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# Towards a New Comprehensive Universal Science

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## Abstract

Any system in any domain of nature is a component of the universe. Therefore all events are expected to obey the basic norm (law) of the universe hence the basic laws are universal. Consistency and uniformity of nature are generally accepted except for the micro-domain physics. By embracing wave-particle duality, modern science has deviated away from the general norms of nature. By admitting 1) mass-less particles and hidden mass, 2) different types of structure for centrally organized systems (such as the solar and atomic systems), and 3) some forms of matter carrying charge while some other are neutral, have also contradicted the uniformity of nature. Apart from that, quantum physics in the micro domain overlooks the cause-to-effect analogy, which is our standard framework for interpreting naturally occurring phenomena. Further, mass and space are the universal physical entity present in all domains, therefore 1) science of finer domain can be made universal by identifying rest mass in so called mass less particles. 2) Understanding the charge property of matter in micro domain as a function of mass and space helps unification of charge property by identifying non-electric charges in matters of other domains. 3) Developing a new understanding of light as a particle bearing mass and non electric charge to explain all phenomena of light without wave particle duality. In light of the foregoing, we may have to adapt some of our fundamental concepts of physics in order to harmonize micro and macro domain physics. For a unified understanding of nature, this article proposes some new concepts of certain fundamental entities.

## Introduction

The study of many facets of nature is attempted by various sciences (Vedic science, spiritual science, modern science, etc.). Hence, it is most likely that the aspect-based sciences have inherent harmony. We however failed to realize the hidden harmony. Modern science ignores Vedic science and considers spiritual science as beyond science. This author contends that while many disciplines focus on studying various aspects of nature, it is feasible to unify the aspect-based sciences by synchronizing ideas about the fundamental elements of the cosmos and how they interact. As nature is unchangeable, several sciences can examine various elements of nature. At present the differences between different sciences are so much that one science does not understand the other. The consistency and uniformity of nature are the primary norms of nature hence they should not be altered while developing the system-based/domain-based science. The basic constituent of the universe is mass and space and both are physical. Though all components of the universe are basically constituted



by mass and space but they have different mass-space integration leading to different forms and form-based properties. The science, dealing with form-less mass & space and mass-space interactions is universal whereas the science, dealing with formed objects comprising mass and space and having form-based properties leads to local system-based/domain-based science. It may be seen, the mass attraction Newtonian gravity or the Einstein's space-time gravity are universal. On the other hand, the charge interactions of form based constituents (electrons, protons, quarks etc.) leads to local interactions in micro domain. If the charge property of matter can be understood from specific non-equilibrium state of mass-space association then different non-electric charges can be identified in matters of other domains. The charge interaction can be made universal when charge in matter is expressed as a function of mass and space. The cause of all four-fundamental forces of nature can be understood from the basic mass-space interactions. There is no reason why the structure and feature of solar system and atomic system shouldn't be same? Indian philosophy based on Vedic concepts assumes complete similarity between microcosm (human system) and macrocosm (universe) and is successful in predicting different aspects of nature. Modern science has made domain specific assumptions thereby differentiated the physics of micro domain and macro domain. Further modern science has many limitations due to domain-based understanding as it explains only how things happen, and fails to understand why things happen. The limitations of modern science can be removed by harmonizing the basic concepts of other sciences, specially the Vedic science. The author aims at a new comprehensive understanding of nature by making appropriate changes in the basic concepts of modern science in the light of Vedic science and exploring the finer domains (spiritual domain/micro-micro domain) of nature.

## Analysis on new concept

Curiosity and urge to understand different happenings of nature have given rise to different sciences such as Vedic science, spiritual science, modern science, life science, homeopathic science, astrological science etc. Different sciences made different fundamental assumptions to explore different aspects of nature. Unfortunately, there is no compatibility among them even though all are aimed at studying nature.

The early approach of all sciences was based on consistency of nature, uniformity of the norms of nature and cause-to-effect analogy for analysis of events. Modern science while trying to understand different phenomena of light introduced wave-particle duality and further extended the dual nature to electron. This made a serious damage to our notion on consistency of the norms of nature. Again, when all attempts to develop the atomic model in the light of the structure of solar system failed, scientists overlooked the vital aspect of uniformity of nature and developed a result oriented mathematical model of atom by introducing new quantum concepts for micro domain. The quantum atomic model diverges away from the similarity of structure and dynamics of solar system thereby breaking the uniformity of nature.



At present, light particles and different field forming particles are considered mass less i.e., their mass (rest mass) is zero. This is again a deviation from the uniformity of nature. The light particles are not micro particles, they are particles of matter in finer domain (say, micro-micro domain), and thus the mass of light particles can only be expressed in micro-micro domain mass-scale units. This **may be** made clear from the following analysis. The mass of atomic or subatomic particle is not zero in atomic mass units (AMU) but becomes zero in solar mass unit (SMU). If an atom makes collision with a celestial body, it will not produce any change of velocity of the celestial body. From momentum balance equation, one **may** find the mass of atom as zero in SMU. But the said atom (micro particle) has mass in AMU. Likewise, the light particles having zero mass in atomic mass unit (AMU) have mass in micro-micro domain mass units (photonic mass units). The light particles in micro-micro domain having matter value have their rest existence. Therefore, light particles have placement in atomic structure as well as in space medium in the form of space matter particles. Hence, the real extra-nuclear structure of atom is composed of electrons and light particles. Thus, the mathematical atomic model with electrons alone forming the extra-nuclear structure is not the reality. A real atom has extra-nuclear structure composed of both electrons and light particles. Therefore, the conceptualized electrons in mathematical atomic model additionally proxy the role of light particles, hence the said electrons are hypothetical. The electrons in real atomic structure do not create light particles since the light particles present in the extra-nuclear space structure are simply released from different peaks of potential structure when the atom is excited externally.

Again, the light particles of micro-micro domain and celestial bodies of macro domain are considered charge neutral as they do not carry electric charge. The presence of non-electric charges in electrically neutral particles/bodies cannot be ascertained from electric charge interaction therefore their existence cannot be ruled out. It is more so for the uniformity of nature.

In modern science we have accepted many limitations of the universal law of gravity. We have again introduced special relativity for **analyzing** the dynamics of matter at very high speed. Decay of matter at any stage is inevitable but the atoms are assumed non-decaying. How can a structure composed of atoms decay when the atoms do not decay? Improper understanding of nature has made us to accept many unrealistic hypotheses. The domain-based understanding of nature with domain specific basic assumptions has made the micro domain physics different from macro domain. According to this author, if we correctly grasp the fundamental universal norm of nature, then any law of nature would neither face limitation nor requires special treatment.

Our mental knowledge of the uniformity of nature is harmed by the domain-based understanding of the structure and dynamics of matter for the micro and macro domains, the concept of mass-less light particles, the concept of charge confinement to micro domain particles, and other ideas. Further, the cause-to-effect analogy is the most



general basis of continuity of understanding in all sciences except for micro domain physics (quantum mechanics). The consistency of nature (non-duality), uniformity of nature (similarity of structure & dynamics in different domains) and cause-to-effect analogy (every event has a cause) are basis on which our common-sense operates. The quantum mechanics does not entertain common-sense logics. The philosophical and metaphysical consideration has no value in mathematical micro-domain physics. At present modern science has the only scope of exploring the dark areas of nature by probing through mathematical equations based on symmetry. If similarity of structure and dynamics in different domains of nature exists, then only mathematical symmetry is feasible. Mathematics is only a language to describe the complex structure & dynamics of physical existences in the universe based on axioms. Behind every mathematical equation yielding result, there is existence of a physical reality. Modern physics is unable to find the prevailing structural similarity between micro domain and macro domain thus to speculate the structure of micro-micro particles by further extrapolation is not possible.

The discovery of micro domain physics gave a boost to macro domain science. Similarly, the discovery of micro-micro domain physics has the scope to reveal many secrets of nature including the cause of quantum phenomenon in micro domain physics. The macro bodies are known to have both macro structure and microstructure. Now from the above new consideration, the micro particles have micro-microstructure. Thus, any macro existence has coexisting macro structure, microstructure and micro-microstructure. Each of the above structures remains in equilibrium and also it remains in equilibrium with other two co-existing structures. Therefore, the structure dependent property & behaviour of a macro body can be known either from study of microstructure or from study of micro-microstructure. Modern science is yet to explore the micro-micro-domain physics but however, the functional properties of micro-microstructure are unknowingly taken care of through quantum assumptions thus enabling the quantum physics to yield result. We cannot understand the basis of quantum assumptions without exploring micro-micro domain physics. The quantum assumptions in modern science provide the continuity of knowledge in the absence of micro-micro domain physics. As the matter value of micro-micro domain particles is zero in AMU scale, the science of matter in finer domain becomes non-materials science (spiritual science). Thus, the spiritual science is considered beyond science. The light particles constitute the fine structure of mind, and the very consciousness appears when our interactive mind gets linked to objects and events of universe through exchange-radiation. Spiritual scientists are ignorant of micro domain physics therefore, they use the term *Maya* for continuity of knowledge. Proper analysis of three domain structure would help to unify materials science and spiritual science.

The concept of space plays the vital role in understanding the reality of nature. Even today the concept of space is not very clear to modern science. Vacuum polarization, energy states of different space pockets etc. speaks of the physical status of space. Many hypotheses are made to justify the physical nature of space such as curved space, mathematical space with hypothetical objects and events etc. Space devoid of real or hypothetical matter is considered relational in the present concept. For clarity of understanding the nature of space, modern science could have considered the



concept of space from Vedic science. According to Vedic science the physical constituents of the universe are only five [**Panchamohabhuta**: Earth (Prithvi), Water (Jal), Fire (Agni), Air (Vayu) and Space (Aakash)] where space itself is a physical entity. Thus, space does not require the association of any real or hypothetical objects to qualify it to be physical. The other four-elements of **Panchamohabhuta** being only different states of matter, the constituents of the universe are reduced to matter and space only. Again, the content of matter is known as mass. Therefore, the universe comprises only mass and space as the basic constituents. **Ayurveda** gives the clue that mass contains space and space also contains space matter particles. Thus, according to Vedic concept, any existence in the universe is only a mass-space integral system. When the mass component is significant, we call it as matter and when the space component is significant, we call it as space. We are conversant with density of matter/mass (mass per unit volume). Like the mass-density we have also density of physical space (space content per unit volume). The new term 'space density' is not perceivable with prevailing geometrical concept of space. Both matter and space being physical, geometry is equally applicable to matter as well as space. But geometry cannot fully represent all aspects of matter or space. The physical space is elastic, therefore compressible and hence can have different space densities in different space pockets.

All forms of matter being mass-space integral system, the very formation of matter, stability of matter in static & dynamic states and dissociation of matter are caused by forces derived from the nature of mass-space interactions.

Some scientists feel, nature may be simple, and the universe is governed by a single universal norm (law) responsible for the dynamics of universe and its components in different domains. Thus, the structure and dynamics of solar system and atomic system may be similar despite our present knowledge of atomic and sub-atomic physics through quantum mechanics and the solar system through classical mechanics. The new micro domain physics, suggested by this author have scope to accommodate cause-to-effect analogy in the new atomic model. We study the atomic system externally by exciting the structure of atom; on the other hand study the solar system from within the solar system in its natural state. Lac of similarity between atomic system and solar system has appeared due to defective comparison of the systems. When the planetary atomic model was suggested by Rutherford many of the features of solar system were not known. Thus the atomic model prepared by incorporating the incomplete features of solar system was deficient to explain all atomic phenomena. **This author** has made a detailed study of the structure of solar system and shown that the new atomic model having similarity with the structure of solar system is able to explain all phenomena of nature. The general norms of nature (consistency, uniformity and cause-to-effect analogy) are maintained in the analysis of atomic phenomena.

If somehow a new comprehensive science becomes feasible then it would require appropriate modifications in the basic concepts of modern science. **This author** has made a humble attempt to develop a comprehensive understanding of nature by introducing new universal concepts. These new concepts and associated development



of a comprehensive unified science are dealt in a seven-volume Book-Series on “**Dynamics of Universe-Interplay of Matter, Space and Charge**’ published by this author [1].

This series of publication [1] is aimed at developing a unified understanding of different happenings of nature in different domains. The new understanding not only looks for unification of forces of nature but also attempts to understand the cause of the forces. For a unified force, the structure and dynamics of all centrally organized systems in different domains is expected to be similar. The spiritual science operating in finer domain of mind and homeopathic & astrological sciences believing on existence of particles in finer domains reveals the fact that matter exists in micro-micro domain. The light particles and different field forming particles existing in nature can be considered as particles of matter in micro-micro domain and they have mass in micro-micro domain scale units.

Particle physicists assume that forces are transmitted by exchange of gauge bosons (photons, gluons, W&Z particles) as force carriers. They have achieved grand unification of electromagnetic, strong-nuclear and weak-nuclear forces. They anticipate exchange of graviton for gravity, but this is not established yet. In the above exchange of force-carrier particles we fail to understand the cause of exchange of force carrier particles and how the particles carry different forces.

The new basic mass-space interactions [2], proposed by this author, explain the cause of the forces of nature thereby unify the forces at the level of their common cause. The new basic concept explains the events in different domains from a universal mass-space interaction. These are discussed in detail in the above series of publications by this author.

## Conclusion

Science can reach a new height by exploring into the finer domains of nature. We should be humble enough to care for the values of other sciences even if it is incompatible with the ideas of contemporary science; who knows, the contradictory ideas of Vedic science could contribute to the advancement of current science and the creation of unique, comprehensive knowledge of the natural cosmos.

## References:

1. <https://philosophyofnature.org.in/books>.
2. Mass Space Structure of centrally organized systems, of this issue.