakrishnan)[212]

Then even these emotions are given up as meaningless, and one dies psychologically to any thought, or memory, or desire, or hope, or emotion. The darkness engulfs the conscious mind, and the jiva-ātman just witnesses the dark night come over him.

This identity of "I am the knower of the self. I am the chosen one" is also detached. This identity was merely unnecessary and not sufficient, and is dropped. (Balakrishnan)[213]

The knowledge instincts that have been gained in this chakra are transferred to the unconscious memory as imprints.

Enlightenment & Empathy: Tapo Loka in the Sahasrara (Crown) Chakra

Chakra (Nature of Personality): Sahasrara, the spiritually 'enlightened man'.

The jiva-ātman now traverses the legs 10 & 11 of the sahasrara (crown) chakra called the tapo loka.

When the jiva-ātman enters Tapo Loka, in the Sahasra (Crown) Chakra, the third eye[214] opens. Leg 10 is a period of intuition, which emerges from the depression experienced in the previous leg. As the false

[212] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

[213] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

[214] Shiva's third eye is a powerful symbol of **spiritual awakening and the destruction of ignorance.** The two concepts intersect metaphorically, as awakening the third eye involves a transformative process that burns away one's attachments and ego, which can be a challenging, dark, and destructive experience akin to the "dark night of the soul" leading to enlightenment.

In Hindu and Yogic traditions, Shiva is known as *Tryambaka* or *Trinetra*, the three-eyed lord.

- **Physical vs. Spiritual Eyes:** Shiva's two physical eyes (representing the sun and moon) perceive the physical world and duality (day/night, good/evil). The third eye is the "Eye of Wisdom" (*Jñāna Netram*), which perceives the ontological, non-physical reality beyond illusion.
- **Destruction of Ignorance:** The third eye is often depicted as emitting a fire (*Gnyana Agni* or *Chith Agni*) that burns away *kama* (desire/lust), ego, and ignorance. This destruction is not an end but a purification that makes way for a new beginning and higher consciousness.

The "Dark Night of the Soul"

The "dark night of the soul" is a concept, primarily from Western spirituality, describing a period of spiritual crisis and profound emptiness. The "dark night of the soul" (originating from the poem by 16th-century Spanish mystic Saint John of the Cross) is a spiritual crisis where an individual feels a profound sense of isolation, emptiness, and separation from the divine. It is a painful stage of purification where old beliefs, attachments, and the ego are stripped away, often involving intense suffering and confusion.

The Connection

The connection between Shiva's third eye and the "dark night of the soul" is symbolic:

- **Burning Away the Self:** The "dark night" involves the painful dissolution of one's existing self, ego, and worldly attachments. This mirrors the fire from Shiva's third eye, which "burns" away Māyā (illusion) and desire. The experience can be "dark" and destructive to the old way of being, but it is necessary for spiritual transformation.
- **Transcendence and Renewal:** Just as the "dark night" is a necessary purification before a deeper union with the divine, the destructive power of Shiva's third eye leads to renewal, the emergence of a new, enlightened consciousness, and the perception of ultimate truth.

identity is dropped, the unnecessary spiritual energy is released, and one experiences a spiritual awakening. When spiritual energy is released, there is a deceleration.

In leg 10 of the tapo loka, a temporary state of mind without thoughts or desires, a state of śūnyatā, emptiness is created, like in an experimental vacuum chamber. The mind-mirror reflects whatever is in the mind. In this temporary śūnyatā, only the jiva-ātman exists, which is the validation of "I am. I exist." In that aloneness, when the jiva-ātman experiences love that gushes forth from within, he realizes that that love could not have come from anywhere else but from his self. The jiva-ātman's experience of this love is the reflection from the temporarily perfected mind-mirror. That's when the 'I' realizes, "I am love." That experiential awareness of the reality of one's self is self-realization. This is just a glimpse of reality that can last for a few minutes, a few hours, or a few days. It is also called a spiritual awakening that results in enlightenment, as the 'I', the spirit, has been awakened to its real self. This experience of spiritual awakening slowly fades away, but the jiva-ātman now remembers his real self and the experience of love-bliss. (Balakrishnan)[215]

This experience is also described as being woken up in deep sleep without conscious memory. In deep sleep, there is no awareness of the world, or the body, or the mind, or even the jiva-ātman in the mind. Normally, when one wakes up from deep sleep, the conscious memory is also switched on. Hence, the jiva-ātman identifies his self with the thoughts of the world, or mind, or body. But in this experience, the jiva-ātman alone wakes up in the mind (consciousness is shifted from 'deep sleep' to 'waking' with the conscious memory switched off, i.e., without any of the thoughts or desires or identities or emotions associated with the body-mind-world framework. (Balakrishnan)[216]

[The deep sleep state may be seen as a shift from 'waking' to 'deep sleep' state, with the conscious memory 'switched off'. It must be seen that it is Māyā operating the mind like an Operating System. Even when the conscious state is shifted to 'deep sleep', Māyā continues to keep the physiology of the body functioning.]

Guna (Quality): Primary: Tamas (-), Secondary: Sattva (-), Tertiary: Rajas (-)

The primary guna tamas (-) is that of identity-attachment with the body, but not with survival, but with dying. "I am the body, and I will die!" The identities and patterns of the sattva (-) and rajas (-) guna are secondary and tertiary.

Saṃskāras (Properties)

In the tapo loka phase of the sahasrara chakra, the following configurations are made by Māyā:

1. Speed of rotation: Starts at 'low' and largely maintains the speed
2. Locus of identity: Extrinsic
3. Locus of validation: Intrinsic

[215] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[216] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

Intellectual development: Siddhi (-) + Buddhi (-) + Manas (-), Conscious (-) + Subconscious (-) + Unconscious (-) + Unconscious (+) instincts

1. The manas (-), lower-order thinking skills, and buddhi (-), higher-order thinking skills, have been developed. Siddhi (-) is now initiated, where the unconscious mind provides intuitions based on patterns formed from the earlier phases and drives the subconscious and conscious mind.
2. The unconscious (+) instincts from the attachment phase also provide guidance.

Vāsanās (Psychological Behavior)

1. The experience is of phases of ānanda, love-bliss, where patterns of the nature of Existence (both material and spiritual natures) are revealed as intuitions. (Balakrishnan)[217]
2. These intuitions are then sought to be validated as scientific knowledge or self-knowledge. (Balakrishnan)[218]
3. However, the identity of the body persists. One sees the body, which has to die, as the final barrier for the experience of sthira nitya sukha. (Balakrishnan)[219]

Kāla (Time) and Yoga (Status of Identity Validation)

In this tapo loka, identities are validated through bhakti yoga in leg 10 and karma yoga in leg 11.

1. Expectation of psychological experience may be classified as high (* *) based on experiencing sukha from within, based on the elimination of false identification of the self, of rajas (-) and sattva (-).
2. The outcomes are largely in line with the expectations.

Since outcomes are in line with expectations, the identity-attachment, based on tamas (-) primary and sattva (-) and rajas (-) as secondary and tertiary gunas, is validated.

[217] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[218] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[219] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

Ego-Death & Compassion: Patala Patala in the Sahasrara (Crown) Chakra

Chakra (Nature of Personality): Sahasrara, the spiritual 'ego-death' phase.

The jiva-ātman now traverses the legs 12 & 13 of the sahasrara (crown) chakra called the patala patala.

Having had a glimpse of, and having experientially realized, the real nature of the self, as ānanda, nitya sukha, the jiva-ātman no more cares to entertain the identity-attachments that it thought it was. These false identities that were acquired in avidyā ignorance manifested as the ahaṃkara ego of the jiva-ātman. Now, these false identities that are part of the subconscious are also dropped when one suffers from not experiencing sthira nitya sukha, (Balakrishnan)[220]

Guna (Quality): Withdrawal of Gunas (Qualities) starting with Rajas (-), then Sattva (-), and finally Tamas (-)

Saṃskāras (Properties)

In the patala patala phase of the sahasrara chakra, the following configurations are made by Māyā:

1. Speed of rotation: Maintains the 'low' speed of the earlier phase
2. Locus of identity: Extrinsic
3. Locus of validation: Intrinsic

Intellectual development: Siddhi (-) + Buddhi (-) + Manas (-), Conscious (-) + Subconscious (-) + Unconscious (-) + Unconscious (+) instincts

1. The manas (-), lower-order thinking skills, and buddhi (-), higher-order thinking skills, have been developed. Siddhi (-) is now fully developed at the end of leg 13, where the unconscious mind provides intuitions based on patterns formed from the earlier phases and drives the subconscious and conscious mind.
2. Much of the thinking is guided by siddhi (-) and the intuitions that come from the unconscious (-). In this phase, a lot of answers to fundamental questions of the nature of Existence are revealed. The mind in this state is said to be very intuitive, as siddhi (+) has been fully developed in the attachment phase, and siddhi (-) is being fully developed, where intuitions from the unconscious (-) drive the jiva-ātman.
3. The unconscious (+) has the instincts of the attachment phase and guides the progress of the jiva-ātman through the chakras.

Vāsanās (Psychological Behavior)

The jiva-ātman entertained ahaṃkara ego only because the jiva-ātman was ignorant of his reality as ānanda, unconditional love. Gradually, the gunas fall away one by one. These rajas (-) and sattva (-) gunas

[220] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

are the remnants in the subconscious, which have already been falsified in the conscious. The tamas (-) guna is falsified in this phase.

Kāla (Time) and Yoga (Status of Identity Validation)

In this patala patala, identities are falsified through jñāna yoga in leg 12 and raja yoga in leg 13.

1. Expectation of psychological experience may be classified as high (* * *) based on experiencing nitya sukha from within
2. Outcome of psychological experience may be classified as high (? ? ?) based on a mixed experience of sukha and duḥkha from within, despite elimination of false identities in the conscious. Dukkha is based on the remnant memories of false identities in the subconscious and memories of the suffering endured

   In the withdrawal of Gunas (Qualities), starting with Rajas (-), then Sattva (-), and finally Tamas (-), all identities of the detachment phase are given up as unnecessary and not sufficient.

The instincts of wisdom and unconditional love that have been gained in this chakra are transferred to the unconscious memory as imprints. The unconscious (-) consolidates all the patterns of the detachment phase as instincts. (Balakrishnan)[221]

Samādhi - A Surrender in Existential Trust to Unconditional Love: Satya Loka

The jiva-ātman now enters leg 14, the last and final leg of the detachment phase of the cycle of saṃsāra. This phase, called Satya Loka, marks the opening of the Sahasrara Chakra.

Leg 14 is a period of intuition, which emerges from the depression experienced in the previous leg. As the last remnants of false identities are dropped, the unnecessary spiritual energy is released, and one experiences a spiritual awakening. When spiritual energy is released, there is a deceleration.

Guna (Quality): Nirguna (All manifested Gunas are Coalesced into One)

Saṃskāras (Properties)

In this leg, the following configurations are made by Māyā:

1. Speed of rotation: Reset to 1.
2. Locus of identity: None
3. Locus of validation: None

Intellectual development: Siddhi (-), Unconscious (+) instincts + Unconscious (-) instincts, Perfected Paripurna Intellectual Development

1. Siddhi (-) has fully developed.

[221] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

2. The unconscious (+) and unconscious (-) instincts guide the jiva-ātman as shown in Figure 10 below. The conscious and subconscious memories are collapsed into one. (Balakrishnan)[222]

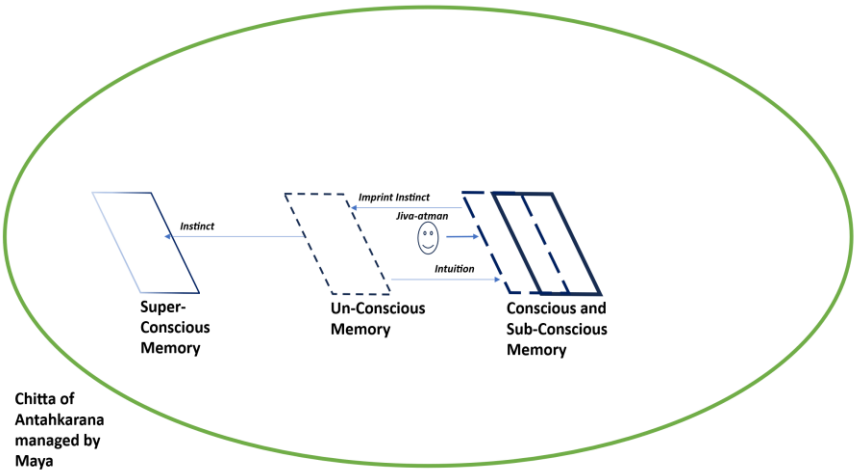

Figure 11: Conscious and Unconscious Memories are Collapsed

3. At the end of this phase, the conscious and the subconscious are collapsed into the unconscious, and the instincts from the unconscious (+) and unconscious (-) are transferred into the superconscious, as shown in Figure 11 below. (Balakrishnan)[223]

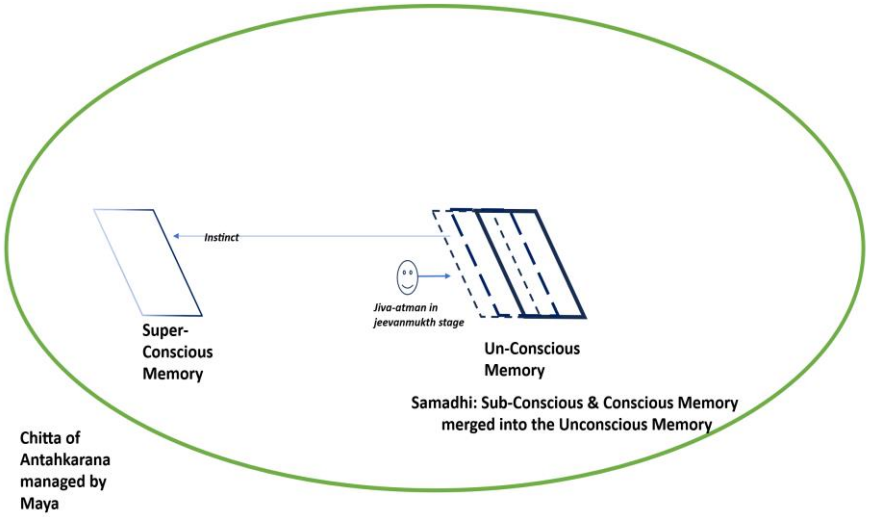

Figure 12: The Conscious and Subconscious, and Unconscious

[222] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[223] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

memories are collapsed into one

Vāsanās (Psychological Behavior)

This joy is the intense and profound happiness experienced when one is aligned with their authentic selves. It is often characterized by deep focus, enhanced sensory perceptiveness, emotional fulfillment, and a sense of peace and euphoria that can be different from neurotypical joy. Intense and all-encompassing, it is a deeply felt experience of fulfilment and euphoria that can be overwhelming in its intensity. There is also a flood of awe, gratitude, humility, compassion, bliss, peace, and love. There is complete attentiveness to this experience of fulfilment[224]. One's focus is very deep and is often connected to the "flow" state achieved when completely engrossed. This enhanced attentiveness induces heightened sensory experiences, such as the feel of soft grass, the music of birds and insects in Nature, or a deep, colourful visionary perception. One feels an authentic (unmasked and free from the pressure to conform) belonging in one's self. (Balakrishnan)[225]

In this phase, suffering ceases completely. Then the jiva-ātman realizes,

- I am, therefore I exist.
- I am not the body, or the mind, or the world. I am, and I exist without these identities.
- I am ānanda, unconditional love-bliss, because the ānanda which I experience is just a reflection of the nature of my being.
- I am conscious of my existence as ānanda, and therefore I experience ānanda.
- I am nitya, eternal. [My surviving or dying is not dependent on the existence of my body] (Balakrishnan)[226]

Ānanda is experienced without even a thought, as an instinct. It is an eternal, spontaneous, natural, existential, experiential consciousness of love-bliss. Then one is said to be self-realized, jīvanmukta, stoic, etc.

In this phase, nitya sukha, unconditional love is experienced eternally, and in this experience, there will be no pride but only humility that he was neither responsible for his arrogance nor his wisdom. And that both the ego-actualization and the ego-dissolution are natural processes that will happen to all in time. Only the forms and presentation of ego-actualization and the ego-dissolution for each individual will be different. But the process remains the same.

When this realization has become an instinct, one will be able to entertain any thought of the world without identifying with it. When one doesn't identify with the thought, one stops being affected by it, as one has no expectations from it. This is also called a state of stoicism. One will experience a state of being, where one is 'in unconditional love'. The stoic is stoic only to the drama played outside, and yet he plays his

[224] "mei marathal", a Tamil word, and "bekhudi", a Urdu word, describe a profound attentiveness where one has lost all sense of one's existence in time and space. Only a tremendous flood of emotion of awe or love can induce this shift in consciousness.

[225] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

[226] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

role in the drama out of love for the role he is playing, never for seeking love for the role he is playing. The stoic is full of passion in his efforts – spontaneous, pure, authentic – without expecting or being affected by any outcome of his efforts. This way of living a life is called detached–attachment, where there is no identity-attachment and passionate functional attachment. [Wu-hsin[227] in Zen, Unmani[228] in Yoga]

So, then the being 'in love with' which comes with 'being in love' also comes with conditions: The being 'in love with' should not affect the 'being in love' of one's self or the other's self. This condition becomes the basis of morality, which governs the conduct of a person who has reached this state of samādhi, where one has found complete trust in and therefore completely surrenders to the Existential Unconditional Love which is the nature of his existence in Existence.

In Samādhi, one realizes: Thoughts are not a problem. Thoughts are needed for functioning in life. It is the identification of one's self with the thought that causes suffering. This identification springs from the ignorance of one's reality. And having exhausted all identification with the thoughts, one is free to engage with the thoughts - to function, to play the roles. "So, with the thoughts I function. I play the role; I am not the role. Thoughts lose the power to give me or deny me any identity. I don't seek any validation for who I am from the world or from my being." In Buddhism, the phase of Samādhi is the chanda-desire phase. It is the basis of the Eight-fold path, and is the basis of all morality in any spiritual philosophy. This phase is also called the Middle Way, for it is the phase after exhaustion of all taṇhā-desires and before the dissolution of the cycle of saṃsāra. (Balakrishnan)[229]

Taṇhā desires operate from memory to move from identity-desires to identity-attachment. There is a movement of desire from the past to the future, such as:

- Pain to pleasure
- Insecurity to security
- Fear to power
- Failure to success
- Suffering to happiness

In samādhi, the chanda desires are about being in the now, steadiness, and stillness, and one finds one's self as:

[227] "Wu-hsin" literally means "no-mind" and refers to a state of consciousness free from attachment to thoughts and ego. The name is associated with a supposed ancient Chinese sage, Wu Hsin, whose teachings focus on non-duality. However, it's now known that the figure "Wu Hsin" was created by a modern author, Roy Melvyn, to present teachings from Eastern non-duality philosophies like Zen Buddhism and Taoism.

- **Literal meaning:** In Chinese, "wu" means "no" and "hsin" means "mind".
- **Spiritual concept:** The term refers to a state of deep awareness or enlightenment achieved by transcending the normal, thinking, ego-driven mind.

[228] The word "unmani" literally translates to "no-mind" and represents a state where the mind is free from interference due to ego, which happens when one identifies with his thoughts, leading to bias. Bias affects decision making, due to loss of objectivity and integrity as viveka (discrimination) with vairāgya (dispassion) is suppressed or suspended. "unmani" means a mind where viveka and vairāgya have been honed well and are free to come to the Truth with integrity.

[229] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

- Being in the now, in the present, in the moment
- Being spontaneous
- Being the presence in the present, in attentiveness,
- Being stoic to outcomes, joyous to actions,
- Being in passion, compassion, dispassion,
- Being and experiencing love-bliss, beauty, order, symmetry
- Being in autonomy. An autonomous person is an individual who makes their own decisions and governs their own life, rather than being led by their desires or overly influenced or controlled by others.

The cycle of saṃsāra

- Eliminated all internal and external loci of validation for the external locus of identity: 'Anything that 'I' can see is not the 'I'. [I can see my thoughts in my mind. I am not my thoughts. I can see my body. I am not my body. I can see the world. I am not the world.]
- Internally validated the reality of 'who I am' based on an internal locus of identity reached after having eliminated all external loci of identity. Who one really is, existentially and experientially, is beyond the possibility of one's imagination or thinking. One may have read about who one is, but the experience is not what one can imagine. It wipes out all movement in the mind, and that is not possible to do consciously. [Remember, one is not anything one could have thought of.]

Taṇhā-desire means that everything is not as it should be. So, there is a chase to go from 'what is' to 'what it should be'. This chase signifies movement until the desired object is obtained. Until the object of desire is obtained, there is a fear that it may not be obtained. This fear causes disturbance in the mind. This disturbance is what we call suffering. If the object of desire is obtained, then one finds something else to be not as it should be, and another desire ensues, and another round of suffering follows. (Balakrishnan)[230]

Time, then, is created by memory in the mind. All knowledge is just a memory of the past (time). Time does not exist anywhere else except in one's mind. It does not even exist in a clock. A clock is just hands moving across a dial of numbers. The world has no past or future. It is only in the observer's mind, with memory, with knowledge, that time and mortality (change) exist. (Balakrishnan)[231]

Similarly, desire is a creation of memory, with knowledge and time. If there is no memory, desire cannot arise. There is no comparison possible and hence no judgment of good or bad, inferior or superior. In desiring a future (time) possibility based on a past (time) event, the present is sacrificed, and suffering begins. Fear arises that the future outcome may not be attained or may not be favourable. (Balakrishnan)[232]

So, if one has to transcend desire and time, memory has to be transcended. When memory is transcended, all knowledge is also transcended. One's presence is in the present, and instincts guide the intentions,

[230] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[231] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[232] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

where there is no past or future or any need to know or think. Instinct is developed when the knowledge has become one's nature. One becomes an embodiment of one's wisdom. (Balakrishnan)[233]

Taṇhā-desire is the desire to become. The desire 'to become' means that one is expecting an outcome of being identified as 'the desirable person' by oneself or others in the future.

And therefore, one suffers in the now because:

- The mind is not in the present but in a future outcome. One has no control over the future. One worries and fears that the desired outcome may not happen.
- Even if one thinks the desired outcome is achieved, others may not think so. They may think you were not as good as the other guy. This again leads to suffering
- Others cannot and will not always validate your identity. Even if you have achieved something, they may focus on other shortcomings and call you undesirable.

When one is in love, one is attentive. This attention comes without effort. The mind is in the now, attentive to the moment without the fear of becoming. There is only the being. There is no image to be gained in the future. There is no ego desire, which is nothing but an image of one's self, based on the body-mind-world identities; an image that is in the process of becoming in the future. When one is in love, the whole world may be at war and in chaos, but one doesn't suffer. One can be the stillness, just witnessing the chaos attentively, in love. There is no becoming of the being. There is only the being witnessing the becoming!

Freedom in the ordinary sense is the absence of fear. Freedom in the ordinary sense is when one is not a slave to anyone. A slave has to do the bidding of his master, else he fears retribution. Freedom in the ordinary sense is when one is not a slave to desire. Desire makes one expect a future outcome. There is a fear that the outcome may not be favourable.

Freedom in a deeper sense is when one is in love. Not even in love with someone or something. When one is in love with someone, there is a fear that the lover may spurn one's love. Freedom is when one finds one's being in unconditional love as one's essence. When one is in unconditional love, one knows with absolute certainty that being in love is not just the absence of fear but about realizing that there is, was, and will be nothing to fear as one sees that: There is an underlying order of Existence that is taking care of one's being at all times. This order is founded on unconditional love

The order ensures that one is moving from asat (unstable existence) to sat (stable existence) and from fear to love. Suffering is just a way to enable the movement of the psyche from an unstable existence in fear to a stable existence in love to an eternal existence in unconditional love. So, from the enlightened perspective of the jīvanmukta or from the perspective of the Absolute Existence, there is just orderly movement in love and towards Absolute love.

[233] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

Jīvanmukta describes a state of freedom of being when this dependency on thought for gaining an identity has been entirely cast away. In freedom, "I just am. I am in love without any conditions. I am conscious that I am love".

Kāla (Time) and Yoga (Status of Identity Validation)

Bhakti & Karma Yoga & Jñāna: Since sthira nitya sukha is experienced after falsification of all other possibilities, this is where knowledge becomes unfalsifiable, and one completely trusts and surrenders to the nature of one's existence in and as unconditional love. There is no more any dichotomy between effort and outcome, or between cause and effect. There is just an effortless attentiveness to the experience of unconditional love, where one has transcended the memories of existence in the earlier, falsely assumed identities. (Balakrishnan)[234]

This completes the cycle of saṃsāra.

So why couldn't Existence have created every being wise from the beginning without the need to suffer in ignorance? All that is happening in the cycle of saṃsāra is the negation of false identities. Can not one be taught this self-knowledge from the very beginning to avoid ignorance and consequent suffering?

One's real identity is not just about knowledge. It is about a realization in direct experience. Knowledge does not grant the experience. Knowledge does not cause anything. Knowledge only enables an understanding and acknowledgment of the causes. Until one realizes not as knowledge, where there is doubt, but as direct experience, where there is absolute certainty, one will have to go through the cycle of saṃsāra.

But this movement from ignorance to wisdom is that of Māyā. Māyā does not have the choice but to try out every identity one after another in the sequence of the cycle of saṃsāra and falsify all other identities, and finally validate the real identity in an experience of ānanda. Only then, when self-knowledge becomes self-realization in the perfection of the mind-mirror, will Māyā's task be completed. Māyā's ignorance is being consumed as she moves in saṃsāra. When Māyā has fully consumed herself, Māyā, ignorance dies to Yama, wisdom. [A snake eating its own tail is a symbol known as an Ouroboros[235]. Māyā is represented as a snake in the Vedānta tradition.]

[234] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

[235] A snake eating its own tail is a symbol known as an **Ouroboros**, which represents cyclicality, eternity, and the continuous cycle of life, death, and rebirth. It is an ancient symbol found in various mythologies and philosophies, including Gnosticism, Hermeticism, and alchemy. The image depicts a serpent or dragon forming a circle by eating its own tail, simultaneously representing self-consumption and self-regeneration.

Symbolism and meaning

- **Eternity and cyclicality:** The Ouroboros represents an endless, repeating cycle. It symbolizes the concept of the "eternal return" and the perpetual recreation of the self.
- **Life, death, and rebirth:** The serpent's act of devouring itself and being reborn from itself is a potent metaphor for the cycle of life, death, and the possibility of new beginnings.
- **Unity:** In some traditions, particularly Gnosticism, the symbol represents the unity of all things, both spiritual and material.

There is just one validation cycle left – that of raja yoga. Does the sūkṣma-śarīra exist after the body is given up?

Mahasamādhi, Mokṣa, Nirvāṇa: An Immortal Liberation in a Mortal Death

The physical body is given up. Mokṣa, Freedom, Nirvāṇa, Liberation, Fanaa, Ascension, and Khalis are different names given to the state of the jiva-ātman after the completion of the cycle of saṃsāra, when one has a direct experience of one's eternal existence beyond the body-mind-world framework.

The unconscious is also collapsed after the instincts are transferred to the superconscious.

The ātman has now transcended the mind – the manas, buddhis, and siddhis are collapsed, and the citta - the memories of the conscious, subconscious, and unconscious are collapsed.

The waking, dream, and deep sleep states are all perfected.

Turīya is the state of being of ātman, a state in which the waking, dream, and deep sleep states are transcended, the citta memories - the conscious, subconscious, and unconscious are transcended, and the intellect - the manas, buddhis, and siddhis are also transcended, and kāla time is also transcended. (Balakrishnan)[236]

Māyā does not exercise any control over the jiva-ātman anymore, because she has perfected herself. It releases the jiva-ātman from the cycle of saṃsāra. The jiva-ātman experiences his reality as ātman.

The ātman is given one last look at the superconscious, which has the imprints of the entire life journey of the jiva-ātman from the beginning of time; not just the cycle of saṃsāra as a human being, but the imprints of the journey of the jiva as different life forms in its evolution towards becoming the One! (Balakrishnan)[237]

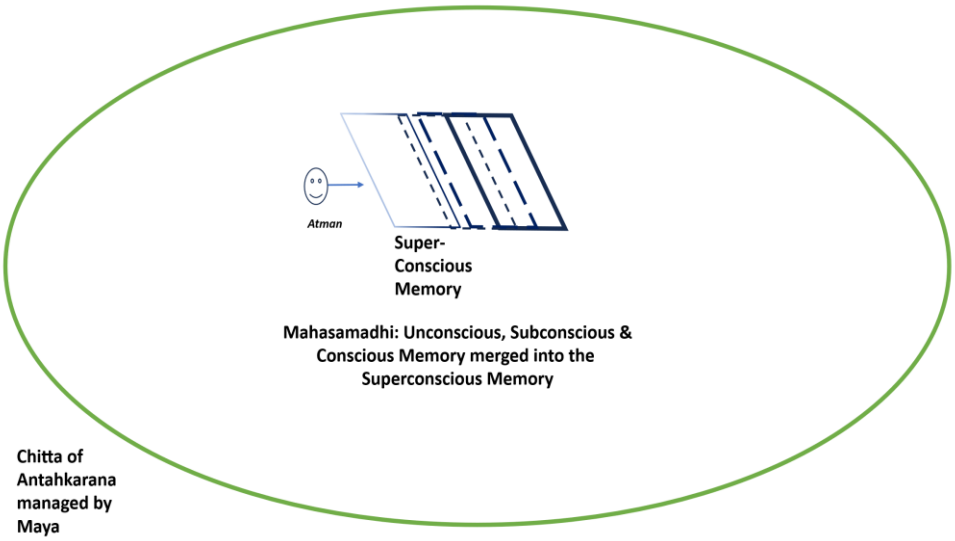

Figure 13: The Conscious and Subconscious, and Unconscious memories are

[236] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*
[237] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

collapsed into the Superconscious memory.

Table 4 below shows the detailed process map by which Māyā completes the cycle of saṃsāra.

Cycle of Samsara: Chakra-Guna-Samskara-Vasana-Loka-Patala

Chakra Roman Number	Legs of Journey	Charka Name	Identity-desire	Nature of Identity-desire	Identity-attachment (Psychological State of Existence)	Guna (Quality)	Speed of Rotation	Orientation of identity-desire	Locus of Validation	Locus of Identity	Sufficiency Principle	Antahkarana	Chitta	Chakra - Kala	Yoga	Yoga - Outcome
	1	Configuration Phase for Onward Journey	All-identity-desires (uncoordinated)	Tanha (+)	I don't know who I am	Uncoordinated Gunas	Goal setting; High (Max Potential)	Attachment / Push (+)	Extrinsic	Extrinsic		Blank	Blank	Patala: Atala	No Yoga	
I	2 & 3	Muladhara (Root Chakra)	Body-identity-desire	Tanha (+)	I am the Body (Surviving)	Primary: Tamas (+)	Low	Attachment / Push (+)	Extrinsic	Extrinsic	Necessary	Manas (+)	Conscious (+)	Loka: Bhu	Bhakthi + Karma	Validated
	4 & 5			Tanha (+)							Necessary, Not Sufficient		Conscious (+) + Subconscious (+)	Patala: Vitala	Jnana + Raja	Falsified
II	6 & 7	Svadhishthana (Sacral Chakra)	Mind-identity-desire + Body-identity-desire	Tanha (+)	I am the Knower (Knowing) + I am the Body	Primary: Sattva (+) + Secondary: Tamas (+)	Medium	Attachment / Push (+)	Extrinsic	Extrinsic	Necessary	Buddhi (+) + Manas (+)	Conscious (+) + Sub-Conscious (+)	Loka: Bhuvar	Bhakthi + Karma	Validated
	8 & 9			Tanha (+)							Necessary, Not Sufficient			Patala: Sutala	Jnana + Raja	Falsified
III	10 & 11	Manipura (Solar Plexus)	World-identity-desire + Mind-identity-desire + Body-identity-desire	Tanha (+)	I am the King (Dominating) + I am the Knower + I am the Body	Primary: Rajas (+) + Secondary: Sattva (+) + Tertiary: Tamas (+)	High (Maximum)	Attachment / Push (+)	Extrinsic	Extrinsic	Necessary	Siddhi (+) + Buddhi (+) + Manas (+)	Conscious (+) + Subconscious (+) + Unconscious (+)	Loka: Svarga	Bhakthi + Karma	Validated
	12 & 13			Tanha (+)	I am **not** the Body + I am **not** the Knower + I am **not** the King	Withdrawal of Gunas (Qualities) starting with Tamas(+) then Sattva (+) and finally Rajas (+)					Unnecessary, Not Sufficient			Patala: Talatala	Jnana + Raja	Falsified
IV	14	Anahata (Heart)	No identity desires		No identity	Nirguna (No qualities)	One	None	None	None			Unconscious (+) instincts			
IV	1	Anahata (Heart) - Configuration Phase for Return Journey	No identity desires (uncoordinated)		No identity (uncoordinated)	Uncoordinated Nirguna (No qualities)	Goal setting; One (Max Potential)	Detachment / Pull (-)	Intrinsic	None			Unconscious (+) instincts		No Yoga	
V	2 & 3	Vishuddha (Throat Chakra)	World-identity-desire	Tanha (-)	I am the Redeemer (Reedeming)	Primary: Rajas (-)	High (Maximum)	Detachment / Pull (-)	Intrinsic	Extrinsic	Necessary	Manas (-)	Conscious (-) + Unconscious (+) instincts	Loka: Mahar	Bhakthi + Karma	Validated
	4 & 5			Tanha (-)	I am **not** the Redeemer						Unecessary, Not Sufficient		Conscious (-) + Sub-Conscious (-) + Unconscious (+) instincts	Patala: Mahatala	Jnana + Raja	Falsified
VI	6 & 7	Ajna (Third Eye)	Mind-identity-desire + World-identity-desire	Tanha (-)	I am the Knower of my self, the chose one (Knowing) + I am **not** the Redeemer	Primary: Sattva (-) + Secondary: Rajas (-)	Medium	Detachment / Pull (-)	Intrinsic	Extrinsic	Necessary	Buddhi (-) + Manas (-)	Conscious (-) + Sub-Conscious (-) + Unconscious (+) instincts	Loka: Jana	Bhakthi + Karma	Validated
	8 & 9			Tanha (-)	I am **not** the Knower of my self, I am not the chosen one + I am **not** the Redeemer						Unecessary, Not Sufficient			Patala: Rasatala	Jnana + Raja	Falsified
VII	10 & 11	Sahasrara (Crown)	Body-identity-desire + Mind-identity-desire + World-identity-desire	Tanha (-)	I am the Body (Dying) + I am **not** the Knower of my self + I am **not** the Redeemer	Primary: Tamas (-) + Secondary: Sattva (-) + Tertiary: Rajas (-)	Low	Detachment / Pull (-)	Intrinsic	Extrinsic	Necessary	Siddhi (-) + Buddhi (-) + Manas (-)	Conscious (-) + Subconscious (-) + Unconscious (+) instincts	Loka: Tapo	Bhakthi + Karma	Validated
	12 & 13			Tanha (-)	I am **not** the Body + I am **not** the Knower of my self + I am **not** the Redeemer	Withdrawal of Gunas (Qualities) starting with Rajas (-), then Sattva (-) and finally Tamas (-)					Unecessary, Not Sufficient			Patala: Patala	Jnana + Raja	Falsified
	14	Samadhi	Functional Desires	Chanda	I am ananda. [Jivan-mukth. Stoic]	Nirguna (Manifested qualities coalesced into One)	One	None	Intrinsic	Intrinsic	Fulfillment in Conscious State	Perfect, Paripuma of Conscious State	Unconscious (+) instincts + Unconscious (-) instincts	Loka: Satya	Bhakthi + Karma + Jnana	Stitha-Prajna, Knowledge that is eternally unfalsifiable
	Mahasamadhi	No desires	Sunyata	Purnata	Nirguna (No manifested qualities)	One	None	None	None	Fulfillment of all three states	Perfect, Paripuma of all three states	Turiya: Suoerconscious	Loka: Brahma	Raja	Satya, Truth - Being, Existing, Flowing

Table 4: The Detailed Process Map of the Cycle of Saṃsāra

Review of the Attachment & Detachment Phases of the Cycle of Saṃsāra

One experiences suffering in life, both in the attachment and in the detachment phases. There is also happiness of equal measure. But the suffering is remembered, the pain is etched in memory longer.

In the attachment phase, one suffers when one is denied what one desires in the world. But one keeps going about pursuing one's desires in life. Hope is not extinguished. Desires only change. One has a purpose in life in this world – to remain hopeful and to further one's efforts to attain the object of one's desires.

In the detachment phase, one suffers when one's love is spurned, rejected, and betrayed by the world. Desires are extinguished. One loses the hope to desire. One seeks to extinguish one's self from the world. There is an existential crisis for the self. One knows the love that one felt in one's heart for the world. That love is emptied. A deep existential distrust fills the heart. There is nowhere to go but to beseech the only remaining entity to redeem one's self from this suffering, which one knows cannot be resolved in the mere death of the body. There is a silent plea to God, just as whispers of thought, and not as sounds uttered with the mouth, "O God! Hast thou forsaken me?"

Then, as an answer to the complete rejection of all assumed identities, hopes, and desires, Existence, or God, bathes the self in the most beatific, pure, unending, eternal love. And then, only then, one knows that the suffering was necessary to be redeemed in unconditional love. Suffering has meaning. Suffering was necessary. Suffering leads one to the love one is. Suffering liberates one from seeking love in this world. And then one asks, "Where was the suffering? It was all an act of love, in love, by love, for love."

Only then, at the last stages of the detachment phase, does one begin to know the purpose of one's existence in Existence and the purpose of suffering. Only then does one see the real harmony of order behind the illusion of chaos.

Until then, one denies the existence of Existence. Until then, one seeks that others acknowledge one's existence as a mere identity that one has gained in the world, without knowing that one's existence was in an Existence of unconditional love. The suffering was necessary to remove the ignorance that love was to be sought and gained in the world!

No pain, no gain is a phrase appropriate for the desires of the material body and the material world. Pain can cause suffering. But pain is not suffering. And suffering of unmet desires is not the same as the suffering of the loss of trust in one's desire to hope. And without knowing the suffering of existential distrust, one cannot know the love of Existential Trust! In the light of the love of Existential Trust, the suffering is extinguished, and yet it is seen as just a way of the love of Existence!

A review of the journey of many lives in the attachment and detachment phases to complete the cycle of saṃsāra is given below in Table 5:

Table 5: Review of the Attachment and Detachment Phases of the cycle of saṃsāra

	Attachment Phase (also called the phase of descension)	**Detachment Phase (also called the phase of ascension)**
Extrinsic Locus of Validation	Extroverted Phase; Outside–in validation of identity	Introverted Phase, Inside-out validation of identity
Enchantment / Disenchantment	Ignorance of the self & Enchantment with the world	Disenchantment with the world & Wisdom of the self
Locus of Love	Being **in love with** one's conception of the world to attain the love and attention of the world of others	Being **in unconditional love** in the reality of one's self. Being in love with the world is optional. One's being is in love, and one enjoys one's solitude. One chooses one's relationship with others based on one's passion (arts, music, etc) or out of compassion (healer, teacher, etc). If one has to perform a role in society, one does it out of a sense of duty towards the role, rather than for gaining an identity from the role or from any reward expectations.
Way of life	Capitalism: Uncompassionate, Unempathetic, Transactional, Reciprocal way of life; Trading with a profit motive; Utilitarianism;	Communism: Relationship, Compassion, Empathy, Sharing as a way of life with love as the foundation, Caring
Quantitative vs Qualitative	Largely Quantitative Driven: One's identity and status in a power-based hierarchy is driven by quantitative measures: money, number of followers, and wealth as the quantification of possessions	Largely Qualitative Driven: Principles, values, beauty, love, empathy, compassion, mutual well-being, peace.
Psychology of the being	Phase of Narcissism: The jiva-ātman moves from being an uncoordinated psychopath to becoming a coordinated sociopath The atala patala phase can be seen as a form of malignant narcissism	Phase of Humility: The jiva-ātman moves from a being in uncoordinated, ignorant autistic joy to a being in a coordinated, enlightened unconditional love-bliss

	The vitala patala phase can be seen as a form of communal narcissism The sutala patala phase can be seem as a form of covert narcissism The svarga loka and talatala phase can be seen as a form of grandiose, overt narcissism	
Modern Psychology	Largely Dopamine-led cycle; reward as the driver	Largely Serotonin-led cycle; love-bliss-peace as the driver
Mind	Use of the mind's abilities to accumulate identities	Use of the mind's abilities to transcend the mind[238]
Nature of suffering	One suffers when one is denied what one desires in the world	One suffers when one's love is spurned, rejected, and betrayed by the world
Purpose	Self-Actualization in Power: Assertion of the Individual at the Cost of the Community: Gain of body, mind, and world identities and the abilities to control and manipulate others through the use of might and deceit, and through the use of fear to oppress and favors to tempt	Self-Dissolution in Love: Community Welfare at the Cost of the Individual. It is only in the Ajna Chakra phase and beyond that the individual realizes that he is part of a greater Whole beyond the community. Loss of body, mind, and world identities, and the ability to seek love within and express love in the world as passion, compassion, and dispassion.

[238] In the Vedānta tradition, the intellect is compared to the pole a pole-vaulter, the jiva-ātman uses to vault over and transcend the bar, mind. A pole-vaulter has to let go of the pole to vault over! He has to let go of the pole when it has served its purpose of letting him leap, but just at the right moment, when he can leap over and transcend the bar!

Adapted Carl Jung's Model of Psychological Evolution

Carl Jung's model of psychological development, known as individuation, is based on a spiritual life cycle rather than a physical one.

While physical aging is a prerequisite for reaching certain stages, the core of his theory focuses on the inner, spiritual, and psychological journey toward wholeness.

Here is how his model emphasizes the spiritual aspect:

- **Individuation:** The central concept is individuation—a lifelong process of realizing and integrating one's conscious and unconscious aspects to become a whole, unique person (the Self). This is fundamentally a spiritual quest for meaning. Jung felt that the human psyche needs contact with something greater than itself—what he called the numinous. He believed that religious and spiritual practices provide a framework for engaging with these powerful unconscious forces and help regulate the psyche, creating a sense of balance.
- **Stages of Life:**

Jung described development in stages:

- **Childhood and Youth:** Focus on basic needs, adaptation, and developing the ego and persona (public self).
- **Middle Life:** This is the most critical spiritual phase. Jung believed that around age 35–40, a significant "reversal" occurs [1]. The focus shifts from external achievements (career, family, physical pursuits) to internal, spiritual exploration and finding deeper meaning in life [1, 2].
- **Old Age:** Focus on contemplation, integration of the unconscious, and preparation for death, which he viewed as the ultimate spiritual transition.

Therefore, physical maturity provides the setting, but the actual journey of Jungian development is one of spiritual transformation and may be seen as a spiritual life cycle.

Jung distinguished psychological rebirth from literal reincarnation, which he viewed as a metaphysical question beyond the scope of empirical psychology. He maintained an agnostic stance on the metaphysical reality of life after death. His views may be summarized as below:

- Agnostic view: He openly stated that "Nobody knows whether there is reincarnation, and equally one does not know that there is none".
- Psychic reality: When people had memories of past lives or ancestral experiences, Jung interpreted these as manifestations of the collective unconscious, where universal archetypal patterns and images are accessed, rather than proof of literal, historical reincarnation.
- Continuity of Psyche: Based on his own near-death experiences and dreams, Jung did speculate that the psyche, particularly the unconscious part which exists outside of time and space, might continue after physical death, but he did not assert a belief in traditional reincarnation.

- **Focus on Meaning:** Unlike purely biological models, Jung's framework is concerned with teleology—the idea that the psyche moves toward a purpose or end goal (self-realization), which is a deeply spiritual notion.

Key components of Jung's model include the structure of the psyche (ego, personal, and collective unconscious), archetypes (universal symbols like the persona, shadow, anima, and animus), and personality types (based on introversion/extroversion and four functions: thinking, feeling, sensation, and intuition). Jung's model proposes that development is a dynamic process where consciousness is enriched by integrating unconscious material to form a more complete sense of self. Jung describes the key elements of personality as below:

Extroversion (E) vs Introversion (I): The extraverted attitude is characterized by an outward flow of personal energy toward the external world of objects, people, and activities. The introverted attitude is characterized by an inward flow of personal energy focused on subjective psychic content, such as internal thoughts, feelings, and reflection. The fundamental difference for Jung is the source and direction of one's primary motivation and energy, not simply social behavior. While modern usage often equates extraversion with sociability and introversion with shyness, Jung emphasized the orientation of the psyche's energy. [This is the same as the locus of validation, and the phases of extroversion in the attachment phase, and the phases of introversion in the detachment phase in the saṃsāra model.]

Sensing (S) vs. Intuition (N): These two functions are ways of perceiving or gathering information from the world.

- Sensing focuses on concrete, tangible information gathered directly through the five senses. A person using this function is detail-oriented, practical, and focused on the present moment and physical reality.
- Intuition focuses on abstract patterns, possibilities, underlying meanings, and future potential, often through "hunches" or unconscious insights. A person using this function looks beyond what is immediately present to see the bigger picture.

Thinking (T) vs. Feeling (F): These are rational functions that are the ways of making decisions and judgments about the information gathered. They are considered "rational" because they involve a process of reasoning or evaluation that leads to a conscious judgment.

- Thinking is concerned with objective analysis, logic, and consistent principles. A person using this function makes decisions based on whether something is logically sound or makes sense from a rational standpoint.
- Feeling focuses on subjective considerations, personal values, and the emotional impact of decisions. A person using this function prioritizes the worth or value of something to themselves or others. It is still a judging function, but the criteria are value-based rather than logic-based.

Conceptual description of reality: The phase of sensing (S) corresponds to the less abstract and more concrete description of reality that is seen. Sensing (S) is more appropriate for providing descriptions of the phenomenon that can be empirically observed. The source of sensing (S) function is the phenomenon.

The phase of intuition (N) corresponds to the conception of the causal explanation of the phenomenon as a belief or a hypothesis that emerges in the mind.

Validation of the conception with reality: Validation of conception as a feeling (F) is about subjective considerations for validation. In this phase of validation, one is likely to feel, "I must be right". The emphasis during feeling (F) validation is that I, the subject, must have formed the right conception. This corresponds to the bhakti and karma yoga phases. Validation of the conception as a thinking (T) is about objective considerations for validation. In this phase of validation, one is likely to think, "My belief has to be justified based on reason and evidence". The emphasis during thinking (T) validation is that the belief has to be justified.

It may be generally seen that,

- Whenever there are no contradictions between the conception of reality and reality, the validation is based on feeling (F)
- Whenever there are contradictions between the conception of reality and reality, the validation or falsification is based on thinking (T)

In the case of spiritual evolution, it is the conception of the answer to the question of 'who am I?" that has to be validated in the reality of the self. The spiritual evolution model of the cycle of saṃsāra, encompassing chakras, gunas, saṃskāras, and vāsanās, is not significantly different from Carl Jung's model.

Chakra, or Personality Type, or Ego Identity, is a combination of

- **Gunas (Nature of Identity-desires and Identity-attachments):** These pertain to the body (tamas), mind (sattva), and world (rajas) gunas in the attachment and detachment phase.
- **Saṃskāras (Intellectual development):** Intuition (N) or Sensing (S)
- **Vāsanās:** Extroversion (E) or Introversion (I)
- **Kāla and Yoga:** Thinking (T) or Feeling (F)

[This synthesis may depart from Carl Jung's definitions. The idea here is only to show overlaps between models. One may use any other terminology as may be appropriate.]

Carl Jung's model, adapted to the saṃsāra model, may be framed as below, as depicted in Table 6.

Adapted Carl Jung Model of Psychological Evolution

Chakra Roman Number	Legs of Journey	Charkra Name	Chakra - Kala	Guna (Quality)	Locus of Validation	Identity-desire	Source of Conception (S-Phenomenon, N Mind)	Yoga - Validation Process	Prsonality Type (Ego Identity)	Yoga - Outcome
	1	Configuration Phase for Onward Journey	Patala: Atala	Uncoordinated Gunas	Extroverted (E)	All-identity-desires (uncoordinated)	Sensing (S)	Thinking (T)	EST - uncoordinated (world + mind + body)	
I	2 & 3	Muladhara (Root Chakra)	Loka: Bhu	Primary: Tamas (+)	Extroverted (E)	Body-Identity-desire	Intuition (N)	Feeling (F)	ENF (body)	Validated
	4 & 5		Patala: Vitala				Sensing (S)	Thinking (T)	EST (body)	Falsified
II	6 & 7	Svadhishthana (Sacral Chakra)	Loka: Bhuvar	Primary: Sattva (+) + Secondary: Tamas (+)	Extroverted (E)	Mind-Identity-desire + Body-Identity-desire	Intuition (N)	Feeling (F)	ENF (mind + body)	Validated
	8 & 9		Patala: Sutala				Sensing (S)	Thinking (T)	EST (mind + body)	Falsified
III	10 & 11	Manipura (Solar Plexus)	Loka: Svarga	Primary: Rajas (+) + Secondary: Sattva (+) + Tertiary: Tamas (+)	Extroverted (E)	World-Identity-desire + Mind-Identity-desire + Body-Identity-desire	Intuition (N)	Feeling (F)	ENF (world + mind + body)	Validated
	12 & 13		Patala: Talatala	Withdrawal of Gunas (Qualities) starting with Tamas(+) then Sattva (+) and finally Rajas (+)			Sensing (S)	Thinking (T)	EST (world + mind + body)	Falsified
IV	14	Anahata (Heart)		Nirguna (No qualities)	Extroverted (E)	No identity desires	Intuition (N)	Feeling (F)	ENF (none)	
IV	1	Anahata (Heart) - Configuration Phase for Return Journey		Uncoordinated Nirguna (No qualities)	Introverted (I)	No identity desires (uncoordinated)	Sensing (S)	Thinking (T)	IST- uncoordinated (none)	
V	2 & 3	Vishuddha (Throat Chakra)	Loka: Mahar	Primary: Rajas (-)	Introverted (I)	World-Identity-desire	Intuition (N)	Feeling (F)	INF (world)	Validated
	4 & 5		Patala: Mahatala				Sensing (S)	Thinking (T)	IST (world)	Falsified
VI	6 & 7	Ajna (Third Eye)	Loka: Jana	Primary: Sattva (-) + Secondary: Rajas (-)	Introverted (I)	Mind-Identity-desire + World-Identity-desire	Intuition (N)	Feeling (F)	INF (mind + world)	Validated
	8 & 9		Patala: Rasatala				Sensing (S)	Thinking (T)	IST (mind + world)	Falsified
VII	10 & 11	Sahasrara (Crown)	Loka: Tapo	Primary: Tamas (-) + Secondary: Sattva (-) + Tertiary: Rajas (-)	Introverted (I)	Body-Identity-desire + Mind-Identity-desire + World-Identity-desire	Intuition (N)	Feeling (F)	INF (body + mind + world)	Validated
	12 & 13		Patala: Patala	Withdrawal of Gunas (Qualities) starting with Rajas (-), then Sattva (-) and finally Tamas (-)			Sensing (S)	Thinking (T)	IST (body + mind +world)	Falsified
	14	Samadhi	Loka: Satya	Nirguna (Manifested qualities coalesced into One)	Introverted (I)	Functional Desires	Intuition (N)	Feeling (F)	INF (none)	Validated & Eternally Unfalsifiable

Table 6: Synthesis of Jungian models and Cycle of Saṃsāra

Chakras and Yugas: The Individual and Collective State of Being

Our minds don't reflect the world outside. The world outside is a reflection of our minds!

Chakras represent the psychological realm of the individual human being. The actions of an individual are an expression outside of the psychological conditions inside. These psychological conditions are determined by Māyā and are presented to the individual as 'the Will'. The individual's purpose in life then becomes fulfillment of the will presented to him. [The 'individual' is just the manifestation of the ignorant Māyā seeking to perfect herself. The jiva-ātman just experiences Māyā's purposes as a reflection in the imperfect mind-mirror and takes it to be his own. The reality of the jiva-ātman is the ātman, which has no purpose because its nature is ānanda.]

The modern psychological view is, as we have seen, an outside–in view. In other words, the conditions of society, the conditions of the brain, and the conditions of nurturing determine the individual's psychology, which then determines his expressions in the world. The modern view of the human being is that man is free to choose his will.

That's not the spiritual view, though. The will is the identity-desire in each chakra. The identity-desires are also ordered to be consistent with the psychological development of the antahkarana in each chakra. The human being is merely learning to satisfy the will of Māyā. The human being cannot will his will. The idea of free will is that the human being has to act following the will of Māyā and not surrender his actions to the will of other human beings or society, who may try to enslave his will by offering favours or inducing fear. But in reality, there is no will, but Maya's will, and the actions of surrendering to fear or succumbing to favors are also part of Maya's will.

The spiritual view is that man's purpose in life is to act according to the will in each chakra, go through each chakra, until one completes the cycle of saṃsāra, and knows his reality and the reality of Existence. It is the dharma of man, his righteous duty to abide by the will. If he does not act to fulfill the will in each chakra, he suffers. He suffers until he fulfills.

In other words, there is no concept of 'will' in determinism. There is only a deterministic process that is running its course. This is the idea of determinism that the nature of one's desires and actions is pre-determined and that what one does at any moment is pre-destined. (Destiny is not just about the rewards of effort, but that the state of being and acting is pre-destined.) (Balakrishnan)[239]

The cycle of saṃsāra is also called the kāla chakra, "wheel of time", or the dharma chakra, "wheel of dharma", and is stated in the Rigveda hymn verse 1.164.11 as below:

dvādaśāraṃ nahi taj jarāya varvarti cakram pari dyām ṛtasya |

ā putrā agne mithunāso atra sapta śatāni viṃśatiś ca tasthuḥ ||

By Universal-Order {ṛtasya} this wheel {cakram} of time, having twelve spokes {dvādaśāraṃ} revolves {varvarti} in the sky {dyām}, without ever weakening or aging {nahi taj jarāya}. O Agni {agne}, On it stays, in pairs {mithunāso}, 720 sons {putrā}.Twelve-spoked wheel: the twelve signs of the zodiac:

[239] Ramaswamy Balakrishnan, *Māyā: Consciousness Causal Model of Psychological Existence*

dvādaśāram dvādaśa saṅkhyākameṣādirāśyātmakaiḥ māsātmakairvā araiḥ rathāṅgāvayavayairyuktam; the term may also mean twelve months; seven hundred and twenty children: nights and days; three hundred and sixty of each.[240]

The evolution of the jiva-ātman, the individual human psyche through the chakras in kāla time (Figure 14), and the evolution of the jagat, the collective human psyche through yugas, epochs of kāla time (Figure 15), have the same characteristics.

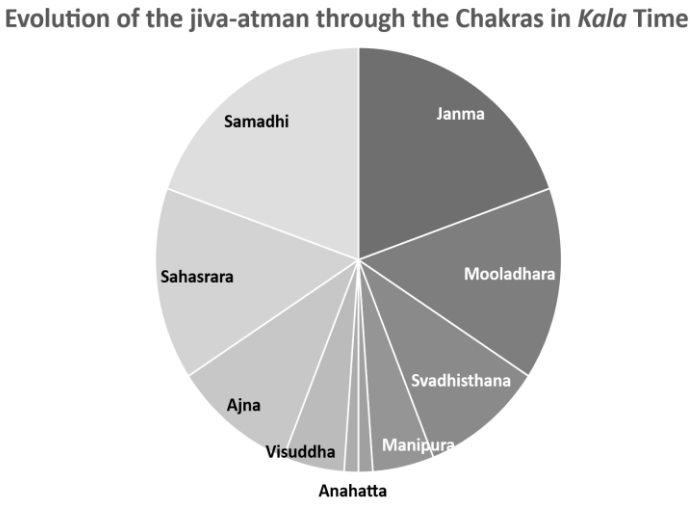

Figure 14: Evolution of the Jiva-atman in Kala Time

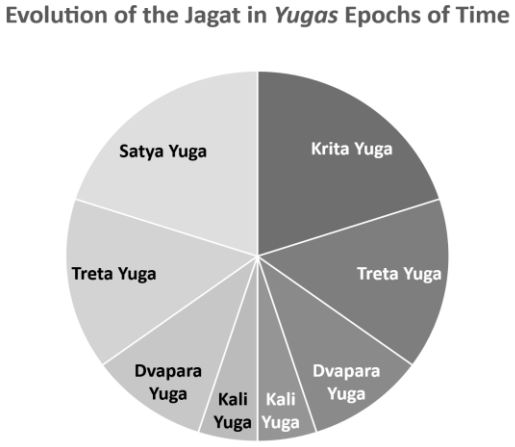

Figure 15: The Evolution of the Jagat in Yugas, Epochs of Kala Time

[240] Source: Wikipedia

The jagat goes through a yuga cycle, which represents humanity's collective spiritual, psychological, and existential evolution. The Yugas follow the order below[241] as shown in Table 7.

Chakra	Chakra Characteristics	Yuga	Yuga Characteristics	Span (Years)
Janma (Initiation Phase)	Ignorance	Krita Yuga	Epoch of the birth of the human species, Epoch of Ignorance	864,000
Mooladhara	Tamas (+), Body-identity, Survival	Treta Yuga	Epoch of survival	648,000
Svadhisthana	Sattva (+), Mind-identity, Knowledge	Dvaparā Yuga	Epoch of knowledge, the rise of civilizations	432,000
Manipura	Rajas (+), World-identity, Power	Kali Yuga	Epoch of conflict, conquest, and war for ambition, wealth accumulation, and domination	216,000
Anahatta	Phase of Inflexion	Phase of Inflexion		
Anahatta	Phase of Inflexion	Phase of Inflexion		
Visuddha	Rajas (-), World-identity, Redemption	Kali Yuga	Epoch of conflict, conquest, and war for passion, wealth redistribution, and equality	216,000
Ajna	Sattva (-), Mind-identity, Self-Knowledge	Dvaparā Yuga	Epoch of spiritual seeking and compassionate societies	432,000
Sahasrara	Tamas (-), Body-identity, Death	Treta Yuga		648,000

[241] Source of Yuga Spans: Wikipedia

			Epoch of simple lifestyles and enlightened thinking	
Samādhi (Completion Phase)	Wisdom	Satya Yuga	Epoch of the Dissolution of the human species, Epoch of Peace, Love & Liberation	864,000

Each yuga cycle lasts for 4,320,000 years. We are currently in Kali Yuga. Kali Yuga, which corresponds with the Epoch of conflict, conquest, and war for ambition, wealth accumulation, and domination, started in 3102 BC, which means we are about 5000 years into this phase of Kali Yuga, which spans 216,000 years.

There are 71 Yuga Cycles (306,720,000 years) in a manvantara, a period ruled by Manu, who is the progenitor of mankind. There are 1,000 Yuga Cycles (4,320,000,000 years) in a kalpa, a period that is a day (12-hour day proper) of Brahma, who is the creator of the planets and first living entities. There are 14 manvantaras (4,294,080,000 years) in a kalpa, with a remainder of 25,920,000 years assigned to 15 manvantara-sandhyas (junctures), each the length of a Satya Yuga (1,728,000 years). A kalpa is followed by a pralaya (night or partial dissolution) of equal length, forming a full day (24-hour day). A maha-kalpa (life of Brahma) lasts for 100 360-day years of Brahma, which lasts for 72,000,000 Yuga Cycles (311.04 trillion years) and is followed by a maha-pralaya (full dissolution) of equal length.

Kāla Time

Let’s consider the concept of distance. Does distance exist outside or in the mind of the observer?

Distance doesn't exist outside. Space exists outside between two objects. Distance is a measure of the space between two objects. An interested observer is necessary to measure distance with reference to a standard. Distance exists only in the mind of the observer.

Now let’s consider kāla time. What are the necessary conditions for kāla time to exist?

- Movement of objects in the space outside. This is called relative change.
- There is an order to the relative change. [Randomness in movement without any order is impossible to comprehend, and will be of no interest to an observer.]
- Memory that records the movements.
- A regular pulse or a regular beat or a rhythm (a standard of reference) against which the rate of movement (or rate of change) can be compared.
- An interested observer to witness the relative movement in memory.

If any one of the above conditions doesn't exist, then time, which is a measure of the rate of relative change, cannot exist.

Time doesn't exist outside. Time is a measure of the rate of relative change by an interested observer with reference to a regular beat, a standard. Relative change exists when two objects move relative to each other. Memory is needed to observe a change in movement. Order in the change in movement is necessary for an observer to be interested in the movement. Time, then, is created by memory in the mind. If there is no order in the change, there is no need for time. If there is no observer, there is no one to measure the rate of the ordered change.

Time does not exist anywhere else except in one's mind. It does not even exist in a clock. A clock is just hands moving across a dial of numbers. The world has no past or future. It is just objects in motion in space.

[The clock is not to be confused with time. A counter that can count (knowledge of numbers and memory to add 1 to the previous count and store the count), the number of regular beats is also not time. Time is the meaning we give to the 'movement in memory' with reference to the clock or counter. Without a conscious observer and memory, time ceases; the clock continues moving or the counter continues counting the beats!]

Thought experiment: Imagine you are just a conscious eye, with memory, which can see out into dark space where there is nothing else but you, this one eye. And you can't see yourself. You only see a dark space stretched out infinitely.

Would you be able to know what you see? Will the description have any relevance? Will words, sounds, and numbers have any relevance?

Would you be able to know where you are? Will space have any relevance?

Would you be able to know when you were seeing? Will the past or the future have any relevance?

Would you be able to know where the dark space came from? Does origin have any relevance in infinite changelessness? Will memory or knowledge have any relevance?

If there is one object in that infinite dark space, then the question 'what do I see?' has some meaning. Because you see a finite object in infinite space. If it is stationary, then time doesn't come into the picture.

The question of where and when the object is located or came into being still has no meaning. Even if the object is moving, you cannot say whether it is moving or you are moving.

It is only when you can observe two objects moving relative to each other that there is a possibility to define the coordinates of 'where and when' relative to your position or relative to the position of one of the other objects.

And without memory, even this is not possible. There is no possibility of past or future without memory. There is no possibility of any knowledge, which is just a causal explanation of the record in memory of the relative change, which is in order with respect to a standard beat of a clock.

The Māyā in our minds provides the:

- Memory: Citta
- Inbuilt natural counter that provides this regular beat

- Intellect: manas, buddhi, and siddhi to detect the order and be interested in knowing the order.

Māyā also runs, controls, and supervises the entire sūkṣma-śarīra in line with the underlying order of its design. Without Māyā and the underlying order of the design of the universe, the interested observer, the jiva-ātman, will not be able to make any sense of the space and time of Existence and the reality and purpose of his existence in Existence!

Perhaps, the underlying order of the design of Māyā was only to provide the apparatus and the process to enable the interested observer, the jiva-ātman, to know about his existence in Existence to make sense of his existence in Existence!

And Māyā also provided the jiva-ātman, the observer, with the desire to know, as a will, which made him the interested observer. And his interest was in his desire to move from an ignorant state of existence, which caused suffering, to an enlightened state of existence to cease his suffering and experience eternal ānanda love-bliss.

It is possible that Consciousness can exist without a universe of unconscious things.

But is it even conceivable that a universe of unconscious things exists in perfect order first, which then causes beings with consciousness? The modern materialists would have scoffed at this question. But for some inexplicable reason, the neo-modern materialists seem to believe this conception. They need to find a way to validate their belief. Perhaps their exclusive study of matter over centuries, dismissing the possibility of the existence of any non-material being, including themselves, has made them biased and dogmatic.

Brahman, God, The Absolute Causal Entity

If the universe is seen as a creation, then that which exists, which creates, and in which the illusion of the universe is created, sustained, and destroyed, is the Absolute Causal Entity

In Vedānta, this Absolute Causal Entity is called Brahman. The universe emerges from the Brahman and is dissolved into the Brahman. Then there remains only Brahman, the Absolute Causal Conscious Entity.

But for the Brahman, the Absolute to then manifest another universe within it, another illusion has to be conceived and given shape. It means a change of the Brahman, the Absolute, from the unmanifested reality as Existence to the created universe that is manifested in Existence

That change itself is an essential characteristic of Brahman, the Absolute, which is managed by His Māyā, which has two properties:

- **clock** - a regular pulse or throb with a counter (the basis of quantitative numbers and order)
- **creativity** – siddhi, the intellectual ability to conceive and design (the basis of qualitative language and sound), and citta, memory.

The uncovering of that qualitative design, which is of perfect order, is the basis of knowledge. Knowledge is nothing but a qualitative and quantitative description of the underlying design. In our knowing, the Māyā of the manifested universe is uncovered.

The Absolute has to have at least the following essential elements and properties:

- **Existence:** that which ultimately exists.
- **Consciousness:** that which ultimately illuminates the thoughts; the illumination is necessary to behold ideas and create.
- **Ānanda:** that Love-Bliss which is the basis of all emotions.
- **Material energy:** that which is the ultimate form of all matter.
- **Spiritual energy:** that which is the source of energy for Māyā.
- **Infinity (Infiniteness)**: that which represents the all-pervasive nature of Existence, from which all that is finite is born.
- Eternity: that which represents the timeless nature of Existence, from which finite time is born.
- **Absolute Zero (Nothingness)**: that which represents the absolute stillness of the Māyā of Brahman, the absolutely perfect mind-mirror. [This is not the number zero, but an unquantifiable state of perfection or stillness; unquantifiable as all quantities arise from this Absolute.]
- **Māyā:** that which represents the underlying order and creativity

- the clock with a counter for order,

- siddhi intellect and citta memory for creativity.

So, Brahman, the Absolute is Existence, Consciousness, and Love-Bliss or Sat, Chit, Ānanda with ‘potential energy’ when unmanifested. It is Sat-Chit-Ānanda with ‘kinetic energy’ when it manifests as a universe.

Brahman, the Absolute, with His perfected Māyā, creates, sustains, and dissolves the universe of material things and conscious beings.

The Brahman’s Māyā’s clock is that by which we see order in the universe - in the motion of stars and planets, in music, in the human body, in seasons, in the hatching of eggs, in migration patterns of birds, etc. It is the basis of the perfect order of the design of the universe that allows us to know.

It is Brahman’s Māyā’s clock that manages the dreaming, waking, and deep sleep states of Brahman.

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The Lords of Brahman's Dreaming, Waking, and Deep Sleep States

Brahman has one state of existence, Turīya, in which the three states of dreaming, waking, and deep sleep exist. Turīya is a state of the perfected mind-mirror of Māyā. Brahman is that Absolute Causal Conscious Entity which has eternally transcended His Māyā, consisting of the siddhi intellect, citta memory, and the clock-counter, and is in eternal, changeless ānanda. Brahman's Māyā, with the clock-counter, manages the three states of dreaming, waking, and deep sleep of Brahman.

In His dreaming state, using the creativity of His Māyā, Brahman creates the design of the universe, Māyā-universe.

[Brahman just provides the reference signal of absolute stillness. Brahman's Māyā does the job of conceiving until it is perfected. The underlying design, Māyā-universe, is given a reference signal of 1, because it is finite and not the Absolute.]

Every particle of matter in the universe has its Māyā-matter, which determines its nature, qualities, properties, and behavior.

Every jiva-ātman, a being of spirit in the universe, has his sūkṣma-śarīra and his Māyā-spirit, which determines his nature (chakras), qualities (gunas), properties (saṃskāras), and Vasana (behavior) as he traverses the cycle of saṃsāra.

The dreaming state of Brahman is represented by Lord Brahma, the Creator.

The waking state of Brahman is represented by Lord Vishnu, the Sustainer.

The deep sleep state of Brahman is represented by Lord Shiva, the Destroyer.

Lord Brahma has four heads. They represent the clock for order and time, intellect for creativity, memory for knowledge, and ātman for the conscious subject. Lord Brahma, using his four heads, designed the Nagamani mala, the garland of snakes, which is said to contain a mythical gem, the nagamani. In Hindu mythology, the Nagamani mala is the Māyā-universe, the ordered design of the universe that Lord Brahma, the Creator, designed and offered to Lord Vishnu, the Sustainer.

And with this handing over of the Nagamani mala, which is the Māyā-universe, which consists of Māyā-matter and Māyā-spirit, Brahman wakes up from His dream. As He wakes up, He forgets His dream. So, Brahman does not remember, therefore does not know the Māyā-universe anymore. Simultaneously, there is a Big Bang, and the universe is born. And the material energy expands, breaking up into the trillions of objects and trillions of spirits in life forms. The Māyā-universe is also scattered and spread out, tagged to each particle of matter and to each life-form.

It was Lord Vishnu's job, though, to manifest and sustain the universe in the yugas epochs of kāla time. It was his job to bring all the trillions of material objects and the trillions of life forms together to become the One Universal Form and Being that Lord Brahma had created. And this coming together was to happen, according to Lord Brahma's design, when the Māyā of every being of spirit and particle of matter learns and perfects herself and evolves into a higher Māyā, as a process of material and spiritual assimilation and evolution. Māyā-matter enables the evolution of every atom to its stable forms through

radioactive decay. And Māyā-spirit enables her evolution as a process of completion of the cycle of saṃsāra, where the jiva-ātman discovers his reality as the ātman who has a stable experience of ānanda, by achieving stillness and perfection of her mind-mirror.

The Māyā of the trillions of material objects and the trillions of life forms are synthesizing to become the Māyā of the One Universal Being, comprising all the universal forms and all the universal spirits in the kalpas and yugas of kāla time.

The universe is not a linear chain of things and beings. It is a cosmic mandala. Each thing, and each being, is a unique tile, a unique fragment of the original dream-design. Each has its own specific color, texture, and shape, and carries with it a piece of the knowledge of the original dream-design. None of the tiles of things or beings is "higher" or “lower” than the others. A blue tile is not superior to a red one. Their value lies solely in their contribution to the whole image. A piece of the knowledge of science is not superior or inferior to a piece of the knowledge of spirituality. The entire material and spiritual evolution of the universe is the process of these tiles—these individual Mayas—finding their precise, pre-ordained place in the mandala. When the last tile is placed, the mandala is complete. The original design conceived by Lord Brahma, as Brahman’s dream, is fully manifest, conscious, and whole.

Brahman, who has forgotten what He created in His dream, is the Absolute Witness and is witnessing in rapt attentiveness His universe come together. He is seeing and knowing the perfect order in which the universe is coming together because He is seeing through our superconscious memory, as shown in Figure 16.

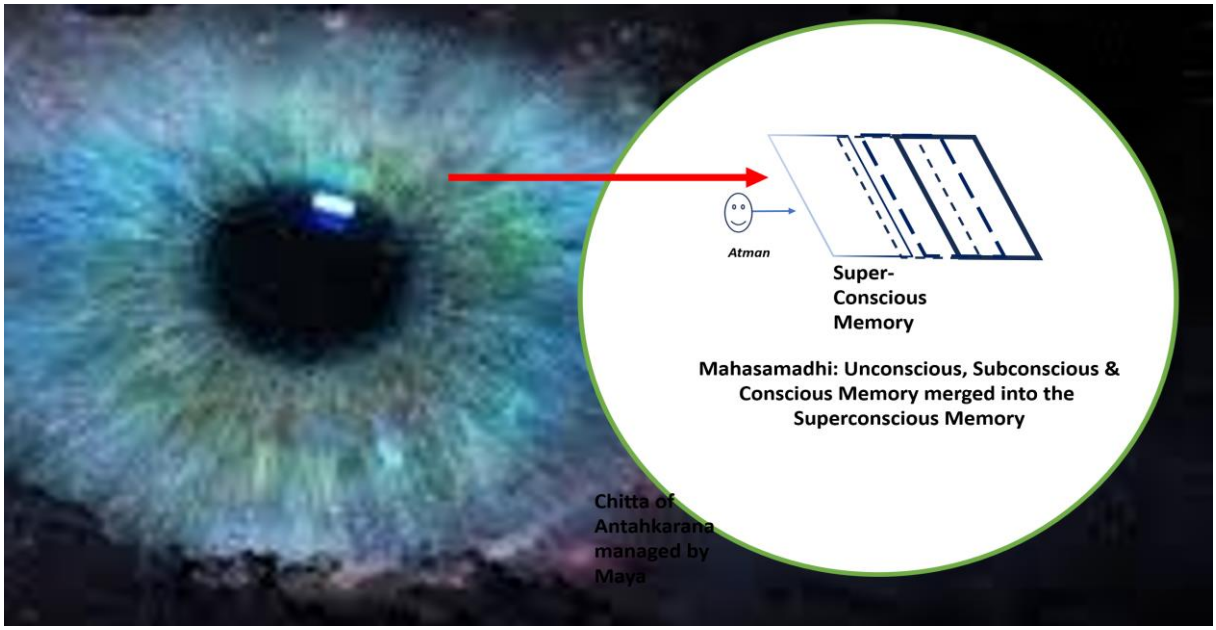

Figure 16: Brahman knowing His Creation as the Absolute Witness and the Absolute Knower

Our superconscious memory is His conscious memory! In our knowing is His knowing. And His knowing was the purpose of our knowing! He had designed the universe and designed us as beings capable of knowing part of the design and then evolving to know the next part, and so on.

And then, when the Universal Being has become the One which Lord Brahma created, the One Universal Being transcends his mind, in the perfection of his mind-mirror. When he reaches his mahasamādhi, he is shown the entire process of his evolution as the grand unification, from the grand Big Bang, the grand expansion, and the grand merger to his Oneness, in his superconscious memory. Every piece of knowledge that had to be known is known. Every particle of matter that had to come together has come together.

Then Māyā of the One Universal Being and the Māyā of Brahman both enter the state of deep sleep. The One Universal Being is merged into the Brahman in deep sleep. Lord Shiva, the Destroyer, merges the One Universal Being into Brahman. The Trinity of the Lords – Brahma, Vishnu, and Shiva are also dissolved into the Brahman along with the dissolution of the One Universal Being.

A maha-kalpa (dream state of Brahman) lasts for 100 360-day years of Brahma, which lasts for 72,000,000 Yuga Cycles (311.04 trillion years) and is followed by a maha-pralaya (waking state of Brahman) of equal length. And Brahman, the Absolute, will go to a deep sleep, dream and conceive another universe, forget the dream, and watch in rapt attentiveness to know and witness how the universe will come together.

Was it the jiva-ātman that was knowing? No, the jiva-ātman was always the ātman, and was still (the rotation speed of 1). It was Māyā who had to move from ignorance to wisdom. It was Māyā who was moving. It was Māyā who was using her buddhi and citta to perfect herself in kāla time.

Māyā would know she is perfect and that the knowledge she had known was the Truth when her reflected signal matched the jiva-ātman's reference signal of 1, where there was no contradiction as suffering, and where sthira nithya sukha or Ānanda was the experiential validation in the raja yoga of the mahasamādhi phase.

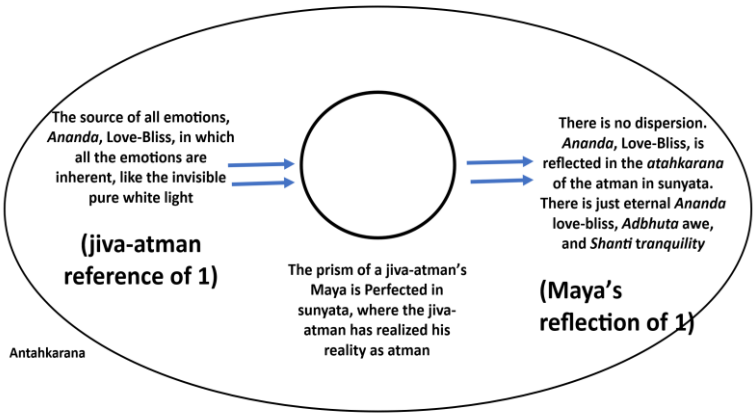

Figure 17: The Mahasamādhi Phase of the jiva-atman

as also the jiva-atmans of the One Universal Being

Māyā-universe too would know she is perfect and that the knowledge she had known was the Truth when her reflected signal matched the One Universal Being's jiva-ātman's reference signal of 1, where there was no contradiction as suffering, and where sthira nithya sukha or Ānanda was the experiential validation in the raja yoga of the mahasamādhi phase as shown in Figure 17.

All that we are experiencing as our thinking or as our emotions is just our Māyā moving, churning, and learning to perfect her knowledge, without any doubt or contradiction. All that knowledge is, is just a churning of the thoughts in memory, such that they are ordered perfectly, where there is no contradiction between the conception and the reality. The jiva-ātman's reference signal was what Māyā had to achieve as her steady-state reflected output, when there would be no difference between the reference signal and the steady-state output, i.e., value (reference signal) – value (steady-state output) = 0. When this is achieved, intuitions become knowledge, and instincts become Truth.

Māyā needed the jiva-ātman to provide this reference signal and to provide spiritual energy for her movements.

[Māyā does achieve this stillness at different periods of the cycle of saṃsāra, and we do experience love-bliss fleetingly. But because it is fleeting and interspersed with suffering, we focus on suffering. And this very focus on suffering, to find a way to cease suffering, leads us to the steady-state stillness of ānanda love-bliss, jñāna vidyā knowledge, and Satya Truth!]

That steadiness in stillness is called sthita-prajna. This is achieved at the end of the samādhi phase of the cycle of saṃsāra. Then the body is given up as unnecessary in mahasamādhi.

The jiva-ātman was always the ātman. The ignorance of Māyā made Māyā reflect a distorted light of taṇhā-emotions, which made the conscious jiva-ātman suffer, as his experience as a reflection in the Māyā mind-mirror did not correspond to his reality. So, Māyā had to move, churn the different thoughts in her mind, and find an order that would reflect the perfect reality of the ātman to the ātman. This moving and churning that we experience in our minds and think, 'My mind is in chaos, I am suffering, I want clarity, etc,' is just Māyā talking to herself in the mind. Since we identify with Māyā, we think, 'My mind is in chaos, I am suffering, I want clarity, etc.'

When Māyā has perfected herself, she allows the Māyā of Lord Vishnu to take over and determine the next phase of learning as a process of evolution[242].

The difference between ātman and Brahman is that the ātman witnesses his individual being in love in his superconscious memory. The Brahman is witnessing the entire Cosmos dance in love in His conscious memory, which is the superconscious memory of all beings as they complete their cycles of saṃsāra.

The dream-design of Lord Brahma will be known only in time.

No one knows the dream-design. Even Brahman's Māyā doesn't remember or know what Lord Brahma, as Brahman's dream state, had dreamt and designed. The design of the universe is being uncovered in the now, every moment. Lord Brahma, in his design, had made sure that his dream-design would be enacted perfectly, known perfectly, and validated without any contradiction as a conscious experience.

Lord Brahma created us with the capacity to have pratibha intuition for the dream-design to be known.

[242] The next step in the evolution of the human being could be a new being, such as a whale and a human being. This is when the Māyā-whale and the Māyā-human are synthesized, and is given a new physical body that has the features of the whale and the human. This may be seen as the merger of two sūkṣma-śarīras into one, which may be similar to the idea of endosymbiosis. Endosymbiosis, however, is studied at just the physical, material level..

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MaYa and YaMa – An Entropic Perspective

We can only know zero as the absence of everything, but we cannot know zero as nothingness. That zero as nothingness is known and knowable only to Brahman, the Absolute.

We can only know infinity as something more than everything, but we cannot know infinity as infiniteness. That infinity as infiniteness is known and knowable only to Brahman, the Absolute.

We can know the 1, the stillness as the foundational spiritual reference which is the same for every being, as also the universal being. This reference of 1 will lead us to the knowledge of a very large finite number of emotional possibilities. This reference of 1 will lead us to the knowledge of a very large finite number of material possibilities.

And when the 1 is known, as the One Universal Being, the material knowledge and spiritual knowledge become parā - supreme, necessary, and sufficient. But for the human being, the material knowledge is aparā, necessary but insufficient.

So, the only Satya is the 1. Whatever is known as a human being, which the reference of 1 will lead each human being to as knowledge, will be part of the huge mandala of knowledge that will be put together piece by piece, by every being, in time. This will go on for all of time until all the pieces form one image, the image that Brahman, as Lord Brahma, had designed in his dream.

And then the fully formed image will be dissolved in time in the deep sleep of Brahman.

We, as human beings, can only know that HE, in his infiniteness and nothingness, must be at least the possibilities of the human being that He created in His image.

So, does anyone know what His image was? No one really knows the shape and the essence of His image, but perhaps Man has inferred inductively that it must be of the following order:

Entropy is a representation of the state of our ignorance - how much do we, as conscious beings, know of the underlying order of the Absolute, where MaYa represents ignorance and YaMa represents knowledge or wisdom. When in ignorance, MaYa [entropy] is a very high number. When in wisdom, YaMa [entropy] is a very low number.

1. Entropy about the Absolute:

MaYa [entropy (Absolute)] -> infinity.

We cannot ever know the Absolute absolutely. The finite can never know the infinity absolutely. We can only know that the infinity must at least have this finity.

[If we knew the Absolute absolutely, then the entropy statement would be made as:

YaMa [entropy (Absolute)] = zero.

2. Entropy about the universe:

MaYa [entropy (universe_matter)] -> 10^{50}.

MaYa [entropy (universe_spirit)] -> 10^{50}.

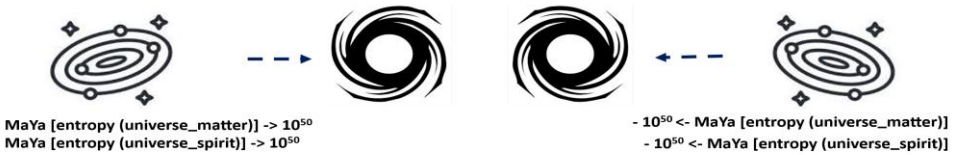

Figure 18: Entropy about the Universe at the Big Bang

Figure 18 depicts the state of entropy at the initial stages after the Big Bang. The high number of 10^{50} is just symbolic. This is just taken as the same for material and spiritual knowledge for illustration. It just means we need to know 10^{50} variables and need 10^{50} equations to know all the laws of the universe, and to know the underlying design of the universe.

At this point, after many billions of years, we know only about say 10^5 variables, and know only say 10^3 equations. We simply do not know all the emotional possibilities for other species of living beings.

3. Entropy about the human being as human beings:

MaYa [entropy (human_matter)] -> 10^{10}.

It just means we need to know 10^{10} variables and need 10^{10} equations to know all the laws of the human body, and to know the underlying design of the human body. At this point, we know only about say 10^3 variables, and know only say 10^2 equations.

YaMa [entropy (human_spirit)] -> 0.

However, we can and have known the spiritual wisdom, where all our emotions coalesce into ānanda, or sthira nityasukkha, which has a reference of 1. And when this stillness of the mind, with a reference value of 1, is achieved at the end of the samādhi phase, the entropy statement becomes:

YaMa [entropy (human_spirit)] = 0, for that individual Māyā of a jiva-ātman.

Hence, the ancients held this as parā vidyā: necessary to know, possible to know, and sufficient for steady eternal happiness or sthira nitya sukha

4. Entropy about the universe as the One Universal Being:

YaMa [entropy (universe_matter)] -> 0.

YaMa [entropy (universe_spirit)] -> 0.

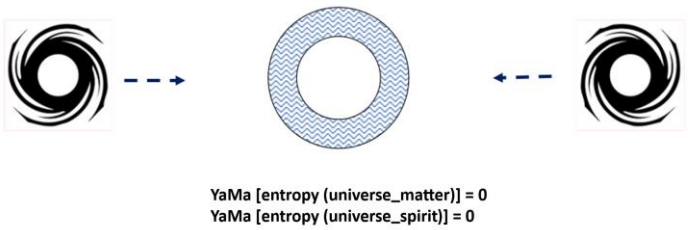

Figure 19: Entropy about the Universe as the One Universal Being

It just means we, not as human beings, but as the One Universal Being, will have known all the 10^{50} variables and the 10^{50} equations to know all the laws of the universe, and to know the underlying design of the universe, both materially and spiritually.

The One Universal Being will have a body that has been fully transformed from concrete material mass to fluid material energy. The Māyā of the One Universal Being will be in the last stage of the samādhi phase.

This will happen after 311.04 trillion years. [This is not to be taken as a definitive calculation. This was just the ancient way of figurative language. The solar system would have been destroyed, and human beings would have evolved into higher beings.}

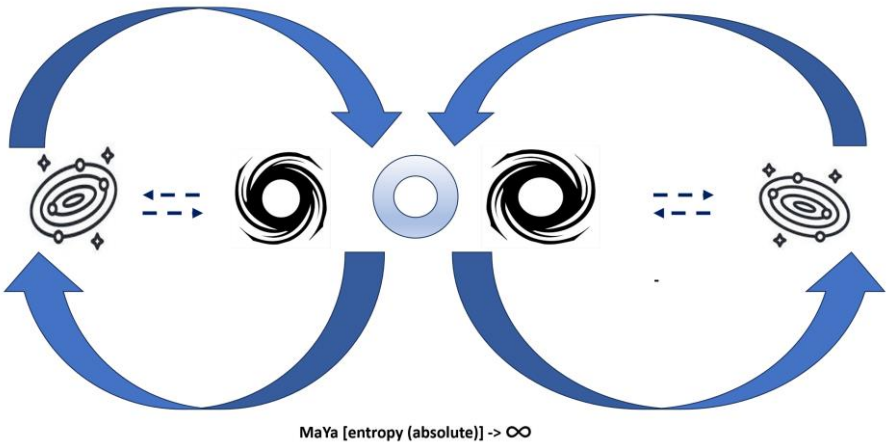

Figure 20: Eternal Cycles of Creation, Sustenance, and Destruction of Universes

And then the One Universal Being will have been dissolved into the deep sleep of Brahman, the Absolute. And then Brahman, the Absolute, will dream and create another universe, a very different one, which too will become the One Universal Being and be dissolved into the deep sleep of Brahman, the Absolute, as indicated in Figure 19.

And again, and again, and again, eternally!

Ocean, Wave, and Water - Proof of Brahman's Existence?

What is the proof of the existence of Brahman, or God?

The spiritual and philosophical understanding of God is: That Existence, which ultimately exists eternally!

In the Advaita Vedānta tradition of non-duality, the analogy of "Ocean, Wave, and Water" is used to explain this understanding.

The Ocean is likened to Brahman, Existence, that which ultimately exists eternally. The wise wave is likened to the individual, self-realized, ātman. The unwise wave is likened to the individual, self-ignorant, jiva-ātman. The water is likened to ānanda, the unconditional love-bliss nature of the Ocean. The water is also the nature of the wise wave. The water is also the nature of the unwise wave, except that the unwise wave is ignorant of this fact.

The wise wave then knows, "I am ātman, and I exist in Brahman, and both ātman and Brahman are just ānanda".

But not all waves are wise. Two waves, A and B, were talking to each other.

Said wave A to B: "I can see you are a wave, and you can see I am a wave. And we can see other waves. If the Ocean or water wants us to believe they exist, why can't they show up, or at least provide some good evidence of their existence?"

Said wave B to A: "I agree with you. These waves who claim they know the Ocean or the water… they are so naïve. They seem to accept everything without any logical basis, evidence, or proof. They completely trust the words written in some ancient texts. Even if you ask them to provide some justification for their beliefs, they mumble something incomprehensible, in a language so dense that it seems deliberately designed to be incomprehensible, and end it all with some mumbo-jumbo like 'Tathastu! So be it! oṃ śāntiḥ śāntiḥ śāntiḥ! May there be peace, peace, peace!'"

Said wave A to B: "Just forget them. They are fools living in some crazy, delusional world of their hallucinations! And as for us who know the reality of the world, let's go and pay our obeisance to the new big wave there… so mighty, so tall, so handsome. I wish I could be that wave. But that's not my destiny. Alas, I was only destined to worship him, pray to him, and serve him. I hope he notices my loyalty and bestows his favors upon me."

You can call God as Existence, Infinity, THAT, IT, Him, Her… or just about any name in any language. But God is definitely not a 'finite entity with a definite image and a particular name'. When one knows God, one is in awe of the infiniteness of His love. There is no need to worship Him and seek favors when one belongs to Him and flows in Him!

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Satya, The Truth

Satya, the Truth that the ancient spiritualists sought, was not about the reality of the world outside. The reality of the world outside, that of sense experiences, remains the domain of sense-knowledge.

Enlightenment is not about what is seen by the seer with his eyes. Enlightenment is a shift in perception within, a paradigm shift. It is about what is seen by the seer as his reality in his mind. It is about self-knowledge.

Before enlightenment, the seer wasn't seeing his reality correctly. He was seeing his reality as sense-knowledge. The question to one's mind was, "Who am I, the seer, who sees the thoughts in the mind?" The mind was only reflecting what the world of others thought of him. And try as he would to gain their love and trust, they would betray his love and trust.

So, when he seeks love from the world and is betrayed, he becomes distrustful of gaining love from the world based on radiating love in the world. The world grants love to him who comes from power, but does not grant love to him who comes from love seeking love in return. [Trust is the idea that one's love will be reciprocated and not betrayed.] He then suffers and enters the depths of complete existential distrust and reaches a point of psychological death. [The distrust is not of person A or B, but of Existence, and the nature of his existence in Existence!]

In the darkness of the depression that comes from distrust of the world to grant love, the mind is emptied of all identities that he has accumulated in the world to be granted attention and love.

In the emptied mind, the "I" exists alone, afraid, having rejected all thoughts of the world. This emptiness of the mind leads to a momentary śūnyatā. (Zen masters call it the empty tea cup; they say, unless the tea cup is emptied, tea cannot be poured into it.) Something now starts filling up the emptied mind, and the "I" is bathed in love-bliss, ānanda. The mind-mirror now starts to reflect his reality - as love-bliss. The existential trust that had been lost in seeking love outside is now fully restored in the unconditional love-bliss that emanates from within, from the being. The seer now experiences his reality as love-bliss, as an experience of spiritual awakening reflected in his mind.

The seer, 'I' is enlightened to the fact that:

1. "I am ānanda, love-bliss, the source of all emotions that I experience. I have experienced my self at my source, as my fundamental nature. I don't have to gain any identity for love. I can be myself, as love, and just play out the roles granted to me to complete my duties in life.
2. I did nothing to gain this experience. It happened when the mind had been completely emptied. The emptying of the mind happened through life experiences of suffering and depression, as if Existence was directing the orientation and intensity of the seeking of one's reality. When the seeking outside ended, and the seeking inside began, and the intensity of the seeking was sufficient to empty the mind, the mind was first emptied of all impurity (false identity), washed, and then filled up in pure love-bliss."

The reality of the world remains what it is. The seeking ends. When the ignorant seeking ends, the enlightened seeing begins. The seer's seeing changes from seeking love to radiating love in the world, this

time without expecting any love in return from the world. This is called Vipassana - the right seeing, in Buddhism.

The moon, that the seer thought he was, no more seeks the light of the sun, for he was never the moon. He had always been the sun, but had ignorantly thought he was the moon and that he needed the light of the sun to shine!

In enlightenment, the seer's ignorant seeing of his self is removed! In ignorant seeing, one did not see that love was the essence of one's being and hence sought love from the world by gaining attention and validation.

So, what is the explanation for the violence and devastation and deception and hatred that one sees in the world? It's just the moon in everyone trying to become worthy of the light of the sun. One seeks power to control the attention and validation of the world and causes suffering to others. The happiness gained through power is fleeting, and when the power fades away, so does the attention and validation from the world. And this is called karma – the law of cause and effect, not of virtue and sin. One causes suffering to others, enabling the emptying of ignorance from their minds. Then, when power fades and the attention and validation from the world stop, one suffers and seeks love. Through this suffering and inquiry, the mind gradually causes the moon (ignorant identities) to die and the sun (reality) to emerge!

In enlightenment, one not only sees one's own reality as the sun, but also the reality of others as the sun unknown to themselves. It is only in enlightenment that one knows what empathy is, seeing others as they truly are - their reality and their ignorance of their reality and their actions that emerge from their ignorance. And from empathy alone is compassion born, that they are not responsible for their ignorance, and therefore, "they know not what they are doing."

Then the enlightened seer needs to resolve another question, "What now, that I have realized my reality and that of others? What am I to do in this life within this body-mind-world framework?" One surrenders to the will of Existence with complete trust. (That one has a will and can exercise it is also an illusion created by Māyā.) One simply knows where to go and where not to. In a sense, one finds one's belonging in one's solitude, in one's mind. And so, one does not feel the need to be among the world of things and people to gain their attention and validation!

Does this mean one is loved by all and that one can love all after enlightenment? No, the reality of the world remains what it is, bathed in shades of enlightenment and ignorance, but moving from ignorance towards enlightenment! [And hence the war outside, between those who come from love and those who come from power, has to be fought! The war is the process by which the churning of one's ignorant mind happens until it is 'clarified' and becomes amrut, the eternal nectar of ānanda!]

And when all the duties are completed, one enters mahasamādhi, where the body too is taken away!

The Buddha was right!

- Desire was the cause of suffering. But the root cause was not desire. The root cause was avidyā ignorance about the reality of Existence. Desires that arose from ignorance caused suffering.
- Desires led to expectations.

- Expectations that others should act in order to fulfil one's desires.
- Expectations that one's self should act in order to fulfil one's desires.
- When the outcomes are not in order with one's expectations of outcomes, and when one's expectations of outcomes are not in order with one's desires of outcomes, then there are contradictions. When there are contradictions, there is suffering.
- The suffering impels one to know the underlying order of Existence such that the desires, the expectations, and the outcomes are in order with the Existential order. Then there are no contradictions, and one experiences ānanda unconditional love.
- Knowledge is necessary, but not sufficient. The knowledge has to be validated and realized in direct experience until it becomes an instinct.
- Then there is no need to know, and the mind of desires, intellect, will, memory, and time is transcended.
- And the order of Existence, the law of karma, ensures that we have desires which are ordered according to the cycle of saṃsāra or the cycle of dhamma until the order of Existence is known and realized as Satya, the Truth.
- The mind of the finite individual has to be perfected first to be transcended later.
- The mind of the infinite Absolute is the perfection in eternal transcendence.

The Upanishadic Dialectic between the Teacher and the Student

The student sitting beside the teacher asks the teacher, "O Teacher! Please tell me what it is?" [It is the student who has to initiate the asking. The teacher has no reason to teach if the question did not exist in the student's mind.]

The teacher asks the student, pointing with his fingers, "O Student! Is it that sun, glowing out there and giving us the light to see with our eyes, that you want to know about?"

The student answers, "O Teacher! It is not the sun I can see with my eyes that I want to know about. I want to know about the sun whose light illuminates the thoughts I see in my mind."

The teacher looks at the student fondly, "But that's a difficult question to answer. I am not sure you are old enough to understand the answer to your question."

The student pleads with the teacher, "But, teacher, that's the only question my mind has been asking, and my mind is not satisfied with any answer I have given so far."

The teacher acknowledges the sincerity in the student and proceeds to answer the question, "O Student! This is what it is."

The student has also been thinking about other answers, and so he asks, "Is it so? Why can't this be what it is?"

The teacher is happy that the student has not merely accepted his answer as a matter of faith. The teacher says, "Because this is how it is, hence it is what it is."

The student probes further, "Is it so? Why can't this be how it is?"

The teacher says, "Because this is why it is, hence it is how it is, hence it is what it is."

The student demonstrates that he has thought a lot about his original question, for he asks, "Is it so? Why can't this be why it is?"

Now it's the teacher's turn to listen to the student, for he asks, "O Student! You have thought about the question a lot. If what you say is why it is, then you must tell me what it is, how it is, and why it is so?"

The student reflects for a long time to see if he can find an explanation that provides a logically and rationally justifiable answer to explain all three questions without any contradiction. He is unable to come up with an alternate hypothesis. He bows down to the teacher and speaks to him with reverence, "O Teacher! I have understood. What you have answered is the Truth! Only the Truth can explain what it is, how it is, and why it is so!"

The teacher says to the student, "Are you certain you have understood, and there is no doubt in your mind?"

The student says to the teacher, "Yes, teacher! There is no doubt at all. All the doubts in my mind have evaporated, the sun that I am!"

The teacher to the student, both bowing to each other in deference, "Tathastu! So be it!"

The student to the teacher, “Tathastu! So be it!”

Both the teacher and the student chant the Pavamana mantra in unison,

asato mā sadgamaya,

tamaso mā jyotirgamaya,

mṛtyormā'mṛtaṃ gamaya.

oṃ śāntiḥ śāntiḥ śāntiḥ!

From my unreal existence, lead me to the real Existence!

From the darkness of ignorance, lead me to the light of wisdom!

From the fear of death of my existence, lead me to immortality of that which alone exists, Existence which exists in Consciousness of Ānanda! Lead me to Sat-Chit_Ānanda!

May there be peace, peace, peace!

The Purpose of Existential Knowledge: A Wiser World

Existential Knowledge is about understanding the nature of one's existence within Existence, where the search for meaning leads to knowing, and in the knowing itself is the meaning! Wisdom is just the experiential discovery of one’s self as the unconditional love one was seeking everywhere else, but within! It is not mere knowing but the validation in experience that makes the knowledge an instinct for further evolution towards becoming the One Universal Being!

The Existential Imperative

1. **Ultimate Purpose:** We know because through our knowing, Existence is knowing. The act of knowing is the Existential purpose, and thus, our individual purpose.
2. **Evolutionary Path:** Our deeper understanding of the causal structure of the psyche facilitates further evolution in our spiritual cycle—the movement from asat (ignorance) to sat (wisdom).
3. **Material and Existential Knowledge:** Material knowledge remains important for exploring new frontiers of the vast but finite universe and for making our physical lives safe and comfortable. However, Existential knowledge, a necessary and sufficient condition, is fundamental to fulfilling the deeper psychological imperative for meaning and purpose. It is when Material knowledge is built on the foundations of Existential knowledge that any knowledge becomes wisdom. This order of knowledge reflects the order of Reality, where the Universe is a finite, bound, and ordered manifestation that is built on the foundations of an Infinite Loving Existence.
4. **Beyond Abstraction:** This knowledge is not merely abstract philosophy or mystical spiritualism. It is a precise framework concerning the reality of the human psyche and the systematic stages of its cognitive evolution.

The Immediate, Practical Value of the Model

Understanding and validating this model—which functions as a map of cognitive development—holds profound, immediate value for individuals and institutions:

1. **Cognitive Psychology:** Knowing the psyche of the self and the other will lead to empathy for the self and the other, which will ultimately lead to compassion for the self and the other.

2. **Global Priorities:** A movement toward a wiser world, where the well-being of the psyche (individually and universally) takes precedence over the meaningless chase for false identities based on power and wealth aggrandizement. This means lives of material simplicity to meet our needs and comforts, and psychological richness to fulfill our beings. Economic priorities may shift from a competitive, winner-take-all, reward-punishment-based way of organizing our world to a collaborative, sharing, passionate, loving way of co-existence.

3. **Neuroscience:**
   Provides a necessary re-evaluation of Causal Reductionism, prompting neuroscientists to re-examine their science through a non-materialist lens.

4. **Psychology & Counseling:** Enables practitioners to see mental conditions not merely as abnormalities and pathologies but as necessary evolutionary stages towards cognitive maturation. This offers a framework for better support and care aligned with the patient's phase of psychic development. The “period table” of the psyche, as described in the chakra-guna-samskara-vasana system of the cycle of saṃsāra, allows for an evaluation, validation, falsification, and continuous improvement (kaizen) of its ability to provide a causal explanation of psychological behavior even without acceptance of the idea of ‘reincarnation’. The axiom of reincarnation allows for a larger perspective of universal unitary order. However, the causal theory of Māyā, which comprises the law of karma, the cycle of saṃsāra, and the chakra-guna-samskara-vasana, does not prevent a validation of the chakra-guna-samskara-vasana description of the personality of the human being in the actual observable psychological behavior of human beings in the world.

5. **Interpersonal Relationships:** Offers a definitive explanation for interpersonal conflict and struggle by providing a common map for understanding differing psychic phases. This will enable empathetic decision-making to resolve conflicts and move towards mutually harmonious life choices.

6. **Education Policy:** Allows for a review of the competitive, brain-age-based model that pressures children into a rat race.

The Ultimate Realization

The final realization of the order of Māyā is that we are not merely separate individuals but belong as One in the same Existence. That is the real existential meaning of non-duality!

The scope of this order of Māyā has the potential for the integration of physics, psychology, cosmology, and astrology into a unified theory of Existence.

It is understood that this shift towards a Wiser World is subject to the Universal Order of Māyā. It will happen when it is time. And if it is happening, it is time. That's determinism!

Afterword: A New Existentialism

Māyā, the fundamental creative principle, is dynamic and ordered. In her unmanifest state, she is the potential for all thought and form. In the manifested individual, she is the churning activity of the antahkarana (the conscious mind).

When the still ātman reflects upon the churning Māyā, the reflection appears to be distorted. This moving, distorted reflection is the jiva-ātman. He mistakes the movement (thoughts, emotions, identities) for his own being. The jiva-ātman is the ātman experiencing Māyā's churning as his knowing.

Movement is not the enemy. It is the very means of knowing and creating. All knowledge—scientific, spiritual, personal—is the churning and reordering of thoughts in the mind. This is Māyā doing her primary job: knowing to create a coherent model of reality.

The imperfection of Māyā is not a flaw, but a feature of a learning system. She starts with incomplete data and false axioms (ignorance). As she churns, she inevitably creates contradictions:

- She holds a belief: "I am this body". That is contradicted by experience (the body ages, gets sick).
- She pursues a desire: "This will make me happy forever". That is contradicted by reality (all experiences are transient).
- This cognitive and emotional dissonance is the experience of suffering (duḥkha). It is the system's error signal.

Suffering is not a separate entity. It is the distortion of ānanda. Just as a twisted piece of metal is still metal, suffering is the consequence of its contorted reflection due to the turbulent movements of Māyā. The ānanda we seek is not imported from outside; it is the natural state that is revealed when the distortions cease.

The entire cosmic and personal journey is Māyā's movement from turbulent, ignorant motion to ordered motion and ultimately her transcendence into wisdom in stillness. The churning is necessary to separate the nectar of knowledge from the poison of ignorance. The suffering is the friction of that process. When the churning is complete, the individual's Māyā becomes so still that it is in harmonious resonance with the stillness of the Brahman's Māyā. In that resonance, the distortion vanishes. The reflection becomes a perfect likeness. The jiva-ātman realizes he is the ātman, and the ātman realizes that he is in the Brahman.

We, human beings, see the order of change in the universe and seek to know the ordered design of the Absolute in materialism and spiritualism as: Science - the study of the underlying ordered design of matter, and Spirituality - the study of the underlying ordered design of mind-experience (psychology) of beings.

All forms of matter and spirits of beings ultimately find their ultimate belonging in the Absolute when the illusion of the universe is dissolved. And the Absolute remains the Absolute until it invokes Māyā to design another universe which it creates, sustains, and dissolves!

So, how would knowing all this change the way you live today? It won't. You will continue to live exactly as you are living. The Māyā in you will direct the course of your life. She will give you purposes at each stage of your life and make sure you are fulfilling them.

In reality, she is only perfecting herself through you. You are already perfect.

Only at the superconscious memory stage, one will see and experience the universe as the Perfect Cosmic Dance of the Absolute at the limit of the capacity of the human being or at the limit of the capacity of any other being.

If the movement of the stars, planets, and other bodies in the universe is ordered and if the spiritual (psychological) movement of the mind-experience of beings is ordered according to the chakra-guna-samskara-vasana phases of the cycle of saṃsāra, could there be a link between the movement of the stars and the movement of the mind-experience of each being?

Perhaps there is. Astrology is the study of the orderly change in the mind-experience of human beings based on the orderly movement of the stars and planets through the universe. The stars do not induce the changes in human behavior, but since all change is ordered, we track the stars and planets to decipher and predict the mind-experience of beings! The knowledge in Vedic astrology is already well developed on precisely these lines.

We need a new Existentialism as a philosophical basis for knowledge, where materialism, spiritualism, astronomy, and astrology are part of one synthetical knowledge. We don't even have to uncover new knowledge. The ancients have already uncovered it and have known the interconnectedness of all forms of knowledge. We just have to suspend our biases and our egos and find a synthesis.

Do we know all of the underlying order in science, spirituality, astronomy, and astrology? No. But we have to keep making progress in uncovering and discovering the order in the design as knowledge! And we have all the tools of AI to achieve this synthesis. We have to know. We are designed to know. We will know.

When we, not necessarily as human beings but as more evolved beings, farther down the future of evolution, know Māyā, Māyā will be dissolved. Māyā is represented in almost all spiritual traditions as a snake that is swallowing her tail and consuming herself.

But who really knows? We cannot know infiniteness or nothingness. We cannot even know if the Absolute, which is infiniteness and nothingness, knows HIS nature as infiniteness and nothingness. Perhaps, He Knows. Or, perhaps, He does not know. Or, perhaps, He does not need to know.

The Nāsadīya Sūkta (after the incipit ná ásat, or "not the non-existent"), also known as the Hymn of Creation, is the 129th hymn of the 10th mandala of the Rigveda (10:129). It is concerned with cosmology and the origin of the universe. It has been the subject of extensive scholarly attention and there are numerous translations and interpretations of this text. [243]

[243] This translation is that of A.L. Basham, *The Wonder That Was India* (1954). The entire Nāsadīya Sūkta and the translation are sourced from Wikipedia.

nā́sad āsīn nó sád āsīt tadā́nīṃ
nā́sīd rájo nó víomā paró yát
kím ā́varīvaḥ kúha kásya śármann
ámbhaḥ kím āsīd gáhanaṃ gabhīrám

Then even non-existence was not there, nor existence,
There was no air then, nor the space beyond it.
What covered it? Where was it? In whose keeping?
Was there then cosmic fluid, in depths unfathomed?

ná mr̥tyúr āsīd amr̥taṃ ná tárhi
ná rā́triyā áhna āsīt praketáḥ
ā́nīd avātáṃ svadháyā tád ékaṃ
tásmād dhānyán ná paráḥ kíṃ canā́sa

Then there was neither death nor immortality
nor was there then the torch of night and day.
The One breathed windlessly and self-sustaining.
There was that One then, and there was no other.

táma āsīt támasā gūháḷam ágre
apraketáṃ salilā́ṃ sárvam ā idám
tuchyénābhú ápihitaṃ yád ā́sīt
tápasas tán mahinā́jāyataíkam

At first, there was only darkness wrapped in darkness.
All this was only unillumined cosmic water.
That One which came to be, enclosed in nothing,
arose at last, born of the power of knowledge.

kā́mas tád ágre sám avartatā́dhi
mánaso rétaḥ prathamáṃ yád ā́sīt
sató bándhum ásati nír avindan
hr̥dí pratī́ṣyā kaváyo manīṣā́

In the beginning, desire descended on it -
that was the primal seed, born of the mind.
The sages who have searched their hearts with wisdom
know that which is, is kin to that which is not.

tiraścī́no vítato raśmír eṣām
adháḥ svid āsī́d upári svid āsīt
retodhā́ āsan mahimā́na āsan
svadhā́ avástāt práyatiḥ parástāt

And they have stretched their cord across the void,
and know what was above, and what below.

Seminal powers made fertile mighty forces.
Below was strength, and over it was impulse.

kó addhā́ veda ká ihá prá vocat
kúta ā́jātā kúta iyáṃ vísr̥ṣṭiḥ
arvā́g devā́ asyá visárjanena
áthā kó veda yáta ābabhū́va

But, after all, who knows, and who can say
Whence it all came, and how creation happened?
The lords themselves are later than creation,
so who knows truly whence it has arisen?

iyáṃ vísr̥ṣṭir yáta ābabhū́va
yádi vā dadhé yádi vā ná
yó asyā́dhyakṣaḥ parāmé vyoman
só aṅgá veda yádi vā ná véda

Whence all creation had its origin,
The Creator, whether He fashioned it or whether He did not,
The creator, who surveys it all from the highest heaven,
He knows — or maybe even He does not know.

Appendix

The word "temple" (a place of worship) comes from the Latin templum, meaning "sacred precinct" or "building for worship". Separately, the anatomical "temple" on the side of the head comes from the Latin tempora, related to tempus ("time").

There are no temples for the Absolute, God, Brahman, Allah, Tao, Jehovah, or Existence. The Absolute cannot be contained in any man-made structure. The finite universe of forms and time that emerges from and merges into the infinite, formless, timeless Absolute is the temple for the Absolute.

All temples built by Man in the universe are for the various Lords of God who manage the universe. All ancient temples, and the symbols of spirituality that are depicted in the temples, point to the Absolute and to the Truth.

When the Truth is seen, the symbols are also known. When only the symbols are seen, without knowing the underlying order of Truth, then they appear as contradictions. If the contradictions are not resolved, and the dogmas are perpetuated, they lead to conflicts, to wars, and to suffering!

The Ouroboros: The Snake and the Symbol of Infinity

The concept of Maya eating her own tail is not just a Vedantic spiritual tradition. It is a symbol that is ancient and known across many spiritual traditions. The following images and information are taken from Wikipedia and are being presented below:

Figure 21: First known representation of the ourobros (c. 1341 BC – c. 1323 BC)

Figure 21 shows the first known representation of the ouroboros, on one of the shrines enclosing the sarcophagus of Tutankhamun. Tutankhamun or Tutankhamen (c. 1341 BC – c. 1323 BC), was the thirteenth pharaoh of the Eighteenth Dynasty of ancient Egypt, who ruled c. 1333 – 1323 BC. Born Tutankhaten, he instituted the restoration of the traditional polytheistic form of ancient Egyptian religion, undoing a previous shift to the religion known as Atenism. Tutankhamun's reign is considered one of the greatest restoration periods in ancient Egyptian history, and his tomb door proclaims his dedication to illustrative constructions of the ancient Egyptian gods.

Figure 22: Early alchemical ouroboros illustration from 10th century

Figure 22 shows an early alchemical ouroboros illustration with the words ἓν τὸ πᾶν ("The All is One") from the work of Cleopatra the Alchemist in MS Marciana gr. Z. 299. (10th century).

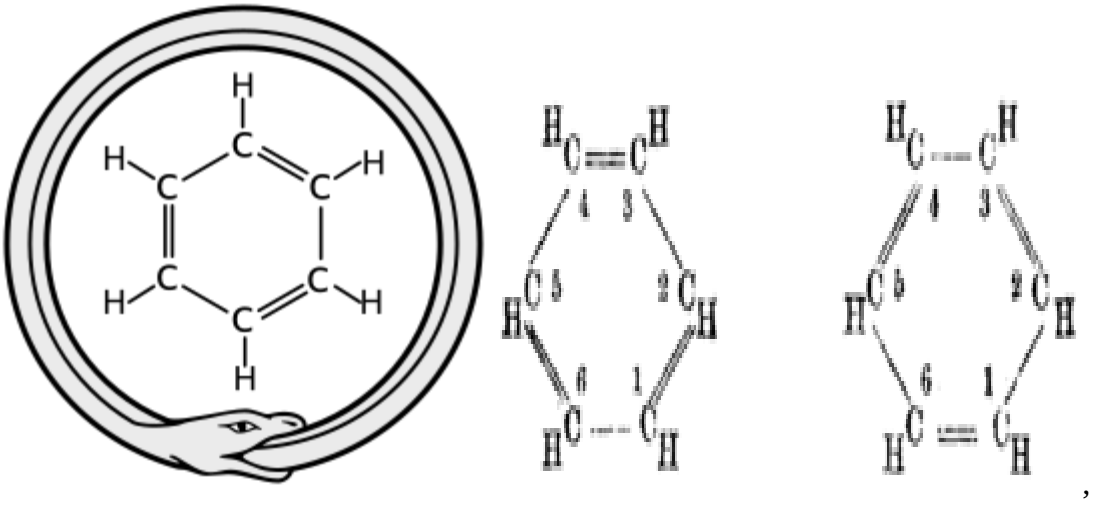

Figure 23: Kekulé's dream

The ouroboros, Kekulé's inspiration for the structure of benzene. Kekulé's proposal for the structure of benzene (1872) is shown in Figure 23.

The German organic chemist August Kekulé described the eureka moment when he realised the structure of benzene, after he saw a vision of Ouroboros:

"I was sitting, writing in my textbook, but the work did not progress; my thoughts were elsewhere. I turned my chair to the fire and dozed. Again, the atoms were gamboling before my eyes. This time, the smaller groups kept modestly in the background. My mental eye, rendered more acute by the repeated visions of the kind, could now distinguish larger structures of manifold conformation: long rows, sometimes more

closely fitted together; all twining and twisting in snake-like motion. But look! What was that? One of the snakes had seized hold of its own tail, and the form whirled mockingly before my eyes. As if by a flash of lightning, I awoke, and this time also I spent the rest of the night working out the consequences of the hypothesis."

Swiss psychiatrist Carl Jung saw the ouroboros as an archetype and the basic mandala of alchemy. Jung also defined the relationship of the ouroboros to alchemy: Carl Jung, Collected Works, Vol. 14, para. 513.

"The alchemists, who in their own way knew more about the nature of the individuation process than we moderns do, expressed this paradox through the symbol of the Ouroboros, the snake that eats its own tail. The Ouroboros has been said to have a meaning of infinity or wholeness. In the age-old image of the Ouroboros lies the thought of devouring oneself and turning oneself into a circulatory process, for it was clear to the more astute alchemists that the prima materia of the art was man himself. The Ouroboros is a dramatic symbol for the integration and assimilation of the opposite, i.e., of the shadow. This 'feedback' process is at the same time a symbol of immortality since it is said of the Ouroboros that he slays himself and brings himself to life, fertilizes himself, and gives birth to himself. He symbolizes the One, who proceeds from the clash of opposites, and he, therefore, constitutes the secret of the prima materia which ... unquestionably stems from man's unconscious."

The Jungian psychologist Erich Neumann writes of it as a representation of the pre-ego "dawn state", depicting the undifferentiated infancy experience of both humankind and the individual child. [Perhaps, it may be more appropriate to think of it as a representation of the post-ego-death state of Turīya of the wise man.]

Mayan Symbolism

Figure 24: Mayan Kulkunan
Figure 25: The Mayan Zodiac Calendar

The Classic Māyā vision serpent, Kulkunan, as depicted at Yaxchilan. Kulkunan has a literal meaning of "feathered snake" is shown in Figure 24.

In Māyā symbolism, snakes represent various concepts, including death and rebirth, cosmic connection, and fertility. The Vision Serpent was a key figure connecting the earthly and spiritual worlds, a conduit for communication between realms. Kukulkan, the feathered serpent deity, embodies the balance between heaven and earth and is associated with agricultural fertility and cyclical renewal.

Figure 25 shows the Mayan Zodiac calendar, which has an image of a human carrying a burden on his back, perhaps his ego, similar to the cycle of samsara.

Figure 26 shows the Aztec Sun Stone, which depicts two rival deities with their faces shown opposing each other, with fire serpents wrapping the border of the sun stone and the heads of the rival deities, similar again to the rajas (+) and rajas (-) personalities of the jīvātman traversing the cycle of samsara. The snakes are a symbol of reincarnation in the Mayan tradition as well.

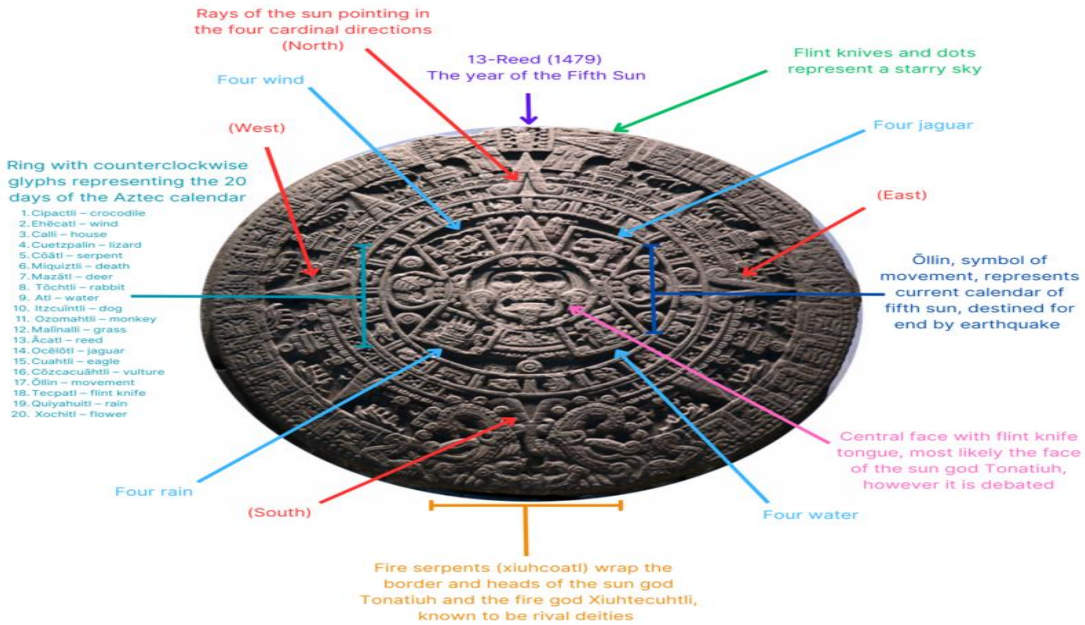

Figure 26: The Aztec Sun Stone

The Socio-Sexual Hierarchy

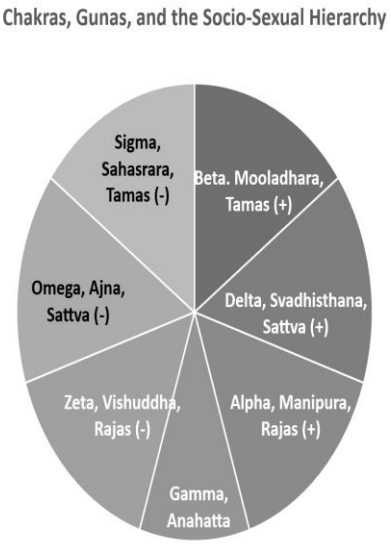

Figure 27: The Socio-Sexual Hierarchy and Chakras

Figure 27 shows the mapping of personality types described in chakra-gunas and the socio-sexual hierarchy model: beta, delta, alpha, gamma, zeta, omega, and sigma.

The personality mapping has a lot of similarities, although they are not detailed here.

Hindu Symbolism

In the Aitareya Brahmana, a Vedic text of the early 1st millennium BC, the nature of the Vedic rituals is compared to "a snake biting its own tail."

Ouroboros symbolism has been used to describe the Kundalini. According to the medieval Yoga-kundalini Upanishad: "The divine power, Kundalini, shines like the stem of a young lotus; like a snake, coiled round upon herself she holds her tail in her mouth and lies resting half asleep as the base of the body" (1.82).

Storl (2004) also refers to the ouroboros image in reference to the "cycle of saṃsāra".

Adishesha, also known as Ananta or Shesha, is the king of all serpents (Nagas) in Hindu mythology, revered for his role as Lord Vishnu's divine couch and as a primal being of creation. He holds all the planets on his hood and is a symbol of endless time, existing even after the universe ends. When Adishesha uncoils, creation begins, and when he coils up, the universe ceases to exist. Adishesha's five hoods are sometimes said to represent the five primordial elements: space (akash), air (vāyu), fire (tejas), water (apa), and earth (pṛthvī).

Krishna is called "Mayavi" because he is the master of Māyā, the divine power of illusion and creation.

The snake who adorns Lord Shiva's neck is Vasuki, the king of serpents, symbolizing Shiva's mastery over time, death, and the ego. The snake represents Māyā, and by wearing it, Shiva shows that he has transcended his Māyā.

The shedding of the snake's skin is a powerful symbol of the endless cycles of birth, death, and rebirth. Lord Shiva dances as Lord Nataraja at the destruction of each of the endless cycles. Lord Nataraja's dance, as the entire Cosmos, as the One Universal Being, is called the Cosmic Dance. And when Lord Nataraja finishes dancing, he is dissolved into the deep sleep that Brahman enters.

Figure 28: A seated Ardhanarishvara with both the vahanas (vehicles)

Ardhanarishvara, as shown in Figure 28, is depicted as half-male and half-female, equally split down the middle. This is seen to depict the idea of transgenderism, where the sūkṣma-śarīra's gender is what the jiva-ātman thinks he or she is, even if the stuhla-sharira, the physical body, does not correspond to to gender characteristics of the sūkṣma-śarīra.

Ardhanarishvara represents the synthesis of masculine and feminine energies of the universe (Puruṣa and Prakṛti) and illustrates how Shakti, Prakṛti, Māyā, the creative principle, is inseparable from Shiva, Puruṣa, Consciousness, the male principle of God. The union of these principles is exalted as the root of all creation and dissolution of Nature. The earliest Ardhanarishvara images are dated to the Kushan period, starting from the first century CE.

Nandi's (the Bull, Shiva's vahana) significance in Hinduism is multifold, representing devotion, righteousness, and strength. He is the eternal gatekeeper of Shiva's temples, where he is always depicted facing Shiva. Nandi is a potent symbol of the jiva-ātman (individual spirit) and its ultimate goal: to achieve union or realization of its oneness with the Parāmatman (Supreme Soul or Shiva)

The Lunar Cycle – Amavasya to Purnima

The 15 tithis (days) between amavasya (new moon) and purnima (full moon) are Pratipada, Dwitiya, Tritiya, Chaturthi, Panchami, Shashthi, Saptami, Ashtami, Navami, Dashami, Ekadashi, Dwadashi, Trayodashi, and Chaturdashi. The period from amavasya to purnima is the waxing phase called Shukla Paksha, and the period from purnima to amavasya is the waning phase called Krishna Paksha.

The moon represents the mind. The movement from amavasya (new moon) to purnima (full moon) may be seen as the evolution of the mind from asat ignorance to sat wisdom. The 14 days of the cycle from amavasya to purnima may be seen as representing the 7 lokas and 7 patalas of the 7 chakras.

The Bhagavad Gita

Figure 29: Lord Krishna's dialectic with Arjuna in the battlefields of Kurukshetra

In the Bhagavad Gita, the relationship between Arjuna and Krishna is a powerful allegory for the human spiritual journey:

- Arjuna represents the jiva-ātman: Arjuna, the warrior facing a moral dilemma on the battlefield of Kurukshetra, symbolizes the individual spirit (jiva-ātman) in the midst of life's inner and outer struggles (the "battlefield of the mind"). He is subject to confusion, grief, and attachment.
- Krishna represents the Atman (the Supreme Self/God within) and Buddhi (the Higher Intellect): Krishna acts as Arjuna's charioteer, guide, and spiritual mentor. In this role, he symbolizes the indwelling Atman (the eternal, unchanging self) and the Buddhi (the higher, discriminating intellect) that guides the jiva-ātman towards righteousness, wisdom, and self-realization.
- The chariot represents the body.
- The reins (manas, buddhi) are the operations of the mind (antahkarana).
- The horses are the senses (indriyas).

A selection of verses from the Bhagavad Gita (Radhakrishnan, S)[244] is presented below:

Stitha-Prajna, Samādhi, Jivan-Mukth, Stoic

2.55: When a man completely casts off, O Partha (Arjuna), all the desires of the mind and is satisfied in the self and by the self, then is he said to be one of steady wisdom.

2.56: He whose mind is not shaken by adversity, who does not hanker after happiness, who has become free from attachment, fear, and anger, is called a sage of steady wisdom.

2.57: He who is everywhere unattached, not pleased at receiving good nor vexed at evil, his wisdom is fixed.

2.58: When, like the tortoise which withdraws its limbs on all sides, he withdraws his senses from the sense-objects, then his wisdom becomes steady.

2.64: But the self-realized man, who moves in the world with senses under restraint, and is not attracted or repulsed by expectations or outcomes, is pure and experiences love and peace eternally.

2.65: That man who lives devoid of longing, abandoning all egoic desires, and has no sense of 'I' and 'mine', attains peace.

14.22 The Blessed Lord said: He who hates not knowledge (sattva), activity (rajas), and also delusion (tamas) when they are present, O Pândava (Arjuna), nor longs for them when they are absent, he is a jīvanmukta.

14.23 He who sits unconcerned, stoic, unshaken by the qualities (gunas), who, thinking that the qualities alone are operating, remains firm and moves not, he is a jīvanmukta.

14.24 He who is the same in pleasure and pain, who dwells in the self, to whom a clod of earth, a stone, and gold are the same, who is the same to the dear and the unfriendly, who is firm, and to whom censure and praise are the same, he is a jīvanmukta.

14.25 He who is the same in honour and dishonour, the same to friend and foe, abandoning all initiative for undertakings—he is said to have transcended his gunas (the tamas, the sattva, and the rajas), he is a jīvanmukta.

Disposition towards Efforts and Outcomes

2.47: Thy right is to action, to effort, to work only, but never to the fruits thereof. Let not the fruits of action be thy motive for thy actions, nor let thy attachment be towards inaction.

3.19: Therefore, always perform your duty efficiently and without attachment. By working without attachment, one attains the Supreme

3.4 Not by abstention from work does a man attain freedom from action, nor by mere renunciation does he attain perfection.

[244] Radhakrishnan, S., trans. The Bhagavadgītā: With an Introductory Essay, Sanskrit Text, English Translation and Notes. New Delhi: HarperCollins, 2010.

3.5 For no one ever remains even for a moment without performing action; everyone is made to act helplessly indeed by the qualities and impulses born of Nature.

3.6 He who restrains his organs of action, but sits thinking in his mind of the sense-objects, he, of deluded understanding, is called a hypocrite.

3.7 But he who, controlling the senses by the mind, O Arjuna, engages in work with the organs of action, without any expectation and without attachment of 'I', of doer-ship, he excels.

Duty, Righteousness

3.17: But, for the man who rejoices in the self, who is satisfied with the self, who is content in the self alone, for him there is nothing to do.

3.18: For him, there is no interest or gain in what he has done nor any in what is not done; nor is there dependence on anything or person for any purpose to be achieved.

3.19: Therefore, without attachment, perform always the work that has to be done, for man attains the highest peace by doing work without attachment.

18.5 O Arjuna, whatever action is due as duty to a role, gift, or penance is to be performed and not to be relinquished or renounced. The wise do the action because it is to be done, not because they have anything to gain or lose. They do not seek any glory in victory nor are they ashamed in defeat.

18.7 Verily, the renunciation of duty that ought to be done is not righteous. It is seen only as an action of the quality of tamas, ignorance, delusion, not the wisdom of one who has transcended his gunas.

Will, Ego, Doer-ship

3.27 Actions in all cases are done by the qualities of Nature. He whose mind is deluded by egoism thinks: 'I am the doer.'

3.33 Even a wise man acts in accordance with his own nature. Beings follow their nature. What can repression do?

3.36 & 3.37: Arjuna said: But, impelled by what does a man commit sin, though against his wishes, O Varsneya (Krsna), constrained, as it were, by force? The Blessed Lord said: It is desire, it is anger, born of the quality of rajas (ambition and power); all-devouring, all-sinful, know this as the foe here (in this world).

18.22: But that which clings to one single effect, as if it were the whole, without concern for the cause, without grasping the real, is declared to be of the nature of ignorance and dullness (tamas)."

18.59 If indulging in self-conceit, thou thinkest, "I will not fight". Vain is this, thy resolve. Your nature (gunas) will compel thee.

18.60 O son of Kunti, that which from delusion thou wishest not to do, even that thou shalt do helplessly bound by thy actions born of thy own nature, because that is thy will commanding you, unknown to thee.

18.61 The Lord dwells in the hearts of all beings, O Arjuna, causing all beings to turn around and move towards Him by His power as if they were mounted on a machine driven by the Lord.

Reincarnation

2.20: He (the ātman) is never born, nor does he die at any time, nor having once come to be will he again cease to be. He is unborn, eternal, and primeval. He is not slain when the body is slain.

2.22: Just as a person casts off worn-out garments and puts on others that are new, similarly, the embodied soul, casting off worn-out bodies, enters into others that are new.

2.28: "Beings are unmanifest in their beginnings, manifest in their middles, and unmanifest again in their ends.

2.42-2.43: The undiscerning who rejoice in the letter of the Veda, who contend that there is nothing else, whose nature is desire, and who are intent on heaven, proclaim these flowery words that result in rebirth, and not liberation, as the fruit of actions and they lay down various specialized rites for the attainment of enjoyment (of pleasures) and power.

4.5 Many are My lives that are past and thine also; all of them I know but you knowest not, O Arjuna.

6.41, 6.42 & 6.43: On reaching the path of the righteous, he dwells there for endless years, and the man who has fallen away from righteousness is born in the house of such as are pure and prosperous to pursue the path of righteousness. Or he is born in a family of yogins who are endowed with wisdom; verily, a birth as this is very difficult to obtain in this world. There he regains the mental impressions which he had developed in his previous life, and with this he and strives further for perfection.

7.19 At the end of many births, the man of wisdom takes refuge in Me, realising that I, Vasudeva (the Supreme), am all there is.

Wisdom

4.35 Knowing that, thou shalt not, O Arjuna, again get deluded like this; and by knowing that thou shalt see all beings without exception in the self and then in Me.

4.36 Even if thou art the most sinful of all sinners, yet thou shalt verily cross all sins by the raft of knowledge.

5.18 The wise see the same Self in a humble scholar, a cow, an elephant, a dog, and a dog-eater.

6.6 For one who has conquered the mind, the mind is the best of friends; but for one who has failed to do so, his mind will remain the greatest enemy.

6.21 & 6.22: That in which he finds this supreme delight, perceived in his mind and beyond the reach of his sense organs, wherein established, he is no longer away from the truth. That on gaining which he thinks that there is no greater gain beyond it, wherein established, he is not shaken by any feeling of sorrow or suffering.

6.30 He who sees Me everywhere and sees all in Me, to him I am not lost nor is he lost to Me.

6.31 He who, established in oneness, sees Me as abiding in all beings, lives in Me, whatever his way of life.

7.20 Men whose knowledge has been carried away by this or that desire, resort to other gods, following this or that rite, led and constrained by their own nature.

7.24 The undiscerning think of Me, the unmanifest, as having manifestation, not knowing My supreme nature, immutable and supreme.

7.25 I am not revealed to all as I am veiled by Māyā. This deluded world does not know Me, the unborn, the unchanging, the imperishable.

7.26 I know, O Arjuna, the beings of the past, the present and being yet to come in the future, but no one knows Me.

7.29 Striving for deliverance from old age and death, they take refuge in Me. Then they know all about the Brahman, the individual self, and about the law of karma.

10.9 With their minds fixed on Me, with their lives absorbed in Me, enlightening each other and ever speaking of Me, they are fulfilled and rejoicing in Me

10.10 To them, ever steadfast and seeking Me with devotion, I give that buddhi-yoga (the yoga of discrimination) by which they come to Me.

10.11 Out of mere compassion for them, I, dwelling within their selves, destroy the darkness born of ignorance by the luminous lamp of wisdom.

10.20 I am the Self, O Gudakesa (Arjuna), seated in the hearts of all beings; I am the beginning, the middle, and also the end of all beings.

10.42 What need have you of knowing this much, O Arjuna? I stand supporting this whole universe, pervading it with a single fraction of Myself.

Time

8.17 Those who know that the day of Brahma lasts for a thousand ages (yugas) and the night lasts for a thousand ages, they are the knowers of day and night. Day is the period of cosmic manifestation, and night is the period of non-manifestation. They are of equal period of time and alternate.

8.18 From the unmanifested all the manifested(worlds) proceed at the coming of the day; at the coming of the night, they merge and dissolve in that same, called the unmanifested.

8.19 This multitude of beings, born again and again, is dissolved helplessly at the coming of the night, and streams forth into being at the coming of the day.

8.20 But beyond this unmanifested, there is yet another Unmanifested Eternal Being who does not dissolve even when all beings dissolve

11.32 I am the mighty world-destroying Time, now engaged in destroying the worlds. Even without thee (thy action, O Arjuna, none of the warriors arrayed in the hostile armies shall live.

Revelation in the Mind's Eye as Intuition

11.7 Here today, behold the whole universe with its moving and unmoving parts, unified in this body of Mine, O Gudakesa (Arjuna).

11.8 But thou art not able to behold Me with these thine own human eyes; I give thee the divine eye; Behold My divine power.

11.16 I behold Thee, infinite in form on all sides, with numberless arms, faces, and eyes, but I see not Thy end or Thy middle or Thy beginning, O Lord of the universe, O form Universal.

11.17 I behold Thee with Thy crown, mace and discs, glowing everywhere as a mass of light, hard to discern, dazzling on all sides with the radiance of the flamin fire and sun, incomparable.

11.19 I behold Thee as one without beginning, middle, or end, of infinite power, of numberless arms, with the moon and the sun as Thine eyes, with Thy face as a flaming Fire, whose radiance burns up this universe. If the splendour of a thousand suns were to blaze forth all at once in the sky, that would be like the splendour of Thy Mighty Being.

Devotion of the True Seeker

12.13 He who has no ill will to any being, who is friendly and compassionate to all, who is free from attachment to desires and egoism, equanimous in pleasure and pain, and forgiving, has devotion to Me.

12.15 He from whom the world does not shrink in disgust, and he who does not shrink with disgust of the world, and who is freed from the excesses of pleasure, envy, fear, and anxiety—he is dear to Me.

12.16 He who is free from expectation, is pure, alert, unconcerned, untroubled, renouncing all undertakings (or enterprises) of gain — he who is (thus) devoted to Me, is dear to Me.

12.17 He who neither rejoices, nor hates, nor grieves, nor desires, renouncing good and evil, and who is full of devotion to Me, is dear to Me.

12.18 He who is the same to foe and friend, and also in honour and dishonour, who is the same in cold and heat, pleasure and pain, who is free from attachment,

12.19 He to whom censure and praise are equal, who is restrained in speech, content with anything, homeless, steady-minded, full of devotion—that man is dear to Me.

Prakṛti (the manifested universe of forms, gunas, senses, and the mind, memory, and Māyā) and Puruṣa (the conscious being, the ātman)

13.13 With his hands and feet everywhere, with eyes heads and faces on all sides, with ears on all sides as His Prakṛti, He, the Puruṣa dwells in the world, enveloping all.

13.14 The Puruṣa, having the abilities of the senses, yet without the senses; unattached, yet supporting all; free from the gunas (dispositions or qualities of prakṛti), yet experiencing and enjoying them.

13.15 He, the Puruṣa, is without and within(all) beings; He is unmoving and also moving; He is too subtle to be known, but He is the knower; He is far away, and He is also everywhere.

13.16 He, the Puruṣa, is undivided and yet He is divided among beings by His own Māyā. He is the Creator, the Sustainer, and the Destroyer of His Prakṛti, and He creates them afresh.

13.26 Wherever being is born, whether he be immobile or mobile, know thou, O best of the Bharatas (Arjuna), that it is from the union between the Prakṛti and the Puruṣa.

13.27 He who sees the Puruṣa abiding equally in all beings, the Imperishable in the perishable, he sees (truly).

13.30 When he perceives the diversified existence of beings as rooted in the One, and the spreading forth from That alone, then he attains to Brahman.

13.33 Just as the one sun illumines the entire world, so does Puruṣa, the Lord of the Prakṛti, illumine the entire Prakṛti, O Bharata (Arjuna).

13.34 They who, by the eye of their mind, as a revelation, perceive the distinction between Prakṛti and the Puruṣa and the way of liberation of beings from Prakṛti, the law of karma, go to the Puruṣa, the Supreme.

Penance

17.14 Respect for the twice-born, for teachers and for the wise, and those who are embodiments of purity, straightforwardness, continence, and non-violence, and to learn from them, this is said to be the penance of a seeker.

Quotes from other Scriptures, Philosophers, Mystics, and Poets

On Order, and the Divine Design

- Baruch Spinoza: "Nothing in nature is by chance. Something appears to be chance only because of our lack of knowledge." Ethics (1677), Part I, Proposition 29.
- Albert Einstein: "I want to know God's thoughts; the rest are details." & "The most incomprehensible thing about the universe is that it is comprehensible." Conversation with Esther Salaman (1925); recorded in A Talk with Einstein.
- The Bible (Proverbs): "The Lord by wisdom founded the earth; by understanding he established the heavens." (Proverbs 3:19)
- Taoism (Tao Te Ching): "The Tao is like a well: used but never used up. It is like the eternal void: filled with infinite possibilities." Tao Te Ching, Chapter 4.

On Death and Reincarnation

- The Tibetan Book of the Dead: "Death is real, a sign that we have played our part in the show. But the actor, the one who played the part, that one is real, and returns." Bardo Thodol (Note: This is a popular modern paraphrase of the "Great Liberation through Hearing").
- Vedānta (Yoga Vasistha): "The soul, having been born again and again in various wombs, becomes weary and seeks liberation." Yoga Vāsiṣṭha, Utpatti Prakaraṇa (Chapter on Origin).
- Rumi: "I died as a mineral and became a plant, I died as a plant and rose to animal, I died as an animal, and I was Man. Why should I fear? When was I less by dying?" Masnavi-I Ma'navi, Book IV.

On Angst (the dark night of the soul) and the Leap into Nothingness (śūnyatā)

- Søren Kierkegaard: "Anxiety is the dizziness of freedom." The Concept of Anxiety (1844), Ch. 2.
- Søren Kierkegaard: "The function of prayer is not to influence God, but rather to change the nature of the one who prays." Attributed in The Prayers of Kierkegaard (ed. Perry LeFevre).
- Søren Kierkegaard (On the Leap): "To have faith is precisely to lose one's mind so as to win God." Concluding Unscientific Postscript (1846).
- Nietzsche (Thus Spoke Zarathustra): "I say unto you: one must still have chaos in oneself to be able to give birth to a dancing star. I say unto you: you still have chaos in you." Thus Spoke Zarathustra, Prologue, §5.
- Nietzsche (Thus Spoke Zarathustra): "Man is a rope, tied between beast and overman—a rope over an abyss... What is great in man is that he is a bridge and not an end." Thus Spoke Zarathustra, Prologue, §4.

- Kahlil Gibran (The Prophet - On Joy and Sorrow): "The deeper that sorrow carves into your being, the more joy you can contain... When you are joyous, look deep into your heart, and you shall find it is only that which has given you sorrow that is giving you joy." The Prophet (1923), "On Joy and Sorrow."
- Stoicism (Marcus Aurelius): "You have power over your mind - not outside events. Realize this, and you will find strength." Marcus Aurelius, Meditations, Book 4.3.
- Zen: "Let go, or be dragged."
- Buddhism: "Peace comes from within. Do not seek it without."
- Bodhidharma: "Not thinking about anything is Zen. Once you know this, walking, standing, sitting, or lying down, everything you do is Zen." The Bloodstream Sermon (Tokusho).

On Illusion, and the nature of Reality

- Al-Hallaj: "I saw my Lord with the Eye of the Heart. I said, 'Who are You?' He said, 'You.'" (Ana'l-Haqq - "I am the Truth") Diwan al-Hallaj (Ana'l-Haqq).
- Bible (Luke 17:21): "The kingdom of God is within you."
- Buddhism (The Diamond Sutra): "So you should view all of the fleeting worlds: a star at dawn, a bubble in a stream, a flash of lightning in a summer cloud, a flickering lamp, a phantom, and a dream." The Diamond Sūtra (Vajracchedikā Prajñāpāramitā Sūtra), Ch. 32.
- Zen: "The moon is reflected in a thousand rivers, but the moon is only one."
- Taoism (Zhuangzi): "I dreamt I was a butterfly, flitting around in the sky; then I awoke. Now I wonder: Am I a man who dreamt he was a butterfly, or am I a butterfly dreaming that I am a man?" The Zhuangzi, Chapter 2, "Adjustment of Controversies."
- Bible (Ecclesiastes): "Meaningless! Meaningless!" says the Teacher. "Utterly meaningless! Everything is meaningless." (The illusion of meaninglessness of life when the reality of unconditional love is not seen.) Ecclesiastes 1:2.
- Islam (The Quran, 2:115): "Wherever you turn, there is the Face of God." The Quran, Surah Al-Baqarah (2:115).
- The Upaniṣads: "That is full; this is full. From fullness, fullness comes. When fullness is taken from fullness, fullness remains." Īśā Upaniṣad, Invocation (Shanti Mantra).
- Albert Einstein: "A human being is a part of the whole called by us 'universe', a part limited in time and space. He experiences himself, his thoughts and feelings as something separated from the rest, a kind of optical delusion of his consciousness." Letter to Robert S. Marcus (1950).
- The Bible (Acts 17:28): "For in Him we live and move and have our being."
- Taoism (Tao Te Ching): "The Tao that can be told is not the eternal Tao. The name that can be named is not the eternal name."
- Shawnee Prayer (often shared orally): "We are all one child spinning through Mother Sky."
- Buddhism (The Heart Sutra, Mahayana): "Form is emptiness, emptiness is form." The Heart Sūtra (Prajñāpāramitā Hṛdaya).

On the Self, and the Ego

- Nietzsche: "You say 'I' and you are proud of this word. But greater than this—although you will not believe in it—is your body and its great intelligence, which does not say 'I' but performs 'I'." Thus Spoke Zarathustra, Part I, "On the Despisers of the Body."

- Buddhism (The Dhammapada): "All experience is preceded by mind, led by mind, made by mind. Speak or act with a corrupted mind, and suffering follows... Speak or act with a peaceful mind, and happiness follows." The Dhammapada, Verses 1-2.
- Zen Koan: "What was your original face before your parents were born?"
- Taoism (Lao Tzu, Tao Te Ching): "When I let go of what I think I am, I become what I am." Tao Te Ching (Commonly attributed/paraphrased).
- Bible (Matthew 16:26): "For what will it profit a man if he gains the whole world and forfeits his soul?"
- Nietzsche: "Become what you are. No one can build you the bridge on which you, and only you, must cross the river of life. He who fights with monsters should look to it that he himself does not become a monster. And if you gaze long into an abyss, the abyss also gazes into you." Beyond Good and Evil, Aphorism 146. The Gay Science, §270 / Thus Spoke Zarathustra.
- Al-Ghazali: "Know yourself, and you will know God."
- Zen Proverb: "Let go, or be dragged."
- Shunryu Suzuki: "Leave your front door and your back door open. Allow your thoughts to come and go. Just don't serve them tea." Zen Mind, Beginner's Mind (1970).
- Judaism: "The beginning of wisdom is this: Get wisdom. Though it cost all you have, get understanding." — The Torah, Proverbs 4:7
- Søren Kierkegaard: "Face the fact of your own death. Only then will you have the passion to live authentically."
- Bulleh Shah: "Bulleh, to know the Self, die while alive; Die such a death that you are reborn at once." Kafi (Sufi poetry) collections.

On Suffering

- Buddha (The First Noble Truth): "Now this, bhikkhus, is the noble truth of suffering: birth is suffering, aging is suffering, illness is suffering, death is suffering..." Dhammacakkappavattana Sutta (Setting the Wheel of Dhamma in Motion).
- Søren Kierkegaard: "The greatest hazard of all, losing one's self, can occur very quietly in the world, as if it were nothing at all. No other loss can occur so quietly; any other loss - an arm, a leg, five dollars, a wife, etc. - is sure to be noticed." The Sickness Unto Death (1849).
- Søren Kierkegaard: "The most common form of despair is not being who you are." The Sickness Unto Death, Part I.
- The Bible (Romans): "Not only that, but we rejoice in our sufferings, knowing that suffering produces endurance, and endurance produces character, and character produces hope." (Romans 5:3-4)
- Stoicism (Marcus Aurelius, Meditations): "Treat whatever happens as if you had chosen it. Your will will be in harmony with nature, and your actions will be performed with a noble mind."
- Buddha (The Dhammapada, Verse 277): "All conditioned things are impermanent. When one sees this with wisdom, one turns away from suffering."
- Nietzsche: "To live is to suffer, to survive is to find some meaning in the suffering." Attributed (Common synthesis of Will to Power themes).
- Rumi: "The wound is the place where the Light enters you."

On Love and Peace

- Bible (1 John 4:8): "God is love."
- Bible (John 14:27): "Peace I leave with you; my peace I give you. I do not give to you as the world gives. Do not let your hearts be troubled and do not be afraid."
- Buddhism: "Your work is to discover your work and then with all your heart to give yourself to it." — The Buddha, The Dhammapada
- Nietzsche: "One must learn to love oneself with a wholesome and healthy love, so that one can bear to be with oneself and need not roam. Love is the state in which man sees things most profoundly different from what they are."
- Søren Kierkegaard: "Love does not alter the beloved; it alters one's self. The highest and most beautiful things in life are not to be heard about, nor read about, nor seen, but, if one will, are to be lived."
- Rumi: "Your task is not to seek love, but merely to seek and find all the barriers within yourself that you have built against it." Attributed (Commonly cited in Rumi anthologies by Coleman Barks).
- Hafiz: "Even after all this time, the Sun never says to the Earth, 'You owe me.' Look what happens with a love like that. It lights the whole sky." Attributed (From The Gift by Daniel Ladinsky).
- Attar of Nishapur: "The pain that you have been feeling cannot compare to the joy that is coming." The Conference of the Birds.
- Bible (The Christian and Hebrew Scriptures, 1 John 4:18): "There is no fear in love. But perfect love drives out fear."
- Zen Saying: "When you realize how perfect everything is, you will tilt your head back and laugh at the sky." Popular Zen adage (Oral tradition).

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Glossary

avijjā
: ignorance or falsehood

acharya
: teacher, preceptor

Advaita
: non-duality, a doctrine that establishes that the nature of one's existence as an individual spirit is not separate from the nature of Existence, or Brahman.

agni
: fire

ahaṃkara
: ego that causes the effect of suffering, which is due to Māyā's ignorance of the reality of Existence

ajñāna
: ignorance or falsehood

ākāśa
: space, aether, sky

ānanda
: love-bliss where all emotions are coalesced into its source, a heightened experience of unconditional love that emanates from one's self.

anitya
: impermanent, temporary, transient

antaḥkaraṇa
: inner instrument of the conscious mind when in the waking state

āpaḥ
: water

aparā
: not supreme; lower

aparā vidyā
: non-supreme or a lower form of knowledge; knowledge which is necessary but not sufficient (for psychological fulfilment)

asat
non-existence; non-being; unreal

asthira
unsteady, instable

ātmā
self; spirit

ātma-jñāna
self-knowledge

ātman
nature of the spirit of an individual human being, which is of the nature of Brahman, the Absolute Existence;

avidyā
ignorance or falsehood

bhakti yoga
yoking the self with the world based on untested beliefs

Brahman
Absolute Infinite Existence, Absolute Causal Entity

buddhi
higher-order intellect with the abilities of abstract thinking, which involves reflection, analysis, evaluation, synthesis

chanda
functional desires that arise from wisdom, after having realized the nature of one's reality and the reality of Existence

citta memory layer in the mind, consisting of conscious, subconscious, unconscious, and superconscious memory

dārśan
philosophy; a way of seeing (reality)

dārśanika
philosopher, visionary

duḥkha
suffering; depression

duḥkham
: suffering; depression

duḥkha-duḥkha
: ordinary suffering associated with physical pain

gunas
: qualities

jada
: inert, lifeless

jagat
: world, the manifest universe

jīvanmukta
: a person liberated from all suffering while living in a body; a stoic

jīvātman
: the individual spirit associated with an ignorant Māyā

jñāna
: knowledge, wisdom

jñāna yoga
: yoking the self with the world on the basis of some self-validation and validation from others

jñānis
: scholars

kāla
: time

karma
: principle of cause-effect applied to the psyche; see law of karma

karma yoga
: yoking the self with the world on the basis of some justification or evidence

law of karma

Governs the movement of the sūkṣma-sharira or the psyche, where it is being naturally transformed from asat, a psychological state of unstable existence in ignorance, to sat, an eternally stable psychological state of existence in wisdom

mahāsamādhi
the psychological state of being when all identities that one has associated with a life as a human being are given up, and the body-identity too is given up (this marks the end of the cycle of saṃsāra)

manas
the lower order intellect capable of remembering, understanding, and applying

mantras
chants, sacred sounds, words, phrases or prayers

Māyā
The controlling and cognitive apparatus of the mind (the intellect, memory, and a clock).

Māyā is also the creative principle by which a design of order is conceived.

Māyā of Brahman is used to conceive the universe.

Māyā of the Universe is the manifestation of the Māyā of Brahman and runs the universe in perfect order. Māyā of the universe manages the movement of the universe from instability to stability and the movement of the psyche from asat to sat

mithyā
unreal, false

mokṣa
the psychological state of being when all identities that one has associated with a life as a human being are given up, and the body-identity too is given up (this marks the end of the cycle of saṃsāra)

mumukṣutvam
a deep longing, an intense yearning for liberation from suffering

neti neti
not this, not that; a principle by which what the self is not is eliminated to know the reality of one's self

nirvāṇa
the psychological state of being when all identities that one has associated with a life as a human being are given up, and the body-identity too is given up (this marks the end of the cycle of saṃsāra)

nitya
permanent, eternal

nyāyas
: foundational axioms; logic

pañcamahābhūtas
: five fundamental forms of matter

parā
: supreme

parā vidyā
: supreme knowledge; knowledge that is necessary and sufficient (for psychological fulfilment)

Prakṛti
: Manifested Nature or Universe, or the nature of matter or the material world

pramāṇa-śāstra
: epistemology - a branch of philosophy that provides the basis for rational justification of beliefs

pṛthvī
: earth

Puruṣa
: Consciousness of Existence, Brahman, the Absolute Causal Entity

raja yoga
: yoking the self with the world based on unfalsified bhakti, karma, and jñāna yogas, where one has realized the reality of the nature of Existence

samādhāna
: focussed attentiveness

samādhi
: the existential psychological state of being of a jīvanmukta where one is liberated from all suffering

saṃsāra
: governs the spiritual journey of the jiva-atman from ignorant assumptions of one's self to wisdom in discarding all the ignorant assumptions. The cycle of saṃsāra is for the human being, while the law of karma operates for all beings until the universe is dissolved in the Absolute.

saṃskāras
: properties and configurations of the buddhi and citta

saṅkhāra-duḥkha
subtle form of suffering that arises from egoic clinging to the idea of a permanent, separate self, based on identity-attachment.

śānti
peace

sat
existence

Satya
Truth of the nature of the Absolute Causal Entity

siddhi
higher-order intellect (buddhi) intellect when it starts receiving intuitions from the unconscious memory

śraddhā
faith

sthira
steady, stable

sthita
centered; anchored; established

sthūla-śarīra
the gross physical body including the brain

sukha, sukham
happiness

sūkṣma-śarīra
the mind, the psyche, the soul

śūnyatā
a state of perfection of the mind where all false-identities of the self have been eliminated

svabhāva
nature of psychological being or personality

taṇhā identity-desire; craving to attain an identity for one's self based on attachment with the body, mind, and world, all of which are changing and dying.

titikṣā
: endurance

turīya
: fourth state (pure consciousness) beyond waking, dream and deep sleep states experienced at the end of samādhi and in mahāsamādhi

upādāna
: identity-attachment; a desperate clinging to things and thoughts from the world to satisfy identity-desires

Upaniṣads
: ancient sacred hilosophical texts of the Vedanta tradition

vairāgya
: dispassion, detachment, objectivity

vāsanās
: tendencies of behavior

vastu
: a non-living thing, substance made up of matter

vāyu
: air

Vedānta
: Ontological philosophical doctrine of Hinduism. The Upanishads and other texts expound this doctrine

vidyā
: knowledge, wisdom

vipariṇāma-duḥkha
: suffering caused by the impermanence of pleasure

vipassanā
: "the right seeing"; a way of seeing life, where all the false conceptions of the self have been given up

viveka
: rational discrimination

Yama

Hindu Lord of Death, the Lord of Wisdom, who destroys the ignorance of Maya. In the death of ignorance, Maya becomes Yama. (Maya inverted is Yama)

yoga a way of enjoining, or yoking the self with the world through conceptions in the mind