BODY AND SOUL IN PHYSICS

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Abstract

What is the nature of mind? This question has been asked for a long time, maybe, since the beginning of human history on Earth. It is about what is the reality of mind and how it is connected to physical body. Being interpreted with new paradigm of physics, in which physical phenomena is not complete by itself but connected to ontological reality of nature or essential nature behind all physical phenomena, the human mind is not just a mental process originated in physical body, but it is also being connected to ontological body and making it interact with the physical body. Here, the ontological body should be the soul or spirit of human being that has been considered as something supernatural. In philosophical term, it corresponds to physicalism that is ontological monism including physical energy in materialism. New type of physical interaction, subtle-spin-string wave interaction, is proposed to explain the physical process of quantum entanglement. Moreover, with the new type of physical interaction, subtle energy is also explained what it is and how it works with physical body, in which the subtle energy has been mentioned for a long time in many fields such as oriental medicine, acupuncture, meditations, etc.; nevertheless, it has been regarded as a pseudoscience in scientific consensus.

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Introduction

In philosophy of mind, about mind-body problem there are two main categories in general, dualism and monism, each of which has many sub-branches, though. In dualism, the mental process of mind is supposed to be fundamentally different from the physical process because it is hard to imagine how the subjective and intangible mental process can be connected to the objective and tangible physical process. However, in monism, there is one fundamental substance for both, mind and body. (Robinson, 2017; Schaffer, 2016)

We have heard of people saying that positive thinking brings a positive result, which is understandable; for example, a personal achievement on a work should depend on the physical sweat and emotional effort that can be varied on his/her attitude on the work. As a similar example in psychology, the placebo effect depends on how much patient expects or believes in the effect of treatment. It is also about personal attitude and/or confidence about his/her own matter; however, the effect comes from just psychological status not from physical behavior of the patient. Then, what about Pygmalion effect? It is described as positive expectations influence performance positively, and negative expectations influence performance negatively. (Pygmalion-Wiki) For example, in school education, if classroom teacher has positive expectations for students, it influences on the performance of students positively. However, classroom teacher not by students themselves gives the expectation for students. How is it possible? The question is how the teacher's mind (expectation) affects on students for their better performance. Anyway, a psychological interpretation was given as following: "When we expect certain behaviors of others, we are likely to act in ways that make the expected behavior more likely to occur." (Rosenthal & Babad, 1985) In the respect of psychology it is understandable about the possibility; however, is that all? Is there any other way to interpret it?

On the other hand, among people those who believe in the existence of subtle energy[2] and perform meditations or practices training for health, physical strength, or religious reasons, it is natural to say that the subtle energy can be managed by conscious intention like an arm or leg of a person. Then, what if the conscious intention (human mind in general) can make an interaction outside physical body by using the subtle energy?

Ostensibly, mental process doesn't seem to be related to physical process; nevertheless, there is such a thing known as telekinesis or psychokinesis (Psychokinesis-Wiki) even though scientific society has regarded it as a pseudoscience. Besides, there have been scientific experimentations showing that human mind[3] affects on the experimental results. (Tiler; Emoto; Xin Yan; McTaggart; Dean Radin) For example, the double-slit experiment with laser beam (Dean Radin), the interference patterns are different between two cases; one is when human consciousness is focused to know which slit the

[2] It has many different names in different cultures through human history, such as qi, ki, prana, aether, pneuma, orgone, etc. (Herron)
[3] It is mental activity such as consciousness, intention, thinking, etc.

laser beam is passing through and the other, when the consciousness is relaxed with no concern on the slits.

If human consciousness interacts with a remote physical object as well as manages or controls his/her own body, the mental process of human beings, simply human mind, should be included in the category of physical science. Then, the question is how the consciousness makes an interaction with the physical object, which cannot be explained with any physical interaction that has been known until now.

Ironically, there is another inexplicable phenomenon; that is quantum entanglement (Bub, 2017; Quantum entanglement-Wiki) in quantum physics. For example, let's think about electron-positron pair production ($\gamma \rightarrow e^{+} + e^{-}$) in which total spin[4] in the system should be zero before and after the pair production as being considered the conservation of angular momentum. If the spin is measured for one of them in a specific direction and, in a moment later, if another spin measurement is done for the other in the same specific direction, the total spin of electron and positron is known to be still zero. This means, the first spin measurement in the specific direction interacts instantaneously the other particle to make its spin align to the specific direction. In general, if there is a set of physical objects entangled[5], the information of measurement of one of them is transferred to the other(s) in a moment, actually it should be faster than the speed of light if estimated with classical theory; thus, the entangled physical property is conserved. Hence, it is called a "spooky action at a distance" – paradox, which is one of distinguished phenomena in quantum physics, though. Furthermore, about the reality matter or philosophical attitude of quantum physics there have been incessant discussions and arguments since the beginning of the quantum theory. (Quantum Reality-Wiki; David Bohm Society, 2017; david-bohm.net, 2014)

In the new paradigm in physics suggested with 4D complex space model (Kim, 1997) (Kim, 2017), the insoluble and enigmatic phenomena mentioned above such as the spooky action at a distance in quantum entanglement and the human consciousness in double-slit experiment can be understood with a coherent interpretation.

4D Complex Space

Scientific theory is supposed to be based on deep-rooted and sound natural philosophy; otherwise, it should be like a castle built on quicksand. In the case of quantum physics it seems to be an exceptional; hence, there have been many philosophical interpretations about quantum phenomena and quantum theory itself. Without being enforced to accept blindly the quantum phenomena for which any reasonable explanation cannot be found in conventional rationalism, if we can understand quantum physics and classical physics together with a common theoretical basis, it would be natural and desirable in the respect of reductionism of scientific theories.

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[4] Spin is an intrinsic form of angular momentum possessed by elementary particles.
[5] The "entangled" means that physical description of the system cannot be individual; rather, it should be together as a whole.

In the respect of ontology, the world of nature supposedly consists of two parts: one is phenomenological real world, only where all physical phenomena used to be considered; and the other is intangible world, which is completely filled with vacuum particles (negative energy or bounded positrons if compared with the elementary particle, positron, in real world) and those vacuum particles keep interacting with physical objects in real world. To include the ontological reality as above in physical phenomena, 4-dimensional complex space was introduced for physical space, which represents the real world for 3D real space and real time and the corresponding 3D imaginary space and imaginary time, which is physical vacuum. (Kim, 1997) Once a fundamental principle is assumed in the imaginary space as a first principle; that is, vacuum particles are redistributed spontaneously against any disturbance in net-mass density, net-charge density, or net-spin density (directional) in physical space to get a new equilibrium state, the fundamental interaction in physics, such as gravitational interaction, electric interaction, magnetic interaction, or electromagnetic interaction is interpreted as the phenomenological realization in real space when vacuum particles in imaginary space redistribute themselves to get a net equilibrium state for net-mass, net-charge, or net-spin density, respectively.

Although the ontological view of nature and the corresponding mathematical model as above was initiated to find any reasonable explanation for weird quantum phenomena and interpretation of quantum theory, not only comprehensive explanations were found for classical physics (classical mechanics, relativities) and quantum physics, but new physical concept of mass-charge interaction came out as well. (Kim, 2008; 2017)

In short, any physical object in real space has the corresponding counterpart that is a vacuum-particle-distribution in the imaginary space for the presence of physical object. The physical object interacts with other physical objects through the vacuum-particle-distribution in the imaginary space. Now, presumably it can be asserted that reality of nature has two parts, physical nature in real space and ontological nature in imaginary space. In natural philosophy, it might be dualism if considered with real world only; yet, they are not independent from each other but indispensible and complementary to each other if considered together with the ontological reality.

Spooky Action at a Distance

The phenomenon of quantum entanglement cannot be explained with determinism and locality, those of which are fundamental principles in classical theories and relativity as well. Moreover, if the quantum state of one of entangled objects is changed, for instance, through a measurement of entangled physical property, it makes the quantum states of the others changed instantaneously; that is to say, there is an interaction among the entangled physical objects; and if a possible explanation is searched in classical theories, the speed of interaction should be faster than the speed of light, which seems to be a conflict with the theory of relativity. Hence, it has been called “spooky action at a distance”. (Quantum Reality-Wiki; EPR Paradox - Wiki; Bell, 1987)

About the reality of quantum physics such as indeterminism and nonlocality, we can find a comprehensive explanation in 4D complex space model because nature itself has the intrinsic statistical property that appear as indeterministic and nonlocal physical phenomena; and it can be realized with quantum physics. However, the spooky action at a distance needs to be explained why special theory of relativity is challenged, specifically, in quantum entanglement.

First of all, let's review briefly the special theory of relativity. The speed of light is a universal constant and the upper limit that can be reached by any physical object in motion, for which the origin can be found in one of two fundamental assumptions in the theory; that is*, the speed of light in free space, has the same value for all observers regardless of their state of motion*.

Now, a question arises as why the speed of light was chosen in the theory of relativity to get the relation of 3D space and time between two inertial frames those of which are in a relative motion to each other. What if light doesn't exist in physical phenomena or physical world? If then, what might be an alternative way to get the relation in the theory of relativity? Anyhow, can we imagine a world without light? Although light behaves like a particle in quantum physics, confidently, it is considered as energy in a wave motion (electromagnetic wave); however, it has not a physical medium for the wave motion; regardless of the relative motion of light source or its observer, the speed of light is constant and the upper limit in physical phenomena. How is it possible? Why light is so special? Does it really belong to phenomenological nature in any way?

Anyhow, long story short, we can understand the theory of relativity in 4D complex space model; why the speed of light is constant in all inertial frame of references, what is the time dilation and the length contraction, how the kinetic energy in classical mechanics should be interpreted, and so on. (Kim, 1997)

In special theory of relativity, when we say that any physical object with rest mass m_0 $\left(m_0 \neq 0\right)$ cannot go faster than light, the physical object is in kinematic motion not in wave motion and the physical object doesn't represent everything in physical phenomena; therefore, if the interaction among the entangled objects in quantum entanglement can be made through a wave motion in 4D complex space that might be a new type of physical interaction (not electromagnetic interaction); then, quantum entanglement doesn't have to be conflict with special theory of relativity.

There are three basic elements of each vacuum particle in imaginary space, such as mass, electric charge, and spin, in which the spin is a vector quantity and simply it can be thought like a tiny-hard-ball spinning with electric charge on the ball. In fact, the pictorial model, spinning tiny-hard-ball, is not the correct view of spin in quantum physics, even in which there is no scientific pictorial model, though. Anyhow, the spin has two distinctive intrinsic properties; one is magnetic moment that is revealed in a magnetic interaction, and the other is mechanical angular momentum that should be realized in a mechanical interaction.

In quantum entanglement, for example, if the entangled objects are the positron and electron from a pair production ($\gamma \rightarrow e^+ + e^-$); firstly, let's make them apart to each

other while keeping the entanglement between them, which means that total spin of electron-positron system should be still zero; then, let's measure the spin magnetic moment in a specific direction. In the first measurement of electron or positron, the probability of spin up or spin down in the specific direction is 50-50; but in the second measurement for the other in the same specific direction, the output is not 50-50 for spin up or spin down as before; rather, it is fixed to spin up if the first spin was down or fixed to spin down if the first spin was up.

In Fig. (1), the schematic diagram shows the process of physical measurements of entangled object A and B in the experiment of quantum entanglement, in which the physical object A and B are in the light colored boxes representing the real space; corresponding to the physical objects, ontological counterparts A and B are in the dark gray colored boxes representing the imaginary space in 4D complex space.

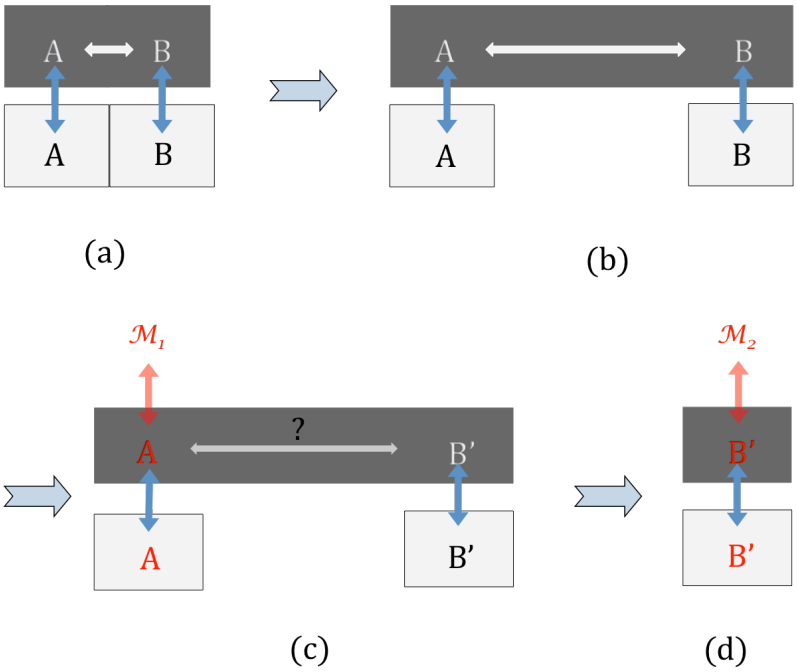

Fig. 1

Let's say, physical object A is the electron or positron created from the pair production as above, and physical object B is the other one, correspondingly. In Fig. (1a) shows the electron and positron produced from the pair production, in which the entanglement of spin singlet state ($s=0$) is represented as the white colored arrow in the imaginary space in which physical interaction is actually occurring. Fig. (1b) shows the change of physical distance between electron and positron while being kept the spin entanglement. In Fig. (1c), the spin magnetic moment of physical object A is measured through the interaction with an external magnetic field $\mathcal{M}_1$ in a specific direction. The spin magnetic moment of physical object A is realized in the specific direction as the equally possible spin up or spin down; however, the mechanical spin direction of

physical object A also became to be fixed to the specific direction through the measurement, and it makes the mechanical spin direction of physical object B changed to B′ when the external magnetic field was applied to the spin magnetic moment of object A in the measurement process. According to the experiments of quantum entanglement, the spin direction of object B′ is known to be aligned to the specific direction as well. Now, physical object A doesn't exist anymore; thus, the entanglement between physical object A and B is disentangled leaving the physical object B′ alone as shown in Fig. (1d). Then, the spin magnetic moment of object B′ is measured through the interaction with another external magnetic field $\mathcal{M}_2$.

In sum, the measurement of spin magnetic moment is through magnetic interaction between the spin magnetic moment and an external magnetic field; in the first measurement, the magnetic interaction changes the direction of spin magnetic moment to the specific direction; that means, although the spin itself is disappeared from the entangled system through the measurement process -- the wave function collapse in quantum mechanics, the spin angular momentum also has been changed to the specific direction of measurement; then, it affects on the other spin entangled in the system, which is a physical interaction between two entangled leptons -- electron and positron. Then, the question is how the interaction is maintained regardless of the distance between the two entangled leptons. Since the spin angular momentum in the entangled system needs to be conserved as well, the interaction between the electron and positron entangled with spin singlet state ($s = 0$) should be a mechanical interaction due to the spin angular momentum conservation.

Hence, in general, the entangled property in quantum entanglement is supposed to be the intrinsic angular momentum conserved and maintained through a mechanical interaction among the entangled objects.

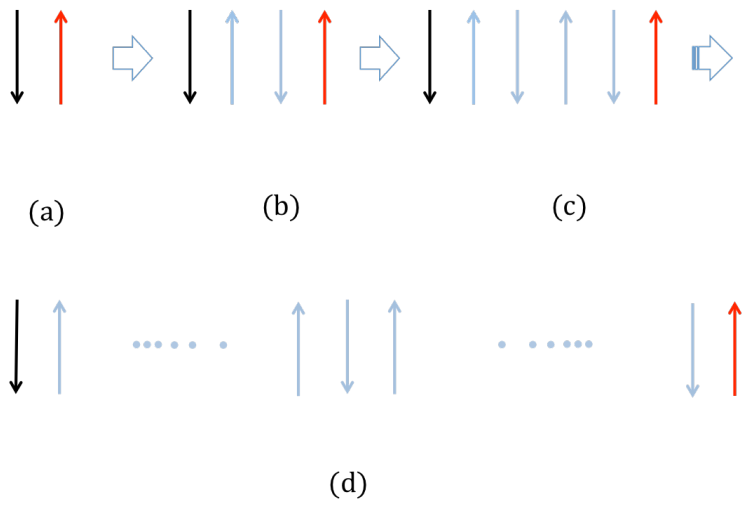

Fig 2

As a possible interaction mechanism in 4D complex space, Fig. (2) shows a schematic diagram, with which it can be explained how two entangled leptons keep interacting regardless of the distance between them. Fig. (2a) shows positron (arrow with red color) and electron (arrow with black color) just after the pair production with spin singlet state, in which the arrow indicates the mechanical direction of spin (intrinsic angular momentum). When the physical distance is increased between them, Fig. (2b), Fig. (2c), and Fig. (2d) show that extra vacuum particles join into the connection between the two leptons and make a string of vacuum particles constructed with spin up and spin down alternatively since it is more stable[6] than not in order along the string of vacuum particles in physical space if the first principle in 4D complex space is considered. If the spin direction of one of them is changed, it affects on the other spin directly through a wave motion in the string of vacuum particles as shown in Fig. (3). Let's call the string of vacuum particles as "subtle-spin-string " from now on.

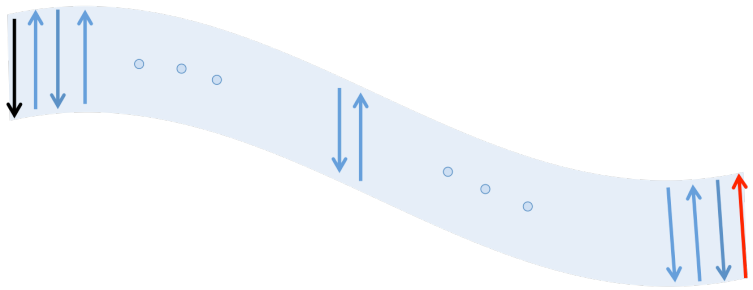

Fig 3

Soul or Spirit: Inviolable Energy Bonded to Living Things

It has been reported that human mind can make a change in physical phenomena. (Emoto; McTaggart; Radin; many elsewhere) For example, if the consciousness can change the experimental results of double-slit experiments (Dean Radin), the physical interaction should be generated by the conscious intention of human being to alter the passage of laser beam or modify the diffraction pattern in the experiment. Then, it is natural to say that the consciousness of living thing can affect on a physical object at a distance besides its own body. By the same token, if the physical object has consciousness (living thing), the consciousness can make an interaction or communication to each other. Now, it is wondered how the consciousness can affect on physical phenomena.

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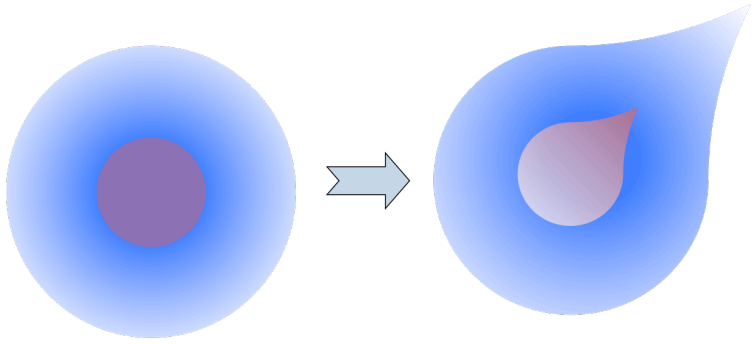
[6] It is a vectorial spin combination to minimize the directional spin density in imaginary space.

In 4D complex space, the distribution of vacuum particles in imaginary space can be changed by the variation of physical mass, electric charge, or magnetic field in real space. For example, Fig. (4) shows how the vacuum-particle-distribution in imaginary space can be changed by electric charge distribution in real space. Fig. (4a) shows an uniform negative charge distribution on the surface of a physical object (solid red) in real space and corresponding vacuum-particle-distribution (blue) in imaginary space, in which the distance away from the physical object is farther, the excess number density of vacuum particles is getting lower[7] (from dark blue to light blue in the figure). If the electric charge distribution is changed on the physical object in real space as shown in Fig. (4b), correspondingly vacuum-particle-distribution is also changed in imaginary space, which corresponds to the variation of electric field in real space.

Similarly, the variation of physical mass or magnetic field in real space also causes the variation in the distribution of vacuum particles in imaginary space – variation of gravitational field or variation of magnetic field, respectively; however, it is not the case for the double-slit experiment done by Dean Radin et al. (Dean Radin) because how human consciousness affects on the experiment, it cannot be explained with any physical interaction that has been known until now. Then, new type of physical interaction should be considered with which vacuum-particle-distribution in imaginary space could be modified.



(a) (b)

Fig 4

If the new type of physical interaction is related to the mechanical spin of vacuum particles (intrinsic angular momentum) and if the spin of vacuum particles can be modulated by human conscious intention, a subtle-spin-string wave can be generated to disturb the vacuum-particle-distribution on the double slits or nearby, through which photons are passing in the experiment; thus, the interference pattern can be affected. In

[7] var. of # density $\propto \frac{1}{d^2}$ $(d : \text{distance})$

addition, a longitudinal oscillation mode in vacuum-particle-distribution can be another way to make a communication or connection to outside the physical body.

In 4D complex space model, any physical object in real space has the ontological counterpart that is vacuum-particle-distribution in imaginary space, and physical interaction is the realization in phenomena when vacuum particles in imaginary space redistribute themselves to get new equilibrium state against any disturbance; then, if we interpret soul or spirit as the ontological counterpart corresponding to physical body, in which the ontological counterpart is the other self in imaginary space for the physical body, have we gone too far? However, if there is an ontological common basis for the phenomenon of quantum entanglement, double-slit interference pattern affected by human consciousness, and the existence of subtle energy, we can interpret as above in 4D complex space. Anyhow, let's keep moving forward as following:

For any living thing, ontological body, which is the ontological counterpart for physical body, is formed together with physical body from the beginning of presence in real world. Then, naturally, it can be said that the ontological body should be affected by the environmental condition in imaginary space when it is born (or formed) and that ontological genetic information may be embedded in physical genetic information that is passing down from generation to generation. As physical body grows, ontological body also grows; and both are maintained, managed, and balanced in harmony with mental process in the physical body.

In physical body of a living thing, many different organs or body parts with different biological functions are organically linked together and work in harmony; each corresponding ontological counterpart is also linked to each body part and work together; as such in the physical body, the ontological counterparts in ontological body are also organically linked and work together in harmony. If physical body goes, ontological body follows; as such, if the mind goes, the ontological body moves even though the physical body doesn't follow.

In fact, the explanation or interpretation as above is hypothetical with 4D complex space model; yet, if the explanation is consistent for other natural phenomena that have been regarded as pseudoscience; such as psychic abilities (List of psychic abilities-Wiki; Radin), oriental medicine, acupuncture, performing practices with breathing skills (meditation in religion, exercise for health, or training in martial art, etc.), it might be justified to bring those phenomena into the category of science. In practice, it seems that they have been accepted by some group of people, not in general though, and used for health of body and/or mind. Also, there have been many scientific researches to find what the subtle energy is and how it works with physical body and affects on natural phenomena. (Kwang-Sup Soh; Vitaly Vodyanoy; Xin Yan; IONS; Tiler; many elsewhere)

Although seemingly different phenomena to each other, they have common facts: firstly, it is the subtle energy in space, which is found in their documentations or explanations for the phenomena; however, even the terminology of subtle energy cannot be accepted in the contemporary paradigm of natural science; and another fact is about the relation or interaction of biological body with surrounding physical space, especially the interaction through human consciousness that is a part of mental process.

First of all, it needs to be explained how the interference pattern in the double-slit experiment with single electron or photon is possible in 4D complex space. When the single electron or photon is moving in real space, there is always a wave motion accompanied that is the disturbance of vacuum particles in imaginary space following the physical object – single electron or single photon. This wave motion is corresponded to the wave function in quantum mechanics. Therefore, if the vacuum-particle-distribution is modified in imaginary space, the diffraction pattern in the double-slit experiment should be affected.

Let's suppose that human consciousness (conscious intention) can modulate vacuum particles in their spin directions and/or number density in the imaginary space corresponding to its physical body or nearby; then, a string of vacuum particles can be made by the consciousness as shown in Fig. (5). As shown in Fig. (5a) and Fig. (5b), if the spin of vacuum particles nearby the physical body is modulated by the consciousness, in which arrow with black color indicates the manageable spin nearby the physical body, another vacuum particle gets connected as shown in Fig. (5b) simply because it is more stable in physical space as shown in the subtle-spin-string. Fig. (5c) shows that another vacuum particle conjoins into the string of vacuum particles; Fig. (5d) shows that the string of vacuum particles is extended beyond the physical body. Hence, the consciousness can make a connection and/or communication with outside physical body using the subtle-spin-string wave of vacuum particles. It is like a feeler of an animal but invisible; however, the feeler seems to have many functions of variety, and, of course, the capacity of feeler should be varying from person to person.

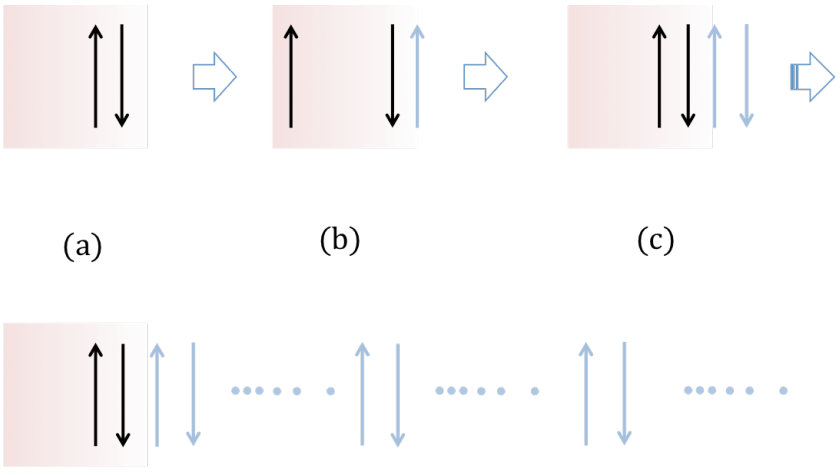


Fig. 5

Now, let's go back to the double-slit experiment with human consciousness (Dean Radin). According to the interaction mechanism as above, if the human consciousness is

focused on the slits in the experiment, the subtle-spin-string of vacuum particles can be reached up to the slits, which is initiated by the consciousness; subtle-spin-string waves are generated by the consciousness and interact with vacuum particles in the imaginary space corresponding to the slits or nearby; then, it disturbs photons passing through the slits, which should make a significant change of the interference pattern because the slit in the experiment is like a chokepoint in military strategy.

From time to time, we have heard of people who have special talents, so called psychic power (List of psychic abilities-Wiki) that has been regarded as pseudoscience in scientific consensus. For example, ESP -- extrasensory perception (Jeffrey Mishlove), such as intuition, telepathy, psychometry, clairaudience, clairvoyance, etc., is literally extra sensing ability not through the physical organs to get sensing information but with just mind process; thus, it is called paranormal since any explanation cannot be found in conventional scientific knowledge. Anyhow, if consciousness can interact with the outside physical body as above, the ESP should be acquired through the subtle-spin-string waves generated from ontological body even though the detail mechanism is still unknown.

Supposedly, the ontological body has an independent system to circulate subtle energy through the body as the blood circulation in the physical body, but it is complementary to the physical body as well. Naturally, with the breathing of physical body or life activities in general, the ontological body is producing subtle energy, managing it with physical body, and also circulating it through the body.

In oriental medicine and acupuncture, the subtle energy flowing through physical body is frequently mentioned; however, the subtle energy is flowing through the ontological body with which physical body is interacting. It has been known that the subtle energy flowing should be natural, smooth, and not blocked and that a proper physical exercise can help the subtle energy flowing in ontological body and a proper subtle energy flowing can help physical health too. It also has been known that conscious intention can manage subtle energy flowing through ontological body: for example, abdominal breathing[8] with conscious intention is a way to generate subtle energy, to maintain it with physical body, or to circulate it through the ontological body.

The subtle energy is supposed to be a form of subtle-spin-string because it is more stable in order than free individual vacuum particles in imaginary space; thus, it is produced by the ontological body through the interaction with vacuum particles, in which the subtle energy is not coming from outside ontological body.

Summary and Discussion

In the new paradigm of physics in which 4D complex space was proposed as a model of physical space, we can find explanations of how such weird phenomenon of quantum entanglement is possible, what is the subtle energy that is not supposed to be in the

[8] hypogastric breathing, embryonic breathing, etc.

scope of current natural science, and how human consciousness makes an interaction in physical phenomena; otherwise, we cannot find even a clue for those questions except saying things like "… that's not science.", "… it is not even wrong.", etc.

New type of physical interaction with subtle-spin-string wave is proposed to explain the phenomenon of quantum entanglement. Now, it is not spooky anymore and there is no spooky action at a distance either because the entanglement does not come from electromagnetic interaction. In other words, quantum entanglement is out of the scope in special relativity; thus, among entangled physical objects the speed of interaction through subtle-spin-string wave can be faster than the speed of light.

The soul is interpreted as ontological body that is the counterpart of physical body in imaginary space, which is an inviolable vacuum-particle-distribution formed together with the physical body. By the same token, the ontological body cannot exist by itself without the physical body. Besides, it is natural that ontological body should be affected by the environmental condition in imaginary space when it is formed. By the way, it is interesting that Chinese astrology uses just momentary time information of a person's birthday[9] to divine his/her destiny for whole life in which the destiny is periodic as in the motion of astronomical objects.

The ontological body and physical body interact together in harmony; however, through the mental process of physical body, the ontological body can affect on physical objects outside its own physical body or make communications with another ontological body, in which the interaction is made in a form of subtle-spin-string wave.

Especially, in oriental culture the concept of subtle energy has been used for a long time in many fields such as oriental medicine, acupuncture, religious meditations, performing practices for health or physical strength, etc. Since people couldn't find any scientific explanation for the existence of subtle energy, they simply have regarded it as something supernatural. However, the subtle energy is produced through the interaction of ontological body with vacuum particles in imaginary space and maintained by ontological body; if it is like a winding/ unwinding thread on a spinning reel, the thread corresponds to the subtle energy in a form of subtle-spin-string and the reel corresponds to the storage spot for subtle energy.

In fact, it is somewhat audacious and even drastic to get the interpretation of what the soul of human is and how human mind works with the soul on its physical body and outside world. However, with 4D complex space model of physical space the interpretation is based on phenomenological facts from scientific experimentations. Furthermore, we cannot simply ignore the general facts or knowledge in oriental medicine, acupuncture, meditations, etc. that has been acquired for a long time by practice and/or experience in real life; passed down from generation to generation; accumulated until now; hence, which is backed by statistics.

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[9] "Four Pillars of Destiny" – birth date, month, year, and time (hour) of a person: it has different names such as ba zi in China, saju in Korea, and syo-kan in Japan.

Nobody can set a limit clearly between science and pseudoscience except pushing the limit all the way as possible as we can. Once we can understand the fundamental nature of human being in physics, not only does natural science advance, but also the philosophy of human nature should be evolved, and inevitable changes in basic human values should be followed as well.

Once upon a time, our ancestors lived in this world that we are living now; yet, they still see the world through the eyes of us who have all the physical and ontological (or corporeal and spiritual) genetic information; as such, we will see the world through the eyes of our descendants who will live in the future.

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