

A Review of Confucian Philosophy Based on Jeong Yeok, 正易, the Book of Right Change: Its Comparison with Science

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Abstract

If one thing related to the universe, Nature or the humanity is really true, the truth discovered in science is supposed to be similarly true and valid in religion and philosophy as well as economy and political science and vice versa. There have been countless conflicts, arguments and even prosecutions and wars in the history of the humanity due to discrepancies in opinions and interpretations regarding the truth among religion, philosophy and science. For the ultimate purpose of seeking the truth, the author attempted in this study to find any bridge connecting among science, religion and philosophy, and especially compared the Confucian philosophy based on Jeong Yeok with other religions and science in various fields of the physical world and consciousness, including the relationship among self, mind and body, parallels between Confucian philosophy and quantum physics, the author's hypothesis of the Ultron-Logotron Theory, the Perturbational Complexity Index, the Integrated Information Theory and respiration of O₂-CO₂ cycle. Findings and conclusion are presented in this comparative study.

Keywords: Confucian Philosophy, Jeong Yeok, Christianity, Buddhism, Quantum Physics, Quantum Entanglement, Ultron-Logotron Theory, Integrated Information Theory, Theory of Everything, "Probacent" Model.

1. Introduction

If one thing related to the universe, Nature or the humanity is really true, the truth discovered in science is supposed to be similarly true and valid in religion and philosophy as well as economy and political science and vice versa. However, in the history of human societies and nations until present time, there have been countless conflicts, arguments and even prosecutions and wars due to discrepancies in opinions and interpretations regarding the truth among religion, philosophy and science. In this study, the author attempted to find any bridge connecting among science, religion and philosophy, and especially compared Confucian philosophy with other religions and science in various fields of the physical world and consciousness for the ultimate purpose of seeking the truth. This study involves three religions, Buddhism, Confucianism and Christianity that the author has personally and primarily studied in his life-long research.

2. Confucian Philosophy vs. Science and Religion

2.1. The Science of Self, Mind and Body

A scientific relationship between mind and matter, self's consciousness and quantum physics is still not clearly known in science because of lack of concrete human data that would enable us to objectively explain them (Penrose, Hameroff & Kak, 2011; Hawking, 2001; Bohm, 2006; Gusnard, 2009; Hands, 2015).

Consequently, experimental and theoretical physicists, neuroscientists, philosophers, psychologists, psychiatrists and medical scientists have been investigating to find experimental and/or objective proofs for the relationship between mind and matter, consciousness and quantum physics in the mind-brain system.

The self is the agent being the source of consciousness, and responsible for the thoughts of mind and actions of an individual, enduring through time.

The author had unusual personal experiences that difficult mathematical problems were not solved in his manifest consciousness but could be unexpectedly clearly solved in his subconscious mind (Chung 2009). The author published the solution of the math problem in the International Journal of Biomedical Computing (Chung 1995).

The math problem was regarding a general mathematical model of "probacent"-probability equation that expresses a relationship among intensity of stimulus, duration of exposure and occurrence of response in biological phenomena (Chung 1960; 2007, 2013a). The mathematical model might possibly calculate the probability survival in humans and other living organisms exposed to any harmful or adverse circumstances or conditions, overcoming the risk (Chung, 2017b). The author proposed a theory that there are in human individuals two selves,

one, the inner self (the true self, spirit) and one, the physical self (the false self) that coexist in one individual person

(Chung 2009; 2012). Kelly McGonigal (2012) describes that one individual has two minds or two selves, naming “I WILL” and “I WANT” selves. More recent researches in neuroscience using functional magnetic resonance imaging (fMRI) discovered that the prefrontal cortex (PFC) of the human brain performs cognitive control, emotion regulation, moral self-control, control of impulsive behavior and guiding brain activities with future goals and rules (Miller and Cohen, 2001; Greene et al. 2001; Ochsner et al. 2002; Schwartz, 1999, Joseph, 2001, Carter, 2014).

The author (Chung, 2012) published a theory regarding the scientific relationship among self, mind and body based on the above described findings that a human individual, the self is composed of the inner true self (spirit) and the physical false self that would fade and disappear at death of the body. The inner self has free will, will power, cognition, reason, morality, conscience, creative power, mathematical computation, future plans and high goals, behavior control, emotion regulation, and memory retrieval, supervising the physical self/body that senses through sensory organ systems and responds to the external world. The inner true self is the independent and indestructible spirit in an individual. The physical self is dependent upon and associated with the brain and body, and is impulsive, behaving for pleasure-desire and instinct for living (Joseph, 2011). The inner self controls the physical self/body by interacting with the prefrontal cortex of human brain (Rilling and Insel, 1999). The physical self has consciousness associated with the brain and conscious stimuli coming from the external world. However, it lacks mind, and has no free will nor free choice. In contrast, the inner self has perception and cognition of stimuli coming from the external world and conscious mind with free will and free choice. Animals have consciousness but lack mind (Nani et al, 2011; Chung, 2012, 2014a, 2014b). Human actions are done by conscious minds occupied by the physical self and /or the inner self. It seems to the author that freedom of will is indispensable to self-control by the inner self. The physical self/body seems to carry out bodily reactions determined by physical and chemical laws and so impulsive in its behavior; the physical self seems to have no free will from the view point of scientific monism (determinism) so that states of mind are produced by material processes in the brain.

Darwin’s evolutionism (Darwin, 1874) seems to be applicable to the realm of the physical self/body and the creationism to the realm of the inner self (soul). The perspective of the inner versus physical self seems to provide a possible resolution to the evolutionism and creationism regarding the human history (Chung, 2010, 2015a).

2. 2. Parallels between Confucian Philosophy and Quantum Physics

Stable states in matter suggested in Confucian philosophy are as follows: (1) Integer-3-suggested stable states of basic elementary particles are baryons of six flavors composed of three quarks, including two baryons of proton and neutron. Protons and neutrons are composed of three quarks and very stable so that they are constituents of nuclei of atoms and molecules. Natural decay of these two baryons has not been observed (Hawking, 1996). Three quarks in baryons are analogous to trigrams consisting of three yin- and/or yang-ultrons in Confucian philosophy (**Figure 1**). All possible combinations of three are eight. All possible trigrams composed of three yin- and/or yang-ultrons are eight trigrams as shown in **Figure 1** in Confucian philosophy. It seems to the author to suggest that existence of eight flavors of quarks, and that two more undiscovered flavors, “light” and “dark” (the author’s naming) besides the other six known flavors, up, down, strange, charm, top and bottom, probably one positively and one negatively charged, of undetermined mass, and probably extremely short-lived or virtual quarks like W and Z bosons (Close, 2011). (2) Integer-3-suggested amino acids: each of the known 20 amino acids is determined by a series of “triplet code” of three messenger RNA (mRNA) as a copy of chromosomal DNA that specifies its sequence of amino acid of protein (Smith, 2008). The triplet code is analogous to trigrams. (3) The integer-64-suggested chromosomal genetic code consisting of 64 codons that determine production of known amino acids, specifying their sequence by mediation of mRNA in the ribosome as a copy of DNA in the genetic code, and synthesizing all proteins in organic chemistry. There are only four nucleotides (bases) in mRNA: adenine (A), uracil (U), guanine (G) and cytosine (C) in mRNA (Smith, 2008, Carey, 1998; Wikipedia, 2014). The 64 codons in the genetic code seem to be analogous to the sixty-four hexagrams. The four nucleotides, base, A, U, G and C in mRNA are analogous to the Four Symbols in Confucian philosophy. All possible three

combinations of four nucleotides (A, U, G and C) are 64 ($4^3 = 64$). (4) The sexagesimal cycle of sixty seconds making one minute, sixty minutes one hour, thirty days (60/2) a month, twelve months (60/5) a year and 360 days (60x6) a year (the author's note: in the later heaven), implying that the **number** 60 in cycles seems to be analogous to the cyclic sixty *kap ja*, the sexagenary cycle in Confucian philosophy. (5) Computer science is based on a binary system of two digit values, 0 and 1. Any integer numbers can be represented by 2^n : With two bits (2^2), four numbers of messages can be expressed: 00, 01, 10 and 11; with three bits (2^3), likewise eight numbers; with six bits (2^6), 64 numbers of messages. The yin- and yang-ultrons system seems to be analogous to the binary system of 0 and 1 (2^n); with three bits corresponding to the Eight Trigrams, with six bits to the Sixty-Four Hexagrams. (6) Serum cholesterol levels in adults annually increase from young age until 60 years of age, then, the level begins to gradually decrease in man (Chung, 1990, 1992), suggesting 120 years of human life span (60x2). The author postulates that mathematical equations and principles in quantum physics such as Schrödinger's wave function, Dirac equation, Heisenberg's uncertainty principle, Planck's formula, Pauli's exclusion principle etc. are applicable to the ultron-logotron theory although Confucian philosophy lacks mathematical descriptions. However, many macroscopic phenomena such as gender of male and female, day and night, sleep and wakefulness etc. are analogous to the Two Forms, Yin and Yang; microscopic subatomic phenomena such as extremely stable baryons, protons and neutrons that produce atoms and molecules as nuclear components of all things of matter of the cosmos are composed of three quarks, appearing analogous to stable trigrams; the genetic code in living cells that consists of 64 codons is analogous to stable 64 hexagrams; the sexagesimal cycle of times, days, months, and years seem to be analogous to the sexagenary cycle of the sixty *kan chi*; and the binary system of computer science seems to be analogous to the yin- and yang-ultrons in Confucian philosophy; serum cholesterol levels in human adults gradually increase until the age of 60 years, then, begin to decrease. All these phenomena appear to suggest validity of Confucian philosophy. Intuition, enlightenment, revelation and theoretical intuitive reasoning in philosophy and religion seem to be so important in discovering truth like theoretical physics being important in quantum physics. In addition, on the basis of results of the study on relationships between the Theory of the Five Elements, 五行, of the Confucian philosophy and science of cosmology, evolution, embryology, and traditional medicine, the following conclusion is proposed (Chung, 2015a, 2016):

1. The principle of the Five Elements seems to be applicable to the cosmogenesis, geogenesis, biogenesis and anthropogenesis in cosmology and evolution of humanity.
2. The principle of the Five Elements seems to be likely applicable to the visceral organogenesis in human embryology in relation to the development of internal organs, heart, stomach, lungs, kidneys and liver.
3. Primo Vascular System (PVS) (Bonghan Circulatory System) (Kim, 1963; Soh, 2004, 2009) is a newly-discovered, third circulatory system that corresponds to classical acupuncture meridians. The internal organs interconnected by a web-like network of PVS, mutually support, regulate, coordinate, control, and restore, suggesting that the principle of the Theory of the Five Elements seems to be applicable to Primo Vascular System. PVS is inferred to have a potentially important significance for health, and prevention and treatment of disease (Soh, 2015).
4. The principle of the Five Elements seems to be valid in medicine as well as alternative medicine.
5. The theory of "Five Elements" seems to be a scientific principle of creation in the universe (a law of nature) in creating all things and giving life and health to humanity.

2. 3. Quantum Physics

All particles of matter are in essence composed of energy and also can be created from energy. Matter and energy are interchangeable. According to quantum mechanics (Planck, Einstein, Bohr, de Broglie, Heisenberg, Pauli;

Scrödinger, Dirac & Feynman) that describes the physical world on very small atomic and subatomic scales in terms of the laws of quantum physics, a physical change in energy does not occur smoothly and continuously but in discrete steps of minimum unit amount of energy, called quantum. All particles exist in special quantum states. In string theory of quantum physics, the different types of observed elementary particles are from the different quantum

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states, string dynamics of strings (Chung, 2015b).

Roger Penrose and Stuart Hameroff (2011) proposed the theory of the orchestrated objective reduction model (Orch-OR) with microtubule quantum computations within neurons to explain interactions between consciousness and quantum mechanics (quantum wave function) in the mind-brain system (Stapp, 2013, Vimal, 2010).

In John von Neumann's theory of emergent dualism, some conscious agent intervenes upon the state of the brain and does conscious choice, controlling the mind-body connection in the brain (Stapp, 1999, 2013, Sorli, 2014). The von Neumann and Heisenberg orthodox quantum theory supports the philosophical dualism in quantum physics. The agent seems to be the inner self of human being (Chung, 2012, 2014a).

2. 3. 1. Planck Constant

Planck-Einstein relation is expressed by Equation (1) $E = hf$ (1)

where E is quantum energy, f is a wave frequency, and h is Planck constant ($h=6.626070040(81) \times 10^{-34}$ J·s).

2. 3. 2. Reduced Planck Constant

The reduced Planck constant, \hbar , is Planck constant divided by 2π and expressed by Equation (2).

$$E = \hbar \cdot \omega \quad (2)$$

where E is quantum energy, ω is an angular frequency, and \hbar is the reduced Planck constant or Dirac constant ($\hbar=1.054571800(13) \times 10^{-34}$ J·s).

2. 3. 3. Schrödinger Equation

In quantum mechanics, Schrödinger equation (general) is a partial differential equation that describes how the quantum system changes with time. ψ in the equation is a wave function (x, t) of the particle (Griffiths, 2005).

$$i\hbar \frac{\partial \psi}{\partial t} = \frac{\hbar^2}{2m} \frac{\partial^2 \psi}{\partial x^2} + V\psi \quad (3)$$

2. 3. 4. Quantum Entanglement

Alain Aspect and his collaborators in 1980s (Gisin, 2014), Nicholas Gisin in 1997 (Gisin, 2014), and Andrew Watson (1997) found in their experiments that the speed of *transmission* of mutual effect between two entangled particles (e. g., electrons and photons) was faster than the speed of light (Laszlo, 2007; Watson, 1997; Aczel, 2003; Gisin, 2014). The instantaneous influence between two electron twins violates the speed of light according to Einstein's theory of relativity. Entanglement phenomena are experimentally observed (Gisin, 2014; Aczel, 2003; Penrose, Hameroff & Kak, 2011; Laszlo, 2007; Yin et al, 2017). Entanglement seems to be explainable by a process of instantaneous influence between two entangled virtual quantum logotrons in consciousness as one of triple properties of the two particles with same quantum states. A change in one particle immediately causes a change in the other particle in nonlocal faster than light communication (Yin et al, 2017; Chung, 2014a). Confucian philosophy provides a bridge connecting science and religion. Science, Confucian philosophy and religion unite to find the truth.

3. C onfucian Philosophy and the Ultron-Logotron Theory

3. 1. The Ultron-Logotron Theory

Interactions between self and consciousness: mind and matter are not clearly understood in science. There seem to be, to my knowledge, no articles in the literature that clearly explain the relationship between self and consciousness: mind and matter. In the author's study, the relationship is investigated, and an attempt is made to explain it.

(1) Findings and discoveries in modern science, quantum physics, string theory, especially entanglement in the arena of mind and matter are reviewed (Penrose, Hameroff & Kak, 2011; Griffiths, 2005; Stapp, 1999; 2011; 2013; Tong, 2009; Ochsner et al., 2002; Schwartz et al., 2005; Mitchell & Staretz, 2011; Close,

2011; Laszlo, 2007, Capra, 1999; Hands, 2015).

(2) Philosophical teachings of major religions, especially the Eastern Confucian philosophy are reviewed and compared with quantum physics. Confucian philosophy is described in the I Ching, the Book of Changes

(William, 1967) and Jeong Yeok, the Book of Right Change (Kim, 1885; Yi, 1992; Chung, 2009, 2010).

(3) Review of some of relevant personal experiences of precognitive dreams of the author is included in the study (Chung, 2014a, 2017a). Comparison of characteristic aspects of the author's proposed theory of ultron-logotron and quantum physics is done. Interpretation, theoretical reasoning and imagination are carried out to reasonably explain observed findings, precognitive dreams, entanglement, and proposed theories regarding the scientific relationship between self and consciousness: mind and matter (Chung, 2014a, 2015b).

3. 1.1. “Ultron”, 極子

In Confucian philosophy, all things are created by power of the Creator, the Non-Ultimate, the Great Ultimate. The Great Ultimate created Two Forms, 兩儀, Yin and Yang, the two primary fundamental elementary particles that are represented by a solid line (—) and a broken line (- -). The author names Yin and Yang “yin-ultron”, 陰極子(U^-) and “yang-ultron”, 陽極子(U^+), respectively. All things of the universe are generated by movements of “ultrons”, 極子 (Capra, 1999; Chung, 2009, 2014a, 2014b). **Table 1** shows comparison of characteristic aspects of the ultron-logotron theory and quantum physics. Basic elementary particles, ultrons, 極子 would be analogous to strings of string theory. The ultrons are the building blocks of matter of the physical world. The yang- and yin-ultrons are positively and negatively charged, respectively. Click here to view (ctrl+click): [F:\Table 1 \(Ultron-Logotron Theory and Quantum Physics\).xlsx](F:\Table 1 (Ultron-Logotron Theory and Quantum Physics).xlsx)

Figure 1. Diagram of the Jeong Yeok Eight Trigrams. The upper diagram is the original diagram and the lower diagram is a translated diagram (see text). Click here to view (ctrl+click) [F:\Figure 1 \(Eight Trigram\).pdf](F:\Figure 1 (Eight Trigram).pdf)

If external force comes to a region of space, the regional space will be excited and pulsate, and then a hidden virtual pair of particle-antiparticle emerges in it, causing material actualization of real particle and antiparticle, creating matter. The author infers that when a matter and antimatter collide and disappear, becoming virtual matter and antimatter, consciousness in the excited state superpositioning to each of the pair will disappear and become a virtual consciousness in the ground state. If the above is true, then it would imply that particles of matter would have a triple property of particle, wave and consciousness (Bohm, 2006). If a mental force is presumably created by the self, it will strike the regional space that could excite virtual consciousness in the ground state to become consciousness in the excited state, creating conscious mind (Chung, 2009, 2014a). Mind and matter are interrelated and interconnected (Capra, 1999; Chung, 2009, 2012, 2014a, 2015b).

3. 1. 2. “Logotron”, 言子

Table 2 shows comparison of characteristic aspects of “ultrons” and “logotrons”. Click here to view (ctrl+click): [F:\Table 2 \(Ultron and Logotron\).xlsx](F:\Table 2 (Ultron and Logotron).xlsx) The author names “information” that is described by David Bohm in his quantum theory “logotron”, 言子. Logotrons in the study represent contents of consciousness of mind in humans such as thoughts, feelings, colors, sounds, concepts of all things of the universe that may be expressed by words (Greek: logos). All particles, electrons, atoms and molecules are in facts waves (Hawking, 1996; Laszlo, 2007). Quarks and electrons are currently regarded as basic elementary particles. All physical processes in the physical world are based on particles and forces (Hawking, 1996). The force-carrying particle, graviton and photon of bosons are virtual particles. The deeper structure of quarks and electrons is not experimentally observed. A wave-particle duality of electron proved by Thomas Young and Richard Feynman's double-slit experiment has not been explained (Nichol, 2006). According to David Bohm (2006), this phenomenon suggests that an electron seems to have consciousness, interacting with the environmental background field of space. This is a transformation for a wave to a particle, and vice versa like an organism than interacting parts of an inanimate machine (Nichol, 2006). Matter, energy and mind are different aspects of the unknown, unbroken flowing movement of totality, the wholeness. Consciousness may be the essential nature of the universe and a more subtle form than matter of the universe (Bohm, 2006). The totality, the wholeness is nonlocal and timeless; it seems to represent the Creator, the Cosmic Consciousness and his activities. Contents of consciousness are called by Bohm “information”. The author names “information” “logotron”, 言子 in this study. The quantum theory of David Bohm seems to be analogous to the teachings in Buddhism that all things of the universe are created by mind, and the universe is in a dust and aeon is in a moment; all is in one; one is in all. Logotrons are virtual particles, massless and have probably a triple property of particle, wave and consciousness, and have possessing inherent force, and having a property of spreading in space as well as remaining at an original, regional point in the holographic space. The wave propagation, if emitted from the logotron is postulated instantaneous in the non-local

holographic space.

Figure 2. Diagram of the Five Elements. Arrows indicate interaction between each of the five elements (organs): fire (heart), earth (stomach), metal (lungs), water (kidneys), and wood (liver). The outer clockwise arrows show a cycle of support. The inner arrows show regulation of target organs by corresponding organs. The five elements (organs) mutually interact (see text). Click here to view (ctrl+click): [F:\Figure 2 \(Five Elements\) pdf .pdf](F:\Figure 2 (Five Elements) pdf .pdf)

3. 1. 3. Interactions between Ultron and Logotron

Figure 3 illustrates Feynman's space-time diagram of interactions between ultron and logotron. Mental-force-carrying "mentalon" exchanges between ultron and logotron, creating resonance-like effects, and perhaps exchanges between logotrons as graviton exchanges between ultrons of matter. The conscious mind of the inner self of an individual person has power to generate mentalon as well as logotrons with free will and free choice. Mentalon is virtual force like graviton; it has two states: the ground and excited states. The author infers that the quantum states result from the incoming neural stimulus in the neurons of human brain, then OR occurs (the quantum wave function collapses) when the physical self and the inner self have conscious perception through quantum computations in the microtubule automata (Penrose & Hameroff, 2011). In the quantum state of the prefrontal cortex of human brain, the quantum wave function collapses when the inner self who is an observer and does conscious cognitive action with free will and free choice, and with attention, efforts, thoughts and planning in the inner self's mind; then logotrons in the excited state are generated from the ground state, generating conscious cognition in the inner self's consciousness (**Fig. 3a**) ((Stapp, 1999; 2013; Kafatos, Tanzi & Chopra, 2011; Schwartz et al., 2005; Ochsner et al., 2002). The self (the true inner self) has power in the conscious mind to choose logotron in the excited state from its ground state, changing the quantum state of the logotron with free will, free choice, attention and intention, guiding actions (Stapp, 1999; Chung, 2012). Ultrons in the excited state are generated by mentalon originated from the inner self's conscious mind (**Fig. 3b**) (Schwartz et al. 2005; Ochsner et al. 2002). **Figure 3b** illustrates processes at the interface between mind/consciousness and brain. Existence of mentalons can be empirically recognized by their effects in the external world resulting from interactions between mind and matter in the PFC of human brain. In this matter-mind process, mentalons participate in generation of conscious mind (**Fig. 3a**) and vice versa (**Fig. 3b**). M line shows its origin on the left side with an apparent slightly upward right direction but is actually horizontal and parallel to the space axis, indicating instantaneous speed in space-time (**Fig. 3a** and **3b**) (Penrose, Hameroff & Kak, 2011). **Figure 3.** Feynman's space-time diagram of interactions between "ultron" and "logotron". (a) A – Real ultron in the excited state in the neuron of the prefrontal cortex caused by incoming stimulus. C – Real ultron in the ground state after collapse of the quantum wave function when the self controls (observes). B – Virtual logotron in the ground state in the neuron of the prefrontal cortex. D – Virtual logotron in the excited state when the self observes and cognizes. M – mental-force-carrying "mentalon" exchanging between ultron and logotron. (b) A – Virtual logotron in the excited state in the self's conscious mind in the neuron of the prefrontal cortex. C – Virtual logotron in the ground state after exchanging mentalon between the logotron and ultron in the neuron. B – Real ultron in the ground state in the neuron of the prefrontal cortex. D – Real ultron in the excited state in the neuron after exchanging mentalon between logotron and ultron. M – mentalon (see text). Click here to view (ctrl+click):

[F:\Figure 3 \(Feynman' Diagram\) A.docx](F:\Figure 3 (Feynman' Diagram) A.docx)

The author reviewed modern quantum physics and the Eastern Confucian philosophy. On the basis of the review and authors' personal experiences of valid precognitive dreams, the following theory is proposed (Chung, 2014a):

- (1) The "ultrons" are the building blocks of matter of the universe. The "logotrons" are the building blocks of consciousness of human mind. The "logotrons" are virtual particles. The "ultrons" and "logotrons" interact each other with mental-force-carrying "mentalon" in neurons of human brain. Mentalon exchanges between logotron and logotron or logotron of self's consciousness and logotron of consciousness superpositioned to particles of matter.
- (2) Entanglement could be explained by mental-force-carrying mentalon that exchanges between two entangled virtual quantum logotrons in particles or logotron in conscious mind and logotron in particles of matter at quantum levels.
- (3) There seem to be parallels between the "ultron"- "logotron" theory and quantum physics from the ontological perspectives, and a close agreement between the "ultron"- "logotron" theory and the Penrose-Hameroff's Orch

–OR theory or the von Neumann-Heisenberg’s orthodox quantum mechanics that seem to be correct descriptions and applicable to both the inner self and the physical self/body of humanity, respectively on the basis of the human individual self composed of two selves, one, the inner self and one, the physical self.

The physical world, the consciousness world and the spiritual world of our universe coexist in superposition and represent the macro-cosmos of the Creator God. The super positioned worlds, the macro-cosmos of the Creator of our universe, the Self, seem to be analogous to the physical body, the conscious mind and the inner spiritual self in superposition that represent the micro-cosmos of the co-creator, the self of the humanity. The spiritual world is invisible but real. The spiritual world and the human world would unite in the coming kingdom of heaven on Earth where goodness will be boundless according to Jeong Yeok, the Book of Right Change of Confucius philosophy as the Bible predicts it. Virtual particles are in essence virtual logotrons (information) that are the archetype of real particles. Annihilation and creation of ultrons (matter) are secondary to action of underlying virtual logotrons in the Cosmic Consciousness (mind). This seems to suggest that the ultron-logotron theory possibly leads to the Theory of Everything (ToE). The ultron-logotron-associated mental force, mentalon, is postulated to act on space in four different, undetermined ways, resulting in and generating four physical forces, gravitational force, electromagnetic force, and strong and weak nuclear forces. Cao, Cao & Qiang (2015) proposed a theory of everything (ToE). It describes twisted space caused by stretching and contraction as modeled by the Torque Grid as the fundamental unit of universe, generates four physical forces. The four physical forces could be similarly four different manifestations of the ultron-logotron-associated mentalon that would result in four differently distorted or shaped space of undetermined patterns.

Kak (2009) presented in his article the case of the existence of a separate principle of consciousness to complement physical law. Information of consciousness of the self, the observer, in cognition described by Kak seems to be analogous to logotrons of the ultron-logotron theory, and there appears to be a virtual agreement between the Kak’s propositions and the author’s hypothesis of the ultron-logotron theory.

On the basis of modern quantum physics and the ultron-logotron theory, the possible deeper structure of leptons and quarks is proposed (Chung, 2015b). A neutrino is composed of an equal number of yin-ultron and yang-ultron, and is postulated to be composed of one yin-ultron and one yang-ultron. Yin- and yang-ultron mass is 0.16 eV. Electric charge of yin-ultron is $-1.602176565 \times 10^{-19} \text{ C} / (3.19 \times 10^6 - 2k)$; that of yang-ultron is $1.602176565 \times 10^{-19} \text{ C} / (3.19 \times 10^6 - 2k)$. C denotes coulomb and k a number of neutrinos in a lepton. An electron is composed of two parts: one neutral part consisting of yin- and yang-ultrons and one electrical part of negative charge consisting of yin-ultrons.

Lehman & Persinger (2015, Teilhard de Chardin, 1959) described in their recent article that the author integrated aspects of quantum physics with Confucian philosophy (Chung, 2015b).

It has been recently discovered that electrons split into two separate parts: a spinon carrying its spin (a neutral magnet behaving as a tiny compass needle) and an orbiton carrying its electron motion (negative electrical charge) around the nucleus (Palus, 2017; Piazza, 2014; Paul Scherrer Institute, 2012). The spinon and orbiton seem to correspond to the neutral part of yin- and yang-ultrons composite and the negative part of yin-ultron predicted in the ultron-logotron theory, respectively (Chung, 2015b). **Equations (4)** and **(4UL)** express the above findings and prediction. Yin- and yang-ultrons in a spinon are postulated to line up in a tiny series magnet arrangement with a south and a north pole in one direction that can generate spin (Chung, 2015, 2017a; Shee, 2107).

This substructure of electron suggests that a quark in a proton is likewise composed of two separable particles, a magnetic particle of yin- and yang-ultrons composite and an electrical particle of yin- or yang-ultrons, further that a proton made of three quarks would have its spin potentially from the quark spins and its electrical charge of the sum of the quark electrical charges. David Gross, Nobel Laureate in Physics, describes in his Theory of Everything that "the electron is not a fundamental, point-like particle. It must have structure to provide its dipole magnetic field. There must be orbital motion of charges within the electron...". "The most collapsed form of matter is the neutrino, which has a vanishingly small mass. However, the neutrino must contain all of the charges required to form two particles- a particle and its anti-particle (a weak electric dipole)." "The same model applies to the proton and the neutron. This model satisfies Einstein’s view that there must be some lower level of structure in matter to cause resonant quantum effects" (Gross, 2006). There seems to be an agreement among the recent findings in electrons,

Medical scientists recently investigated presence and absence of consciousness of patients in coma and unresponsiveness caused by brain injury or anesthetics, using noninvasive transcranial magnetic stimulation (TMS) and electroencephalography (EEG). They found a marker of consciousness, “perturbational complexity index (PCI)”. PCI value > 0.31 indicates presence of consciousness and its value less than 0.31 indicates absence of consciousness (Tononi, 2012). It is inferred that PCI represents the quantum status of neurons, the spatiotemporal structure of the brain. PCI values above the threshold of 0.31 mean the normalized state of multi-regional neurons to arouse consciousness. Perception is postulated to be associated with the aroused consciousness of the physical self that is inherent as one of triple properties of ultrons in the brain substance (see Table 1 and 2). “Integrated information” of Tononi (2012) seems to correspond to cognition of the inner true self independent of the mind-brain system. A specific logotron (word, thought etc.) is postulated to identically reflect and match a specific neuronal complex, unknown spatiotemporal structure, possibly like a tree-pattern of ultrons of substrate of neurons in multiregional locations of the brain (the corticothalamic system). The specific ultron complex versus the logotron complex correspond to the cause-effect information of the “physical substrate of consciousness (PSC)” of the “Integrated Information Theory” (Tononi, 2012, 2017; Tononi and Koch, 2011; Petersen, 1988). The root of the geometric tree-pattern is inferred to be the prefrontal cortex (PFC). The “Theory of Consciousness” of PCI, the “Integrated Information Theory (IIT)” and the ultron-logotron theory (ULT) are inferred to be mutually supportive and agreeable.

5. Confucian Philosophy vs. Christianity and Buddhism

The Holy Spirit in Christianity, the Buddha nature in Buddhism and the Great Ultimate in Confucianism are thought to be the divinity, and the Creator God. The kingdom of heaven in Christianity corresponds to the Dragon and Flower Age of Buddhism and Confucianism, and the world of the Supreme Lord in Confucianism. Jesus taught: love your neighbor as yourself. Buddha taught: when you see yourself in others, it is impossible to hurt anyone else. Confucius taught love and compassion (Hooper, 2013). Confucian teachings include four principles (Chung, 2013b, 2013c):

1. To cultivate one’s self first,
2. To well manage one’s own family second,
3. To ideally govern his/her country if elected by people to do,
4. To contribute to peace and harmony of the world finally.

The words of Jesus Christ in the Bible, the words of Buddha in the Buddhist scripture, and the words in Jeong Yeok (Confucianism) as well as teachings of other major world religions represent the truth and the Word of the Creator God. Jesus said- “I am the way and the truth and the life” (John 14:6). Kim Il Bu wrote in Jeong Yeok that “Il Bu says what heaven and earth say” (Confucianism). Buddha said, “Universal mind is like a vast ocean. On its surface, waves disturb its tranquility, but beneath, all is serene and unmoved. Having no personality, all things exist in it (Hooper, 2013). All religions are essentially saying the same teachings, especially love and justice. There is a remarkable and compelling agreement among Christianity, Buddhism and Confucianism. Confucian philosophy provides a bridge connecting Christianity and Buddhism. Christianity, Buddhism and Confucianism unite to reveal the truth, the Word of the Creator God. Findings in modern science and religions lead to the conclusion that the physical world and the spiritual world are superimposed and coexist.

6. Jesus Christ and Maitreya Buddha

If one thing related to the universe, Nature or the humanity is really true in science, that would be also true in philosophy or religion and vice versa. The Creator God is called by different names of God, the Lord or Jehovah (Judaism), God, Father or Heavenly Father (Christianity), Allah (Islam), Hwa Ong, Hwa Moo Sang Jye or the Supreme Lord (Confucianism), Brahman (Hinduism) and Brahmā (Buddhism, Dhammapada: 230). It is truly suggested that the Holy Spirit (Christianity), the Buddha-Nature (Buddhism) and the Great Ultimate (Confucianism) are one and the same divinity and the Creator God, and that the kingdom of God (Christianity), the world of the Supreme Lord (Confucianism) and the Dragon Flower Age (Buddhism) represent the same kingdom of heaven to come as the Creator’s plan, and further that Jesus Christ (Christianity) who foretold his return to the kingdom of heaven, and Maitreya Buddha (Buddhism and Confucianism) whom Gautama Buddha prophesied as the coming future Buddha in the Dragon Flower Age are one and the same Great Teacher and Savior of the humanity who will

come as the Supreme Son to the kingdom of the heaven of the Creator God. At the age of 20s, the author had a special experience at Mount Kyeryong in Korea where Kim Hang, the author of Jeong Yeok, the Book of Right Change, studied the Confucian scripture and ancient Chinese classic books. He achieved enlightenment after eighteen-years of hard study and meditation at the age of fifty-four years in 1879. Scores of disciples of the late Kim Hang studied Jeong Yeok and did meditation at the residence of the owner, the late Cheol Hwa Song who was one of the disciples. Song was also an extraordinary, great medium.

One of my life-long friends, Dr. Chong Chul Yook, a nuclear physicist and the late Dr. Jeong Ho Yi, Professor of philosophy and the leading scholar in I Ching and Jeong Yeok in Korea were among the disciples. When Song entered his trance and began to speak, we, disciples, silently listened to him with overwhelming awe, wonder, joy and faith. We realized who was speaking from the Other Side because they identified themselves by their names: Cheonjo Sang Jye (the Creator God), Sucheon Sang Jye, Confucius, Kim Il Bu (Kim Hang) and Chung Po'eun (Chung Mong Ju) appeared separately and delivered lectures, giving wonderful teachings in religion, philosophy, morality and most emphatically love and compassion (Chung, 2009, 2014). Sucheon Sang Jye is another name of Jesus Christ (Yi, 2017) and Maitreya Buddha (the author's note: the same Great Teacher and the Savior of the humanity as above mentioned).

7. The Science of Miracles in Religion

It is said in modern science that trillions of neutrinos are flying through every inch of a human body each second (Moskowitz, 2017). This finding suggests that the space is filled with unimaginably enormous number of virtual logotrons and ultrons. Transmission of logotrons is instant. A vast space could be within a pin-point. The aeon of time could be in a moment. The universe is nonlocal and timeless at the quantum levels. The physical world, the Cosmic Consciousness, and the spiritual world are superimposed and coexist. Virtual logotrons of information in conscious mind are postulated to be the archetypes of virtual ultrons, creating real ultrons complexes and materialization. If the self of human being creates logotrons in his conscious mind that would unite with the powerful, almighty Cosmic Consciousness (the Self, the Creator God, the Holy Spirit), the ultron complex corresponding to the logotron complex would be instantly created in the real physical world. Jesus said- "If you abide in me, and my words abide in you, you shall ask what you will, and it shall be done unto you" (John 15:7; 14:12, 13). "Heaven and earth will pass away, but my words will never pass away" (Matthew 24:35, Mark 13:31). Miracles in religions seem to be explainable with the ultron-logotron theory and quantum entanglement as above described. The ultron-logotron theory seems to possibly lead to the Theory of Everything (ToE).

8. Respiration of O₂ – CO₂ Cycle

Respiration in humans is a process involving production of energy for life with intake of oxygen (O₂) and expel of carbon dioxide (CO₂) from oxidation of organic substances (carbon C compounds). Oxygen O₂ represents energy, light and life, and is further inferred to reflect spiritually the Self (the Creator God, the Holy Spirit), and CO₂ is similarly a symbol of waste, darkness and the non-self, the physical self/ body accompanied by the inner/super self of an individual in the inspiration-expiration cycle during a life span from birth to death if viewed from a physical and metaphysical standpoint. Respiratory cycles seem to be comparable to waves at the ocean shore; the ocean corresponds to the Self, the Creator God, the Holy Spirit; the land is the physical body of humans. Winds of human minds and actions in societies (conscious mind, information, words, logotrons) cause bubbles on the ocean surface and at the shore. Energy, light and life, and simultaneously the Self of the Creator, the Holy Spirit with love, wisdom and power enters each of our selves in inspiration of breath, and wastes of fears, anger, greed, hatred, ego, selfishness and consciousness of the body (C) could be expelled in expiration, and at the same time, the inner/super self of the individual can thank, rejoice, pray and service others in love and justice when viewed from the religious standpoint. The Self (the Holy Spirit) continuously enters as breath (the symbol of O₂), gives life to our physical bodies, and purifies our bodies by expelling wastes, and fills our selves with the Holy Spirit and leaves the individual humans (O₂ in CO₂) as the ocean water comes and goes like waves at the shore. Saint Paul says in his first letter to the Corinthians, "Do you not know that your body is the temple of the Holy Spirit which is in you, which you have of God, and you are not your own?" (I Corinthians 6:19). Jesus said, "I have come into the world as a light, so that no one who believes in me should stay in the darkness (John 12:46). "Again Jesus said, "Peace be with you! As the Father has sent me, I am sending you. And with that he breathed on them and said, "Receive the Holy Spirit" (John 20:21-22). The O₂ – CO₂ cycle in respiration seems to suggest a philosophical and religious implication of the self

and the non-self.

9. Conclusion

Findings and discoveries in modern quantum physics, neuroscience and medical sciences as well as major religions and especially Confucian philosophy are reviewed in this study. The following hypothesis on the basis of Confucian philosophy, 正易, the Book of Right Change, and quantum physics is proposed.

- 1) Confucian philosophy provides a bridge connecting science and religions. Science, philosophy and religion unite to discover the truth in the universe.
- 2) The author's ultron-logotron theory strongly suggests that leptons are composed of a neutral, magnetic particle and an electrical, negative or positive particle in their substructure corresponding to yin- and yang-ultron composite and yin- or yang-ultron composite, respectively, and that quarks are likewise composed of a neutral, magnetic particle and an electrical, negative or positive particle corresponding to yin- and yang-ultron composite, and yin- or yang-ultron composite, respectively.
- 3) Perturbational complexity index (PCI), the integrated information theory (IIT) of Tononi and the ultron-logotron theory (ULT) seem to be mutually agreeable and supportive.
- 4) Confucian philosophy provides a bridge connecting Christianity and Buddhism. Christianity, Buddhism and Confucianism unite to reveal the truth, the Word of the Creator God.
- 5) Christianity, Buddhism and Confucianism truly suggest that Jesus Christ and Maitreya Buddha are one and the same Great Teacher and Savior of the humanity who will come as the Supreme Son to the kingdom of heaven of the Creator God's plan.
- 6) Miracles in religions seem to be explainable and understandable on the basis of the ultron-logotron theory and quantum entanglement.
- 7) The O₂ – CO₂ cycle in respiration seems to suggest a philosophical and religious implication of the self and non-self.

Further research would be needed for verification of the hypothesis of the above described Confucian-philosophy-related postulations.

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