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Research Paper



Tracing a Formal Theory of Subconscious Mind in Vedic Wisdom: A Modern Scientific Perspective

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ABSTRACT

With a view to understanding the structure and working of a functional human Being within the framework of Vedic wisdom an atom-type (patomic) model of the latter is explored. In particular, the grouping of essences of life (EOLs) in the form of gross, micro and causal existences of a person, and the subsequent recombination of divisions of inner EOLs (associated with the micro existence) constitute, the so-called subtle micro body or subconscious mind. As a matter of fact, the functioning of subconscious mind is not isolated from that of the rest of the EOLs in the patomic model but it is linked with the functioning of a bigger complex system including the cosmos. A detailed dynamics of the constituents of the subtle (subconscious) mind and their possible exchanges with the constituents of gross mind is found responsible for various fast and slow mental processes and reactions including the mental healing. After emphasizing the existence of subconscious mind in the Vedic thinking, we attempt to accommodate the recent works of Daniel Kahneman on economic sciences and of Joseph Murphy on mental healing in this general scheme of study. To this effect, various concepts developed earlier in the context of patomic model turn out useful. In fact, the construction of a self-coordination matrix between the conscious and subconscious minds (and also that of a meditation matrix following the concept of three modes of working of Nature in Vedic wisdom) in the theory facilitates the understanding and offers explanations of a vast number of human experiences, psychic phenomena, case-studies, etc. analyzed by researchers and thinkers of modern times.

Keywords: Patomic Model, Micro Existence, Subconscious Mind, Gross Mind, Mind Waves

1. INTRODUCTION

As per understanding of a common man the subconscious mind goes beyond the human learning of new skills. This involves information processing and affects everything that we think, say and do, rather at a slow pace. Not only this, the subconscious mind is also responsible for storing memories, reasons and valued emotions. In Western schools of thinking the subject of subconscious mind was conceptualized, perhaps for the first time, by Sigmund Freud about hundred years ago when he was developing a theory of personality and human psyche in terms of its three intents, namely id, ego and superego. In

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present times, this subject is not only confined to specialists but also has become popular even among common men, mainly through some best-seller books in the market, like that of Joseph Murphy (1963) and Daniel Kahneman (2011) and also due to the publicity of various types of psychotherapies and/or occult sciences in the society during these years. In spite of all these developments a fundamental and consistent theory of subconscious mind is still missing, particularly in these bottom-up approaches based on Western thinking. With regard to a theoretical understanding of various case-studies, only a piece-meal type solution of psychic problems is sought mostly in terms of phenomenon-based empirical models. One possible reason for this situation could be the lack of understanding of the inner world in these schools of thinking as compared to that of the outer physical world. In fact, it is the spirit of objective science that works behind the bottom-up ('internalization of the exterior') approaches that are followed mainly by western thinkers and psychologists. On the other hand, in the Vedic literature there is a treasure of such a wisdom but available mainly in a top-down ('externalization of the interior') manner and followed mainly by Vedic thinkers and scholars.

The purpose of this Article is to trace a formal and consistent theory of subconscious mind in Vedic wisdom and that too in a scientific spirit. In fact, theory already exists in Vedic literature and it is just a matter of putting it into a computable perspective. This is rather unfortunate that some recent historians even in their best-seller books (see, for example, (Harari, 2015)) do not give a proper mention of this time-tested, ever green wisdom while compiling the history of human kind. As a matter of fact, it is a kind of dynamics that goes on in advance in the psyche of a person that is responsible not only for the success but also for judging the quality and performance of his outward physical actions. This psyche, along with the science of spiritual evolution of a person, is beautifully described in Vedic literature in various ways at different space-time points and in varying circumstances. In fact, a variety of golden rules and formulae, associated with the personality, behavior and experiences of a person, are described at depth in this ocean of wisdom but in a top-down manner. These time-tested facts, however, turn out to be ever-green and sustainable (Kaushal, 2023) as far as their viability in modern times is concerned.

With a view to motivating a person and also masses to achieve success, happiness, prosperity, and peace in life Murphy (1963) discusses the power, efficiency and potency of one's subconscious mind in his book. He has been successful in delivering goods to a large section of persons in society to this effect using varieties of examples, citing varieties of case-studies and behavioral phenomena, however without using any definite theoretical or philosophical framework for this purpose. Ideas are presented in a sermon-delivering style. As a nut-shell summary of all these studies and surveys of various mental processes, many guiding-principles and messages to be followed in life, are suggested by Murphy. At places, the power of subconscious mind is so much emphasized that it can be considered as an omnipotent and omniscient or perhaps as a replacement of the Supreme Power, i. e., God.

In another case, with reference to the psychology of an individual, the Nobel Winner Daniel Kahneman (2011) in his bestseller book "Thinking, Fast and Slow" emphasizes the two aspects of thinking process, namely fast and slow. He, in fact, introduces the characters of a hypothetical story as 'system 1' and 'system 2'. A close observation of the development of the subject matter in the introduction of the book clearly reveals that these two systems of Kahneman basically are the two components of mind, namely conscious and subconscious. The interplay of these two components toward the success of a task is investigated by Kahneman, with reference to a utility science like economics. This, in turn, has led to

interesting solutions to some problems in economic science. Next we cite a case from an ageold Vedic scripture where the concept of subconscious mind is discussed through a metaphor.

The Two Birds of S'vetās'vatara Upanisad: No doubt, one can trace back to earlier and other Vedic scriptures but S'vetās'vatara Upanisad clearly emphasizes the working domains of gross and subtle components of micro-body \mathcal{M} through a metaphor as follows:

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Dvā suparnā sayūjā sakhāyā samānam vrks'am parişasvajāte,
Tayoranyah pippalam svādvatyana s'nannanyo abhicākasiti. (1)
(S'vetās'vatara Upanisad, Ch.4, Verse 6)
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In other words, "Always and everywhere mutually cooperative two bird-friends (having the same generic name) with beautiful wings (which contribute to their intricate dynamics) live by the same tree. One of them enjoys the tasty fruits of the tree and the other remains a mere spectator and enjoys only watching the former eat fruits and watch their growth on the tree". In the same spirit, in the next Verse there is a hidden description of the philosophy of life when it reads.

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Samāne vriks'e puruşo nimagno anis'ayā s'ocati muhyamānah,
Justam yadā pas'yatyanya mis'amastha mahimānamiti vita s'okah. (2)
(S'vetās'vatara Upanisad, Ch.4, Verse 7)
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i.e., "On the same very tree (body) the Being (by way of his manifestation in body form) feels grief. When the Being, equipped with the best of wisdom, realizes itself as separate from the body and attaches itself to God by realizing his grace in the Universe, then he becomes free from the sorrow and grief"

In nutshell, the two bird-friends here are the gross component \mathcal{M}_g (one who enjoys eating the fruits) and subtle component \mathcal{M}_s (one who is spectator) of the micro-body \mathcal{M} which reside on the same gross-body \mathcal{G} (tree). The two bird-friends no doubt are described here as beautiful in eternal terms but the fact is that their interacting dynamics is more beautiful and intricate than this and again in eternal terms. This interacting dynamics of \mathcal{M}_g and \mathcal{M}_s is beautifully described in other Vedic scriptures including SMBG, other *Upanisads* and in great epics like $R\bar{a}m\bar{a}yana$ and $Mah\bar{a}bh\bar{a}rata$ in different contexts and through various characters. We refrain ourselves from going into these details here but prefer to elaborate more on the work of Kahneman (cf. Sect. 4). Kahneman calls \mathcal{M}_g and M \mathcal{M}_s , respectively as 'system 1' and 'system 2' or terms them as "experiencing self" and "remembering self" before presenting an interesting dialogue between these philosophical entities.

Now the question arises as to whether it is possible to bring all these diverse roles of subconscious mind in human sciences under the one umbrella of a formal theory. The answer is yes. Vedic wisdom offers one such a general scheme of study in which all these applications and roles of subconscious mind will turn out as particular cases. This we plan to pursue in this Article. In the next section, we briefly introduce some technical terms for their later use in understanding this hidden science of Vedic wisdom. In Sect. 3, we briefly describe a philosophical atom-type (patomic) model of human Being. The patomic model, so designed mainly on the basis of Verses 3.42 and 7.4 of *Srimad Bhagvad-Gita* (SMBG), is capable of accounting for the entire gamut of human experiences and actions, including the working of the subconscious mind. In fact, an explanation of varieties of these roles of subconscious mind in daily life can be sought in the fine-tuning of the working of components of conscious and subconscious minds. Further remark on the work of Kahneman in the light of Vedic wisdom

are made in Sect. 4. Keeping a wonderful coordination in the working of \mathcal{M}_g and \mathcal{M}_s in mind, we design a coordination matrix in Sect. 5, whose elements account for various subtle processes in mental healing. In Sect. 6 we discuss value and place-value of subconscious mind in patomic model. The viability of recently proposed (Kaushal, 2021) concept of mind waves is demonstrated in various mental processes in Sect. 7. Finally, concluding remarks are made in Sect. 8. Perhaps for the first time, a meditation-matrix whose elements help in grading the meditation during the spiritual journey, is designed in Appendix A.

For a quick and ready reference, we list below the symbols and abbreviations used in the text: [b = Being (or *Jiva* or life principle), B = biological body, C = causal body, E = ego or self-sense, EOLs = essences of life, FOUs = faculties of understanding, $\Phi_{cc} = cosmic$ consciousness field, G=B+SE, G = gross body, I = intellect, faculty of decision, I = mind, faculty of emotion, I = micro-body, mindset function, I = meditation variable/matrix, I = meditat

2. SOME PRELIMINARIES FROM THE EARLIER WORK

(a) Physical (P-), Epi-physical (EP-) and Special Epi-physical (SEP-) matter in the Universe: The essence of the Universe can be considered as to have two extremes—grossest of the gross (i.e., tangible physical matter, quantifiable and understandable through sensual perception) and subtlest of the subtle (i.e. intangible spiritual matter understandable through psychic processes like meditation, or the all-pervading cosmic consciousness field). In fact, these are the psychemachinery and processes associated with an individual that are responsible not only for understanding the two extremes but also the huge spectrum of experiences spread all over in between. The imprints of these three domains, namely physical, psychic and spiritual, are noticeable respectively through the processes of perception, meditation and realization by the self. While the space and time play a dominant role in the physical domain, space, time and consciousness (or its derivative, meditation)) play roles in comparable proportion in the domain of psyche and only consciousness is important in the spiritual domain. Objective sciences mainly work for and on physical matter (domain). Their theories and laws miserably fail when used to describe the processes or phenomena belonging to the psychic and/or spiritual domains. In Vedanta philosophy these three domains are respectively termed as 'cidākās'', 'cittākās'' and 'bhūtākās'', since the last one is considered as consisting of panca mahābhūtās (PMs), namely earth, water, air, fire and ether. Further note that PMs including senses, biological body and the three inner essences of life (EOLs), namely mind, intellect and ego are considered as inanimate. They only become functional when exposed to consciousness which is emanating from the inner most existence, soul. Like-wise we have introduced earlier (Kaushal, 2011) the concept of three types of matter, namely physical (P-) matter (the inanimate matter that exists), epi-physical (EP-) matter (the matter that is exposed to one's consciousness) and special epiphysical (SEP-) matter (the animate and functional matter that also contains the source of consciousness, like soul in it).

(b) Dressing of EOLs and panca mahābhūtās with consciousness and the potency of perception and realization in an individual: As to what extent one has learnt the art of perception or realization of an object of the outer (physical) or of inner (psychic) world depends on the intensity of meditation practiced by an individual. Meditation not only enhances this capacity of perception or of realization but side by side converts the matter from tangible to intangible (or from grosser to subtler) form in the mental domain. To this effect, we have

framed discrete and distinct dressing rules for the dressing of inner and outer EOLs and PMs as well (Kaushal,2011;2015) with the individual's consciousness, mainly as an extension of the *panci-karan* rule for *panca mahābhūtās* of Vedic wisdom. In mathematical terms, while it is also possible to develop theory for continuous dressing of these inanimate objects with consciousness, however, here we have resorted to discrete dressings or evolution of objects with consciousness.

- (c) Unconscious, conscious, subconscious and supra-conscious minds: This is a popular terminology in Vedic context (Acharya, 1995); otherwise in the present case the word 'mind' itself is composite and stand here for micro-body consisting of mind, intellect and ego as will be discussed in the next section. In fact, these are the four states of mind (or they could be of intellect and ego as well) talked about in Vedic literature in terms of the degree (order) of its dressing with consciousness. In order to understand them in the present scheme of study, note the following: In their pure nascent or physical version all EOLs initially are inanimate or nonfunctional. Their functionality, however, increases with the order of their dressing or of charging with consciousness and this subsequently converts the unconscious version of the concerned EOL into its conscious, subconscious and later into supra-conscious states. Further this successive increase of orders of dressing is generated through a kind of recurrence relations in mathematical terms. This, in fact, also generates a kind of cosmic character or intangible features in the initial nascent version of the entity. The infinite orders of dressing of an entity make it capable of merging into the subtlest possible cosmic consciousness field—a process to attain 'moks'a'. Here, in future sections, we shall follow a more logical or rather refined way of defining the present subconscious mind, i. e. as a composite structure and as a part of micro body. Next, we try to give a working formula for the practitioner to enhance the intensity of his meditation.
- (d) Meditation and the intensity of meditation: When a person sits in meditation, the depth or the degree of achieving a focused attention on a thought or matter is characterized by μ . In some sense, μ is a collective representation of the parameters responsible for the roles of inner EOLs, namely mind, intellect and ego, in a decision-making process towards the success of a task. Note that μ can never be zero for an alive person but it can be infinite for a super enlightened person, i.e. for the yogi-category of persons. For a common man, however, μ lies between zero and infinity. As a first step towards the quantification, our common experience reveals that the intensity of meditation is (a) inversely proportional to the frequency f of lifebreaths, (b) directly (inversely) proportional to the number of positive (negative) thoughts N_+ (N_-), (c) inversely proportional to the time duration τ assigned to complete a task, and (d) directly proportional to the capacity C of controlling the mind by an individual from its running into the sense-objects. Symbolically, one can write

Intensity of meditation or of focused attention (
$$\mu$$
) = $\frac{\kappa C N_{+}}{\tau f N_{-}}$, (3)

where κ is a constant of proportionality. For further details about the formula (3), we refer to our earlier works (Kaushal, 2019).

3. PATOMIC MODEL OF HUMAN BEING

(a) Essences of life (EOLs) and their arrangement: We all have biological body (B) consisting of inner and outer organs in it; we do have ten senses of knowledge and action (SE) (five senses of knowledge or of perception are eyes, ears, nose, tongue and skin, respectively sensitive to light, sound, smell, taste and touch and five senses of actions or motor organs are hands, feet, speech, anus and copulatory organ). They, in conjunction with the stimuli from

the worldly object (WO), constitute the set of outer EOLs. The other set of inner EOLs consists of mind (M), intellect (I) and ego (self-sense) (E) which respectively are responsible for defining the faculties of 'emotion', 'decision' and 'memory' inside the human Being. Notably they all are like inanimate objects but work and become functional only in the presence of another nonphysical element called 'consciousness' that originates from, what is termed as 'soul' (SO)— the innermost existence present in a Being and cannot be denied (since a dead body, in spite of having all these EOLs, cannot act and becomes functional in the absence of SO alone). A human Being (b) (also called as 'Jiva' or life principle) is a composite entity of all these inner and outer EOLs who, while having a strong base in SO, does work consistently in the field of WO.

With regard to the arrangement of these EOLs in a human Being (cf. Fig. 1), they follow an atom-like picture at the mental level, in tune with Verses 3.42 and 7.4 of SMBG. For this purpose, a patomic (philosophical atom-type) model of human Being has been proposed earlier (Kaushal,2011;2015) by the author in which the nucleus WO is in the center and the discrete (energy) states B, SE, M, I and E are placed around it in accordance with their increasing fineness and the strength of meditation achieved by an individual. (Meditation is a process in which one uses the focused and/or directed consciousness or the so-called attention to peep into his own inner Self). Much beyond the state E it is all continuum of SO. Note that this gradation of various states, in which an electron-like object, *Jiva* or Being b can stay and accordingly perform upward and downward transitions, is considered in the space of meditation and not with respect to the physical space time. Further, while the upward transitions of b are rare, the downward transitions are natural and more frequent.

A human Being with such an arrangement of EOLs including SO, when subjected to expose to a finest possible cosmic consciousness field in the Universe, it reacts in the same way as a functional mobile handset (which contains a cell or battery in it) is exposed to the electromagnetic signal spread all over in the space. Interestingly, such a philosophical picture of a human Being has suggested several new dimensions of study.

- (b) Grouping of EOLs simplifies understanding of the underlying mechanism responsible for human actions: While trying to analyze the human behavior in terms of the dynamics of EOLs, no doubt the role of each EOL needs to be accounted for at a deeper level but some gross features of behavior and personality traits can be understood just by grouping the outer EOLs as gross body, viz., $G = \{WO, B, SE\}$, inner EOLs as 'micro' body, viz., $M = \{M, I, E\}$ and the only EOL SO as 'causal' or astral body, viz., $C = \{SO\}$ as per Vedic wisdom. In this way the (perfect human) Being b basically is a union of G, M and C, i.e., $b = G \cup M \cup C$ or else it is a set of all EOLs, i.e., $b = \{WO, B, SE, M, I, E, SO\}$. Further, recall that the absence of any one EOL, or more EOLs in b constitute the classes of physically or mentally challenged persons or of nonhuman Beings (cf. 'fractured' patomic model (Kaushal, 2011)). As a matter of fact, such a grouping of EOLs has been helpful in explaining a variety of aspects of human actions, human and nonhuman interactions, etc. at least in the lowest order.
- (c) Faculty of understanding and the level of its development in an individual: In analogy with a generalized version of 'pancikaran' rule of Vedic science known (Adi Sankara, 1962) for the perception of five cosmic elements (panca mahābūtās) namely, earth, water, air, fire and ether, a 'tri-karan' rule for inner EOLs M, I and E and a 'dvi-karan' rule for the outer EOLs B and SE is proposed (Kaushal, 2011). These rules in fact define the dressing of an object with consciousness in different orders through some sort of symbolic recurrence

relations and thereby suggest a mechanism to differentiate clearly between dressed (perceived) and undressed (unperceived or nascent) versions of entities which are generated in a self-consistent manner. These rules, have greatly helped (Kaushal, 2015) in understanding the perception process in a more logical manner. Here we consider this dressing through discrete evolution of an EOL with consciousness or as an effect of increasing meditation. Also, we emphasize here only on the *tri-karan* rule for the dressing of inner EOLs from their nascent versions M, I and E. As a matter of fact, the faculty of understanding of an individual is a composite (set) of differently dressed versions of his inner EOLs with his own consciousness, viz., $\tilde{F}^{(l,m,n)} = \left\{ \tilde{M}^{(l)}, \tilde{I}^{(m)}, \tilde{E}^{(n)} \right\}$, where $\tilde{M}^{(l)}, \tilde{I}^{(m)}$ and $\tilde{E}^{(n)}$ are the 1-th, m-th, and n-th order dressed versions of $M \left(\equiv \tilde{M}^{(0)} \right), I \left(\equiv \tilde{I}^{(0)} \right)$ and $E \left(\equiv \tilde{E}^{(0)} \right)$, respectively and according to the *tri-karan* rule they are given by the following symbolic recurrence relations

$$\widetilde{M}^{(\ell)} = \frac{1}{2} \widetilde{M}^{(\ell-1)} + \frac{1}{4} \widetilde{I}^{(\ell-1)} + \frac{1}{4} \widetilde{E}^{(\ell-1)}, (4a)$$

$$\widetilde{I}^{(m)} = \frac{1}{2} \widetilde{I}^{(m-1)} + \frac{1}{4} \widetilde{E}^{(m-1)} + \frac{1}{4} \widetilde{M}^{(m-1)}, (4b)$$

$$\widetilde{E}^{(n)} = \frac{1}{2} \widetilde{E}^{(n-1)} + \frac{1}{4} \widetilde{M}^{(n-1)} + \frac{1}{4} \widetilde{I}^{(n-1)}, (4c)$$

where $l, m, n=1,2,3, \ldots, \infty$. Here, we have however demonstrated in a nut-shell that all three, mind, intellect and ego of an individual get enriched with their respective intrinsic characteristic when they are constantly exposed to his consciousness through the process of meditation.

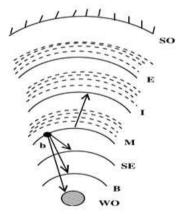


Fig.1: A modified version of patomic model

In relations (4), the three limiting cases corresponding to l, m, $n\rightarrow\infty$, while separately define three ideal personalities, namely the most emotional, the most intelligent, the most learned, respectively, for a common man, however, one can define an index r as a set of integers l, m and m, viz., m = { l, m, m} which characterizes the level of development of one's faculty of understanding. Further note that the order of dressing of an EOL, in general, is a measure of intensity of meditation attained by an individual. Such an interplay of inner EOLs has already offered explanations of a variety of aspects of human behavior and experiences (Kaushal, 2011; 2015).

(d) An interesting outcome of dressing rules: Origin of sub-(energy)-states in patomic model: In quantum mechanics, the discrete values of orbital quantum number give rise to sub-energy-levels in the atom. Here we have traced other alternative for this kind of discretization i. e., in terms of discrete dressing rules expressed through relations (4). This in fact leads to infinitely many discrete sub-levels of each of M, I and E, which are not equally spaced. This

kind of extension of patomic model makes it more viable towards the studies of human/nonhuman behavior. This also suggests a possible explanation for distinct levels of development of faculty of understanding for different individuals in this framework. Interestingly in the present mathematical setting, the spacing between successive sub-levels for each M, I and E decreases by a factor of four at each order of dressing. This fact for inner EOLs can easily be demonstrated (Sharma et al, 2020).

4. REVISITING THE KAHNEMAN THEORY IN THE LIGHT OF VEDIC WISDOM

4.1 Short- and long-memory processes and the two selves of Kahneman

In some sense the short-memory and long-memory processes appearing in the market strategies are the outcome of short-term and long-term thinking built in the psychology and behavior patterns of an individual or a society as a whole. This fact is beautifully exploited by Kahneman in developing his prospect theory in behavioral economics. In the day-to-day life we call these processes, respectively as 'immediate' and 'second thought' reactions towards an event in the outer world. Kahneman, in fact, introduces the characters of a hypothetical story as 'system 1' and 'system 2'. A close observation of the development of the subject matter in the introduction of the book clearly reveals that these two systems of Kahneman basically are the two components of the micro-body \mathcal{M} , denoted here as the gross (conscious) part \mathcal{M}_g and subtle (sub-conscious) part \mathcal{M}_g , respectively. The same will be elaborated in the next section.

According to Kahneman, the system 1 operates automatically and quickly, with little or no effort and no sense of voluntary control. On the other hand, the system 2 allocates attention to the effortful mental activities that demand it, including complex analysis and computations. The operations of the system 2 are often associated with the subjective experience of agency, choice and concentration. A kind of psychodrama of system 1 and system 2 is described in the entire book at a very fine level which finally ends up with the birth of a new economic science in terms of experience and decision utilities and a subject like intuitive statistics. What a great job Kahneman has done by bringing the subjective science of the Self to the level of most practical modern science of economics however without really going into the details of patomic model and the associated dynamics of EOLs. Next, we elaborate on the connection between the Kahneman theory and the more generalized concepts discussed in the patomic model.

4.2 The two selves of Kahneman in patomic model and their psychodrama

With a view to identifying the system 1 and system 2 of Kahneman in the patomic model of human Being, the constituent of the micro-body \mathcal{M} can be reconstructed as shown in Fig. 2. For this purpose, note that each member of the trio, mind, intellect and ego is considered as consisting of a gross part and a subtle part. The gross parts of all three combine again to give the gross-component of \mathcal{M} (denoted as \mathcal{M}_g) and the combination of subtle parts of them gives the subtle-component of \mathcal{M} (denoted as \mathcal{M}_g) also termed as 'subconscious mind'. Note that these \mathcal{M}_g and \mathcal{M}_g are the system 1 and the system 2 of Kahneman, which at a later stage respectively are termed as 'experiencing self' and 'remembering self' by Kahneman on the basis of their functions. Further remarks on the work of Kahneman are as follows:

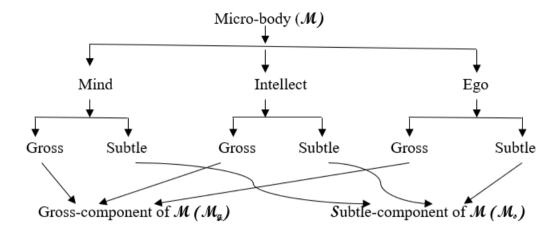


Fig. 2: Schematic display of as to how the micro-body \mathcal{M} of patomic model splits into the gross component \mathcal{M}_g and the subtle-component \mathcal{M}_s .

- (i)An important outcome of the theory of Kahneman is the frequent demonstration of the connection between the time and the meditation variables in his book. From this work it appears that the thinking process is 'fast' with reference to system 1 and it is 'slow' with reference to system 2 and all this is with respect to the (physical) time variable or the event-based time (Kaushal, 2023). However, as per our common experience, the meditation takes us in reverse order, i.e., first it overcomes the constituents of the set G, namely WO, B, SE and then enters into the realm of M namely M, I, E and finally into the realm of C. On the other hand, the gross component M_g (system 1 of Kahneman) of M is operative in conjunction with G. Thus, the meditation (variable μ) has inverse/reciprocal dependence on time t as emphasized through eq. (3). Note that the intensity of thinking would depend on the (internal) meditation variable μ , whereas the 'slowness' or fastness' of thinking would depend on the external time variable t but only in the G and perhaps in the M_g domains; otherwise in the M_g or C domain there is hardly any role of t. In fact, in order to account for the efficiency of systems 1 and 2 or for the intensity of thinking process, one should also consider the evolution of these systems with consciousness.
- (ii) The way in which the thinking process is considered and analyzed by Kahneman through the drama of system 1 and system 2, clearly shows that it is a complex process, i.e., it is not just the act of the inner EOL I in the present context but that of a collective entity to which the contribution does come from other inner EOLs, namely from M and E. Kahneman, however, seems to attach only the memory aspect to it by calling system 2 as 'remembering self'. As a matter of fact, there are several other aspects of exchanges considered between the system 1 and the system 2 which would require the thinking to be a composite process in the present scheme of study.
- (iii) In the work of Kahneman the set of systems 1 and 2 is studied in isolation. But in reality, it is not so, for both are active only in the presence of consciousness that originates from the entity SO. Also, \mathcal{M}_s is linked with C on the one end and the component \mathcal{M}_g is linked with G on the other. Kahneman, no doubt, accounts for the linkage of \mathcal{M}_g with G (i.e., with the outer world) but ignores its linkage with C completely. As a matter of fact, the consideration of this latter linkage in the theory would definitely bring the spirituality content in the output (i.e., in

the behavior and character of an individual) in the same way as the consideration of the former linkage has provided a better reason for the worldly-living in economic terms.

4.3 Efficiency of the two selves of Kahneman: Possible modifications in the theory

According to the theory of Kahneman the two selves, namely 'experiencing self' and 'remembering self' (which, in fact, in the present scheme of study are the gross component \mathcal{M}_g and the subtle component \mathcal{M}_s , respectively) work at different time scales or in different spatiotemporal zones and so do their actions are defined as 'fast' and 'slow'. But the fact is that their working belongs to different meditation zones or at different levels of attention. (Recall that the attention basically is a directed, channelized or focused version of consciousness that provides the cognizance of working of one-self to the other). Further note that the efforts of an individual are associated with \mathcal{M}_s and his actions mostly with \mathcal{M}_g . Moreover, when one talks of the quantification of the efficiency of \mathcal{M}_s and \mathcal{M}_g , one needs to understand their ability and limitations in terms of their evolution with consciousness and/or with spatio-temporal circumstances.

As mentioned before, there are two ways to analyze the process of perception of an external stimulus in a given environment. In one case, one proceeds with the dynamics of EOLs and accounts for the environment/circumstances separately, preferably by introducing a parameter for it from outside. In other case, one considers the successive evolutions of EOLs with consciousness either by way of their successive dressing with consciousness (discrete evolution) or by writing a differential equation for the evolution of the constructed mindset function (continuous evolution). These evolutions of EOLs with consciousness will, in turn, enrich the EOLs with the knowledge about the stimuli. Note that \mathcal{M}_{s} and \mathcal{M}_{s} , which basically are certain combinations of inner EOLs, namely M, I and E, will also undergo some sort of dressing with consciousness, particularly when one wishes to account for the interplay or the psychodrama between them in view of the external environment. In what follows, we identify the dressed versions of $\mathcal{M}_{\rm g}$ and $\mathcal{M}_{\rm s}$ in view of their definitions given above and use the discrete dressing rule (tri-karan rule) defined above through relations (4). For this purpose, we write the n-th order dressed version of the micro-body \mathcal{M} as $\widetilde{M}^{(n)} = \{\widetilde{M}_{\sigma}^{(n)}, \widetilde{M}_{\varsigma}^{(n)}\}$ with subtle components as $\widetilde{M}_{g}^{(n)} = \left\{ \widetilde{M}_{g}^{(n)}, \widetilde{I}_{g}^{(n)}, \widetilde{E}_{g}^{(n)} \right\}$ corresponding gross and $\widetilde{M}_{s}^{(n)} = \left\{ \widetilde{M}_{s}^{(n)}, \widetilde{I}_{s}^{(n)}, \widetilde{E}_{s}^{(n)} \right\}. \text{ Here, } \widetilde{M}_{j}^{(n)}, \widetilde{I}_{j}^{(n)}, \widetilde{E}_{j}^{(n)}, (j=g,s), \text{ in terms of their (n-1)-th order}$ dressings, are given by eqs.(4). With regard to these mathematical constructs, the following remarks are in order: (i) The orders of dressing of \mathcal{M}_g and \mathcal{M}_s , say n and l in $\tilde{M}_g^{(n)}$ and $M_s^{(l)}$ in some sense, will define their efficiency of working. (ii) When one talks of exchanges (or psychodrama) between $\mathcal{M}_{\rm g}$ and $\mathcal{M}_{\rm s}$ the orders of their dressing with consciousness will matter and constitute a matrix $\tilde{M}_{g}^{(n)} \times \tilde{M}_{s}^{(l)}$ which, in turn, might offer explanations of a variety of situations discussed by Murphy (1963) and Kahneman (2011) in their books.

It may be mentioned that many examples are discussed and case-studies are carried out by Murphy with regard to the mental healing of a person and thereby he attempts to extract several natural laws pertaining to human behavior and experiences. In fact, all cases analyzed by him focus around the external stimulants, like one's health, wealth, happiness and fame. What is missing there is a general theory or the philosophy of mind under which the entire gamut of varieties of examples discussed by him can be analyzed. Many examples in his work seem to

be an interplay of \mathcal{M}_g and \mathcal{M}_s in the present scheme of study. We shall later remark on these works by way of fine-tuning the exchanges between \mathcal{M}_g and \mathcal{M}_s .

5. A SELF-COORDINATION MATRIX BETWEEN \mathcal{M}_{g} AND \mathcal{M}_{s} AND CLASSIFICATION OF UTILITY PHENOMENA

5.1 Construction of matrix elements

What we have highlighted above are the works of Murphy and Kahneman but the fact is that wherever the human component is involved in a decision-making phenomenon or in a

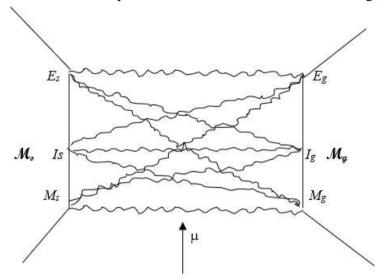


Fig. 3: The fine-tuning of M_g - M_s type self-interaction denoted by the matrix σ^{sg} . In all there are nine exchanges possible in this diagram –three diagonal and six off-diagonal.

process a built-in (or an automatic) coordination or interaction between \mathcal{M}_g and \mathcal{M}_s appears, which often goes unnoticed, particularly in the processes like learning. perception and realization. Such interactions have an important role in the studies not only of humanities and behavioral sciences but also of the subjects like management, economics, sociology, political and other utility sciences. With a view to classify these phenomena and processes on the basis of utility we construct here a self-coordination matrix (SCM), σ , out of the constituents of \mathcal{M}_g and \mathcal{M}_s . As shown in Fig.3, this is a matrix by construction. However, one can as well construct a formal matrix (in the language of vector spaces) when one accounts for the roles of three $gun\bar{a}s$ (namely, sattva, rajas and tamas) in which all three inner EOLs M, I, and E or their gross and subtle parts can appear as vectors in the space of these $gun\bar{a}s$, viz. sattva (s), rajas(r) and tamas(t). We demonstrate the construction of such a formal meditation-matrix in Appendix A. In fact, the use of dressed versions of the constituents of \mathcal{M}_g and \mathcal{M}_s will also lead to further generalizations in the theory. Thus, we define a SCM, σ , as $\sigma = (\mathcal{M}_s \times \mathcal{M}_g)$, viz.,

$$\sigma^{sg} = \begin{pmatrix} \sigma_{MM}^{sg} & \sigma_{MI}^{sg} & \sigma_{ME}^{sg} \\ \sigma_{IM}^{sg} & \sigma_{II}^{sg} & \sigma_{IE}^{sg} \\ \sigma_{EM}^{sg} & \sigma_{EI}^{sg} & \sigma_{EE}^{sg} \end{pmatrix}, \tag{5}$$

where the symbol, σ_{ab}^{sg} , has the following meaning: the superscripts 'sg' while stand uniformly for the subtle-gross (self) interplay, the subscripts 'ab' in fact are a_sb_g , where a and b keep on changing as a, b=M, I and E. Further note that $\sigma_{ab}^{sg} \neq \sigma_{ba}^{sg}$, since the workings of \mathcal{M}_g and

 \mathcal{M}_s are controlled by different set of parameters. Next, we discuss the detailed meanings and workings of the diagonal and off-diagonal elements of SCM σ in (5).

5.2 Working domains of M_g and M_s : Roles of diagonal and off-diagonal elements of SCM It has been argued earlier (cf. Chapter 5 of (Kaushal, 2023)) that psychoscience is linked with the spiritual science at the one end and with the behavioral science on the other. Further, it is the subtle-component \mathcal{M}_s of \mathcal{M} (subconscious mind) that is relatively in close proximity of the source of consciousness SO than its gross-component $\mathcal{M}_{\rm g}$ (cf. Fig.4). As discussed earlier, the four factors which govern the working of psychoscience in general and that of ${\pmb {\mathcal M}}_g$ and ${\pmb {\mathcal M}}_s$ in particular, are the space (q), time (t), consciousness (taken care of by the meditation variable μ) and the circumstances (σ). In fact, whether it is \mathcal{M}_g or \mathcal{M}_s whichever of them is going to play a dominating role in a given psychic process or phenomena, is decided by the circumstances. The circumstances basically are the reflection of environment and the nature of the utility-stimulant, like money, power, fame etc. of the outer world. Note that space, time and circumstances dominate in the processes of \mathcal{M}_g -domain where the consciousness remains only in a nominal role. On the other hand, the consciousness and circumstances dominate in the processes of \mathcal{M}_s -domain and the space and time factors remain here in their minimal or negligible role. In the processes of spiritual zone however it is only the pure consciousness that is functional. In spite of the fact that both \mathcal{M}_g and \mathcal{M}_s consist of the same set of components which are responsible for the memory, reason and emotion or in general for taking decisions about the given process as a whole, the decisions taken at the \mathcal{M}_g level, however, remain transitory in nature. On the other hand, they are fine-tuned, attain stability and tend to become sustainable in the long run when analyzed at the level of \mathcal{M}_s but at a slow pace.

Now we have apparently two distinct ways to analyze and classify the concerned psychic processes or phenomena. In the first case (cf. Example 1), we shall grossly analyze one case of each type of stimulant, arising out of five sense-objects (recall that corresponding to five senses of knowledge the five stimuli are smell, taste, touch, light and sound) and out of other worldly needs like money, power and fame. In the second case, we analyze, rather in a fine-tuned manner, the cases corresponding to diagonal and off-diagonal elements of the self-coordination matrix (5).

Example 1: Case of a tangible material stimulant (sense-objects) with reference to a common man enjoying a favorite dish: When a hungry but diabetic person sitting on a dining table finds a favorite dish (say a sweet) all of a sudden in front of him, he starts eating immediately without giving a 'second thought' concerning the after-effect(s). This all goes on within the rules (i.e., the role of \mathcal{M}_g) of the place (restaurant). The 'second thought' is the job of \mathcal{M}_s (which is also equipped with the faculties of feeling, reasoning and memory) that decides the after-effect, like becoming sick after consuming too much of the sweet. In the same vein one can pick-up and analyze the cases from daily life concerning other sense-objects, namely smell, touch, light and sound.

Example 2: Cases of intangible worldly stimulants, like wealth, power and fame, respectively with reference to business-men, politicians and intellectuals: In fact, in all the three cases, it matters a lot weather the decisions are taken and accordingly the actions are performed at the level of \mathcal{M}_g or \mathcal{M}_s . (i) As an example consider the fluctuations of the share-market index with reference to a particular class of shares. On a particular day, if the rate of shares goes up then

an \mathcal{M}_g -dominated mind, will immediately think of investing them in the same or in an alternative way. On the other hand, an \mathcal{M}_s –dominated mind will give a 'second thought' before acting on it and he might take some time for this purpose. In fact, he would like to explore and study the past trends of such fluctuations in terms of the utility of investments with respect to the given space, time and circumstances. The decisions in the second situations are rather more sustainable and beneficial. Similar will be the situation with other business classes in terms of demand and supply. (ii) As an example, think of a politician who wants to be elected from a particular area. He gives plenty of assurances to and makes so many commitments with public during his speech when his promises belong to \mathcal{M}_g -domain. Otherwise, for sustainable and useful service to society he not only has to give 'second thought' to find solution of problems at the level of \mathcal{M}_s but should also consult the experts in this regard before making commitments. (iii) As an example, consider the case of a qualified, ambitious, unemployed person who is inspired by great personalities in his early career and wants to leave some impact in society, gets a job- offer. The employer offers enough perks to avail all the facilities needed for a comfortable life. At the \mathcal{M}_{g} level of his thinking (decision making) process, the person can join the firm and starts working but may not feel job-satisfaction if it is not in accordance with his taste and ambitions. Alternatively, after giving 'second thought' and working at the level of \mathcal{M}_s for some days, the person could have taken better decisions towards the sustainability of both, interest and perks.

Example 3: Decisions corresponding to diagonal matrix elements in (5): In mental processes the reaction of an external stimulant could be in two alternative ways, i.e. the thoughts can flow from \mathcal{M}_g to \mathcal{M}_s dominated by 'storing memory' E_g , or from \mathcal{M}_s to \mathcal{M}_g dominated by 'stored memory' E_s. The latter situation is the case of sankalpās in which the 'hard' decisions are taken at the level of inner-most existence and accordingly the success is sought in the outer world. The former situation brings in the role of SCM (5). Again these are the diagonal elements $\sigma_{\text{MM}}^{\text{sg}}$, σ_{II}^{sg} , σ_{EE}^{sg} in (5), if dominated in a personality, they encourage for a creative thinking and actions, since the constituents of \mathcal{M}_s and \mathcal{M}_g in this case, respectively work in tune with each other, particularly through M_s and M_g , I_s and I_g , E_s and E_g . Not only this, creative output of the highest degree can be achieved in the outward actions in this case, provided \mathcal{M} in general or \mathcal{M}_s and \mathcal{M}_g in particular are appropriately dressed (charged) with consciousness (cf. eqs. (4)) through meditation. Corresponding to the three diagonal elements the expertise or practitioner can achieve success relatively of a higher degree in society, respectively through his faculties of emotions, reasoning and memories. This happens only with a limited and particular type of personalities. In fact, when such persons in society put their maximum efforts, they can do wonders on both positive and negative aspects towards the maintenance of world order; otherwise, for most of the personalities in society only the remaining six off-diagonal elements in (5) work and contribute mainly to their assimilative and deliberative thinking's as discussed in the next example.

Example 4: Decisions corresponding to off-diagonal matrix elements in (5): As mentioned in Example 3, these cases correspond to persons who reflect assimilative, deliberative or mixed thinking's in their personalities in a dominant way and they in fact survive in society with these qualities. A common man, however, lives with mixed thinking corresponding to all off-diagonal matrix elements in (5) and sooner or later uses some or all processes associated with them. It can be noticed from the structure of the matrix elements that persons with a dominating assimilative thinking correspond to σ_{II}^{sg} , σ_{IM}^{sg} , σ_{EM}^{sg} whereas those of dominating deliberative thinking correspond to σ_{IE}^{sg} , σ_{IM}^{sg} , σ_{EM}^{sg} . Corresponding to each of these cases one can again

easily trace example(s) from daily life. For example, the taste of sweet by a diabetic person in Example 1 initially corresponds to the sense organ, tongue, at M_g level and leaves the (spatiotemporal) impact on \mathcal{M}_g and finally a kind of satisfaction is achieved at I_s level in \mathcal{M}_s and hence correspond to the element σ_{IM}^{sg} of (5). This impact on M_g is the result of fast process (immediate reaction). At a later stage (as a part of a slow process or the so-called 'second thought') this impact is analyzed in the domain of \mathcal{M}_s by all three of its components, namely M_s , I_s and E_s . In the same way one can analyze the mental processes pertaining to other tangible and intangible sense-objects and stimulants of the outer world. Thus, depending upon the nature and type of the stimulant, the corresponding component of \mathcal{M}_g first comes in action to receive the impact of the stimulant and the same, at a later stage, is transferred to \mathcal{M}_s for its further analysis by an appropriate component of the latter.

Effect of dressing of inner EOLs with consciousness in above examples: In all cases discussed in the above examples the inner EOLs M, I and E are considered as nascent, i.e. they are not dressed or charged with consciousness. But the fact is that we all are born with certain minimum degree of dressing of EOLs which in fact defines a 'living or functional' human Being. Further, it is the purpose of 'education' after coming in this world to enlighten repeatedly these EOLs by way of constant thinking and meditation (cf. eqs. (4)). With regard to enhancing the degree of charging of these EOLs with consciousness one can make use of the meditation matrix (cf. Appendix A) and its elements in the spirit of spiritual-evolution. Once the EOLs are appropriately dressed, then an enhancement in the efficiency, proficiency and potency not only of \mathcal{M}_s and \mathcal{M}_g but also of their components (cf. Fig. 2) can be achieved considerably and thus they become highly enlightened.

6. VALUE AND PLACE VALUE OF SUBCONSCIOUS MIND IN THE PATOMIC PICTURE OF HUMAN BEING

6.1 Some facts about subconscious mind

This will not be wrong to say that it is the presence of subconscious mind, \mathcal{M}_s , in a person that makes him different from other species; otherwise for the survival of a Being, the \mathcal{M}_g with a limited potency through its constituents, is always functional in each species since its birth. Not only this, Murphy (1963) when emphasizing the role and power of the subconscious mind in the success of human actions and therapies, it appears that this intangible, subtle entity, exists and resides in each species in certain proportion, is a synonym of the Supreme Power God. The potency of evolving and educating the constituents of \mathcal{M}_s with reference to the external world is also unique with each species and perhaps it is maximum with human Being—making the latter a perfect creation of God. As far as the methods of enhancing this potency in an individual is concerned, the only way is to practice working in the domain of rather focused consciousness (i.e., meditation) and start detaching oneself from the space time dominated physical world. Some other facts about \mathcal{M}_g and \mathcal{M}_s are as follows:

- (i) The role of \mathcal{M}_g and \mathcal{M}_s in the performance of human actions is more or less the same as that of RAM (random access memory) and ROM (read only memory) respectively in designing a computer. This formula works for a common man.
- (ii) A baby is born with \mathcal{M}_g for its immediate use and evolves his \mathcal{M}_s as he grows with age to the extent of its ROM, however the art of meditation, if he learns. enhances this capacity to a considerable extent. This formula works for intellectual category of persons, like that for scientists and philosophers.

- (iii)For yogi-category of persons, there is no limit on this evolution of \mathcal{M}_s , for them \mathcal{M}_g however is set gradually to its optimum use and \mathcal{M}_s is made capable of charging with consciousness infinitely so that it finally merges with the cosmic consciousness field. In due course of time (not necessarily in one life-span) such persons become qualified for *moks'a* (Kaushal, 2023).
- (iv) Another aspect of \mathcal{M}_s —evolution with consciousness concerns with the personality development of an individual. Note that we all are born with both \mathcal{M}_g and \mathcal{M}_s as parts of micro body. The functionality of \mathcal{M}_g while is an indication of being a person alive that of \mathcal{M}_s remains in a sleeping mode in almost all species—human and nonhuman. No doubt ROM is always there in it but at times external agencies, like meditation, company of spiritual masters and/or teachers are needed to activate or awaken it. In fact, initially both the situations, namely the awakening of \mathcal{M}_s and the extent to which it can be awakened are considered as God-gifted for a person but at a later stage this all is linked with his personality development in the outer world on the one hand and with his spiritual evolution in terms of his inner world on the other.
- (v) It is noticed that the thinking and actions of an extrovert person are generally dominated by \mathcal{M}_{s} whereas those of introvert person are dominated by \mathcal{M}_{s} .

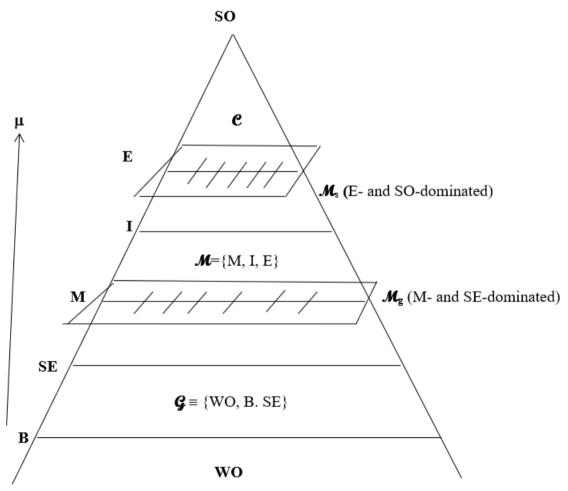


Fig. 4: Identifying the place values of gross (\mathcal{M}_g) and subtle (\mathcal{M}_s) components of the micro-existence \mathcal{M} in the patomic model (cf. Fig. 1). Shaded regions \mathcal{M}_g and \mathcal{M}_s display the two barriers at the two ends of \mathcal{M} -domain to be crossed for salvation in spiritual journey.

6.2 Innermost existence, soul vis-a-vis. subconscious mind

For a common man there arise two main hurdles in his spiritual journey, namely the controlling of mind at the threshold of micro body \mathcal{M} and the suppressing of the subtle form of ego at the threshold of causal body \mathbb{C} . Note that the former aspect, perhaps easier for a common man, is governed by \mathcal{M}_g whereas the latter aspect, which in fact is difficult even for intellectuals and saints, is dominated by \mathcal{M}_s . These two aspects are shown by shaded area in Fig. 4 on the lines of patomic model. As can be seen from this figure, the subconscious mind \mathcal{M}_s , has a place in close vicinity of SO –the source of consciousness. For further details, we refer to Chapter 5 of (Kaushal, 2023).

It may be mentioned that in patomic picture \mathcal{M}_s is in the close vicinity of the source of consciousness SO (cf. Fig. 4) and the workings of \mathcal{M}_s , in fact. totally rely on SO but the fact is that many of us do not believe in the existence of SO and attribute all its God-like (divine) qualities to \mathcal{M}_s (Murphy,1963). In reality it is not so, rather the EOL SO is the main cause of all workings of a human Being in general and that of \mathcal{M}_s in particular. Further, as emphasized elsewhere (Kaushal, 2023), it is the same SO present in a Being and is the part of cosmic consciousness field and thereby connects the finite Being to the infinite cosmos through a process like 'second quantization' in quantum field theory.

7. MIND WAVES AND THE SUBCONSCIOUS MIND

Some of the cases and examples discussed by Joseph Murphy give a clear hint that subconscious mind basically reflects a divine power and after all why should it not be. In fact, the source of consciousness soul itself is an important part of it (cf. Fig. 4) and the subconscious mind only represents the extended (!) version of 'soul' in patomic model of human Being. On the other hand, as discussed in Chapter 5 of (Kaushal,2023) the soul in a Being, in mathematical terms, represents a 'second quantized' (discretized) version of the all-pervading, finest possible cosmic consciousness field Φ_{cc} . Thus, any kind of deep thinking or meditation connects the individual to cosmos, of course at a certain level of intense meditation. The bonding of such a connection makes the practitioner all powerful with regard to controlling not only his behavior but also his experiences concerning the outer world. As a matter of fact, at this stage the role of subconscious mind in outward physical actions cannot be denied. One possible way to understand this phenomenon is through the concept of mind waves developed recently in the light of Vedic wisdom.

In nut-shell, the concept of mind waves (Kaushal, 2021) is developed on the lines of the modulation phenomenon in electronics. Here, ripples in Φ_{cc} are considered as carrier waves and the eight type of epi-fields present in Φ_{cc} in seed-like forms in their infinitely dressed versions with cosmic consciousness, are the modulating signals. These eight types of signals are nothing but eight components of 'as'thānga prakruti' (that includes five cosmic elements and three inner EOLs, namely mind, intellect and ego) of Vedic wisdom (cf. SMBG:7.4). A ripple or disturbance in Φ_{cc} (travelling with an unimaginable velocity) is a cosmic consciousness wave (CCW) modulated with some or all eight epi-fields in the sequel of their decreasing fine-ness, i.e. in the sequence ego (E), intellect (I), mind (M), ether (E_a), fire (F), air (A), water (W) and earth (E_t), denoted, respectively as superscripts e, i, m, e_t , f, a, w and e_a on the symbol '(CCW)'. Thus, symbolically a mind wave is expressed as (CCW)^{e_a} waf e_a </sub> mie, and appears in Φ_{cc} in different categories (arranged in increasing fine-ness) like

 $(CCW)^{e_a waf e_i mie}$, $(CCW)^{waf e_i mie}$,...., $(CCW)^{ie}$, $(CCW)^{e}$ along with their varying dressed versions of each category with cosmic consciousness in terms of the dressing-orders. It may be

mentioned that a mind wave with less dressed versions of a category with consciousness is functional in the \mathcal{M}_{g} –domain whereas the same mind wave with highly dressed versions is effective in the \mathcal{M}_{s} -domain of micro body \mathcal{M} . For further details on mind waves we refer to Chapter 9 of (Kaushal,2023).

7.1 Mind waves and the Garbhādāna Sanskāra in Vedic traditions (Astrology starts at the time of conception)

In order to understand the predictions concerning the personality, behaviour, life-events, etc. of a person the science of Astrology is developed. The predictions are derived out of the space-time coordinates of a person on earth at the time of his biological birth in this world. In the horoscope the position and movement of various planets and stars at the time of delivery are also considered to play dominant roles. But the fact is that the origin of a child takes place in two stages—first at the time of conception by parents and second at the time of physical delivery. Present day astrology accounts mainly for biological birth of a child and hardly speaks of his birth at the time of conception. Following the above concept of mind waves it is not difficult to understand both the stages of birth of a child and that too in a coherent way. In some sense, the *Garbhādāna Sanskāra* as described in Vedic traditions, takes care of the role of mind waves in the entire process of origin of a child in this world.

A Garbhādāna Sanskāra in Vedic traditions takes place in three steps: (i) creating an environment in physical terms, like space-time and circumstances, (ii) creating an environment at mental level, i.e. having positive thinking about both the world and cosmic orders at the right point of space time, and (iii) making an effort to have cosmic connections at that point of spacetime. This is possible by way of having mind in the spiritual zone, i.e. by praying a deity of choice or by thinking oneself as a part of cosmos whose working is controlled by a 'Supreme Regulator'. These three steps, while manifesting in the design of a completely (eight-fold) modulated mind wave, will also accordingly bring in the characteristics of three existences (namely, gross, micro and causal) of a person, first at the time of conception when the causal and micro bodies are dominantly created which later become responsible for the mental evolution of the child including the biological growth of foetus, and next at the time of delivery when micro and gross bodies are dominantly created including the mental growth in the outer physical world through education. As a matter of fact, above three steps, if followed completely or partially by a couple, the latter will be able to pick-up a suitable mind wave out of their pool in the ocean of cosmic consciousness field. Such a suitably picked-up mind wave can as well bring with itself some sanskāras of earlier stages of existences, if they have passed through. This is possible through the undressing of the correspondingly dressed component on the descending modulated mind wave at the time of conception. In fact, the nature and the type of the descending mind wave from cosmos at the time of conception via parents is very much responsible in inculcating the sanskāras in the forthcoming baby, particularly the one's not accounted by the astrology after delivery or by the education after the biological birth.

As a matter of fact, during the conception or intercourse it is the interaction (collision) or the meeting of two distinct mind waves (carried by each parent) which may or may not be in synchronization in terms of (i) the matching of some or all modulating components of *asthānga prakruti* on the conceived mind wave, and (ii) the matching of the order of dressing of that particular component with the consciousness of that individual. Truly speaking such ideal type of synchronization of mind waves in parents are extremely rare. By and large the babies are born in this world as a result of partial or no synchronization between parents. Partial synchronization can be traced by searching the similarities in likes and dislikes in each parent

with reference to sense-objects (like smell, tastes. touch. beauty and music). emotions, reasoning and memory (which, in the background, respectively represent the eight modulating signals on a mind wave, namely five as the attributes of cosmic elements plus other three are of mind, intellect and ego). Note that even in this process the search of synchronising parameters starts from gross to subtle level in terms of the fine-ness of the modulating components. In some sense, in the *Garbhādāna Sanskāra* while the step (i) is often followed as a result of interactions at the level of conscious minds, the step (ii) and (iii) are the results of interactions at the level of subconscious minds of the parents.

7.2 Mind waves and the mental healing

As examples and applications of attention dominated processes we have analyzed earlier (Kaushal, 2021) several phenomena of occult sciences including telepathy, tele-therapy. Some attempts are also made there to find a basis for psychotherapy or mental healing. In fact, these analyses are based on two main steps: first we identify the three intangible objects and the pillars of Ayurveda, namely $v\bar{a}ta$, pitta and kapha as certain combinations of panca $mah\bar{a}bhut\bar{a}s$ (five cosmic elements) as per its philosophy with regard to Naturopathy; Second, while the tangible version of these objects play a dominant role in understanding the diseases in Ayurveda system of treatment at physical level, at the mental level they are, however, considered as intangible by-products of five cosmic essences (epi-fields) which are already present in Φ_{cc} in a seed-like form and loaded on a mind wave.

In the process of mental healing it is a question of connecting two mind waves via human interactions. Naturally, the energy will flow from a more intense mind set (intense in the sense of conscious-evolution of one's inner EOLs through meditation) of a master to a lesser intense mind set of a patient ('subject'). Note that the modulating signals on a mind wave in cosmos are heavily (infinitely) charged with cosmic consciousness whereas those generated out of a localized human Being can be suitably charged with the consciousness emanating from a localized source within i.e. SO. This latter source of consciousness, while making a human Being functional, however, has a potency of infinite expansion as far as the space of consciousness is concerned and thereby it develops the quality of connectivity with the cosmos. Thus, the mind waves generated by a master (healer) become capable of inducing intangible entities, like *vāta*, *pitta* and *kapha* in the 'subject' at a certain stage of the mental healing. As a matter of fact, depending upon his practice and training there are two options before the master with regard to generating desirable (necessary) modulating signals on a mind wave – he can either pick them up from the cosmos out of a fully loaded mind wave with fully dressed versions of epi-fields and do necessary unwrapping as a result of his meditation, or else he can pick-up a ripple from Φ_{cc} and does necessary loading on it with appropriately dressed epi-fields also available in Φ_{cc} . In some sense, the process of mental healing can also be considered as a particular case of two mind wave interactions.

8. CONCLUDING DISCUSSION

In recent years, the role of subconscious mind in understanding various mental processes has been discussed in different contexts in Western schools of thinking using the so-called bottom-up approaches. As far as the anatomy and physiology of this intangible object in a human Being is concerned it still remains ambiguous. It is argued and demonstrated in this paper that a formal theory of subconscious mind already exists in Vedic wisdom and it is a question of bringing this wisdom in a quantifiable form by using the so-called top-down approach. This theory not only suggests several new dimensions of study of mental processes but also gives somewhat deeper foundation to the subject. With regard to the utility of this grand theory, in nut-shell it may be mentioned that a person whenever wants to understand a human related process

belonging to any domain of his existence the role of subconscious mind cannot be ignored. This all becomes further easier when one resorts to use patomic picture for a human Being.

As far as the value and place value of this intangible entity, subconscious mind, is concerned, it has been identified in the close vicinity of the inner-most existence, i.e. soul SO in the present scheme of study. To this effect, Murphy (1963) also tend to draw similar conclusions after studying and analyzing a large number of cases of mental healing. In fact, in this scheme of study, the constituents of micro existence of a person divide themselves into two parts and recombine again on the basis of their gross and subtle features which later define the so-called conscious mind (\mathcal{M}_g) and subconscious mind (\mathcal{M}_s) (cf. Fig, 2). Not only the existence but also the functioning of these parts has been discussed in Vedic literature (cf. Sect, 1). Thus, whether these are the 'system 1' and 'system 2' of Kahneman theory or the conscious mind and subconscious mind in the process of mental healing of Joseph Murphy, they basically have roots in the Vedic wisdom.

What a wonderful coordination between \mathcal{M}_g and \mathcal{M}_s God has gifted to we human Beings? This coordination ever goes unnoticed and works through nine possible exchanges between \mathcal{M}_g and \mathcal{M}_s (cf. Fig.3). These nine exchanges can further be fine-tuned when one accounts for the role of three Nature-born $gun\bar{a}s$ in Vedic wisdom. This brings the theory at a further deeper level and thereby suggests still further improvements in the science of mental healing in the sense that now responses and reactions on the part of the 'subject' will be more vivid for the same stimulant or for the same query by the healer.

Some human qualities like 'sankalpa' (hard-core determination) and 's'raddha' (faith) have origin in the subconscious mind: Through a large number of case-studies Joseph Murphy has tried to extract some, the so-called 'Natural laws' with regard to the working of subconscious mind in general. As far as the varieties of cases studied by Murphy are concerned they cover almost all types of stimuli and sense-objects including health, wealth, power and fame. One important observation he has made is that "organ of healing is subconscious mind and the process of healing is faith". It is worthwhile to point out that Murphy talks only of one human quality, i.e. 'faith' that emphasizes the functionality of subconscious mind; otherwise in Vedic wisdom there is a huge list of qualities, like truth, joy, unconditional love and affection, forgiveness, fearlessness, satisfaction, etc. which can be attributed to various working aspects of subconscious mind (Kaushal, 2023).

As a matter of fact, this huge spectrum of human qualities and characteristics (cf. SMBG, Chapter 17) can be classified (Kaushal, 2023) into various categories on the basis of five existences of a person, viz., namely causal, manifesting partly through the subconscious (subtle) mind, micro, manifesting partly through conscious mind, and the remaining three (Kaushal, 2015) gross, societal and natural existences, manifesting through human actions and experiences in daily life. Thus, the discussion only of one human quality, i.e. 'faith' (as a prerequisite for success) by Murphy limits his studies of subconscious mind. In fact, even this much is very important for an iota of success in using the science of mental healing.

Tuble 1. Who and what accides the quality (good of bad) of an action for a numan Being.			
SN	Type of person	What decides	Criterion plus other parameters
1.	Yogi category, who	Style and outcome	Relevance toward maintenance of
	resides in spiritual zone	of an action	both world and cosmic orders
			(MWCO) + self-realization
2.	Intellectual (philosopher		Relevance towards MWCO + self-
	and scientist) category,	- do -	observation + Role models of the past
	who reside in psychic-		and present
	zone		
3.	Common man category,		Relevance towards MWCO + self-
	who resides in the real	- do -	observation + Role models of the past
	world of his body and		and present + scriptural injunctions
	senses for survival.		and evidences

Table 1: Who and what decides the quality (good or bad) of an action for a human Being?

The role of subconscious mind also becomes important when one seeks the answer of the question as to who and what decides the quality of an action (good or bad) performed by a person. In this regard, if the result of the performed action as its end-product goes in favour of the maintenance of both world and cosmic orders, then they can be considered as good; otherwise, they are termed as bad and they need further scrutiny to this effect. Again, it matters a lot as to which category of a person is performing the action. In this regard, four category of persons have been identified earlier (Kaushal, 2015) on the basis of their spiritual evolution. In Table 1, we briefly list these categories and also the associated actions towards the maintenance of both world and cosmic orders. In fact, for the judgement of the quality of an action final approval and guidance has to come again from the level of subconscious mind.

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"Srimad-Bhagvad-Gita", Gita Press Gorakhpur, see any edition (abbreviated in the Text as SMBG).

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Conflict of Interest

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APPENDIX A

MEDITATION MATRIX: MICRO-BODY \mathcal{M} AS A VECTOR IN THE VECTOR SPACE SPANNED BY THREE GUNAS IN NATURE AND OVER A FIELD OF COSMIC CONSCIOUSNESS

Earlier, we have discussed the religion and personality (Kaushal, 2023;2015) of a person as a vector in the vector space \mathcal{V} spanned by three $gun\bar{a}s$ over a scalar field of cosmic consciousness \mathcal{F} and as a linear combination respectively of karma, $up\bar{a}san\bar{a}$ and $jn\bar{a}na$ in the former case and of \mathcal{M} , \mathcal{G} , \mathcal{S} and \mathcal{N} existences of a person in the latter. Here, in the same spirit, we analyze the micro existence or micro body \mathcal{M} alone as a vector in the same space but as a linear combination of its constituents, namely the trio of inner EOLs \mathcal{M} , \mathcal{I} , and \mathcal{E} , which, in fact, separately are also the vectors in the same space (since each of them also manifests in three modes of $gun\bar{a}s$). Further note that it is the meditation that operates in this domain and accordingly helps in grading and fine-tuning the functions of inner EOLs as satoguni, rajoguni or tamoguni. Further, it is the satoguni nature of working of these EOLs that adds to positivity in the spiritual journey of a person. In fact, this will give a clue to choose and define an ideal path to pursue (in the same way as one identifies ideal religion or an ideally integrated personality) and in the present context, a basis for a variety of distinctive mental healing methods popularly used in modern times.

Note that we all are born with certain degree of emotional, reasoning and learning powers. Therefore, the micro-existence vector \mathcal{M} , in general, is a function of its constituent vectors M, I and E, but like the religion vector \mathbf{R} (cf. Chapter 13 of (Kaushal, 2023)), we consider this \mathbf{M} as a linear combination of constituent vectors, and write it as

$$\overrightarrow{\mathbf{M}} = a\overrightarrow{M} + b\overrightarrow{I} + c\overrightarrow{E} \tag{A1}$$

$$\equiv M_s \, \hat{s} + I_r \, \hat{r} + E_t \, \hat{t} \, , \tag{A2}$$

where \hat{s} , \hat{r} , \hat{t} are unit vectors along the three-axes of $gun\bar{a}$; M_s , M_r , M_t are the satoguni, rajoguni and tamoguni components of \mathcal{M} , and a, b, c are the weight functions assigned, respectively to the contributions of M, I, and E constituents and in general they are the elements

of the scalar field \mathcal{F} . The vectors \vec{M} , \vec{I} and \vec{E} can also be expressed in terms of basis vectors \hat{s} , \hat{r} , \hat{t} as

$$\vec{M} = \mu_{ms} \, \hat{s} + \mu_{mr} \, \hat{r} + \mu_{mi} \, \hat{t} \quad \vec{I} = \mu_{is} \, \hat{s} + \mu_{ir} \, \hat{r} + \mu_{it} \, \hat{t} \quad \vec{E} = \mu_{es} \, \hat{s} + \mu_{er} \, \hat{r} + \mu_{et} \, \hat{t} \quad (A3 \text{ a, b, c})$$

Here the coefficients (matrix elements) μ_{pq} with p=m, i, e; q=s, r, t, define the fractions of satoguni, rajoguni and tamoguni tendencies present in a constituent of micro body and labelled in accordance with mind (m), intellect (i) and ego (e). Note that the features of the representation in (A3) are characterized by the meditation-matrix μ , viz.,

$$\mu = (\mu_{pq}) = \begin{pmatrix} \mu_{ms} & \mu_{mr} & \mu_{mt} \\ \mu_{is} & \mu_{ir} & \mu_{ii} \\ \mu_{es} & \mu_{er} & \mu_{et} \end{pmatrix}. \tag{A3}$$

Further, note that this matrix is not symmetric, i.e. $\mu_{pq} \neq \mu_{qp}$. As far as the *satoguni*, *rajoguni* and *tamoguni* qualities in a constituent of micro-body \mathcal{M} are concerned, they can be obtained by using (A3) in (A1) and comparing the resultant with (A2). Thus we write,

$$M_{s} = a\mu_{ms} + b\,\mu_{is} + c\,\mu_{es} \tag{A4a}$$

$$M_r = a \,\mu_{mr} + b \,\mu_{ir} + c \,\mu_{er} \tag{A4b}$$

$$M_{t} = a \,\mu_{mt} + b \,\mu_{it} + c \,\mu_{et} \,. \tag{A4c}$$

From these results, the following remarks about the quality and working of micro-body are in order:

- (i) Note that the coefficient functions a, b, c in (A1) define the weightage given respectively to emotional, reasoning, memory faculties in a micro existence. This weightage in an individual can change from person to person and with space, time and circumstances.
- (ii) The components M_s , M_r and M_t of \mathcal{M} in (A4) characterize the intellectual subgroups in a society dominated respectively by satoguni, rajoguni or tamoguni tendencies in their thinking and again in the spirit of adjective degrees—best, better and good with regard to the maintenance of world and cosmic orders. As a matter of fact, it is the satoguni tendency that introduces one to a divine system of justice with regard to the world and cosmic orders.
- (iii) An important outcome of the constructions in this Appendix is to have a feel for the gradation of meditation towards the maintenance of world and cosmic orders by an individual and also the successes so obtained in the spiritual journey. Note that as the intensity of one's meditation increases the resolving power of EOLs arranged in Figs. 1 and 4 also increases while proceeding from WO to SO in general and from M to E, in particular. On the other hand, when a person decides to lift himself from *tamoguni* to *satoguni* nature his analyzing power (a reflection of meditation) in general also increases. This implies a link between the meditation and the personality development. This fact is also contained and demonstrated by the matrix element μ_{ab}. As a result, one can also arrange the matrix elements of μ in (A4) in an increasing order of their fineness, viz., μ_{mt}, μ_{it}, μ_{et}, μ_{mr}, μ_{ir}, μ_{er}, μ_{ms}, μ_{is}, μ_{es}. This covers a wide range of personalities in the society. While the persons with

- μ_{mt} -type (tamogani nature dominating the mind) thinking are not considered good in the society, the persons with μ_{es} -type (satoguni nature dominating the ego) thinking are considered as saintly in their spiritual journey.
- (iv) These features of personality discussed in (iii) with certain modifications are also applicable to gross and subtle components of mind, i.e. to the domains of conscious mind and subconscious mind.