

## Three Dimensional Body-Mind-Spirit Worlds in Human Society, and Extensive Quantum Theory in Theology

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**ABSTRACT:** First, based on the investigations over 40 years of parapsychology and many phenomena, we propose three dimensional body-mind-spirit worlds on human society. Some observed results imply “ghosts” are probably the existences of some biological or non-biological objects. Any observations and detections on mind and spirit worlds and on relations between both and matter are all valuable. Next, combining the extensive quantum theory in parapsychology and theology any living things with life and death are all discrete and quantization. Third, we propose seven mathematical physical models on “soul”, in which according to the quantum tunnel effect, soul reincarnate has a probability; according to the quantum entanglement and quantum teleportation, the resurrection of Jesus may be demonstrated and described. Fourth, for some results on the potential of blind children we research a possible test. From this we can build a bridge among modern science and medicine, parapsychology, religion and various traditional cultures.

**KEYWORDS:** *religion, theology, parapsychology, three dimensional world, body-mind-spirit, quantum theory.*

### I. INTRODUCTION

The relations between science and religion are complex, in particular, in an age of science [1,2]. Further, they are searched generally by McGrath [3] and Harrison [4]. McGrath discussed specially experiencing and interpreting nature in science and religion, and the principle of complementarity of quantum mechanics in religion [3].

In fact, science and religion are not in the least complete opposite, and both possess inclusion and complementarity [5]. Gilkey searched nature, reality and the sacred for meditation in science and religion [6]. We researched consistency of twenty aspects between Buddhism and modern science [7]. Further, we discussed relations between modern social sciences, sociology of religion and Buddhism, and proposed the basic principles of Buddhism [8], which are: (I) The essence of world principle is a world outlook. (II) The prajna (wisdom) principle is an epistemology and methodology. (III) The Dependant Origination (the law of causality) and the Emptiness of Nature principle is an outlook on life, and is also a rule on doing good works. Moreover, we searched that Buddhism and religion may exert more function in the present world crises. We researched psychology on happiness. The biggest felicity exists only in belief and religion [9]. In this paper, we propose three dimensional body-mind-spirit worlds on human society and seven mathematical physical models on “soul”. According to the quantum theory, the resurrection of Jesus may be demonstrated and described.

### II. Three Dimensional Body-Mind-Spirit Worlds on Human Society

Based on the investigations of many years for various phenomena in parapsychology, we propose three dimensional body-mind-spirit worlds on human society (Fig.1). This was implied by much Chinese and world ancient phenomena, various religions, some magical causality, many strange phenomena in criminal cases of homicide, haunted houses around the world, and reincarnation, etc.

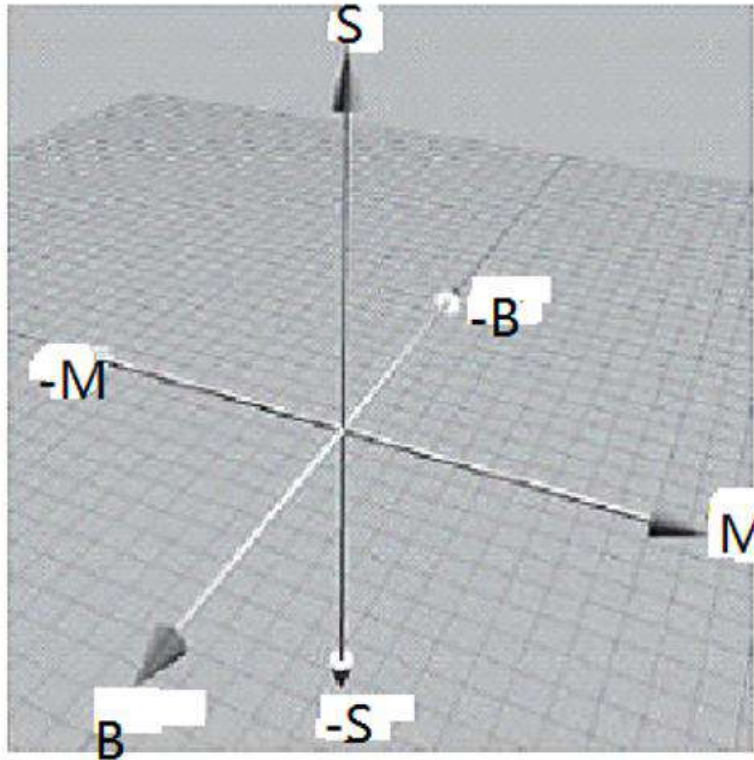


Fig. 1 Three dimensional body-mind-spirit space

Usual world is a body (matter) world with right and wealth. The biggest is the emperor and rich;  $B=0$  is ordinary civilians; under ( $B<0$ ) is the poor and “untouch”.

Second dimension is mind (conscious) world with morality and reputation.  $M>0$  are all good people, the highest is the sages;  $M=0$  is mortal with the animal nature;  $M<0$  below is the hooligan, the criminal, the liar. Yang and Yin in Chinese traditional culture correspond to body and mind. Assume that body and mind corresponds respectively to real number and imaginary number which describes illusory no-matter, so a plane number is  $A = a + bi$ , which may form the mind-brain dualism and the psychophysical parallelism [10].

Third dimension is spirit (gods) world.  $S>0$  is the gods with different level;  $S<0$  is the demons and ghosts with different levels.  $S=0$  is atheism. This is the outer space, and a new space. This is uncontrollable, and difficult to study, although it is related to the human-nature induction. It is consistent with the mind thinks in embodied metaphors used up-down researched by S. Schnall, B. Meier, M. Sellbom, D. Wygant, T. Schubert, et al. It is also Solzhenitsyn’s soul dimension [11].

Therefore, any things in human society may be described by three dimensional coordinates:

$$A = a + bi + cj, \quad (1)$$

here  $j$  is new super number. Or

$$A = B\vec{i} + M\vec{j} + S\vec{k}. \quad (2)$$

Three dimensions may be entangled each other, especially mind and spirit affect mutually [12,13].

In two dimensional plane a life of any man is  $|a + bi| = \sqrt{a^2 + b^2} = 1$  with unitarity, and is  $U(1)$  group. Of course, the unit radius and circle have different sizes for everyone, but life is always limited. In three-dimensional space it is beyond life, and will present more colorful world.

$$AA' = (a + bi)(c + di) = (ac - bd) + (ad + bc)i. \quad (3)$$

When  $bd \gg ac$ , result will be able to enormous for the damage to the body-matter world. Big body and huge negative mind combine to form some big tyrants in history as Hitler, et al.

Fig.1 is similar to three-dimensional space of the unification on the four basic interactions [14], and is also consistent with the Maslow's multi-level requirements and the multi-layered Tai-Ji Diagram [15]. D. Premack proposed theory of mind, which is the ability to infer what others think. Further, it is animism. There is no scientific evidence that everything is all material [10]. Stereo Fig.1 corresponds to the highest heaven and the lowest hell. People who are mentally unhealthy and misbehaving can not enter heaven because they can not integrate into it. And selfish people must sink, or even fall into hell.

So far, scientists have been able to interpret the unique words, images and thoughts in the human brain by using precision sensors, and often mind over matter as telepathy. Dr. Gallant has completed the recording of people's minds [16]. In fact, learning may change brain structure, so all have some potential to activate with magnetic fields emitted by transcranial electromagnetic scanners (TES). This has a genetic basis for developing stem cells that increase the number of neurons in the prefrontal cortex and other key parts of the brain, thereby boosting brain capacity.

Plato proposed two types: world of ideas is noumenon and real, and world of things is phenomena and manifestation. It is dualistic: mind and matter, soul and body, god and the world. It can be analogized to three dimensional truth-goodness-beauty ideal society and life [17].

So far, some observed results imply "ghosts" are probably the existences as some living or non-living things that can not be detected by usual methods, but can be detected by infrared light, etc. They effect or have no effect on the human body. This includes Earth-Air, Feng Shui and so on. It will be a great contribution for world, and is the discovery of a new class of substances, which is similar finding of invisible light.

Usually, we can only see visible light and hear specific sounds, but some instruments can detect all-band light and sound. Probably, in real world the all-band information field and energy exist. If we expand our organs and/or feelings and develop our potential (seventh and eighth consciousness in Buddhism), we will show some special functions, and be able to see other worlds and collect their information, and even get something, various objects, fragrance and so on. Further, we should determine and measure their frequencies, wavelengths, information, energy spectrum, etc. Our experiments confirmed that a blind child X-N Jin trained can see the infrared light using his "eye", and may see words in an envelope, etc. Similar blind men can see in the dark room. They can play ball, ride a bike, etc. Some men (women) may see "ghosts" as infrared bodies, but so far their frequencies seem to be very difficult to fully determine. In a word, any observations and detections on mind and spirit worlds and on relations between both and matter will all be valuable.

### III. EXTENSIVE QUANTUM THEORY IN PARAPSYCHOLOGY AND THEOLOGY

Great physicist Feynman pointed out: "There are certain situations in which the peculiarities of quantum mechanics can come out in a special way on large scale." In a special situation "quantum mechanics will produce its own characteristic effects on a large or 'macroscopic' scale" [18].

In the early 1930s Jordan showed not only an interest in parapsychology, but also published widely on the revival of vitalism through quantum theory, and its repercussions for biology, psychology, and philosophy [19]. Then Whithman researched quantum physics in parapsychology [20]. Hall, et al., discussed wave-packet reduction as a medium of communication [21]. Stapp proposed theoretical model of a purported empirical violation of the predictions of quantum theory [22]. Harris searched the relations between science and human values [23].

Further, some scientists investigated quantum theory of consciousness. J. White edited a book *Toward a Science of Consciousness* [24] American physicist and parapsychologist E.H. Walker researched all the year round the quantum theory of parapsychology, which includes consciousness and quantum physics [25-28]. In 2000 Walker published *The Physics of Consciousness*, which attempts to describe how quantum mechanical processes may be responsible for the creation of human consciousness [29].

Gardner discussed parapsychology and quantum mechanics [30]. Schmidt researched nature of consciousness related to the foundations of quantum physics [31]. Dunne and Jahn discussed the quantum mechanics of consciousness, and which is applied to anomalous phenomena [32]. Goswami published books *Physics of the Soul* and *Quantum Creativity* [33,34].

Based on a new form of the Titius-Bode law:

$$r_n = an^2, \quad (4)$$

we developed a similar theory with the Bohr atom model, and obtain the quantum constants  $H = (aGM_\odot)^{1/2}$  of the solar system and corresponding Schrödinger equation [35,36]. Further, we proposed the extensive quantum theory [37,38] and its three laws [37]: 1. Extensive quantum is its element in any system. 2. Its theory has similar quantum formulations with different quantum constants H. 3. Evolutions of systems may be continuous, but stable states are quantized. Its mathematical base is fractal. We researched the extensive quantum biology and its application in DNA [38,39], and the extensive quantum theory in social sciences [40], in which the social entangled states and exclusion is discussed [37].

Only when entering a plane variable is a complex number, we can introduce and study the quantum theory of life, in which it must be a complex variable function. One dimension is real number, matter world and determinism. Two-dimensional is complex number and body-mind world, and can have probability.

The basic equation of the extensive quantum mechanics (here  $\hbar \rightarrow H$ ) [35-37] is the non-relativistic Schrödinger equation:

$$iH \frac{\partial \psi}{\partial t} = -\frac{1}{2} H^2 \nabla^2 \psi + V \psi. \quad (5)$$

The time-independent Schrödinger equation is:

$$\nabla^2 \psi + \frac{2}{H^2} (E - V) \psi = 0. \quad (6)$$

Any living things have life and death. According to the extensive quantum mechanics, they are surrounded by death, and correspond to an infinite deep potential trap. Their energy spectrum and momentum of Schrödinger equation is necessarily discrete:

$$E_n = \frac{H^2 \pi^2}{2MR^2} n^2, \text{ and } p_n = \pm \frac{H\pi}{R} n. \quad (7)$$

Therefore, living things with energy are all quantization. It is basis of the extensive quantum biology. Morgan discussed emergent evolution, in which a new relatedness products an integral unity [41]. Their universal wave function is:

$$\psi_n(r) = A_n \sin(n\pi r / R). \quad (8)$$

Both form just a base of the biological wave-particle duality and the extensive quantum biology [38]. The corresponding one-dimensional density is:

$$\rho(E_n) = \frac{R}{2\pi H} \sqrt{2M / E_n}, \quad (9)$$

two-dimensional density is:

$$\rho(E_n) = \frac{R^2}{2\pi H^2} M, \quad (10)$$

three-dimensional density is:

$$\rho(E_n) = \frac{R^3 (2M)^{3/2}}{4\pi^2 H^3} \sqrt{E_n}. \quad (11)$$

#### IV. SEVEN MATHEMATICAL PHYSICAL MODELS ON “SOUL”

Based on the modern sciences, we researched the seven possible mathematical and physical models on “soul” [42], this is also future after death.

1). Phase transformation theory. According to general physics and phase transformation theory, there are various jumps among different human functional states, in particular, a jump between life and death. Further, bigger jump of life possesses stronger lag, which corresponding stronger inertia for bigger mass. This is also an extensive inertia. As a special example, lag from life to death should exist necessarily. This is perhaps a type of

soul, and is more obvious for huge energy, stronger body or more sudden death. It is namely a physical and mathematical proof for a soul and the life after death.

2). Quantum mechanics and tunnel effect. Any living things have life and death. According to the extensive quantum mechanics [36-39], a life is surrounded by death, and corresponds to an infinite deep potential trap. Its energy spectrum and momentum of Schrödinger equation is necessarily discrete Eq.(7) [43,44]. Therefore, living things with energy are all quantization. It is basis of the extensive quantum biology [38].

If the death of some men or women is not the infinite deep potential trap, and is a finite potential barrier  $V_0$  (for  $0 < x < a$ ), according to the tunnel effect of quantum mechanics, the transmission coefficient will be:

$$T = [1 + \frac{1}{\frac{E}{V_0} (1 - \frac{E}{V_0})} sh^2(a\sqrt{2(V_0 - E) / H})]^{-1} \quad (12)$$

$$\approx \frac{16E(V_0 - E)}{V_0} \exp[-2a\sqrt{2(V_0 - E) / H}].$$

This is namely a possible soul reincarnate, and has always a probability. Its strength may become bigger along with increase of self-energy  $E$ , or decrease of potential barrier  $V_0$ . It will enter the universe, and resonance with the universal wave function. The most amazing rainbow phenomenon in death process is that the body is completely transformed to light wave, photons and the wave function.

According to New Testament, Jesus as great saints could heal the blind and other diseases, and created many miracles, so the self-energy of Jesus was huge, and his death was also a terrible injustice. When  $E = V_0$  or  $E > V_0$ ,  $T=1$  from Eq.(12). Such it may describe the resurrection of Jesus as a whole.

The most amazing rainbow phenomenon in death process is that the body is completely transformed to light wave, photons and the wave function. A famous book *The Tibetan Book of the Dead* searched soul and reincarnation.

3). Nonlinear wave and soliton. This is the nonlinear waves of some equations. Based on the discrete life, it may be described by soliton solutions and shock wave, etc., which shows “soul” self goes out from body. Further, the nonlinear waves possess the recurrence, which corresponds to the reincarnation.

4). Wormhole model. The wormhole model is a tube passed through space-time based on general relativity [9].

5). Hawking quantum evaporate (radiation) theory for black hole [45,46]. Here man or woman tends to death (human black hole), and a pair of macroscopic particles, even body and “soul” under certain conditions, is produced due to the quantum fluctuations. When a particle gets into death, another particle released is possibly a “soul”.

6). The thought field. It is based on many experiments and the theoretical principles of modern science [47-49]. The thought field is emitted when a living being has an idea or thought, whose energy is directly proportional to a frequency,

$$E = H\nu, \quad (13)$$

where  $\nu$  is frequency, and  $H$  is an as yet undetermined coefficient. The thought field is characterized by many different factors: Its frequencies can be strong or weak, and concentric or disorderly. The thought field is probably a new fifth interaction. Under some conditions, the thought field outside the body may form a type of “soul”.

7). Quantum entangled state. Modern physics found new quantum entanglement, so Aspect, Clauser and Zeilinger obtained Nobel Physics Prize in 2022. The human-nature induction is namely the macroscopic entanglement.

F. Wilczek, Nobel Physics Prize gainer in 2004, proposed the model with 32 dimensions based on the  $|\uparrow\rangle$  and  $|\downarrow\rangle$ , and 5 elements exist [50]. World has human and nature. Society has body and mind. We introduced the quantum representations on entanglement, and assume that human and nature are two quantized states, and body and mind in society are two non-coupling states ( $s^A, s^B$ ), so there are four eigen-states:c



$$|\frac{1}{2}\rangle_A |\frac{1}{2}\rangle_B, |\frac{1}{2}\rangle_A |-\frac{1}{2}\rangle_B, |-\frac{1}{2}\rangle_A |\frac{1}{2}\rangle_B, |-\frac{1}{2}\rangle_A |-\frac{1}{2}\rangle_B. \quad (14)$$

While the coupling represents are:

$$SX_{SM} = MX_{SM} (S = s^A + s^B). \quad (15)$$

For  $S=0$  and  $M=0$ ,  $X_{00} = \frac{1}{\sqrt{2}} [|\frac{1}{2}\rangle_A |-\frac{1}{2}\rangle_B - |-\frac{1}{2}\rangle_A |\frac{1}{2}\rangle_B]$  is single state.

For  $S=1$  and  $M=0, \pm 1$ ,  $X_{10} = \frac{1}{\sqrt{2}} [|\frac{1}{2}\rangle_A |-\frac{1}{2}\rangle_B + |-\frac{1}{2}\rangle_A |\frac{1}{2}\rangle_B]$ ,

$X_{11} = |\frac{1}{2}\rangle_A |\frac{1}{2}\rangle_B$  and  $X_{1-1} = |-\frac{1}{2}\rangle_A |-\frac{1}{2}\rangle_B$  are threefold states.

Here  $X_{00}, X_{10}$  are two entangled states.  $X_{11}, X_{1-1}$  carry through equal weight superposition, it may compose four entangled states between the human-nature induction:

$$|\psi^\pm\rangle_{AB} = \frac{1}{\sqrt{2}} [|\frac{1}{2}\rangle_A |-\frac{1}{2}\rangle_B \pm |-\frac{1}{2}\rangle_A |\frac{1}{2}\rangle_B], \quad (16)$$

$$|\phi^\pm\rangle_{AB} = \frac{1}{\sqrt{2}} [|\frac{1}{2}\rangle_A |\frac{1}{2}\rangle_B \pm |-\frac{1}{2}\rangle_A |-\frac{1}{2}\rangle_B]. \quad (17)$$

This derives the non-locality, and is analogous with the Bell basis in quantum mechanics.

This may be the entanglement between life and death, the entanglement between body and soul. According to the quantum entanglement and quantum teleportation [51,52], the resurrection of Jesus may also be demonstrated and described.

Moreover, Blanke, et al., researched stimulating illusory own-body perceptions, which the parts of the brain that can induce out-of-body experience [53]. It corresponds to soul.

## V. PARAPSYCHOLOGY AND RELIGION

Parapsychology shows possibly new interaction, higher dimensional space-time, new many worlds, and some special functions, which can sense and detect new information [54]. These are also related each other, and show existence of two fields: human thought field and outside information fields. W. Von Braun pointed out: science found that nothing disappears without leaving a trace. Nature will not die, it will only transform. This is the development of consciousness and mind, and is also related to the new field and wave. These are the detection of various information fields, and the new information field is also a new space.

Entangled states can explain synchronization, telepathy, and the unity of man and nature, etc. In quantum mechanics, the participant in the Wheeler interpretation is the unity of man and nature.

In modern society disability is a cosmopolitan problem, from this introduces the special disability sociology [55,56]. We trained the potential of blind children in Kunming and Beijing for 52 person-times during 2012-2017. By using a method combining scientific memory and Chinese traditional Qigong and so on, we obtained some success and social infection, and gained widely recognition [57].

We found through a period training of time, some children by touch or nose or ear can distinguish different colors, even simple figure and numbers. It is propitious to improve the life quality of blind children. In fact, some religions have many similar descriptions. In fact, the method was applied to general children, and results are better. They not only can distinguish different colors, and recognize numbers, words and figures (animals in card), etc., by touch or nose or ear, and finish some ESP phenomena. Most children can achieve PK to fold scrip and break match rod or scrip in closed lockets by various imaginary hand or other tools, and even wrote few tiny words (Chinese "Mother I love you") and a figure of 'love' at match rod in closed locket by virtual pen (Fig.2) [58].



Fig.2 Tiny words (Chinese “Mother I love you”) and a figure of ‘love’ at match rod

Our research shown the potential of blind and general children is universal. Various investigations in parapsychology show possibly the existence of new fifth interaction [9] as a real “spooky action at a distance” (Einstein), new functions that can produce from mind, high dimensional space-time or new space. These four new results are related each other.

These may prove a well-known degeneracy in the neural circuits proposed by Edelman [59], in which neural circuits of different structures may produce the same function. This is also the Six Sense-organs Intersubstitution on eye-ear-nose-tongue-body-thinking in Buddhism, which as a type of functions in fact is not strange. Christianity, Islam, Taoism and some religions have many similar descriptions.

From many priests to large and small masters often have large or small special functions. Especially the Buddha, Christ and Muhammad all show various miracles. This shows a close relationship between parapsychology and religion. For example, in the gospel according to Mark of New Testament, the Chapter 9 (22~25) are “they came to Beth-sa’t-da. And some people brought to him a blind man, and begged him to touch him. And he took the blind man by hand, and led him out of the village; and when he had spit on his eyes and laid his hands upon him, he asked him, ‘Do you see anything?’ And he looked up and said, ‘I see man; but they look like trees, walking.’ Then again he laid his hands upon his eyes; and he looked intently and was restored, and saw everything clearly.”

Fontana discussed the brain-mind relationship, super-ESP, and the possibility of survival of physical death, etc [60].

In training potential of blind and general children we found the synchronization, whose network model is [61,62]:

$$x_{n+1}(i) = f[x_n(i), y_n(i)] + k[1 - \delta(i, n)] \sum_{j \in S(i)} \delta(j, n - \tau(d_{ij})), \quad (18)$$

$$y_{n+1}(i) = y_n(i) - \mu(x_n(i) + 1) + \mu\sigma, \quad (i = 1, 2, \dots, N_1). \quad (19)$$

Here  $k$  is key, and  $k$  is bigger, the synchronization is stronger. It is a telepathy, and resonance of the thought field [47-49]. The same frequency of the thought field is easy to synchronize. The thought field can be derived from mind or spirit.

In our training on the potential of blind children, a child X-N Jin shows very strong special function: he can see the infrared light using his “eye” as new function, and may see words in an envelope, and recognize color and number of 45 cards during one minute. Therefore, he as a pip may pass through telepathy to help other children. So we adopt the similar method to train the potential of general children, and results are very good.

Different sensation systems are usually independent each other. Our collective open out the potential of blind children, and found through a period training of time, some children by touch or nose or ear can distinguish different colors, even simple figure and numbers. Based on modern neurobiology and training potential of children, we proposed a testable scientific hypothesis [63,64]: The neural excitable cell is continuously induced and excited, then grow out new synapse and dendrite, and the feeling system, hearing system, smell system, etc., may joint to visual system, and form a new neural network, and achieve finally a transformation among vision and other sensations. Further, we proposed some possible tests, for example, scientists may train the blinded animals, then dissect their brain, and compare their different functions and different results. And these results may compare with those animals lack some sense organs. If this hypothesis is validated, it will bring benefit to mankind, in particular, disability.

Moreover, during process of training blind children, we undergo three moments for cognition: First, our knowledge is unilateralism and incompleteness; next, we heartily sympathize them, indeed pity; finally we discover that they possess own more chaste heart due to less be polluted by exterior world, such we and they contact good-fellowship, which will help to cleanse our spirit, while pity is a viewpoint of superficiality and inequality. Further, it will spur us to think meaning of life and essence of happiness. Life is not, cannot and need not compare some exterior false phase. It is namely happiness that as long as we incubate self the true, the good and the beautiful, and which should be our common and able comparative pursuit in happiness.

These researches may build a bridge among modern science and medicine, parapsychology, religion and various traditional cultures.

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