

## Photoelectric Effects: Human Mind & Sense Datum

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### **Abstracts:**

We study an important fact called Mind & Sense Datum (matter based). Considering these emerges by the photoelectric effects conducted by the photon-like energy packets “narayan” including photons or quanta of ordinary light through electromagnetic interactions of the matter nuclei weak energy forces of  $SU(2)$  in the respective framework of  $SU(2) \times U(1)$ , also interacted with bimolecular particles constructed by the various combinations of lepton-like but quark-type [assuming six set of quark-types each set having five different quark-type] of exotic matter fluids in wave status are tightly binding by the bosons of  $SU(6)$  combining with quarks of usual matter energy in brain-neuron microtubules for the case of human or any other suitable places of brain-likes of lives. We then found several new unknown Particles-Likes “bhadrans” with a new kind of strong forces those are combining with quarks of ordinary matter particles formed Bio-Molecules through chemical bonding of matter atoms or polymers etc. are internally linked through photoelectric-like current for exchanging the necessary information between all parts of the body-system. Hence created a living-body-system of the whole system link through laser-like beam of new energies etc. inclinable to the photo-electrodes-like tube in brain cell for the case of Human-likes and then created holography mind with gradually unfolding sense datum. Thus human brain conceived as an interfacing organ that not only produces mind through consciousness but also received instructional information. We arrived then complete living subsystems with gradually unfolding usual sense organs scheduled by Consciousness. Each parts of the body-system are therefore closely inter-related through photo-transmission systems but may instant affects the more sensitive parts like heart, brain etc. by sudden excessive flow of photoelectric-current which can possible under control of the living body-system through mind and sense datum by reducing the creation of photoemission. Mind therefore seems like as an activated photoelectric sensor started from the initial completeness of the living-mind-body-systems, then chronologically matured by unfolding all Sense-Datum etc. (someone may understand then appearance of sixth sense or insightful) through the random complex interactions internally and externally. Through Ear & Eye constructed an audio-visual picture-like holography of an object or by illusions or imaginations as picture created on mind-screen, may constructed through the sense organs then changes to electrical energies and are interchanges with mind-picture-screen like as television picture-screen or wanting through mind still a formation of matching-like picture of those objects or photographic image, then stored in memory for future. The incoming energies of information are therefore time dependent for that system, that means there possible only for limited times of inducing experiences of thoughts like sad, angry, love etc. for humans or lives which then disrupted by any kind of system anomalies, finally disappeared by the system broken, called death. Nothing, such as mind with our consciousness, sense datum etc. is possible to exist outside the Physical Universe except our consciousness coinciding to the Eternal Consciousness or Fundamental Consciousness.

**Keyword:** New Quantum Energy Sources, New Particle-likes Quark, Soft Matters, Consciousness, Lumps of Matters, Photoelectric Effects on Mind, Sense Datum, New kind of Electromagnetism.

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### **I. Introduction:**

Light with energy above a certain point can electrons looses and freeing them from a solid metal surface, according to Scientific American. Each particle of light, called a photon, collides with an electron and uses some of its energy to dislodge the electron. The rest of the photon's energy transfers to the free negative charge, called a photoelectron.

Before Einstein, the effect had been observed by scientists, but they were confused by the behavior because they didn't fully understand the nature of light. In the late 1800s, physicists James Clerk Maxwell in Scotland and Hendrik Lorentz in the Netherlands determined that light appear to behave as a wave. This was proven by seeing how light waves demonstrate interference, diffraction and scattering, which are common to all sorts of waves.

In 1899, in England, J.J. Thompson demonstrated that ultraviolet light hitting a metal surface caused the ejection of electrons. A quantitative measure of the photoelectric effect came in 1902, with work by Philipp Lenard (a former assistant to Hertz.) It was clear that light had electrical properties.

While Einstein, then a young patent clerk in Switzerland, explained the phenomenon in 1905, it took 16 more years for the Nobel Prize to be awarded for his work. This came after American physicist Robert Millikan not only verified the work, but also found a relation between one of Einstein's constants and Planck's constant. The latter constant describes how particles and waves behave in the atomic world.

Einstein's argument in 1905 that light can also behave as set of particles was revolutionary because it did not fit with the classical theory of electromagnetic radiation. Other scientists had postulated the theory before him, but Einstein was the first to fully elaborate on why the phenomenon occurred and the implications. For example, Heinrich Hertz of Germany was the first person to see the photoelectric effect, in 1887. He discovered that if he shone ultraviolet light onto metal electrodes, he lowered the voltage needed to make a spark move behind the electrodes, according to English astronomer David Darling.

According to Einstein, light is made up of little packets, at first called quanta and later photons. How quanta behave under the photoelectric effect can be understood through a thought experiment. Imagine a marble circling in a well, which would be like a bound electron to an atom. When a photon comes in, it hits the marble (or electron), giving it enough energy to escape from the well. This explains the behavior of light striking metal surfaces. Arthur Compton in 1922 showed that X-rays also could be treated as photons.

### **Lenard Photo-effective Experiments:**

Lenard used metal surfaces that were first cleaned and then held under a vacuum so that the effect might be studied on the metal alone and not be affected by any surface contaminants or oxidation. The metal sample was housed in an evacuated glass tube with a second metal plate mounted at the opposite end. The tube was then positioned or constrained in some manner so that light would only shine on the first metal plate — the one made out of photo-emissive material under investigation. Lenard connected his photocell to a circuit with a variable power supply, voltmeter, and micro-ammeter. He then illuminated the photo-emissive surface with light of differing frequencies and intensities. Knocking electrons free from the photo-emissive plate would give it a slight positive charge. Since the second plate was connected to the first by the wiring of the circuit, it too would become positive, which would then attract the photoelectrons floating freely through the vacuum where they would land and return back to the plate from which they started. Keep in mind that this experiment doesn't create electrons out of light it just uses the energy in light to push electrons that are already there around the circuit. The photoelectric current generated by this means was quite small, but could be measured with the micro-ammeter (a sensitive galvanometer with a maximum deflection of only a few micro-amps). It also serves as a measure of the rate at which photoelectrons are leaving the surface of the photo-emissive material. Such as Red light does not eject photoelectrons (even if it is very bright). Green light does eject photoelectrons (even if it is very dim). Blue light ejects photoelectrons with more energy than green light (even if it is very dim). Lenard found that the intensity of the incident light had no effect on the maximum kinetic energy of the photoelectrons. Those ejected from exposure to a very bright light had the same energy as those ejected from exposure to a very dim light of the same frequency. In keeping with the law of conservation of energy, however, more electrons were ejected by a bright source than a dim source.

So, considering there possible variable wave frequencies packets of light constructed by photon-like [made up from neutrinos-like of the new energies SU(6), SU(12), SU(24) etc.] quanta in wave status “narayan” within our Physical Universe produce consciousness of us then by photoelectric effects created mind with sense datum. Considering there found variable photoelectric current by looses of electrons and freeing them from surfaces of impacts with different amplitudes of signals causes the creation of laser-picture-screen-like holographic mind. It is interesting that one can screen-share of others by influencing through his mind-consciousness. We illustrate it like with broadcasting systems where we found that all information created at the center, like Television by the actors otherwise via centre through photographic light energy which then transferred into electrical energy according to frequencies & intensities then broadcasted through radio waves via Antenna and then energy waves received by Ariel of Television or Radio etc. according to the pre-fixed channel frequencies then again it transferred into electric energies and ultimately unfolded with audio-visual system, similar like events occurred by the fundamental consciousness (spirit stuff) energy waves creating with instructional information at source beyond our Physical Universe without any physical actors but the same like as photographic light energy of different frequencies & intensities created through appropriate internal random

arrangement of energy waves of the neutrino-like bosons as photon-like light created by the new energy groups SU(12), SU(24),...etc. then broadcasted as consciousness after unfolding our Physical Universe through the exchange of bosons between SU(6) & SU(5) with the symmetry breaking of the Super Unified Energy Group SU(11) then combining or rearranging with photon-like neutrinos or other bosons of the energy group SU(6) (physical stuff or soul stuff) within our Physical Universe (imagine as an electromagnetic ocean) like as radio-waves then unfolding through picture-screen-like holographic mind within us or others after photoelectric effects in brain or brain-like places. Thus photoelectric effects created as holographic minds through laser-like beams with as byproducts-like experiences may as thoughts & emotions with sad, angry, love etc., these are all controlled internally as well as externally by mind-consciousness. The ejected Bio-Photoelectron emissions then circulated throughout the body-system similar like considered as circuit of electric currents through neuron-sensations by signaling-systems after unfolding Sense Datum” of the Body-System or Human-Body-System within other complete system. Remembering that for ordinary photoelectric effects, where the solid metal surfaces remained fixed, but in the present dissertation, the considerable surfaces of systems are variable or flexible for the case of photoemissions through Consciousness-Minds.

Thus there were possible to activate as photoelectric sensors of the human brain-neurons after initial completeness of the living-body-systems that means there may be possible to freeing Photo-Electrons from the brain-like places or cerebellum etc. The uses of surfaces is like as conductor or semiconductor sensors of n-p junction (or like as 0-1 binary system of computer) after creating of positive hole-like for controlling the progressions of the flexible mind, then created normally pseudo photoelectric current of sensations throughout the whole body nervous system as signaling-system of lives or humans etc. These kind of effectiveness may started from the very beginning of the baby body system of development [comparing with an analogy of illustration like as the system was in active mode within a Wi-Fi region of network-system of Earth within the solar-system of Milky Way Galaxy etc., a complete body-system which is separated from another complete body-system] from the initial construction with activation of the brain-systematic-parts including sense organs within the complete whole-body system.

#### **Different Types of Photo-activation:**

Normally we know when photons collide with electrons it transfers some energy into the electron. Eventually that absorbed energy is released. The release of that energy can take one of several closely related but mechanistically different modes depending on the material-like Places or Bio-Places: 1) Photoconductive; 2) Photo-electrochemical; 3) Photovoltaic; 4) Photo-Thermal; and 5) Fluorescence (light activated electromagnetic radiation). While different applications may ideally have a preferred photo-excitation mode, most devices in practice simultaneously photo-activate multiple modes, sometimes leading to interchanged usage of these terms.

Photoconductive mode is when a material becomes more electrically conductive from the absorption of light. Here, photon-excited electrons are separated from their holes (the atom or molecule) associated with it. The electron is then separated from its electron hole by an applied electric field bias resulting in the electron flowing towards the cathode. This can be easily observed in diodes or with dopants where the valence band the electron originally belonged to and the conduction band that it is excited into which belong to different atoms. With metallic conductors, the generated current is proportional to the intensity of light in the available surface area of the material.

Thus photoconductivity means an increase in the electrical conductivity of a nonmetallic solid when exposed the electromagnetic radiation. The increase in conductivity is due to the addition of free electrons liberated by collision with photons. The rate at which free electrons are generated and the time they over which they remain free determines the amount of increase.

Photo-electrochemical mode separates an electron from its hole. In photo-electrochemical activation, the high energy electron initiates a redox reaction at an electrode or electrolyte interface. As a result, corrosion of the photo-activated material may occur, by altering the electrical properties of the interface. In Becquerel's closed circuit photoelectric cells, the illuminated metal releases electrons into the electrolyte. The electron holes created by the galvanic action are filled from the un-illuminated metal, which in turn collects electrons from the solute.

Photovoltaic mode occurs in a purely solid-state device when an electron's energy level is excited by a photon without an electric field bias, but the electron is not separated from its hole restricting photocurrent out of the device. In contrast to photo-electrochemical activation, photovoltaic activation does not lead to a chemical reaction. This means that Faradaic charge transfer does not occur. The movement of the electron from one energy state to another generates a small voltage. While the  $\psi$  voltage from individual electrons may be undetectable from the thermal noise, in vivo recording experiments the cumulative intensity and surface area dependent photovoltaic effect can generate large electrical artefacts during electrophysiology recording. This

large voltage, low power artefacts are sometimes called anomalous photovoltaic effects or bulk photovoltaic effects and caused by grains or domains adding in series, or by non-centro-symmetry in crystals. This cumulative voltage change can lead to a transient non-Faradaic charge transfer at the electrode-electrolyte interface when the light source is turned on or turned off. During continuous illumination with the same intensity light, the rate of electrons rising to the conduction band and falling to the valence band reaches equilibrium, and no net non-Faradaic charge transfer is observed. Thus photovoltaics means the ejected electron travels through the emitting material to enter a solid electrode in contact with the photo-emitter (instead of traveling through a vacuum to an anode) leading to the direct conversion of radiant energy to electric energy.

Photo-thermal mode generally occurs when photon transfer energy into an electron, but the absorbed energy is not translated into the generation of another photon, electron release, or increase in the energy state of the electron. Instead, the absorbed energy or excess energy is released as kinetic energy or heat. It is also worth noting that the electrical conductivity ( $\sigma$ ) of isotropic conductors is related to thermal conductivity ( $k$ ) as described by the Wiedemann-Franz Law:  $k \sigma = LT$  Where  $L$  is the Lorenz number and  $T$  is temperature.

In 1905, Einstein realized that light was behaving as if it was composed of tiny particles (initially called *quanta* and later called *photons*) and that the energy of each particle was proportional to the frequency of the electromagnetic radiation. The genius of Einstein was in recognizing that we perceive as a continuous wave of electromagnetic radiation is actually a stream of discrete particles. According to his assumption considered, when a light ray starting from a point is propagated, the energy is not continuously distributed over an ever increasing volume, but it consists of a finite number of energy quanta, localized in space, which move without being divided and which can be absorbed or emitted only as a whole.

Later experimented by others, most notably the American physicist Robert Millikan in 1914, found that light with frequencies below a certain cutoff value, called the *threshold frequency*, would not eject photoelectrons from the metal surface, no matter how bright the source was. Given that it is possible to move electrons with light and given that the energy in a beam of light is related to its intensity, classical physics would predict that a more intense beam of light would eject electrons with greater energy than a less intense beam *no matter what the frequency*.

The materials with the lowest threshold frequencies are all semiconductors. Some have threshold frequencies in the infrared region of the spectrum. The two factors affecting maximum kinetic energy of photoelectrons are the *frequency* of the incident radiation and the *material* on the surface. Electron energy increases with frequency in a simple linear manner above the threshold that the energy-frequency relation is constant for all materials. Below the threshold frequency photoemission does not occur that the threshold frequency is a function of the material. The photoelectric effect is only observed when the threshold frequency is exceeded, that is, photons at the threshold wavelength or lower have sufficient energy to excite the electron. This cut-off threshold is determined by the properties of the device material.

### **Effectiveness of Photoelectric effects:**

Photoelectric absorption occurs when an incident photon is completely absorbed in an atomic collision, practically all of its energy transferred to an atomic electron, which is then ejected. For photo-ionization to occur, the photon must necessarily have enough energy to overcome the binding energy of the liberated electron. A small, usually minimal, fraction of the initial photon energy is converted into the recoil of the atomic nucleus, required for the conservation of momentum. As a consequence of this conservation requirement, it is the most tightly bound innermost (K-shell) electrons that have the greatest probability of interacting with photons of energies approaching those like gamma rays. The cross section for photoelectric absorption has a strong dependence on atomic number. This is valid for photon energies somewhat removed from the so-called "absorption edges," those energies at which strong rises in the absorption cross section occur as photon energies approach the binding energies of individual electron shells.

Recent research are particularly in the field of telecommunications are focused on improving the yield of entangling pairs of photons into bi-photons. For the study of local field potentials, high frequency pulses can be used with a low pass filter. The low pass filter removes high frequency signals such as those generated by an optical pulse with a short pulse width. The LFP response can then be analysed after the end of the pulse train. However, this can filter out any spike information, and the artefact can still accumulate charges on the electrode (especially depending on the electrode's type and material) with extended high frequency pulse trains. A principal component analysis (PCA) strategy may determined when isolate the majority of repetitive artefact patterns, it is also introduce for the large amounts of variance into the data stream, however additional strategies are necessary to characterize the variability of photoelectric artefacts in order to completely remove them from electrophysiological data. High-pass filtering has been proposed as an artefact mitigation strategy for neural spike data, especially for long light pulses. Unfortunately, prolonged continuous excitation leads to neurotoxic excitation and denaturation of the channels leading to neuronal death.

Now, the unexpected observation is that for normal N-photon events, longer wavelengths can be used to generate the photoelectric effect and meet its energy criterion than would be predicted by multiplying the threshold wavelength by N. This entanglement, in part, explains why photoelectric artefacts can be observed during optogenetic stimulation experiments with blue light (473 nm) in medical sciences despite many electrode materials having threshold  $\ll 473$  nm (or band gaps  $\gg 2.63$  eV). Neuroscience studies involving light for imaging (e.g. confocal or two-photon microscopy) or stimulation (e.g. optogenetics) often require eliminating or minimizing light artefacts in the images or photoelectric artefacts in the neurological data collected to enable a meaningful interpretation of the results. However, the photoelectric artefact challenge also presents a technological opportunity. New bioelectric devices can be engineered to leverage the photoelectric or photo-thermal effects to address existing challenges and explore new applications. Coherent light sources are diffraction-limited and maintain a narrow beam.

One approach are used for the analysis of neural activity following optical stimulation is to analyses the change in the firing rate of single-unit and multi-unit activity after the end of the optic pulse. A problematic trade-off is to detect neural spike activity within the optical pulse duration, since the spikes will be buried in the artefact. Unlike evoking activity in sensory systems, there is effectively no latency for optogenetic activation. It is therefore likely that recorded spikes will be generated from the first downstream neurons activated through synaptic transmission by the neuron depolarized from opsin excitation. This would require the pulse width to be shorter than the synaptic latency. In turn, lower numbers of photons will be emitted in an ultra-short pulse, and therefore, the probability of a photon exciting the opsin ion channel-gating subunit is also lowered. The challenge then becomes generating sufficient opsin activation to reliably generate action potentials within a small time window of a single pulse within laser safety power constraints, especially at the tissue depth of interest assuming the opsin allows for reliable channel function (opening and closing) in this time frame.

The laser power injection into the tissue decreases with increases in wavelength. This means that more photoelectric events can be generated with longer wavelength while remaining within tissue heating safety limits.

While coherence from lasers is maintained in ideal media, biological tissue is highly turbid. As light penetrates through turbid media, photons undergo absorption and scatter which limits the penetration of light in thick samples ( $>100$ - $200\mu\text{m}$ ), especially high energy, high frequency photons. The penetration of light into tissue is empirically described by the Beer-Lambert Law, which is a function of the medium's optical scattering coefficient ( $\mu_s'$ ) and the absorption coefficient ( $\mu_a$ ). While the scattering coefficient in brain tissue decreases with increasing wavelength, the absorption coefficient has a more complex profile. At UV and visible wavelengths (200-550 nm), both optical absorption and scattering are high and light is highly attenuated. In the so-called "near-IR window" between 550 to 900 nm, the optical absorption coefficient is low enough ( $\mu_a \sim 0.05 \text{ mm}^{-1}$ ) to allow light to "diffuse" through several centimeters of tissue. Above 900 nm, water absorption dominates the signal and light is heavily attenuated. Thus, the limited penetration depth of visible light (excitation 400-600 nm) is a major concern, especially when considering the high visible light absorption (400-600 nm) of blood cells (haemoglobin) through the neuro-vasculature and also in the presence of blood brain barrier (BBB) disruption and leakage if the devices are implanted into the brain.

### New Kind of Electromagnetic Force:

It is known to all that sometimes light seems to acting as wave and sometimes as like particle that means wave-particle duality. But in our present dissertation we considered that a kind of invisible light rays emerges by maintaining the wave-wave duality (firstly we imagined as an electromagnetic-like ocean may formed by the explained new energy sources beyond our Physical Universe and secondly the said ocean of new kind electromagnetic-like energy field force created after unfolding the Physical Universe) constructed by neutrino-like bosons as photon-like quanta from the new energy sources of SU(6), SU(12), SU(24),.....etc. after unfolding the Physical Universe through successive symmetry breaking [considering as different layers of Universe] of the Generalized Gaussian Energy group (GGEG) as  $SU(11) \supset SU(6) \times SU(5) \times U(1)$ ;  $SU(23) \supset SU(12) \times SU(11) \times U(1)$ ;  $SU(47) \supset SU(24) \times SU(23) \times U(1)$ ;.....so on. Therefore, there possible to created a new kind of electromagnetic ocean with discrete new energy wave functions within the folding Universe in another phase for the appearance of Fundamental Consciousness as well as we can imagine an ocean of electron with new kind of electromagnetic energies and new strong forces created after unfolding the Physical Universe through phase-like transitions of energies for the creation as Consciousness.

The classical model of light describes as a transverse electromagnetic wave. Of this there was very little doubt at the end of the 19th century. The wave nature of light was confirmed when it was applied successfully to explain such optical phenomena as diffraction, interference, polarization, reflection and refraction. If we imagine that light as waves of an electromagnetic ocean and be quite successful at it, then it wouldn't be much of a stretch for us to image electrons in a metal surface as something like tethered buoys floating in an electromagnetic harbor. Along come the waves (light) which pull and tug at the buoys (electrons).

Weak waves have no effect, but strong ones just might yank a buoy from their mooring and set it adrift. A wave model of light would predict an energy-amplitude relationship and not the energy-frequency relationship. Photoelectric experiments describe an electromagnetic ocean where monstrous swells wouldn't tip over a canoe, but tiny ripples would fling you into the air. If that wasn't enough, the photoelectrons seem to pop out of the surface too quickly. When light intensities are very low, the rate at which energy is delivered to the surface is downright sluggish. It should take a while for any one particular electron to capture enough of this diffuse energy to free itself. It should, but it doesn't. The instant that light with an appropriate frequency of any intensity strikes a photo-emissive surface, at least one electron will always pop out immediately ( $t < 10^{-9}$  s).

In continuation of the above ocean analogy of illustrations, considering the first case, there exists GGEG yields an infinite number of Unified Energy Groups which are therefore randomly breaking their symmetries and found then a series of new energy groups having some diagonal matrices and some non-diagonal matrices, corresponding to the diagonal matrices of each new group we found neutrino-like bosons similar as photon-likes having different wave functions constructed as invisible light [assuming from the neutrinos of new energy sources SU(12), SU(24),....., etc.] with a new kind of magnetic force fields of infinitely largest before the unfolding Physical Universe in other phases may created as "Fundamental Consciousness" (Spirit Stuff) and after the phase transitions unfolding the Physical Universe with Everything then combining with neutrino-likes of the energy group SU(6) and after rearranging the energy waves appeared like as instructional information may assumed as "Consciousness" (Physical Stuff). Thus it was considered that consciousness may created by invisible light energies through rearrangements of different frequencies of energy waves, appearing as an incoming instructional information from outside as well as from inside the Physical Universe made by photon-like packets "narayan" of the light-waves through SU(6) as like as radio waves of the broadcasting systems of Television and "Fundamental Consciousness" (imagine an ocean of new kinds electromagnetic-like forces as "Spirit Stuff") is therefore created within folding Wider Universe before the symmetry breaking of the Super Unified Group SU(11) [we illustrate the analogy of scenario with our known Broadcasting systems where sound & light rays of audio-visual photography's coming from actively playing actors appeared as different frequencies & intensities of sound & light energies according to the performances of actress, then light energies with different intensities & frequencies changes to electrical energies, after then broadcasted through radio waves. Similar like events occurred for the case of fundamental consciousness & consciousness creations but differ in the event is without any actresses at source centre, then light with different frequencies of photon-likes energy of wave packets are therefore formed by internally rearrangements as like as the appeared light of different frequencies & intensities as information was formed by the actors when they are physically appeared at television centre. Thus formed as an instructional information (without any actor-players at the center source) by an internal complex interaction of different "Modes Energy Waves" with different frequencies & amplitudes constructed by photon-like lights within folding and unfolding Universes as "Fundamental Consciousness" as well as then "Consciousness" are formed by the various interactions with electrons after unfolding the material based physical universe by the symmetry breaking of GUT SU(5)]. Details are explained in my previous published article [How SU-Levels Are Imply Consciousness and Life]. An example with illustration, imagine our Physical Universe as a harbor full of small boats (electrons). The sea is calm except for tiny ripples on the surface with low intensity, short wavelengths light. Most of the boats in the harbor are unaffected by these waves, but one may ripped from the harbor and sent flying upward like a jet aircraft. This type of events may continued by the stream of laser-like light beam of discrete new energy sources within our complete system occurred which are then assumed to be interrelated between all parts within that system as like as musical orchestrated processes. No mechanical waves behave like this, but we assumed that light with packets of different photon-like neutrinos of the new energies SU(6), SU(12), SU(24), etc. does. Similarly there something may like just right create in the case of complete system of mind-body relationship through consciousness of humans or human-likes. In the theory of SU(11) we found a plenty of new energy bosons of the group SU(6) [these are potentially so large that the exotic matter fluid changes to ordinary matter, 30-number of bosons of SU(6) changes to 30-number of bosons of SU(5) or vice-versa by exchanging the J-bosons of SU(11)] in the early stages of our unfolding Physical Universe and also then created Lepton-Like but Quark-Types [considering six set of new quark-types each set having five different quark-type by internal permutations or combinations created many more new unknown particle-like with new type of strong forces] in wave status may created different intensities with various short wavelengths are therefore tightly binding by the bosons of SU(6) created new unknown particle-likes "bhadras" of small quantum mechanical effects which are not practically observed in our present measurement system other than laboratory experiments. Considering that Bio-Molecules may therefore formed by the fundamental block-building particles of proton, neutron, electrons etc. together creating like as bunch of different quarks from usual matter after the symmetry breakings of the GUT of SU(5) combining with new unknown invisible particle-like "bhadras". These new particle-like "bhadras" remained in wave status and hidden in the background of ordinary matter particle interactions so then observed new unknown particles are always found as a bunch of different quarks in practical

where “bhadras” as pseudo. Thus initially formation of Bio-Molecules (where it appears like lumps of matter) may compare with the formation of spiral galaxies in the large scale Universe.

Thus light ray formed by the packets of photon-like new energies ‘narayan’, combining with photons of normal light may strikes the appropriate places of brain neuron microtubules of humans or any other suitable & appropriate places of brain-like (assuming this parts can’t created initially but created later on and activated with gradually unfolded baby-body parts for completing a system-space-time) then excited electrons by flash-like cut-off as 0-1 binary-systems of computer, depending on the flexibility of the impact surfaces then created photo-emissions with variable photo currents of different amplitudes & intensities through brain neuron microtubules as of human-likes.

### Mathematical formulation of Photo-Energy:

The Rutherford model of atoms explains that most of the matter atoms having empty spaces, photons can penetrate multiple atomic layers of material substances before exciting an electron or experiencing coherent scattering (i.e. Thomson scattering).

Furthermore, in photo-electromagnetic mode, absorbed energy in the excited electron is released as a fluorescent photon. Some biological tissues have fluorescent properties, although auto-fluorescence may rarely generate.

First we consider Einstein and Millikan photoelectric effect by using the formula (in contemporary notation) that relates the maximum kinetic energy ( $K_{max}$ ) of the photoelectrons to the frequency of the absorbed photons ( $f$ ) and the threshold frequency ( $f_0$ ) of the photo-emissive surface then  $K_{max} = h(f - f_0)$ . but, if we prefer simply, the total energy absorbed from various photons-like bosons including photon of ordinary light, then  $E = E_{phl} + E_{Ph}$  and if the *work function* of the surface is  $\phi$ , then  $K_{max} = E - \phi$  where the first term is the total energy ( $E$ ) of the absorbed different types of photons-like bosons from stream of light (any kind of light are always electromagnetic energies) from various new energy sources with usual photons of ordinary light with variable frequency ( $f$ ), wavelength ( $\lambda$ ) and the second term is the work function ( $\phi$ ) of the surface with threshold frequency ( $f_0$ ), threshold wavelength ( $\lambda_0$ ) and  $c$  is the speed new kind of photon-likes quanta, then  $E = hf = hc/\lambda$  and  $\phi = hf_0 = hc/\lambda_0$  where  $c' > c$  (speed of light). The maximum kinetic energy ( $K_{max}$ ) of the photoelectrons (with charge  $e$ ) can be determined from the stopping potential  $V_0 = W/q = K_{max}/e$ , Thus  $K_{max} = eV_0$ . When charge ( $e$ ) is given in coulombs, the energy will be calculated in joules. When charge ( $e$ ) is given in elementary charges, the energy will be calculated in *electron volts*. In this results a lot of constants. We use only one that's most appropriate for our required problem.

Note that how the power supply is wired into the aforesaid circuit — with its negative end connected to the plate-like that isn't illuminated. This sets up a potential difference that tries to push the photoelectrons back into the photo-emissive surface. When the power supply is set to a low voltage it traps the least energetic electrons, reducing current through the micro-ammeter. Increasing the voltage drives increasingly more energetic electrons back until finally none of them are able to leave from the metal-like surface and the micro-ammeter reads zero is called the *stopping potential*  $V_0$ . It is a measure of the maximum kinetic energy of the electrons emitted, as a result of the photoelectric effect.

Again with incoherent light sources, electrons are only dislodged by the photoelectric effect if light reaches or exceeds a threshold frequency, regardless of the amplitude and temporal length of exposure of light. However, these threshold frequency and wavelengths described by Einstein only apply to single-photon events. Nobel laureate Maria Goppert-Mayer described in 1931 that multi-photon events, where two or more photons simultaneously collide at the target, can greatly reduce the cutoff threshold. In multi-photon photoelectric activation,  $E$  does not scale linearly with  $N$ . Thus  $E_N$  can be described as:

$$E_N = (N + S)hv$$

Where  $N$  is the number of simultaneously colliding photons and  $S$  is some positive scalar value. Beyond multi-photon events, Einstein, Podolsky, and Rosen hypothesized an additional two-particle entangled state. These were further described and characterized as:

$$E_N = Nhv - Bvf(I)$$

Where  $f(I)$  is a function of light intensity and  $Bv$  is a material based coefficient. This experimentally derived expression represents additional quantum level photon-photon or photon-electron-photon interactions. For example, in high intensity light, a second photon can collide with an electron within the excitation lifetime following the first collision, especially with coherent laser sources. In addition, even in a single photon beam, two single-photons can “entangle” through quantum level photon-photon interactions to form a single bi-photon ‘packet’.

So, we may considered there possible not only a single bi-photon-like ‘packet’ of new energy but also tetra-photon-like, penta-photon-like packets etc. where “entanglement” may be in quantum level with different photon-photon interactions to form multi-photon-photon-like packets as “narayan” with stream of different frequencies of incoming informational discrete new energies and with different intensities may transferred into

different amplitudes photoelectric current-like as binary 0-1 system of computer in human-brain or of like brain parts which continuously striking by photon-likes as photoelectric effects. We then found as an *interference hologram* of incoming data and there already existing data formed by mind-matter-body particle interactions and by sense-datum of the system are equivalent to the subject's memory. Hence human brain conceived as an interfacing organ that not only produces mind through consciousness but also received instructional information and created a flow of variable photoelectric current throughout the body-system which then unfolded as sense datum by the internal interaction, we realized it as audio-visual sensation-like as Television etc. Thus from these explanations we understood that "Mind through Consciousness unfolded as bi-products like Sense Datum" etc by photoelectric effects.

Thus in continuation of the above photoelectric activation-energy equation of multi-photon will be as:

$$E_N = N[\Psi(N_2) + k\Psi(N_6) + m\Psi(N_{12}) + \dots]h\nu(v') - B(v')f(I) \text{ where } k, m, \dots \geq 0, \text{ and } v' \geq \nu$$

All arbitrary scalar values  $B(v')$  and  $f(I)$  are as usual the material based coefficient & function of light intensity and  $N$  is the number of simultaneously colliding photon-likes and  $v'$  is the new type of variable photo-energy frequencies of the electromagnetic-type radiation. The function  $\Psi(N_2)$  are used for the absorbed photon energies by the total number of interacted photons of light in the framework of  $SU(2) \times U(1)$  while  $\Psi(N_6), \Psi(N_{12}), \Psi(N_{24}), \dots$  etc. are similar used for the total number of absorbed photon-like streams from other sources with their corresponding framework of  $SU(6) \times U(1), SU(12) \times U(1), SU(24) \times U(1), \dots$  etc. respectively. In normal cases all arbitrary scalar values of  $k, m, \dots = 0$ , but for the case  $k > 0$  there created mind etc. and  $m, \dots > 0, \dots$  etc. is only for the rare cases.

**Mathematical Explanation of Generalised Gaussian Group:**

The Generalised Gaussian Energy Group (GGEG) can be expressed mathematically as follows:  $SU(11) \supset SU(6) \times SU(5) \times U(1)$ ;  $SU(23) \supset SU(12) \times SU(11) \times U(1)$ ;  $SU(47) \supset SU(24) \times SU(23) \times U(1)$ ;.....so on. Thus we have,  $SU(12n-1) \supset SU(6n) \times SU(6n-1) \times U(1)$ , where,  $n = 2^0, 2^1, 2^2, 2^3, 2^4, \dots, \infty$ . i.e.  $SU(12n-1) \supset SU(6n) \times \dots \times SU(24) \times SU(12) \times SU(6) \times SU(3) \times SU(2) \times U(1)$ .

In the theory of  $SU(11) \supset SU(6) \times SU(5) \times U(1)$  we have the five neutral bosons  $J_{k3}, J_{k8}, J_{k15}, J_{k24}, J_{k35}$  with respect to the five diagonal matrices  $I_3, I_8, I_{15}, I_{24}, I_{35}$  of  $SU(6)$  having zero mass and charge, just like as photon. However, the photon does not interact with the neutrinos of  $SU(2)$ , while  $J_{k3}, J_{k8}, J_{k15}, J_{k24}, J_{k35}$  does & accelerates the neutrinos of strong strengths weak force  $SU(2)$  of ordinary matter and there created a new kind of strong neutral current with "Quantum Gravity" by other bosons of  $SU(6)$ . The exchange of any  $J_{k3}, J_{k8}, J_{k15}, J_{k24}, J_{k35}$  does not alter the electric charges, although the new kind of strong interactions of  $SU(6)$  does not directly involve with electric charge, it still seems to demand the charge-like bosons by  $J_{k1}, J_{k2}, J_{k4}, J_{k5}, J_{k6}, \dots, J_{k34}$  with respect to the non-diagonal matrices  $I_1, I_2, I_4, \dots, I_{34}$  are permit an interchange or rearrange the wave functions that means charge-like and neutrino-like can interchange. This circumstances prompted efforts to link it with a new kind of electromagnetic-type interaction that means a new kind of electro-strong interaction appears through the link  $SU(6) \times U(1)$  brings the photon of  $U(1)$  [the electrodynamics  $U(1)$ , which are inevitable arises particles that have the characteristics of a magnetic monopole. Monopoles are highly stable particles and once created they are not destructible. And so they would survive as relics to the present epoch] which are therefore responsible for new kind of electromagnetic-type forces of charge-like particles are closer to all bosons of  $SU(6)$ . Similarly, the same will be possible for all other links but the measurement of effects of others are appear to be as small as possible according to our present measurement system, such cases are  $SU(12) \times U(1)$ , where we can assume 11-bosons are found with respect to the diagonal matrices and 132-number of bosons with respect to the non-diagonal matrices and in the link  $SU(24) \times U(1), \dots$  etc. where we can assume 23-bosons are found with respect to the diagonal matrices and 552-number of bosons with respect to the non-diagonal matrices, therefore we found a large number of different categories photon-like bosons as neutrino-likes, which formed a new kind of invisible light rays as consciousness with different types of quanta-like "narayan" corresponding to the different diagonal matrices of different groups of energies and similarly another kind of different new bosons are found corresponding to the different non-diagonal matrices, all together created an ocean of new kind of various categories energy waves where we found a new kind of magnetic strong forces other than normal magnetic force. All are these created in the gaseous-like phases then in vapour-like phases of exotic matter fluid of unfolding physical universe by the symmetry breaking of  $SU(11)$ . In the theory of  $SU(11)$ , it is possible to change any of six lepton-likes sets of  $SU(6)$  each set having five sub-units into any of six quark-types sets of  $SU(5)$ , here also each having five sub-units or vice versa by exchanging the J-bosons of  $SU(11)$  and then lepton-like but quark-types are tightly binding by the bosons of  $SU(6)$  formed many more new unknown particle-likes "bhadrans" in wave status through the link  $U(1) \times SU(5) \times SU(6)$  with a new kind of strong forces. These new unknown particle-like are hidden in practical but they able to construct by compacting quarks of strong force QCD of  $SU(3)$  as like as a bunch of quarks, like as tetra-quarks, penta-quarks and recently found brand new particles of many quarks etc. at CERN then we found many more new unknown



particle-likes may observed practically in laboratory experiments. Then considering there possible to creates or destroys many more new particles due to these quark-types but lepton-likes “bhadras” of new strong strength force-field of small quantum mechanical effect in our present measurement systems. All these objects are visible like as a bunch of quarks but appearing to be as particle-likes in the same way as the proton and the neutron are particles forming by quarks. But the new particles are not fundamental particles as like as quarks and electrons are the true building blocks of matter particles. These particles could be visible only at the laboratory experiments like LHC, it was announced recently by CERN on 3<sup>rd</sup> March 2021(references are is the discussion of Patrick Koppenburg, Dutch National Institute for Subatomic Physics and Harry Cliff, University of Cambridge, Earthsky, March 14, 2021) that they could discovered four brand new particles, but all are hidden in the background of known particle interactions or they could show up as small quantum mechanical effects in known processes of measurement systems. Thus new unknown particles “bhadras” including quarks are tightly binding by the gluons may consider form bio-molecules etc. Hence we may assume that “bhadras” may be found by the decay of bunch-quarks.

Similarly from the theory of energy group SU(23), it is possible to change any of six set of lepton-likes of SU(12) each set having  $11 \times 2 = 22$  sub-units into any of six set of quark-likes of SU(11) also each set having 22 sub-units or vice versa by exchanging the bosons of SU(23) similarly for SU(47) it is possible to change any of six set of lepton-likes of SU(24) each set having  $23 \times 2 \times 2 = 92$  sub-units into any of six set of quark-likes of SU(23) also each set having 92 sub-units or vice versa by exchanging the bosons of SU(47) and so on. We may considered that each Unified Energy Groups are as like as a layer of Universe. These are all belongs to another phases like as gaseous whose effective involvements to our physical universes are too small as we go away from GUT of SU(5) to the distant layer of Unified Energy Group but we can't ignore its effectiveness [considering more effectiveness are as possible up-to seven layers of the Unified Groups as SU(5), SU(11), SU(23), SU(47), SU(95), SU(191), SU(383)]. Normally we neglect the participations of all other energy groups except the SUT of SU(11) & GUT of SU(5), but we need to count it for the proper calculation of consciousness or fundamental consciousness. Therefore we need a mathematical formulation for accounting the effects of existence of large number of neutrinos-like and other charge-like bosons of aforesaid new energy groups after successive symmetry breakings and finally unfolding our Physical Universe through the links  $SU(6) \times SU(5) \times U(1)$  or  $SU(6) \times SU(3) \times SU(2) \times U(1)$ . Thus we found a large number of neutrino-likes and others for constructing the new unknown particle-likes and new kind of invisible light rays as consciousness through electro-weak interactions and photoelectric effects then created Mind & Sense Datum beyond Paul Dirac fermions. It may be compared like the bound Majorana fermions can appeared as quasi-particle excitations-the collective movement of several individual particles, not a single one, and they may governed by non-abelian statistics. Ultimately, we found an electron ocean of electromagnetic forces with photon-like neutrinos may formed new kind of light rays by quanta-like “narayan” of various frequencies & intensities of short wave lengths created photoelectric effects then emerges different high amplitudes energies for Bio-effects of human or lives after constructed packets of new energies light containing large number of photon-like bosons like as a single photon or like together others constructed as bi-photon, try-photon,..., multi-photons etc., which are therefore responsible for creation as "Consciousness" etc. and quark-types but lepton-likes are formed by tightly binding by the bosons of SU(6) created new unknown particle-likes “bhadras” influenced by other energy sources of SU(12), SU(24),...etc. and combining with quark were tightly binding by the gluons formed as Bio-Molecules etc. after the symmetry breaking of the GUT energy group SU(5). We found thus a variety of lives and consciousness due to the variability of high energy frequencies packets “narayan”.

Thus from above mention discussions, it is clear, that in the framework of  $U(1) \times SU(5) \times SU(6) \times SU(12) \times SU(24) \times SU(48) \times \dots$  are always effective even after the symmetry breaking of SU(11) of unfolding Physical Universe, all other bosons created new type of electromagnetic forces maintaining through laws of mathematics like Permutations & Combinations, Set theories and the laws of Probability, etc. The variety of lives with different mind & sense datum through consciousness occurred due to the random variability of frequencies with different new kind lights of packets of high energies. These unknown energies are also responsible for the formation all kind material parts of this universe including living bodies etc.

### **Appearance of Mind & Sense Datum through Consciousness:**

It was explained in my previous published articles that light as Consciousness created directly by the stream of new energy sources found from a new structural model of energy assumed as General Gaussian Energy Group (GGEG). There is a random symmetry breaking from infinite space-time with leaving a large number of infinitely various unified symmetry groups including a series of new energy sources. Considering, these leaving new energy sources are assumed to be the actual effective causes for “Fundamental Consciousness” (Spirit Stuff as well as then Physical stuff) of the folding Universe and then “Consciousness” of unfolding Universe. According to the aforesaid mathematical explanation GGEG of the new energy sources, it is assumed then found a large

number of new unknown energy sources as SU(6), SU(12), SU(24),.....etc. which created an electron ocean of electromagnetic forces of discrete energies with unfolding the Physical Universe of high frequencies and high potentials but short wave-lengths sub-atomic quasi-particle-wave functions finding through a continuous symmetry breaking of different Unified Energy Groups from infinity. Then producing several packet of new energies called “narayan” by the stream of different photon-like quanta or fluxes of new energies with variable frequencies of amplitudes etc. by the proper internal arrangements of different energy waves may constituted as instructional information called consciousness [these arrangement are very similar like to the arrangement of the informational energy waves which constructed by physically appeared at the television centre of active actors prior to the broadcasting, assuming for the case of consciousness, there may be similar like events occurred without any performing appearing of actress at the Television centre-like] within our Physical Universes where light constructed mainly by the packets of photon-like bosons of neutrinos of the energy group SU(6), therefore  $J_{k3}, J_{k8}, J_{k15}, J_{k24}, J_{k35}$  corresponding neutrino-likes are as  $Z_{k3}^{\circ}, Z_{k8}^{\circ}, Z_{k15}^{\circ}, Z_{k24}^{\circ}, Z_{k35}^{\circ}$  of my SUT model SU(11)[here considering the notation are as usual like as  $Z^{\circ}$  of the traditional weak neutrinos of the group SU(2) of GUT model] including the neutrinos of SU(2) and with ordinary photons can highly interacted with electrodynamics U(1)[ U(1) created magnetic monopole and once created they are not destroyed anyhow, hence it remained till to the day as background radiation] and then creates a circuit-like loop of photo electrical currents within the body-system causes as neural-signaling-like sensation having required variable intensities of signal may controlled through an appropriate places, like human brain or any other suitable places of lives. Variable intensities are normally due to the discrete supplies of stream of the new energy packets containing different wave-amplitudes, which then collides electrons, for absorption photon-likes or excited for continuous photoemission within the complete system or subsystems and then play an important role for the construction of “Human Mind with Sense Datum” (physical stuff connected with spirit stuff) of that complete individual body-system having capability of physically separated identities within another complete body system and so on, other than an eternal infinite-body-systems remaining in another state of phases.

Thus Mind & Sense Datum are fully matter based emerges through photoelectric effects [it may be understood that our “Mind” is like as “Mirror Reflections” of “Consciousness” comparing as moon light emerged by the reflection of sun light] conducted by the above stated photon-like energy packets of light including the matter nuclei weak energy forces of SU(2) in their respective framework of SU(2) × U(1) with bimolecular particles constructed by the various combinations of lepton-like but quark-type of exotic matter fluids in wave status were tightly binding by the bosons of SU(6) combining with quarks were tightly binding by the gluons created as biological forces of interactions etc. We arrived then a complete living subsystem with unfolding proper sense organs as an organized formed scheduled by Consciousness and each parts of the body-systems are therefore closely inter-related called as living matter body through transmission systems but may instantly affects the more sensitive parts like heart, brain neurons etc. by sudden flow of abnormal photoelectric current created within body-system through mind and sense datum. Mind therefore seems to be an activated photoelectric sensor-like which started from the initial completeness of the system like living-mind-body-consciousness, then chronologically attained maturity by unfolding gradually all Sense-Datum etc. sufficient matter energy taken from food etc. and by random complex interactions of incoming information with nature for the all-round development of the system with induced experiences (that means sad, angry, love,...etc. of humans or lives) and disrupted by system anomaly, finally disappeared by the system broken, called death.

Considering, within our brain have Photomultiplier tubes, a variation of the phototube, but they had worked like as the association of several metal likes-plates within the microtubules of Brain-Neuron may be seemed like dynodes. Electrons are released after the incident of light those are constructed by the photon & photon-like bosons of energies SU(2),SU(6), SU(12), SU(24),.....etc. strikes the cathodes of neuron electrodes. The electrons then fall onto the first dynode-like, which releases more electrons that fall on the second dynode-like, then on to the third, fourth, and so forth as required. Each dynode-like amplifies the current; after about 10 or more dynode-likes, the current is strong enough for the photomultipliers to detect even single photons. Practically an illustration of this which we found in spectroscopy (which breaks apart light into different wavelengths, for example we learn more about the chemical compositions of star) and computerized axial tomography (CAT) scans that examine the body.

#### **MIND LENSING:**

The complete Mind-Body-System as matter based system, hence there may be like quantum Gravitational Lensing, assuming here the same like event occurred by Mind-Consciousness, hence we called it as Mind-Lensing. In the initial stages of DNA formation or the formation of Protein Structure

or soft matters formation where we found vacant spaces-like and around the centre region then gradually created nascent matters as soft matters by the exotic matter fluid compacted by the new unknown particle-likes “bhadras” then formed as lumps of matter atoms combining with quarks of QCD SU(3) etc. together formed living matter atoms as well as then Bio-Molecules of lives (comparing with the very famous scientist **Pierre-Gilles de Gennes**, explained that how the atomic structures of bio-molecules formed after the creation of “Soft Matters”), we may it compared with the formation like spiral galaxy etc. in the large scale universe.

We understood from above long explanation that our holographic mind constructed by consciousness and sense datum by photoelectric effects, through consciousness as light rays constructed by the quanta-like of new kind energy sources “Narayan” unfolded sense datum with electrical current by photoelectrons for sensations as signals throughout the body-system by electrical energy circuit and reversely through ear, eye including all other senses organs like as touch, taste etc. may constructed a picture on mind-screen (a television-like picture-screen) through signals created by incoming audio-visual like information from an object directly or constructed the same like picture (may be as laser-like) by imagination or illusion without any objects or by anesthesia of the sense datum etc. Here, various picture of imagination or illusion including all these audio, visual energies from an object may changes to electrical energies as signals within our body-system then interchanged and may appeared through holography picture (as laser picture-like) on mind-screen like as seen by television, then if we fine-tuning the mind-picture on screen-like by converging energies till the proper or appropriate formation with a matching or drawing or imaging picture-like via that incoming information of an objects or imagination or illusion, it doesn't stored in memory as like as stored in micro-chips but may sometime stored. Although we considered that there may be constructed like usable electrodes within the brain neuron microtubules of human or parts of brain or similar like places of other lives, these are flexible with respect to the incidental informational energies of high potentials constructed with new kind of invisible electromagnetic light rays as consciousness which then bending or attracting towards the galaxy-like soft matters or lumps of matter of bio-atoms or mind-body-matter, it comparing with gravitationally bending as light by attraction. Here we assumed that this system may obviously occurred by the mind-body-consciousness of human or lives, hence we assumed that “Mind Lensing” may responsible for variability of Emotions, Egos, Angry, Sad, etc. of humans or lives etc. through different kind of electromagnetism as its effects are directly fall upon the creation of photoelectric currents of the body-system. For formal & informal Education of Child Development, we require there include within its syllabus, the process of how to control mind-body system including the sense datum or all round development to himself by repeatedly practicing of education through proper using of mind-consciousness interactions as increase of Self-Realization for construction of stable (as possible) Mind-Picture-Screen. Considering it is possible only through random process of fine-tuning the mind-consciousness electromagnetism by education of enhancing the knowledge that creates the strong & stable mind-picture-screen without any noise as web disturbances instead like of Trial & Error method of existing education-system as the process mentioned previously by great philosophers [we just illustrated the analogy for human being with an examples that an iron bar will be functioned as magnetic bar after constructed its magnetism, the iron bar is then required repeatedly friction by another bar-magnet through friction-process of magnetism and continuing till to the construction of magnetism of iron-bar]. It is then possible to appropriate channelized our mind-consciousness through converging or fine tuning the energy signaling-system after controlling the noise flow of photoelectric current through activating photoelectric sensors like mind as origin of biological sensations for the betterment of mankind. Hence education means to achieve the controlling power through mind-consciousness, which are therefore assumed to be an important & powerful machinery tools after successive unfolding of all available sense organs of the lives like human including their perfect effectiveness or assuming by unfolding progressive brain parts with establishing the complete consciousness-mind-body relational systems for the betterment of society. Then chronologically advances with unfolding sense-organs, hence then polarized the behaviors which disrupted with the system breaks or finally disappeared with death.

Thus Gravitational lensing means when light passing through a galaxy then light means stream of packets of electromagnetic energy or photons which bended by gravitational attraction. Similar like event occurred when consciousness as light passing through soft matters of bio atoms as lumps of matter or the whole body-system of human-like or a bio-cell like as spiral galaxy, then light as consciousness bended by quantum gravitational attraction through bio-cell or human body-mind, we may call it thus mind-lensing. We assumed that gravitational force as well as quantum gravity may created by the new energy sources of the Gaussian group

SU(6) as explained details in my previous published articles. Again we considered that material based Mind may be created through Consciousness in our Physical Universe is mainly by the energy groups SU(6) & SU(2) in their respective framework of  $SU(6) \times U(1)$  and  $SU(2) \times U(1)$  respectively.

Thus, we may assumed that light as consciousness may converges or bending by the attraction of mind-body or soft matters of biology as lumps of matter of galaxy and increased the acceleration of the photoelectric currents as well as the formation of stability of mind-screen-picture. Thus Light of Consciousness made up by various packets of variable new energy photon-like bosons quanta as “narayan” in the electron ocean containing various amplitudes electromagnetic waves and may accumulated as increased electrons density as like as “Tsunami in Water Ocean” by the new energy sources in their respective framework with required interaction of electromagnetic forces with energy group U(1) through quantum gravitational forces may increases the different classes of lives, like we observed in the present situation of our planet, as the increasing strengths of “Microbes” are very much effective with respect to other lives due from the nearest star as solar atmospheric pressure of electrons or photons etc., considering these increases the electromagnetism of the earth-system within electron ocean etc. In the initial stages of DNA formations or the formation of Protein Structures where we observed the formation of bio-molecules are as similar like the formation of spiral galaxy, were it was found the vacant spaces around the black-hole-like of the centre region then gradually created nascent matters through exotic matter fluids as soft of matters then formed ordinary matter of bio-molecules as bio-cells, similar like as stars, planets around the black-hole of a galaxy etc. Lumps of matter in the large scale and soft matters in the small scales of biology are all formed by the new unknown lepton-likes but quark-types particle-like in wave status with tightly binding by the bosons of SU(6) called “bhadras” then compacting with other matter atoms by tightly binding through quark and gluons etc. together may created living matter atoms or Bio-Molecules just like as the formations of spiral galaxies etc. in the large scale of our Physical Universe.

Now all forms of electromagnetic radiation of transported energies then quite easy to imagine that, this energy being used to push tiny particles of negative charge freeing from the metal-like surface of brain where they are not all that strongly confined in the case of photo-effects for mind-screen creation. Thus for the working process of Mind are mainly depends on the ejected free-electrons [uses as willing forces] from matter-like plates of brain under the right circumstances through photoelectric effects which using by then photoelectric sensors-like chips as memory card in the brain neurons (as it was found that our brain memory may be assumed as equivalent to 256 billion GB) or by any other similar places where it was possible to creates the neutral current by photon like

neutrinos  $Z^0$  of SU(2) or there may be created photoelectric plates-likes phototubes or solid-likes surfaces of multiple pieces of sensory within microtubules of the human-like brain neurons or any other suitable places. It was explained by famous scientist Roger Penrose and Stuart Hameroff that microtubules played an important role for the human brain consciousness. An interesting facts that ejected free-electrons by photoelectric effects are flexible in quantities depends on inclined photon-like bosons of new energies and sometime can't ejected any electrons while absorbing the said new energies, then there may be created energy wave-wave duality for bonding the organic cells or compounds like carbon-hydrogen or nitrogen-hydrogen, silicon-hydrogen types etc. that means atomic numbers remained unchanged but found new formations of compact Bio-Atoms or Bio-Molecules may without chemical reactions such as like Polymers-Types etc., these are mainly occurred by combining the lower atomic number's element like hydrogen with greater atomic number's elements or organic compounds within reasonable temperatures including all others circumstances for the creation of polymers chain, sometimes may two or more polymers remaining very closer by entanglement of energy wave-wave duality assuming as particle-like and thus created as DNA, PROTEIN chain etc. in the living-body-system, which are therefore through internal interactions have controlled the sense datum with unfolding experiences etc. Normally these are actives from very beginning through inclined informational light energy waves of initial completeness of the full-body-system then it increases by maintaining the time dependant normal curve of I Q or E Q, as increases with human ages normally (compared it like the expansion age from Big-Bang to Big-Break singularity then contraction till Big-Crunch Singularity) [see my article “The Complex Quantum and Classical Pseudo Tachyonic Universe”].

We know that within a human body or within any other complete body-system of this universe there may be possible to exist billions of other complete body-systems like viruses & bacteria etc. It is very much interesting to say that human bodies or live bodies are constructed in such a way that they can protect himself and may always rejected or destroyed the bad enemies for smoothly running of the body-system otherwise always try to protect himself for the existences of alive-body-systems. The same will be true for the observed Physical Universe with Black-Hole as well as true for Galaxy etc., for example that earth always protect for its existence through consciousness as like we protect ourselves etc. Mind is thus a powerful-tools appeared just after the formation of a complete-machinery-matter-body-system with brain otherwise the incomplete system was controlled by another complete system called mother body-system till to the formation of completeness under the construction system, if it is disturbed partly or fully by the failure of the machine-parts-like of matter-body

with non-recoverable then failure is assumed to be biggest fault under that construction-system. Consciousness is thus appeared like as an additional software of any system-created, as like as computer hardware of minimum independent working capacity which then installed by various additional software for smooth running as per requirements, similar like mind-body combination of any system are as hardware-like then working accordingly to the requirements of instructional information through consciousness of the Mind-Body-Subsystems via electromagnetism. It is very interesting that all kind of experiences stored through electromagnetism from present to past then future for its individual systems-completeness including illusion etc. Through mind-consciousness it always forwarded to the next system within the whole-body-systems as quality carried by DNA. Thus mind are always flexible and it was formed by variable energy waves, would be developed or increases monotonically with the Evolution of nature for future development of mankind and for the betterment of the society of our Planet.

## II. Conclusion:

From the above discussion we understood that “Mind” is powerful effective [whose effectiveness may started from the very beginning of the system-generation and then gradually increases through electromagnetism by mother’s mind-consciousness-stages, stages means other than existing data or the quality of DNA, the incoming data which are also associated with mother’s arbitrary holographic-mind were influencing mainly the gradually unfolding sense-datum of baby-body-system. Whose smoothness & cuteness are required for the betterment of mankind, it depends on different kind of electromagnetism with corresponding photo electricity created orderly by the energy groups  $SU(2)$ ,  $SU(6)$ ,  $SU(12)$ ,  $SU(24)$ ,..... in their respective framework] machinery tools for human and other lives etc. with understanding the incoming information of instructional data as “Consciousness” for ourselves or for other lives and for the betterment of community development of Our Planet for Our Future. Through mind & consciousness one can emphasizes to others mind as like as screen-share of Video Conference etc. because Fundamental Consciousness or our Consciousness as light rays are arbitrarily common to all systems although with different electromagnetism. One can take this process through electromagnetism [although there are different kind of electromagnetism may constructed by the energy groups  $SU(2)$ ,  $SU(6)$ ,  $SU(12)$ ,  $SU(24)$ ,...etc. in their respective framework of  $SU(2) \times U(1)$ ;  $SU(6) \times U(1)$ ;  $SU(12) \times U(1)$ ;  $SU(24) \times U(1)$  and smoothness with cuteness are increased accordingly to the Mind-Lensing capability of bending or attracting the photon-like neutrinos from those new energies, normally used photon, neutrinos of  $SU(2)$  then photon-like neutrinos of  $SU(6)$ ,  $SU(12)$ ,.....as per capability of the system] of energy-waves maintaining by wave-wave duality, we can use then it in the case of medical treatments where own mind may cure illness of others by influencing through own healthy mind etc. In the child education teacher can use this process upon his students. Artificially we can creates the similar like light beams of electromagnetic energies of required frequencies & amplitudes for destruction of any increasing enemy Microbes or can use for recovery the critical illness etc. All different kind of lives shown different living personalities of performance is mainly on the basis of this different electromagnetism as explained above. We may thus assume that it will be possible artificially through mind-inactivate by the disruption of the microbe’s complete-system like the pandemic situation by imposing different frequencies of light energies of appropriate electromagnetism.

It is clear from the hypothesis that our Wider Universe was filled with variable Unified Energy Groups as different Layers of Universe (more effectiveness may assume accordingly up-to seven layers). The unified symmetry groups are therefore randomly breaking the symmetry and each time freeing a new kind of energy group before the next symmetry breaking. In consequences of our existences we may assumed that the so called vacuum or empty spaces are filled with these different kinds of dark new energies with different neutrino-likes bosons as photon-likes, constructed the light rays of different amplitudes energy waves as instructional information of “Fundamental Consciousness” for the formation of everything with new kind of electron ocean of electromagnetic-type forces through phase transition system then unfolded & expanded our Physical Universe through energy pressure of  $SU(6)$  by the symmetry breaking of the Super Unified Group  $SU(11)$ . Thus we may imagined in our physical universe, there always existed an electron ocean with new kind energy sources of various electromagnetic energy waves created as new kind of strong forces by the energy groups  $SU(6)$ ,  $SU(12)$ ,  $SU(24)$ ,...etc. where we are nothing but like as floating clouds of lumps matter in the sky of electromagnetism. The changes of different kind of electromagnetism are therefore called actual climate changes may accordingly to the positions & other circumstances of these earth-systems with respect to the universe causing a direct effects on the status of living personalities of humans or other lives etc.

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