

# The sub-wave fabric of the universe

*A new way of looking at creation, with a central role for biological perception*

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## Abstract

A deeper and more comprehensive level of causality of physical interactions is proposed, based on the so called “Four Chamber” approach of the Indian preceptor Shrii P.R. Sarkar, also referred to as Microvita Cosmology. The emphasis here lies on the sub-wave fabric of creation, suggested by Sarkar. A proof of concept is given by using this new approach to accurately predict the wavelengths of the primary colors, which in turn may hint at a principal way of counting microvita. The latter was suggested by Sarkar to be crucial in future chemistry, bio-chemistry, etc.

*Keywords: P.R. Sarkar, microvita, sub-waves, color perception, primary colors, retinal peak-sensitivity, Four Chambers of the universe, cosmology*

As our understanding of life and creation deepens, it typically tends to become more and more abstract, to the point that we may find it difficult to still perceive a meaningful connection between that which we have learned, and practical life. In modern physics (quantum physics and relativity theory) this is not really different than in philosophy. A practical approach is therefore to shift our focus toward the cause and nature of our perceptions directly, away from the complex physical, psychological and spiritual phenomena they imply. Such kind of approach of causality was hinted at by Shrii P.R. Sarkar when suggesting to “study the impact of the inferences on the propensities”<sup>1</sup>. The term “impact” seems to imply that this line of thinking is not based on emerging phenomena, but on far more fundamental interactions. This is then systematically worked out into what he refers to as the “Four Chambers of the Universe”<sup>1</sup>. Sarkar advises that “this is not an easy subject”<sup>1</sup> obviously while we can no longer take the help of familiar physical, philosophical and other concepts, contexts and paradigms. In other words, the obvious challenge is to appreciate Sarkar's “Four Chamber” approach of cosmology spot-on, as it is, and this is precisely how he introduced it.

Nevertheless an important and very helpful context was pointed out by Marcus Bussey, while not à priori discussing the technicalities of Sarkar's new cosmology, but the way how we approach it, that is, with a great emphasis on our intuitional powers as a distinct scientific and “mental-lab” tool <sup>2</sup>. It might seem somewhat controversial at first, that precisely this approach holds the promise of “solving a few problems in society in a nice way” <sup>1</sup>, in other words, to yield practical applications.

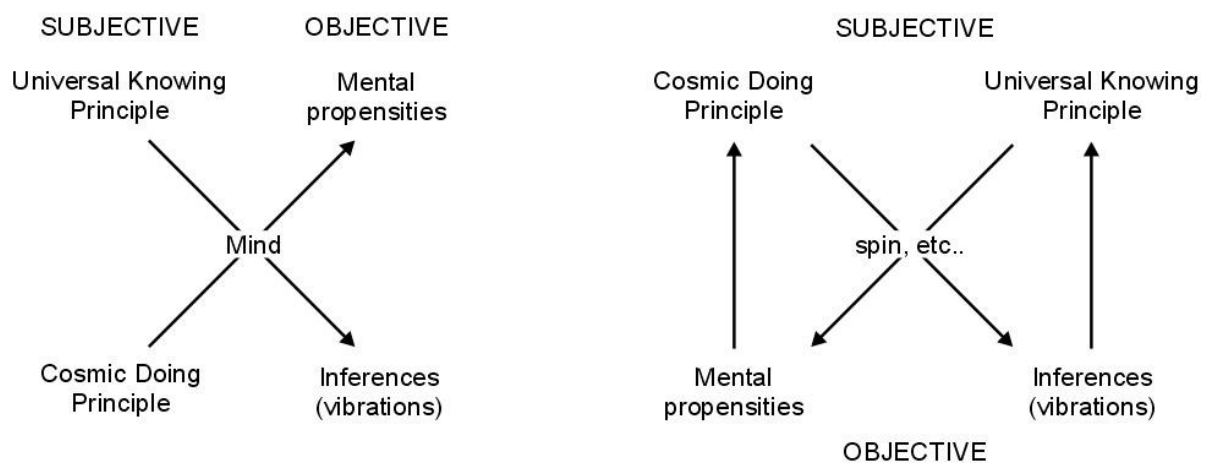


Fig. 1 - Shrii P.R. Sarkar’s “Four Chambers of the Universe”, different arrangements.

The examples of different arrangements of the Four Chambers of Creation (Fig. 1) are both functionally identical, showing a non-commutative (or: “bifurcated” <sup>1</sup>) concomitance between the radiant (sentient) and consolidating (static) principles. The table at the left, as in the original literature, is centered on the relation between observer and observed, and is therefore a rather psychological approach. The diagram at the right is centered on the manifestation of energy with “conscience behind it” <sup>1</sup>, accounting for original cyclic expressions in quantum physics, biology and astro-physics (note: the upward pointing arrows indicate synthesis through subjective attraction). It cannot be emphasized enough that, like in philosophy, i.e. in the case of a *saincara* (extroversial-) vs. *prati-saincara* (introversial expression) <sup>2</sup>, the existence of the “Four Chambers” and their fundamental interactions is to be realized through the process of deep intuitional inquiry (*Tayoh siddhih..* <sup>2</sup>), i.e. a scholarly empirical approach alone is insufficient. This is not merely a way to acquire knowledge which might otherwise be inaccessible - the very process of the “Four Chambers” itself is, at least in part, intrinsically subtle.

If we do wish to go into the technicalities a bit more, one tangible and very useful clue was given by Shrii Sarkar in the form of “sub-waves”, a concept yet unknown in physics as well as in philosophy: “Waves are created when microvita move through the media of inferences. Inferences are the major waves, but sub-waves are created in them by moving microvita. The major waves function as the controlling waves for the sub-waves”<sup>1</sup>. It is an interesting and potentially powerful approach, as by its very definition it obviously aims to bridge abstract with matter. Therefore we wish to study how the concept of sub-waves could help deepen our understanding of the direct cause and nature of our perceptions, by means of the “Four Chambers of the Universe”.

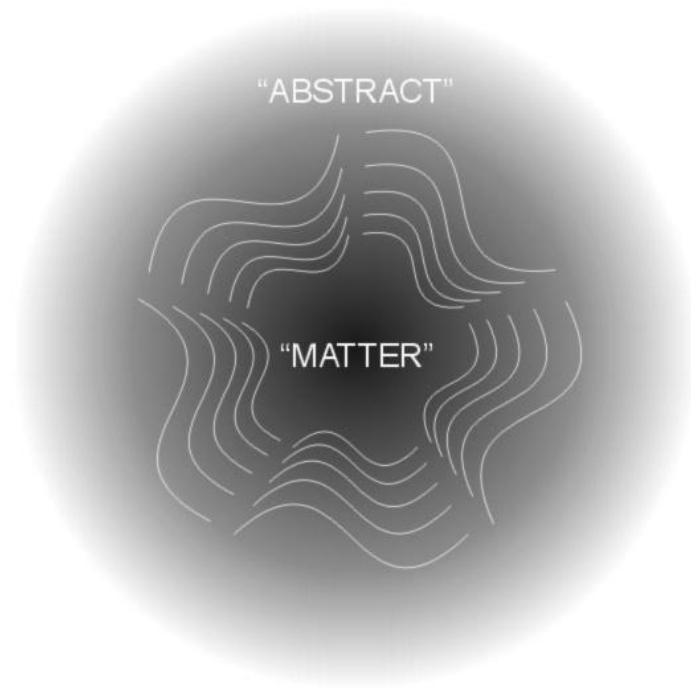


Fig. 2 - Sub-wave ensembles on the boundary between matter and abstract.

For this we will consider the concept of *Bhavastha*, translated by Sarkar as “abstract”<sup>1</sup>, obviously in the sense of “the Abstract” as a universal principle, rather than personal abstractions or imaginations, etc... Interestingly, Sarkar introduced *Bhavastha* in the context of the Four Chambers of the universe, without any explanation, and this might in fact be an important hint that *Bhavastha* refers to a primordial principle. In other words, there is probably not much we can say about it, other than in relation to the “Four Chambers” and their interactions.

If sub-waves (Fig. 2) emerge within the *Bhavastha*, for reasons which we may investigate further, helping in the creation of “main waves”, then by definition these main waves cannot be of the same nature as normal physical waves. After all, in that case the causal premise of the Four Chambers approach would not be fulfilled. Therefore, the main waves are referred to by Sarkar as “inferences”<sup>1</sup>. Inferences could be understood as waves, in the bigger causal framework of Sarkar's Four Chamber cosmology, and somewhat more specifically, as the original or formal cause and nature of our perceptions as referred to earlier. Note that the sub-wave process as depicted in Fig. 2 does not constitute a plain polarization as suggested in this simplified image, rather it is a complex, a-symmetrical and infinitesimal vibrational state away from (“plus or minus”) equilibrium. This is how “consciousness” enters into the creation.

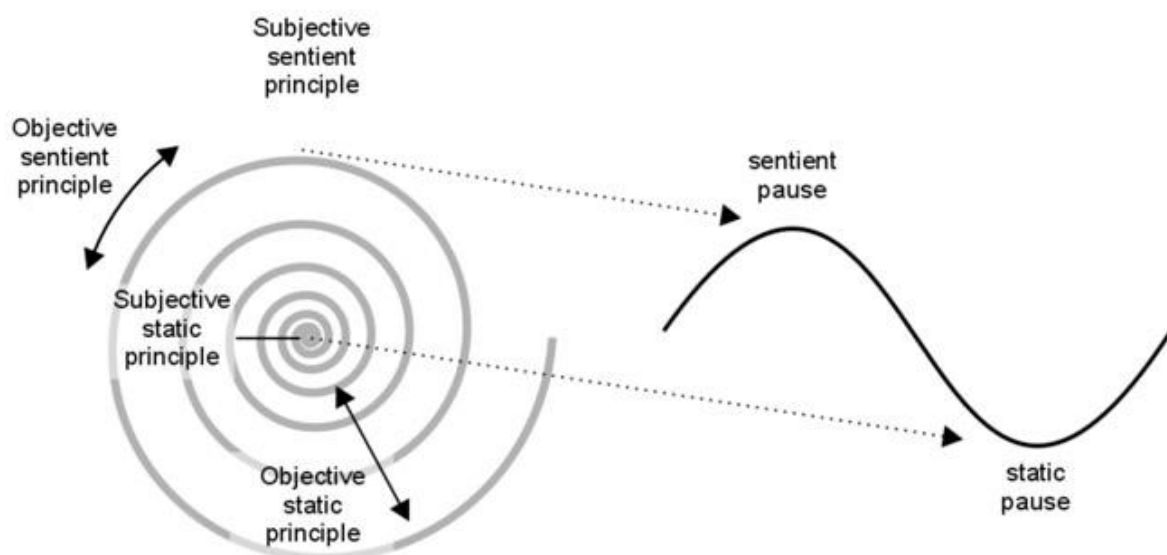


Fig. 3 - The logarithmic spiral: more than a mere analogy of the axiomatic Path into creation?

A logarithmic spiral as shown in Fig. 3 can be a very helpful analogy of the actual physical effect of a coherent sub-wave ensemble of sentient and static interactions on the boundary between matter and abstract. Out of the primordial, unmanifest state of simultaneous time and space, a an “inference” is borne, projected into, and then perceived as a main wave propagating through continuous time and space. Detailed study further shows that the spiral path into creation may in fact be far more than a mere analogy<sup>5</sup>.

The question arises then, can we relate these inferences, created and supported by the sub-

waves of the *Bhavastha*, to practical life more easily and meaningfully than the abstractions of physics and philosophy? For this we will look a bit deeper into the nature of the Four Chambers of the Universe, as they are imminent in the boundless ocean of creation. Initially, some concepts of spiritual philosophy might be helpful, provided they are used judiciously and with a certain reservation.

A well-known sutra is: '*Paramashivah Purusottamah vishvasya kendram*'<sup>3</sup>, meaning, the Cosmic Nucleus and the Supreme Cognitive Entity are essentially (in terms of absolute causes) one and the same. However, in what we consider the normal world of time, place and person (relative causes), the Cosmic Nucleus relates to every natural entity, from atoms, to organisms, to stars, existing in the different planes of the vast cosmic arena. Our actual perception exists right on the boundary of these two complementary stances, that is verily, "on the silver lining between matter and abstract"<sup>1</sup>. It is by means of the Four Chambers of cosmology, that we can begin to understand and meaningfully formulate that boundary, at first intuitively. In other words, to be able to describe how abstract turns into matter and following from that, the universal cause and nature of inferences and thus of each and every of our perceptions. It is a scientific approach and new line of thinking, different than physics and philosophy.

The fundamental principle which separates the nuclear from the cognitive aspect was referred to by Sarkar as "bifurcation"<sup>1</sup>, or "forking-in-two". It is important to keep in mind that bifurcation always applies to one principle, to one plane, at a time, and this is therefore a good way to build and test our hypothesis. Nevertheless, the final separation of matter and abstract, or somewhat poetically, between Heaven and Earth, would still remain rather theoretical, were it not for the personal, truly narrowed or self-contracted viewpoint. The latter could be viewed as the sum total heuristic simplifications of our perceptions, built up during evolution. In philosophy this is referred to as *citta* or mind stuff. It's a bit of a Greek tragedy, that, in order to evolve, we first isolate ourselves through ever greater generalizations, and this way alienate ourselves from our true nature.

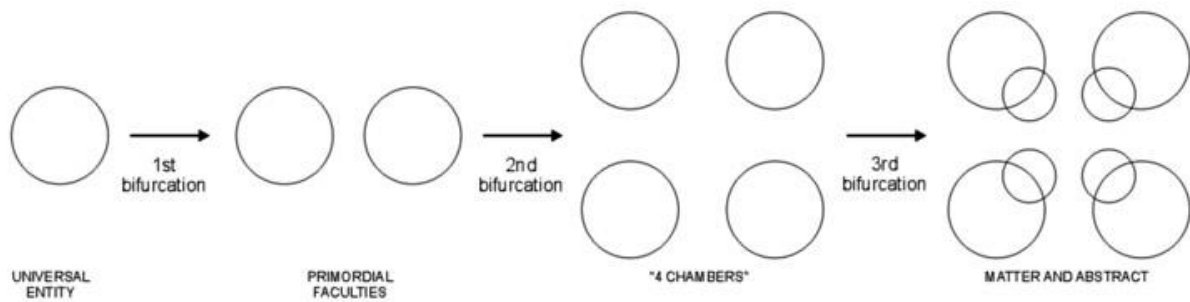


Fig. 4 - Subsequent bifurcation phases. In each step a new plane of reality is introduced.

At this point we may begin to see that the cosmic process and the cause of our perceptions, are in fact one and the same, and that this whole process exists exactly on the boundary between matter and abstract. Again quoting Sarkar: “this is not an easy subject”<sup>1</sup> - it is a very subtle approach, also referred to by Sarkar as “conception in the form of perception”<sup>1</sup>. Clearly it is far from a mere scholarly approach - it is a process of becoming most intimate with the very nature of life and creation.

In this playing field of the dimensionless *Bhavastha*, bifurcating into a plethora of physical and psychic planes and media, we can discern the role of sub-waves, and this may help developing a more precise scientific approach, eventually yielding practical applications. Following Sarkar's line of thinking and vocabulary, the role of sub-waves is prominent in the creation of “solidarity in the planes of inferences”, through processes of “refraction and reflection”<sup>1</sup>. Clearly, it is not stated that these interactions take literally place between inferences (main waves), rather within the medium of the latter. This medium, as we have seen, exists on, and in the form of the boundary between matter and abstract.

The inner dynamism of that boundary is one of “plus or minus equilibrium”<sup>1</sup>. in other words, poised at the edge of equilibrium. Here we see the principle of sub-waves at work. At this point a subtle disambiguation may be needed, which also has a certain philosophical interest. Namely, the concept of “edge of equilibrium” (etc..) is mostly metaphorical. The Universal Entity, or in philosophy, Brahma, is always in perfect equilibrium. Yet it's existence can be proven. In philosophy this is referred to as ‘*Tayoh siddhih saincara pratisaincara ca*’<sup>3</sup>. This is however not the direction we're taking in a scientific approach. Without going into detail here, the latter is based on the mathematical concept of self-recurrence (roughly, waves within waves, etc..). This style of self-recurrence is what causes the principal actional and cognitive

faculties to become distinct and emerge within the Abstract. The philosophical equivalent of this self-recurrence, as the true nature of creation, is known as *swabhava*. In other words, there exists a mathematical approach of *swabhava*, and this results in the sub-wave structure of the universe and its imminent nuclear and cognitive aspects. The recurrent or self-similar or scale-invariant sub-wave ensemble naturally has an infinite and an infinitesimal aspect, both of which are entirely abstract.

So, it is the sum total perpetual sub-wave interactions which through their style of solidarity in the planes of inferences bring about the still somewhat theoretical bifurcation of the Abstract. Then, in a sort of retrograde style, the heuristic simplification of our perceptions causes so to speak, the ‘separation of Heaven and Earth’. This is how the story of life unfolds. More specifically, one type of sub-wave interaction causes the transformation of what we might refer to as the *Purusottama* of philosophy, into a more or less tangible nucleus. This was referred to as Sarkar as the cosmic “Doer-I”. In other words, the “Doer-I” is the manifestation of *Purusottama* on the boundary of matter and abstract. Similarly, the second type of sub-wave interaction relates to *Paramashiiva*, the expansive principle, referred to as “Knower-I”. The necessary bifurcation of both the “Doer-I” and the “Knower-I” into subjective faculties and their objective counterparts creates the cross-connected (i.e. non-commutative) diagram of the Four Chambers (Fig. 1). In other words, here, “matter” is not necessarily “objective”, nor is “abstract” “subjective”. The Four Chambers all exist “on the silver lining between matter and abstract”<sup>1</sup>, and what we might philosophically refer to as “cruder mind stuff” or *citta*, is simply the more contracted form of matter and abstract. There is no yellow brick road between philosophy and science.

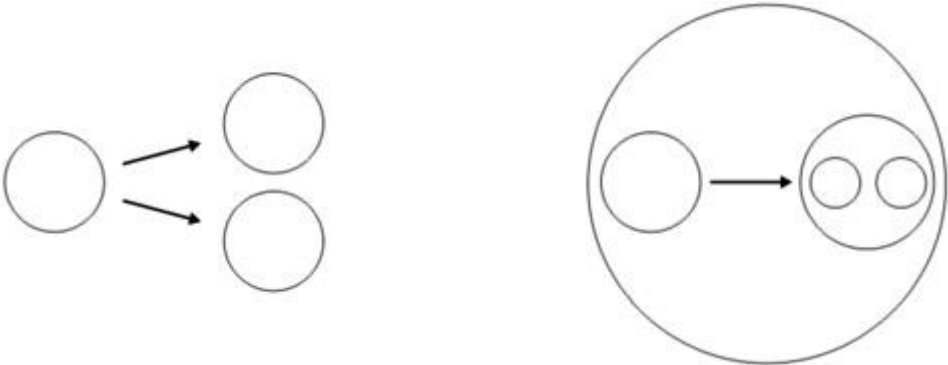


Fig. 5 - Polarization vs. bifurcation.

Fig. 5 shows different interpretations of the fundamental creation process. The former is the conventional, analytical approach. In the latter case, the created state, the act of creation and the primordial entity remain the same. Yet this process, *swabhava*, is not trivial. The systematic approach is to realize the imminent Faculties through *siddhi* (extra-ordinary power) in the field of knowing, that is, intuition. If the fundamental interactions are expressed in terms of sub-waves, this can help establish meaningful connections with classical and modern physics, biology, psycho-physiology, etc..

Unlike the metaphysical archetypes of spiritual philosophy, the boundary of sub-wave interactions of the universe can be described, measured and verified. Various results were found so far, ranging from a sub-wave geometry based accurate prediction of the wavelengths of the primary colors and the resonance peaks of the vowels of human speech, to various practical applications in the field of psycho-physiology. Other research is focused on a sub-wave analysis of the DNA, eventually aiming to predict preferred base sequences based on other mechanisms than Darwinistic evolution alone.

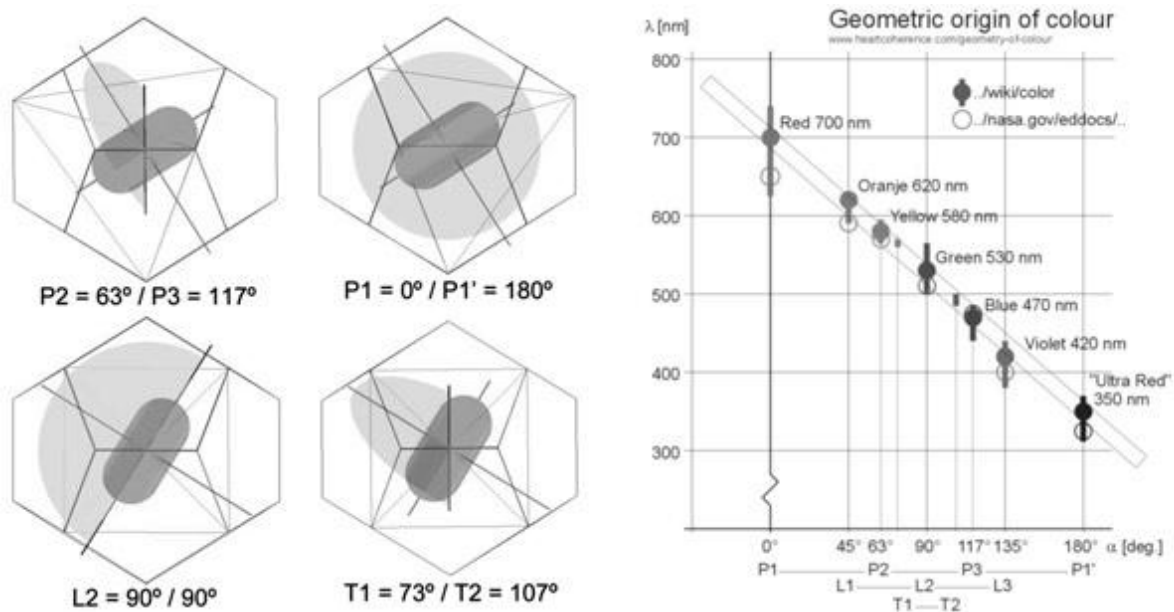


Fig. 6 – The Geometric Origin of Color, showing interactions within the geometrized sub-space and the resulting correct mapping of the wavelengths of the primary colors.

As the *Bhavastha* (sub-space, boundless vibrational ocean) is dimensionless, the only thing which can exist there is pure ratio. During the bifurcation, this ratio is instrumental in the



creation of sub-wave assemblies accounting for the primordial “Doing” and “Knowing” Faculties or “Chambers” of the universe. In a subsequent stage, after the differentiation between matter and abstract, the imminent ratio’s and the corresponding respective “Chambers” may manifest in the form of actual (however subtle) dimensional geometries (i.e. relative to the created world). This phenomenon is likely what in the course of time became popularized as ‘Sacred Geometry’. It is hypothesized that certain geometrical interactions (so called interdigitations) would match and thus strengthen the primordial energy flow more than others, resulting in intensified perception. This was beautifully and reproducibly confirmed through the so called ‘geometric origin of selective color perception’<sup>4</sup>, as shown in Fig. 6. The wavelengths corresponding to subtle geometrical interdigitations can be calculated, and accurately match, resp. predict the formally agreed primary colors, that is, the exact spectrum positions of intensified color perception. Additional proof was found in the accurate calculation of the retinal peak sensitivity.

This way, through the application of sub-wave cosmology, the cause of primary colors can be described and their wavelengths can accurately be reproduced. Vice versa, this is of course a practical and useful confirmation of the sub-wave principles of Shrii P.R. Sarkar’s Four Chamber cosmology. A more detailed approach of the physical principle underlying selective color perception, based on subspace vorticity<sup>5</sup> and the concept of varying numbers of (positive) microvita taking part in fundamental interactions, is currently being worked out by the author and others.

As a closing remark it might be good to keep in mind that Shrii P.R. Sarkar unequivocally referred to the “Knower-I” and “Doer-I” as being *Purusa* faculties, in other words, imminent aspects of Consciousness itself. This way, through the proper naming alone, Shrii Sarkar anticipated and avoided philosophical pitfalls and other sorts of confusion and established in a few concise strokes a magnificent new line of thinking about life, creation and cosmology.

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