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On the other hand, note that in addition to this, there is a generation of eddy currents in the copper blocks and sheets already lying permanently underneath the idol in the same geomagnetic field of about 0.3 Gauss. This also gives rise to an additional (rather little stronger) induced e.m.f. or magnetic field as a result of the eddy currents produced in copper blocks almost on a permanent basis. In fact, the radiation of that induced magnetic field due to eddy currents causes a distinct environment around and in the premises of the temple, which in turn, also affects the frequency of firing of electric signals by brain-neurons of the devotee and hence affects his thinking or the thought process in general.

Other factors which also contribute to this kind of enhancement of positivity in the thought process are also present there in the temple. For example, (a) when the devotee rings the ring-bell placed just above his head in the main hall and in front of the idol, then its sound helps in unifying the left and right parts of the brain by way of creating a kind of resonance between the two parts for a few seconds. This makes the brain relatively more sensitive to receive the induced flux or to activate the firing of electric/magnetic signals. (b) When the devotee takes rounds around the idol in the designated path, it also causes a change in the magnetic flux but of different nature. This is mainly because the devotee now moves in the resultant of the two magnetic fields, namely the geomagnetic field and the induced magnetic field due to eddy currents (which at times can be more intense, depending upon the quantity of copper placed underneath and the orientation of the copper slabs or sheets so placed). (c) Not only this, the trajectory a devotee now traverses by moving himself in the clock-wise direction (with respect to the idol) turns out to be a stable spiral in the language of nonlinear mathematics (cf. Chapter 6 in [14]), meaning thereby the trajectory has the tendency to merge into the center, i.e., in the idol. (In fact, the attention of the devotee is now focused possibly maximum on the qualities, virtues and glories of the embodied

personality in the idol. In this way, the gravity energy also helps in establishing the faith in the idol). Thus, this rounding about the idol further modifies the frequency of firing of electric signals by brain-neurons and thereby strengthening and improving the resolution of the desired ideas in the thought process of the devotee.

### ATTENTION DOMINATED WAVES AND ENERGIES

Any disturbance in a medium causes the formation of waves in the latter and wherever there is a wave it carries certain type of energy associated with it and the same helps in its propagation. In general, the disturbance can also be space and/or time dependent. If the medium as such does not contribute, then the energy associated with the wave is also a measure of the intensity of disturbance. There may be exceptions, but normally the disturbing agent has to be hard enough (in terms of rigidity) or of sufficient intensity (in terms of the applied force) so as to produce a wave in the given medium. A wave is basically characterized by its amplitude ( $a$ ), frequency ( $\nu$ ), velocity ( $v$ ) and phase ( $\phi$ ) with some simple relations among them, viz.  $v = (1/T)$ , ( $T$  is time period);  $v = (v/\lambda)$ , ( $\lambda$  is wavelength) for 'linear' phenomenon (here linearity is in terms of the nature of the corresponding differential equation for the disturbance); otherwise for the 'nonlinear' case such relations turn out to be very complicated.

As far as the classification of waves is concerned scientists and engineers have identified only a few of them for their use and studies; otherwise for a person sitting along a sea-shore (i.e., close to an infinite medium and with all sorts of disturbances) there are infinitely many varieties of waves - starting from longitudinal, transverse to solitary waves, etc. Most of them, in fact, correspond to nonlinear phenomena in Nature.

### Physical and Nonphysical Communication Vis-A-Vis Brain and 'Mind' Waves

At elementary level while waves are classified as longitudinal and transverse, at the advance level, however, they are classified as mechanical, electromagnetic and matter waves. Further, mechanical waves travel through terrestrial media in the form of solid, liquid and gases; the discovery of electromagnetic waves is one of the wonders of modern science, not only for communication in space and universe but also as a tool for other modern researches like the LASER technology, etc. The matter waves, on the other hand, have dragged the mind of scientists into the philosophical domain by identifying the fact that the matter at micro-level has dual nature, i.e., it can behave as a wave and also as a matter particle with reference, of course, to a detector that could be an instrument or a conscious observer. In case of conscious observer, the role of consciousness is tactfully avoided by advancing a probabilistic interpretation to the quantum wave function  $\Psi$ . This is one of the

interpretations of modern quantum mechanics and found to work successfully in a variety of microscopic systems, starting from molecules to quarks. As far as the communication between and among objects is concerned, all three mechanical, electromagnetic and matter waves have been in use, particularly after the advent of quantum computers.

In the preceding section, we have seen that as to how the specially designed Indian temples can activate the firing frequency of electric impulses by brain neurons which, in turn, can affect the formation of synchronized patterns in the brain corresponding to a particular sensation or mental process. An important alternative to this kind of activation of brain-cells is through an intense meditation or by way of creating highly intense or attention-dominated brain waves/energies. This is possible by way of focusing more and more consciousness towards the production of the so-called 'mind' waves as a result of conversion of brain physical energy into a non-physical (cenergy) one.

**What brain science has to tell about the 'mind' waves:** It may be mentioned that an individual's behavior, emotions and thoughts are the result of communication among brain neurons within our brain in the varying frequency of electric impulses, the so-called 'brain' waves. Further, all brain waves are produced by synchronized electric signals fired by masses of neurons communicating with each other. The brain waves occur at various frequencies (in Hz or cycle per second) and the brain scientists have classified them into five EEG (electro-encephalogram) bands, namely delta, theta, alpha, beta and gamma characterized by the frequency ranges as follows: Delta (1-3Hz): slowest but with highest amplitude, experienced when we are asleep. In general, different levels of awareness (attention) are associated with dominant brain wave states; Theta (4-7 Hz): represents a day dreamy state of mind associated with mental inefficiency, activity is at very slow levels - a very relaxed state between the waking and sleep; Alpha (8-12 Hz): slower but with larger amplitude, associated normally with relaxation, represents brain shifting into an idling gear, waiting to respond when needed; Beta (13-38 Hz): small, faster, associated with a state of mental/intellectual activity; Gamma (39-42 Hz): they are fastest, most subtle brain waves, Gamma rhythms module and relate to perception and consciousness.

Each of us however always has some degree of these different brain-wave-bands present in different parts of the brain. Delta brain wave also occur when certain areas of brain go 'off-line'. Important point to be noted here is that the brain waves learn to rework connections with positive re-enforcement through a neuronal-feedback mechanism, i.e., there is a possibility of enhancing the frequency range of gamma synchronous activity that is found to be a window for the domain of consciousness or for mind waves. While

there is an experimental support to this activity of brain cells [15,16], theoretical studies on conscious intents and brain functioning have also been carried out [17,18]. With regard to the gamma - synchronous-activity frequency of about 40 Hz, we recall the Chevreul hand-held pendulum experiment [19]. In this experiment, if one finds a frequency difference of more than 40 Hz in the two suggested situations, then naturally this will be attributed to a new type of synchronous activity or possibly open a window for 'mind waves', whose explanation will be found in the exchange of rather more subtle *tanmātrās* (cf. **Figure 1**) between brain-cells rather than through brain neurons firing electric signals. Recall that a *tanmātrā* in Vedic science is the subtlest quantum of interaction between a sense and its associated *mahābhūta* (cf. **Table 1**), and possibly here it will be a case of sound-ether correspondence (cf. entry 3 in **Table 1**).

### Mind Waves in $\Phi_{cc}$ And Cosmic Connections of an Individual Human Being

Here the word 'mind' needs to be understood as micro-body  $\mathcal{M}$  of a human Being consisting of three faculties, namely that of emotions, thinking and memory in the increasing order of its subtlety. Interestingly, these three intents are also the objects of study of brain scientists through brain-cells. We shall find that the mind waves in general are going to be little more complicated objects when loaded with so much information. As discussed above, the gamma synchronous activity of brain-cells at about 40 Hz indicates a window for the consciousness studies. Now, the question arises as to how to broaden this window upward in the frequency range or, as to how to peep deep into this window for any further clue about the consciousness. Of course, intense meditation is one such method, foresighted by Vedic seers, to peep into this murky path of consciousness and to go beyond the spatiotemporal world. As discussed in Sect. 2, the infinitely dressed versions not only of EOLs M, I and E but also of cosmic elements  $E_a$ , W, A, F and  $E_t$  with consciousness (i.e., in their seed-like forms) constitute distinct sectors of epi-fields in the same cosmic consciousness field  $\Phi_{cc}$ . While the infinite dressing of these entities with consciousness qualifies them to become a part of  $\Phi_{cc}$ , their partially dressed versions are also present in  $\Phi_{cc}$  at every instant and everywhere. Recall that  $\varphi_{cc}$  is the purest and subtlest version of the all-pervading consciousness continuum (field). It is the seed of cosmic desire ( $\tilde{E}^{(\infty)}$ ) that creates a disturbance in  $\Phi_{cc}$  and the same propagates in the already quiet  $\varphi_{cc}$  without any concept of velocity or even the concept of any type of infinity in it. When this disturbance passes through various sectors of epi-fields present in their seed-like forms, the latter upload the concerned information with this disturbance (or on the carrier wave of pure consciousness, denoted by '(CCW)'). The agencies which upload the information (or convert the carrier wave into a heavily modulated wave) in the order of their increasing subtlety are,

**Table 1.** A correspondence is shown here between the conventional physics disciplines including other modern subjects and the *panca mahābhūtās* of Vedic science. This is carried out in terms of *tanmātrās* (sense-objects) and the associated perceptions by human senses of knowledge. Necessary essences to be loaded on a mind wave in this context are also indicated.

S.No	Conventional physics & other disciplines	Possible sense & sense-object associated	Cosmic element(s) associated	Associated exotic phenomenon	Essences (charge) loaded on associated mind wave
1	Heat	Skin-touch	Air	Tele therapy	(CCW) loaded with e, i, m, a and e <sub>t</sub>
2	Optics	Eyes-light	Fire	Remote viewing	(CCW) loaded with e, i, m, f and e <sub>t</sub>
3	Acoustics	Ear-sound	Ether	Unexplained acoustics	(CCW) loaded with e, i, m and e <sub>t</sub>
4	Magnetism	Human-aura		K-effect, as an example	Mind-mind interact. through all essences
5	Geology, Geography & Environment	Nose-smell	Earth	Remote sensing	(CCW) loaded with e, i, m, e <sub>t</sub> and e <sub>a</sub>
6	Water-management & Hydrology	Tongue-taste	Water	Hydro-therapy	(CCW) loaded with e, i, m and w
7	Psychology	Mind, intellect, ego experiences	Mind waves	Telepathy, tele-empathy	(CCW) loaded with all essences

the sectors  $\Phi_{CEL}, \Phi_{CM}, \Phi_{CI}, \Phi_{CE}$  (or more precisely  $E_a \rightarrow W \rightarrow A \rightarrow F \rightarrow E_t \rightarrow M \rightarrow I \rightarrow E$ ). Even the nature of modulation and its varieties are controlled by the cosmic desire. Such a highly-multifold-modulated carrier wave is termed here as ‘mind’ wave. Other specific characteristics of this wave are:

- i. There is no question of velocity of these waves in spatiotemporal terms.
- ii. Since epi-fields in their seed-like or partially dressed forms are ever present in  $\Phi_{cc}$ , there are infinitely many possibilities and ways of modulation of the carrier (pure consciousness) wave.
- iii. The process of dressing of EOLs and cosmic elements with consciousness as a result of meditation at individual level and that of unwrapping of consciousness of corresponding epi-fields during the propagation of the disturbance across these fields in  $\Phi_{cc}$ , are the equivalent and similar processes and their matching at a certain stage in  $\Phi_{cc}$  is bound to be there. This defines the beginning of realization of cosmic connections.
- iv. Once cosmic connections are established by a practitioner, the latter becomes qualified to participate in several attention-dominated processes like reiki, telepathy, etc. at individual level.
- v. In electronics, the phenomena of amplitude and frequency modulations are well known. Here in the case of mind waves, however, the cosmic (eight-fold) modulation of the carrier wave is highly complicated as both the amplitude and the frequency remain undefined. With regard to the ordering of modulation

- of (or of loading on) the carrier wave with epi-fields in  $\Phi_{cc}$  and their demodulation at the level of an individual during meditation, the sequences followed are of opposite nature to each other. For example, for the demodulation it occurs as:  $E_a \rightarrow W \rightarrow A \rightarrow F \rightarrow E_t \rightarrow M \rightarrow I \rightarrow E$ , i.e., first  $E_a$  uploads, etc. In other words, during modulation, the essence of every epi-field is attached with the carrier wave in the order of its subtlety, i.e., first that of  $\tilde{E}^{(n)}$ , then  $\tilde{I}^{(n)}$ , then of  $\tilde{M}^{(n)}$ , and so on, and in the end that of  $\tilde{E}_a^{(n)}$ .
  - vi. In fact, these eight varieties of epi-fields including their partially dressed versions need to be loaded on a carrier wave. While this number of loading agencies is in accordance with SMBG (Verse 7.4), they provide a set of minimal for the creation of Universes in  $\Phi_{cc}$  [13] on the one hand and a clue for understanding the details of these creations by an individual on the other. As per Vedic wisdom, this is the case with a perfect mind wave; otherwise, imperfect mind waves are also always and everywhere present in  $\Phi_{cc}$ . It depends on the capacity of the receiving instrument (e.g., a human Being who is said to be a perfect creation) to receive these perfect or imperfect mind waves.
- The role of mind waves starts at a stage where that of brain waves ends, i.e., it could well be beyond the gamma synchronous activity in brain science. These are the mind waves associated with the individual husband and wife which transcends and interact at the time of conception in addition to given physical environment. It is

this phenomenon responsible for the germination of personality seeds in the life of a new born baby.

**ATTENTION DOMINATED PROCESSES**

At times many of us have noticed some peculiar phenomena that occur in the domain of consciousness but cannot be explained within the framework of space-time mediated objective science. Such exotic phenomena have been in use for centuries in different cultures and form the part of the so called ‘occult science’. Some of these phenomena, no doubt, are not taken in good taste by the society but still some contribute towards one’s happiness provided the person concerned has a belief in them. Earlier we have tried (see, Appendix F of [1]) to find explanation of some of these phenomena in a limited scientific spirit and within the framework of patomic model, here, however, we analyze a few more such phenomena involving attention-dominated processes, namely telepathy, tele-therapy and reiki, in the present scheme of study. In particular, the role of mind waves discussed earlier will be highlighted in understanding some of these processes.

**Physical and Nonphysical Processes: Role of Mind Waves**

Note that the mind waves (in the form of their fully loaded version with all the eight cosmic essences or as partially loaded with some limited essences) are around all over in the all-pervading cosmic consciousness field  $\Phi_{cc}$ . In general, they are eight-fold modulated waves with respect to a perfect detector, practitioner or an aspirant of the highest degree; otherwise only a few essences transcend in an individual

during meditation. Now the question arises as to how one or who receives and perceives these mind waves when each individual has the potency to this effect? It is the degree or the intensity of one’s meditation that decides the transcending of these essences. While the modulation of essences in  $\Phi_{cc}$  takes place in the order E, I, M, E<sub>t</sub>, F, A, W, E<sub>a</sub> (or the corresponding essences e, i, m, e<sub>t</sub>, f, a, w, e<sub>a</sub> associated with their respective epi-fields in  $\Phi_{cc}$ ), their demodulation in a practitioner however takes place in the reverse order in accordance with their subtle features. It is perhaps for this reason the master always advises the disciple to uplift his self during meditation first from the worldly objects, then from the senses and sense objects (i.e., the domain of *pañca mahābhūtās*), and then from mind, intellect, and in the end from ego, in order to enter into the consciousness (spiritual) domain of sentient mode of Nature.

**A notation for mind waves and remarks about their modulated and demodulated versions:** We use the notation ‘(CCW)’ for the mind wave(s) as they basically are the consciousness carrier waves which, after passing through various epi-fields present in  $\Phi_{cc}$  in their seed-like forms, get multifold modulated (loaded) with essences e, i, m, e<sub>t</sub>, f, a, w, e<sub>a</sub> corresponding to ego, intellect, mind, ether, fire, air, water and earth. These essences are labeled as superscript(s) on (CCW). Next, we display the ordering of essences during the processes of modulation and demodulation as superscripts on (CCW), viz., for the modulation in cosmos we have the process,

$$\Phi_{cc} \Leftrightarrow (CCW) \xrightarrow[\text{desire}]{\text{cosmic}} (CCW)^e \xrightarrow[\text{intellect}]{\text{cosmic}} (CCW)^{ei} \xrightarrow[\text{mind}]{\text{cosmic}} (CCW)^{eim} \xrightarrow[\text{ether}]{\text{PM}} (CCW)^{eime_t} \xrightarrow[\text{fire}]{\text{PM}} (CCW)^{eime_t,f} \xrightarrow[\text{air}]{\text{PM}} (CCW)^{eime_t,fa} \xrightarrow[\text{water}]{\text{PM}} (CCW)^{eime_t,faw} \xrightarrow[\text{earth}]{\text{PM}} (CCW)^{eime_t,fawe_a} \quad (5)$$

and for the demodulation in an individual practitioner, we have the process

$$(CCW)^{eime_t,fawe_a} \xrightarrow[\text{PM, earth}]{\text{PM}} (CCW)^{eime_t,faw} \xrightarrow[\text{PM, water}]{\text{PM}} (CCW)^{eime_t,fa} \xrightarrow[\text{PM, air}]{\text{PM}} (CCW)^{eime_t,f} \xrightarrow[\text{PM, fire}]{\text{PM}} (CCW)^{eime_t} \xrightarrow[\text{PM, ether}]{\text{PM}} (CCW)^{eim} \xrightarrow[\text{mind}]{\text{cosmic}} (CCW)^{ei} \xrightarrow[\text{intellect}]{\text{cosmic}} (CCW)^e \xrightarrow[\text{ego}]{\text{cosmic}} (CCW) \Leftrightarrow \Phi_{cc} \quad (6)$$

that takes place side by side and thus leads finally to *moks’ā* in the limiting case. The matching of the two processes at a certain stage of meditation corresponds to the realization of cosmic connections at that stage. Other pertinent remarks about the characteristics of mind waves are as follows:

- i. Note that these are the five essences corresponding to the five cosmic elements that are loaded on (CCW) in addition to another three essences corresponding to

inner EOLs M, I, and E. Further, various permutations and combinations of these eight essences along with their individual characteristics finally give rise to the creation of entire world, worldly objects and the stimuli as well.

- ii. It appears that thus far discovered five EEG bands in neuroscience, corresponding namely to delta, theta, alpha, beta and gamma synchronous frequencies, represent the essences associated only with five

cosmic elements in the mind wave. The main reason for such a conjecture is the fact that the human-behavioral-features, like inertia, activity and dynamism noticed with these bands, also appear in Vedic science as an effect of three Nature-born tendencies (*gunās*) on human qualities. This later observation is also linked with the domination of any one or more *mahābhūtās* when they are considered as responsible for producing the three *dosās vāta, pitta and kaph* (cf. relations (7)) of Ayurveda. This striking similarity opens the possibility of connecting the health (both mental and physical) and the wellbeing of a person with his neuro-scientific data.

- iii. **How one mind wave can differ from another:** Note that the carrier wave (CCW) of pure consciousness remains common in the background of different modulations. The main source of modulating essence is the undressing of an epi-field (present in  $\Phi_{cc}$ ) out of its infinitely dressed version with consciousness. As this happens with different epi-fields in  $\Phi_{cc}$ , it leads to infinitely many varieties of differently loaded mind waves. We use this feature to call the mind wave as the ‘charged’ one with consciousness, whether heavily or lightly depends upon the intensity of meditation.

$$(CCW)^{e_a waf e_i m i e}, (CCW)^{waf e_i m i e}, \dots, (CCW)^{i e}, (CCW)^e$$

As far as the objective scientists are concerned, they out rightly reject the role of consciousness while analyzing a physical process in spite of the fact that their inner conscience is always working not only in the collection of data but also in their analysis and thereby in developing models for extracting the absolute reality. As they often get wonderful matching between theory and experiments by this procedure, for them the role of consciousness is desirable in one form or the other. Interestingly, the results so obtained and the conclusions drawn there from, are not only space-time invariant under the given circumstances and the assumptions made in the theory, but are also experience-based invariant. While such studies for physical processes are going on, there are still a very large number of non-physical processes in human behavior and experiences where the role of consciousness predominates, particularly in the form of attention. In order to understand this latter class of processes the concept of mind waves as introduced above can play an important role.

What a funny game an aspirant or a truth seeker of absolute reality is playing! As an objective scientist exploring the world of *pañca mahābhūtās* (i.e., first five essences modulated on the mind wave) or the creations of the five senses of knowledge using the instrument of psychoscience (mind, intellect and ego), i.e., the last three essences loaded on the carrier wave. On the other hand, as an occult scientist

- iv. As the definition of any kind of infinity in  $\Phi_{cc}$  is meaningless, the mind waves travel with an imaginary, limitless velocity not only in its unmodulated version but also even in the loaded version with essences e, i, m (corresponding E, I, and M). However, they start gaining space time features in increasing order when loaded respectively with  $e_i, f, a, w,$  and  $e_a$  (corresponding to  $E_i, F, A, W$  and  $E_a$ ). In fact, at this later stage physical fields like gravitation, electromagnetic, weak and strong also start appearing as a result of uncountable infinite permutations and combinations of the undressing modes of various *mahābhūtās* with the highest but finite limit, if any, on the velocity in the space-time domain.
- v. Note that there are certain categories of mind waves which remain functional in the overlapping domain of essences corresponding to PMs and to inner EOLs. This domain in fact is useful for the occult scientists. The velocities in this domain can perhaps lie between the velocity of light and the limitless velocity in  $\Phi_{cc}$ . Further note that while *moks’a* corresponds to the merging of (CCW) in  $\Phi_{cc}$ , the practitioners who attain increasingly higher degree of meditation, can be classified in the following various categories of mind waves, namely

one explores the world of psychoscience, (i.e., the last three essences loaded on the carrier wave) using the *pañca mahābhūtās* including the biological body of a human Being. None of them separately, however, is able to derive the complete truth in Nature. Such a role of mind waves in the process of meditation helps both objective and occult scientists in establishing cosmic connections.

**Exotic Phenomena and the Role of Mind Waves**

- a) **K-effect and ‘mind’- ‘mind’ interaction:** With regard to the K-effect, first we briefly remind the illustrative analogy discussed earlier (cf. Appendix F in [1]). Recall that an atom in itself has intrinsic electricity and magnetism and the corresponding fields inside, but when placed in an external electric or magnetic field it shows an abnormal behavior in the form of Stark, Zeeman, or Faraday effect. In the same way, a conscious individual who himself has EOLs including the soul and hence the consciousness energy (cenergy) fields (the same is also translated into a functional mindset  $\mathcal{M}$ ), when placed in an external cenergy field of another individual, is bound to undergo a change in his mindset and also in the behavior. The latter phenomenon is abbreviated as ‘K-effect’ (i.e., ‘Kaushal-effect’ or as ‘skill-in-action’ effect). Another situation which can be added to such

an analogy in physics is that a piece of magnetic material (say, an iron bar), when constantly rubbed by the pole of a permanent magnet, the former starts showing the magnetism or becomes a magnet, may be of somewhat less intensity. Note that, in case of an atom the electric or magnetic fields inside and outside, or in case of magnetized iron bar the magnetic field produced in it and the one present in the rubbing magnet are in no way different from each other as far as their fundamental properties in space time are concerned. However, only the resultant effects of the fields observed by a detector or by an external observer could be different.

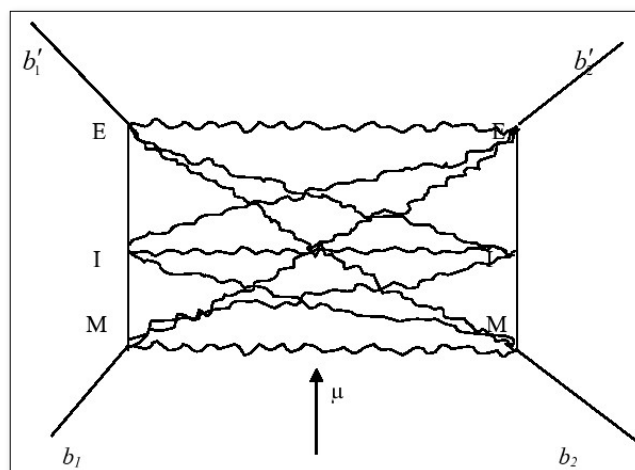
In fact, the above two phenomena offer lessons to study the human behavior in two distinct situations. In the first case, it is all action-at-distance (AAD) based effect that gives rise to a resultant effect whereas the second phenomenon is the outcome of both AAD plus contact type forces that are involved. In the tone of human-interactions it is the  $\mathcal{M}_1$ - $\mathcal{M}_2$  type interaction in the former case and it is  $\mathcal{M}_1$ - $(\mathcal{M}_2+\mathcal{G}_2)$  type one in the latter case [3]. Also, in the former it is all smooth and unprovoked action and in the later it is forced and under pressure. Thus, the brain-wash or the mind-transformation of a person by another one could be smooth (as through the class-room-type education or through sermon delivering process) or could be under pressure and fear (as for prisoners in a prison, etc.). Though our earlier works on  $\mathcal{M}_1$ - $\mathcal{M}_2$  interaction [1,3] will act as a guide in analyzing these cases, however, in the language of mind waves it is the flow of energy from a highly charged mind wave to a lower charged mind wave. Further, this gradation of charging, as discussed above, is in terms of orders of dressing/undressing of epi-fields through consciousness in  $\Phi_{cc}$  besides the hierarchy of EOLs M, I and E.

While  $\mathcal{M}_1$ - $(\mathcal{M}_2+\mathcal{G}_2)$  type interaction will further add to the number of processes and hence to the variety of exotic phenomena, it is worthwhile to have some glimpses of  $\mathcal{M}_1$ - $\mathcal{M}_2$  type interaction. The possible exchanges of *tanmātrās* in the mental domain are shown by a Feynman-like diagram in **Figure 2** for two interacting persons  $b_1$  and  $b_2$ , namely for the

process,  $b_1 + b_2 \rightleftharpoons b'_1 + b'_2 + \tau_{b_1 b_2}$ . Here  $\tau_{b_1 b_2}$  describes

various quanta of interaction (or exchanged *tanmātrās*). As can be seen from **Figure 2**, the interactions between inner EOLs of two persons,  $b_1$  and  $b_2$ , give rise to a large number of exchanges which, in turn, will help in exploring and classifying subtleties involved in various types of exotic phenomena. In all there are six exchanges possible in this diagram after accounting for the symmetry considerations [10]. Note that this symmetry is possible mainly for two ideal friends or for an ideal husband-wife couple; otherwise, in general, all nine exchanges take place in a process, particularly in the two situations discussed above. In fact, in the exotic phenomena in which the ‘brainwash’ is must, the

question of exchange symmetry does not arise. As each EOL M, I, and E further appears in three modes through *gunās* and so are the exchanges in this figure, this will further allow the fine tuning of interactions with increasing meditations (**cf. Figure 2**) or the levels of development of FOU of the two persons.



**Figure 2.** An example of fine-tuning of  $\mathcal{M}_1$ - $\mathcal{M}_2$  type interactions mediated by the exchange of corresponding *tanmātrās* at a subtle level. In all there are six exchanges possible in this diagram after accounting for the symmetry considerations.

**b) Mind waves and exotic phenomena:** It is worthwhile to recall a few exotic phenomena related to individual’s behavior but whose explanation does not lie in the domain of space-time mediated objective science. These phenomena, in fact, lie in the domain of the trio of space, time and consciousness and a plausible explanation of them perhaps can be sought in terms of the mind waves. Naturally, here the forces of AAT-and AADT-type are involved and all three, space, time and consciousness play a comparable role. In addition to the phenomena investigated earlier (see, Appendix F of [1]) some other of particular interest are, tele-therapy, remote viewing, remote sensing, unexplained acoustics, telepathy (tele-empathy), reiki, hydro-therapy, etc. These processes basically are the epi-physical processes with highly dominated attention.

It is a common experience of many of us that, at times, telepathy works, blessings of an individual or of a collection of individuals do miracles, particularly in the remedy of a disease. Also, note that a believer (theist) gets quickly or better cured as compared to a non-believer (atheist) for the same disease, and in the same given circumstances, etc. Here lies the role of consciousness or of attention dominated waves or of the mind waves charged appropriately with the necessary essences.

What we have discussed before is the origin and the embedding of mind waves in  $\Phi_{cc}$  but the fact is that an

individual's consciousness can also produce the mind waves at secondary level or can modify the ones present already in  $\Phi_{cc}$ . This is not possible for a common man but the practitioners with sufficiently intense meditation are capable of doing all this. Not only this, the quality of charge on a mind wave can also be modified as a result of constant recitation of certain *mantrās* (sacred syllable/words dominated with attention).

In **Table 1**, we supply some necessary inputs for such interdisciplinary studies from both objective sciences and Vedic wisdom with a view to bringing the subject of occult sciences on par with the main stream of science. In particular, in this summary Table we attempt to identify the conventional physics and other disciplines with the *tanmātrās* and corresponding *panca mahābhūtās* of Vedic science at a crude level, i.e., without really touching the roles of m, i and e essences on a mind wave.

**c) Epi-fields of secondary nature in  $\Phi_{cc}$  and tele-**

**therapy:** With a view to understand certain exotic phenomena like tele-therapy, reiki, etc. we have to consider the presence of secondary epi-fields in  $\Phi_{cc}$  in addition to the primary ones. (Note that the primary ones are the infinitely dressed, seed-like versions of five cosmic elements and those of mind, intellect and ego with consciousness). For this purpose, we have to rely on the Ayurvedic wisdom (see, for example,) [20] where the *tanmātrās* with their successively increasing and added gross features are linked with the *panca mahābhūtās* through certain type of correspondence-relations like, sound  $\Rightarrow$  ether ( $E_a$ ); sound + touch  $\Rightarrow$  air (A); sound + touch + light  $\Rightarrow$  Fire (F), sound + touch + light + taste  $\Rightarrow$  water (W); sound + touch + light + taste + smell  $\Rightarrow$  earth ( $E_a$ ), where, sound, touch, light, taste and smell, respectively correspond to the *Sanskrit* words, *s'abda*, *spars'a*, *rūpa*, *rasa*, and *gandha*.

On the other hand, certain combinations of five cosmic elements  $E_t$ , F, A, W and  $E_a$  give rise to the trio of *vāta* ( $\nu$ ), *pitta* ( $\pi$ ) and *kapha* ( $\kappa$ ) via a new type of *panci karan* rule, which, symbolically, can be expressed in the lowest order of dressing (since a functional trio of  $\nu$ ,  $\pi$  and  $\kappa$  can exist only in an alive body and not in a dead one) with consciousness as,

$$\begin{aligned} \tilde{\nu}^{(1)} &= a_1 E_t + a_2 F + a_3 A + a_4 W + a_5 E_a \\ \tilde{\pi}^{(1)} &= b_1 E_t + b_2 F + b_3 A + b_4 W + b_5 E_a \\ \tilde{\kappa}^{(1)} &= c_1 E_t + c_2 F + c_3 A + c_4 W + c_5 E_a \end{aligned} \tag{7}$$

where  $a_i$ ,  $b_i$ , and  $c_i$  (for  $i=1, \dots, 5$ ) account for the weight-age given to a *mahābhūta* or *mahābhūtās* in a particular combination. For example, in  $\tilde{\nu}^{(1)}$ , the *mahābhūtās* A and  $E_t$ , in  $\tilde{\pi}^{(1)}$ , F and W and in  $\tilde{\kappa}^{(1)}$ ,  $E_a$  and W are dominant.

Further note that all three in this trio of the so-called '*dosas*' in Ayurveda, basically are the intangible objects and they form the basis of all kind of studies in Ayurveda.

As far as the higher order dressings of  $\tilde{\nu}^{(1)}$ ,  $\tilde{\pi}^{(1)}$  and  $\tilde{\kappa}^{(1)}$  with consciousness as a result of individual's meditation is concerned, they can be obtained using a kind of *tri-karan* rule (in analogy with the one we had for the trio of M, I and E in  $\mathcal{M}$  in Sect. 1.2(b)), which symbolically can be expressed through recurrence type relations, viz.,

$$\begin{aligned} \tilde{\nu}^{(2)} &= \frac{1}{2} \tilde{\nu}^{(1)} + \frac{1}{4} \tilde{\pi}^{(1)} + \frac{1}{4} \tilde{\kappa}^{(1)} \\ \tilde{\pi}^{(2)} &= \frac{1}{2} \tilde{\pi}^{(1)} + \frac{1}{4} \tilde{\kappa}^{(1)} + \frac{1}{4} \tilde{\nu}^{(1)} \\ \tilde{\kappa}^{(2)} &= \frac{1}{2} \tilde{\kappa}^{(1)} + \frac{1}{4} \tilde{\nu}^{(1)} + \frac{1}{4} \tilde{\pi}^{(1)}, \end{aligned} \tag{8}$$

for the second-order dressing. Similarly, for the n-th order dressing, one writes

$$\tilde{\nu}^{(n)} = \frac{1}{2} \tilde{\nu}^{(n-1)} + \frac{1}{4} \tilde{\pi}^{(n-1)} + \frac{1}{4} \tilde{\kappa}^{(n-1)} \tag{9}$$

and similar expressions for  $\tilde{\pi}^{(n)}$  and  $\tilde{\kappa}^{(n)}$ . In the limit when  $n \rightarrow \infty$ , the objects, like  $\tilde{\nu}^{(\infty)}$ ,  $\tilde{\pi}^{(\infty)}$  and  $\tilde{\kappa}^{(\infty)}$ , will form the seeds of secondary epi-fields in  $\Phi_{cc}$  and thereby will help in creating life in the Universe in conjunction with other later generated bio-chemical reactions. As such these essences are not loaded on (CCW) but they are gradually formed in due course and in given circumstances favorable for the creation of life at the time of conception and later. Such considerations do help in understanding the phenomenon of tele-therapy or reiki.

As a matter of fact, the framework of mind waves outlined here does offer an explanation of variety of phenomena. For example, whether it is remote viewing, remote sensing, unexplained acoustics, tele-hydrotherapy, or in general tele-therapy, in either case the concept of mind waves will offer an explanation (**cf. Table 1**). For this purpose, one just has to load the carrier wave with appropriate essence(s) corresponding to specific *mahābhūta(s)* as indicated in **Table 1** and direct the wave towards the true and deserving receiver (patient/disciple) with an attention dominated meditation. This kind of loading of carrier wave, in fact, needs to be done after a concerted and intense meditation on the part of the master, of course, with appropriately chosen essences and with still subtler ones out of m, i and e. While all this goes on towards the curing of mental health of a patient, towards his physical health, however, tele-therapy in terms of secondary epi-fields needs to be initiated. These secondary epi-fields  $\nu$ ,  $\pi$  and  $\kappa$  or their dressed versions basically are the constructs

of *panca mahābhūtās* (cf. relations (8) and (9)) and in some senses are already present in  $\Phi_{cc}$  in a seed-like form. While *panca mahābhūtās* are directly used in the treatment of diseases in naturopathy [6], their combinations in the form of *tridosas*  $\nu$ ,  $\pi$  and  $\kappa$  (cf. relations (7)), in fact, form the backbone of the Ayurvedic system of medicine.

### SOME OTHER EXOTIC PHENOMENA IN THE PRESENT SCHEME OF STUDY

Note that all 16 classes of exotic phenomena listed in Sect. 1.1 are not completely independent as far as the roots of their origin and the domain of their occurrence are concerned. Most of these phenomena, in fact, concern an individual and originate from an affected psychic zone of that individual as a result of (i) his accumulated tendencies (*Samskāras*) of previous birth(s) as per Indian philosophy, (ii) the development of his extra-sensory perception in terms of dressing of his EOLs with consciousness, (iii) the presence of another abnormal psychic zone around, or (iv) the presence of extreme external physical conditions, i.e., environment and/or circumstances, causing a change in the neuronal dynamics of brain. Further note that these phenomena appear as strange (exotic or abnormal) for a third person with a normal psychic zone and some of them, if not all, may not be exotic for him if he himself also has a matching psychic zone in terms of development of his FOU's and/or abnormality desired for. In spite of the fact that the expertise of different disciplines is involved in finding explanation for these phenomena, yet there does not exist a unifying understanding of these phenomena except for some scanty explanations. One cannot expect a satisfactory explanation for these phenomena on the basis of modern science based purely on space-time mediated interactions and not accounting for the consciousness involved in these phenomena. For a survey of various explanations of these phenomena, we refer to our earlier work (cf. Appendix F of [1]).

Two approaches presented in this Article are those of patomic model and of newly proposed mind waves. While the former originates from the individual and ends up in the cosmos through dressing rules, and the latter originates from the cosmos and ends up in the individual through demodulation of cosmic essences, both carry the spirit of cosmic connections in the background. These connections, in turn, become viable only through intense (or attention-dominated) meditation. In fact, any two minds can also work as source or sink for these waves depending upon the degree of meditation by an individual. Mind waves, no doubt, are limited to mental domain but in conjunction with patomic model, AAT and AADT in addition to AAD and contact type forces they are capable of offering explanation perhaps of entire gamut of human actions and experiences, then what to say of 16 classes of exotic phenomena listed in Sect 1.1.

### CONCLUDING DISCUSSION

This Article offers another step towards the understanding of the phenomenon of consciousness but mostly in the realm of behavioral and physical reality and again in a top-down manner. To this effect, the role of cenergy in the form of intense meditation or attention-domination is analyzed to seek explanation of some non-physical processes and phenomena. In particular, the epi-physical version of the physical matter with reference to an idol worship, mind waves (as a step further in the study of brain waves) along with associated energies and processes that fall into the domain of occult sciences are investigated. In fact, the normal consciousness-manifesting processes (the so-called 'soft' ones) while proceed in a natural manner, the attention dominated (the so-called 'hard') ones require some special efforts of varying nature towards the success of an action.

It is argued that the idol worship performed in an Indian temple that is constructed in accordance with ancient Indian wisdom definitely accelerates the process of thinking in a devotee, whether it is positive or negative thinking depending upon his attitude or intentions towards the world and cosmic orders. Not only this, it is argued that a positive environment (as an effect of induced magnetic field) surrounds the temple premises which in the long run might add to maintaining both these orders through the actions of a devotee.

It may be emphasized that the role of mind waves, as an outcome of the top-down approach, starts at a stage where the role of brain waves of bottom-up approach ends. The mind waves exist and are created in the cosmic consciousness field as a result of cosmic desire. They are multifold (in particular, eight-fold as per Vedic wisdom)-modulated waves. These constructs basically are the carrier waves of pure consciousness which are loaded with the essences of all eight types of epi-fields present initially in  $\Phi_{cc}$  in their seed-like forms. The modulation starts with subtlest ego, then with lesser subtle intellect, mind, ether, fire, air, water and in the end with the least subtle earth-essence. On the other hand, as a result of intense meditation by a practitioner, these essences of various epi-fields unwrap of themselves in a mind wave in the reverse order, i.e., first the grossest essence  $e_a$  unwraps and in the end the subtlest essence  $e$  unwraps. In view of the Vedic wisdom, it is suggested for brain scientists to look for three more EEG bands in addition to the existing five ones corresponding, namely to delta, theta, alpha, beta and gamma synchronous activities. In fact, for mind waves there is no concept of velocity or even of infinities as they belong to an experiential domain and are beyond space time. It is for the future studies to explore these aspects of mind waves which, at present, seems to be of pure experiential nature and as such their role, particularly in occult sciences, cannot be denied.

Modern researches in cognitive and brain sciences have shown that the human thinking and behavior are the outcome of constant firing of electric signals by brain neurons in the brain space. To this effect, a possible way of enhancing the frequency of this firing by brain neurons is discussed in Sect.



3 through the idol worship in an Indian temple, mainly as an attribute of geomagnetic field. In fact, it is not difficult to extend the discussion to accommodate the effect of electric/magnetic fields (howsoever small that may be) coming constantly from the sun and other planets on the brain neurons. Such studies, in conjunction with the concept of mind waves of Sect.5, will perhaps open new dimensions to study the subject of Astrology, which otherwise no doubt is considered as a science but with poor predictions.

In nut-shell, the studies pursued here clearly indicate that in cosmos there is nothing like an (isolated) individual entity, whether it is a living or nonliving one. Each entity, in fact, is not only a part of but also embedded in an all-pervading cosmic consciousness field  $\Phi_{cc}$ . Some entities (may be rarest of the rare) while develop capacity of realizing these cosmic connections, rest are forced (!) to exist, maintain and to survive only with these connections but without their cognizance. The concept of mind waves, introduced here perhaps for the first time in the light of Vedic wisdom, turns out to be an important tool to explain both physical and nonphysical communication between and among these entities. In the nonphysical case, however, an explanation of variety of exotic phenomena including tele-therapy with reference to both physical and mental health of a person can be sought.

#### ACKNOWLEDGEMENT

The Post-retirement association with both, Department of Physics & Astrophysics and Ramjas College, University of Delhi, is gratefully acknowledged. During the compilation of this Article of interdisciplinary nature, the author is benefitted from the discussions with experts of various fields. In particular, he wishes to thank Prof. D. Parashar, Dr. Vijay Garg, Dr. Medha Garg, Dr. Himanshu Sharma and Prof. Shashi Tiwari for several useful discussions on various topics.

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