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FUNDAMENTAL VIRTUAL PARTICLES OF LOGOTRONS (WORDS) IN THE SPIRITUAL WORLD: A REVIEW OF THE ULTRON-LOGOTRON THEORY BASED ON JEONG YEOK 正易 AND BIBLE

Sung Jang Chung^{1*}

¹*Morristown-Hamblen Healthcare System, Morristown, TN, USA*

***Corresponding Author:-**

E-mail: sung.chung@comcast.net

Abstract:-

The fundamental structure of the spiritual world and consciousness of the humanity are unknown to human beings. Except for teachings of Jesus Christ, Buddha, Kim Hang and other saints of the major world religions, to my knowledge, no accepted theory is yet established. There have been countless conflicts, arguments and even prosecutions and wars in the history of mankind due to discrepancies in opinions and interpretations regarding the truth among religions and science. For the ultimate purpose of seeking the truth, the author attempted in this study to find the structure of the invisible, unknown spiritual world, and further to possibly glimpse beyond the physical world. Findings and conclusions are presented in the study on the basis of Jeong Yeok, the Book of Right Change, and the Bible.

Keywords:- *Ultron-Logotron Theory, Confucian Philosophy, Jeong Yeok, Jesus, Bible, Theory of Everything, Probacent Model.*

1. INTRODUCTION

The fundamental structure of the spiritual world and consciousness of the humanity are unknown to human beings. Except for teachings of Jesus Christ, Buddha, Kim Hang and other saints of the major world religions, to my knowledge, no accepted theory is yet established. There have been countless conflicts, arguments and even prosecutions and wars in the history of mankind due to discrepancies in opinions and interpretations regarding the truth among religions and science. Consequently, physicists, philosophers, biologists, medical scientists, psychologists, theologians and other scholars have been investigating to find the truth in the structure of the spiritual world and consciousness (mind) of the humanity. The author published a theory of the science of self, mind and body (Chung, 2012b) that was developed in the study of a general mathematical model of "probacent"-probability equation (Chung, 1960, 2013). On the basis of the theory of science of self, mind and body, Confucian philosophy and quantum physics, the author proposed a hypothesis of the ultron—logotron theory (Chung, 2014a, 2014b, 2017a), and the author published a theory related to the substructure of leptons and quarks in particle physics (Chung, 2015b, 2018b). On the basis of the author's previous publications and hypotheses of theories, pertinent researches have been continued to find the unknown structure of conscious mind of human beings and, further the invisible spiritual world that is postulated to coexist with the physical world.

1. General Mathematical Model of Probacent

Probability Equation A mathematical model of the "probacent"-probability equation, Eq. 1 was developed on the basis of animal experiments, clinical application and mathematical reasoning to express a relationship among intensity of stimulus, duration of exposure and response in biological phenomena (Chung, 1960, 1986, 2007, 2013)

$$P = [(i - a) t^n - c] / (b t^n + d) \quad (1a)$$

$$Q = \frac{10}{\sqrt{(2\pi)}} \int_{-\infty}^p \exp[-(p - 50)^2/200] dP \quad (1b)$$

Where i is intensity of stimulus, external stressor or noxious agent; t is duration of exposure; a, b, c, d are constants. P is 'probacent' (abbreviation of percent probability), a relative amount of internal stress caused by an external stressor or a relative amount of loss of reserve for survival. Probacent values of 0, 50, and 100 correspond to (mean-5 SD), mean and (mean+5 SD), respectively; the unit of 'probacent' is 0.1 SD. In addition, 0, 50 and 100 probacents seem to correspond to 0, 50, and 100 percent probability, respectively in mathematical prediction problems in terms of percentage. Q is mortality probability (%). Survival probability (%) is (100 - Q). Equation (1) can be used for survival probability problems. The probacent model has been applied to data in biomedical literature to express a relationship among plasma acetaminophen concentration, time after ingestion and occurrence of hepatotoxicity in man (Chung, 1989), to express survival probability in patients with heart transplantation (Chung, 1993), and to express a relationship among blood levels of carboxyhemoglobin as a function of carbon monoxide concentration in air and duration of exposure (Chung, 1988).

2. Mathematical Formulas Expressing Radiation Safety for Astronauts in Space Flight to Mars (Chung, 2018d)

A clear quantitative relationship between dose of total body ionizing radiation and mortality in humans is not known because of lack of human data that would enable us to determine the lethal dose for 50% of cases (LD50) in total body irradiation on Earth or in probable future interplanetary travels. Analysis of human data has been primarily from radiation accidents, radiotherapy and the atomic bomb victims. The author published a general formula that predicts mortality probability of solid cancer or leukemia death as a function of lethal dose in acute low dose total body ionizing radiation in humans (Chung, 2012a). New formulas of tolerance in total body irradiation that expresses the radiation-exposure-induced-cancer death (REID) as a function of radiation dose rate and duration of exposure in total body ionizing radiation in humans are constructed (Chung, 2018d). In this study, the new formulas are applied to the measurements of the Mars Science Laboratory (MSL) spacecraft containing the Curiosity rover (2012-2013) in order to estimate radiation safety for astronauts in a future space flight to Mars. The following findings and conclusions in the author's mathematical approach are proposed:

- (1) New general equations that express the radiation-exposure-induced-cancer death (REID) as a function of lethal dose rate and duration of exposure are constructed from equations of the previous publication (Chung, 2012a) that predict mortality probabilities of solid cancer death and leukemia death risk in total body irradiation in humans.
- (2) Estimates of REID in various circumstances of missions for astronauts in space flights to Mars are calculated and presented.
- (3) A lethal dose of 391 mSv seems to correspond to the NASA's permissible exposure limit (PEL) 3% of REID.
- (4) Results of this study suggest that a future space flight to Mars would need increase in propulsion power for a faster speed and a shortened round trip, and increase in protective radiation shielding to reduce radiation dose rate, and a shortened stay on Mars for the astronauts' radiation safety in a future space flight to Mars. When the above described advancements in technologies are achieved, the space flight to Mars would be safe for astronauts against cosmic ray (Chung, 2018d)

3. The Science of Self, Mind and Body (Chung, 2012b; Palmer, 2015)

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; Gusevard, 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, 2013). The mathematical model might possibly calculate the probability of 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 (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, guide of 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, 2012b; Palmer, 2015) 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, 2012b, 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 creation is regarding the human history (Chung, 2010, 2015a)

4. Parallels between Confucian Philosophy and Quantum Physics (Chung, 2014b)

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 determines 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 synthesizes 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). 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 (60×6) 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 (22), four numbers of messages can be expressed: 00, 01, 10 and 11; with three bits (23), likewise eight numbers; with six bits (26), 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



Figure 1 Diagram of the Jeong Yeok Eight Trigrams. The upper diagram is the original diagram and the lower diagram is a translated diagram

5. The Ultron-Logotron Theory (Chung, 2014a, 2017a)

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 and entanglement in the arena of mind and matter are reviewed (Penrose, Hameroff & Kak, 2011; Griffiths, 2005; Stapp, 1999; 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 (Capra, 1999) 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)

5.1. "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

Table 1. Comparison of characteristic aspects of the "ultron"-logotron theory and quantum physics

| Characteristic aspects | The "ultron"-logotron theory | Quantum physics |
|---------------------------|--|--|
| Basic elementary particle | Yin- and yang-ultrons | Quarks and electrons |
| Form | A solid (-) and a broken (--) line | An open (~) and a closed (0) string |
| Movement | Join, movement, stillness, advance, retreat, expansion and contraction | Split, fission, break, pinch, join, spin and oscillation |
| Property | Triple: particle, wave and consciousness | Triple: particle, wave and consciousness |
| Energy | Yes | Yes |
| Force | Yes | Yes |

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)

5.2. "Logotron", 言子

Table 2 shows comparison of characteristic aspects of "ultrons" and "logotrons". 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 fact 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

Table 2. Comparison of postulated characteristic aspects of "ultrons" and "logotrons"

| Characteristic aspects | Ultrons | Logotrons |
|--------------------------------|---|--|
| Element of | Physical matter | Conscious mind |
| Nature | Physical | Conscious (spiritual) |
| Creation | Created by the Creator | Created by the Creator and co-creator |
| Property | Triple: particle, wave and consciousness | Triple: particle, wave and consciousness |
| State | Real and virtual | Virtual |
| Interaction between themselves | Graviton, electromagnetic force, weak and strong nuclear forces | Mental-force carrying mentalon |
| (Speed of transmission) | (Maximum speed of light) | (Instant) |

5. 3. Interactions between Ultron and Logotron

Figure 2 illustrates Feynman's space-time diagram of interactions between ultron and logotron. Mental-force-carrying "mentalons" 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 objective reduction, 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.2a) (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, 2012b). Ultrons in the excited state are generated by mentalon originated from the inner self's conscious mind (Fig. 2b) (Schwartz et al. 2005; Ochsner et al. 2002). Figure 2 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. 2a) and vice versa (Fig. 2b). 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. 2a and 2b) (Penrose, Hameroff & Kak, 2011)

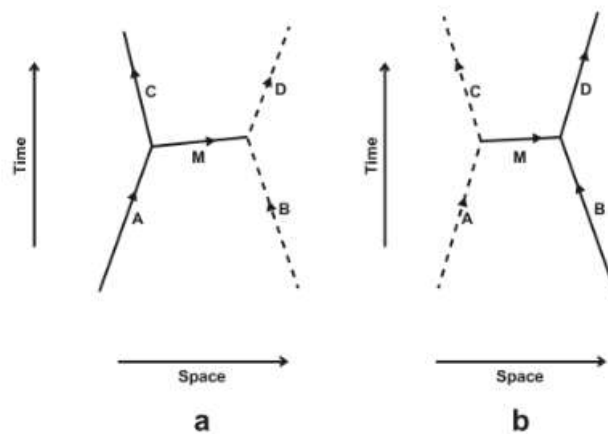


Figure 2. Feynman's space-time diagram of interactions between "ultron" and "logotron". (a) A – Real ultron in the excited state in the neuron of the prefrontal cortex caused by incoming stimulus. C–Real ultron in the ground state after collapse of the quantum wave function when the self-controls (observes). 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).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 (Penrose and Hameroff, 2011) or the von Neumann-Heisenberg's orthodox quantum mechanics (Stapp, 1999) 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 superpositioned 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 (Chung, 2012, 2014a, 2017a). 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. The four physical forces could be 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. Lehman & Persinger (2015) described in their recent article that the author integrated aspects of quantum physics with Confucian philosophy (Chung, 2015b).

6. The Possible Substructure of Leptons and Quarks (Chung, 2015b)

The deeper structure of leptons and quarks is still not experimentally and/or objectively clearly elucidated. No detailed accepted theory is yet established (Tong, 2009). Consequently, experimental and theoretical physicists have been investigating to find experimental or objective proofs related to the deeper structure of fundamental elementary particles in quantum physics. 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 $-1.602176565 \times 10^{-19}C / (3.19 \times 10^6 -2k)$; that of yang-ultron is $1.602176565 \times 10^{-19}C / (3.19 \times 10^6 -2k)$. 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

7. Fundamental Particles of Yin-and Yang-Ultrons Beyond the Standard Model (Chung, 2018c)

It has been recently discovered that electron split into two separate parts: a spinon carrying its spin (a neutral magnet behaving as a tiny compass needle) and an orbiton carrying its electrical motion (negative electrical charge) around the nucleus (Palus, 2017; Paul Scherrer Institute (2012). Fermilab discovered the 4th neutrino, possibly a new fundamental particle, sterile neutrino. In this study, the author reviewed reported articles related to sterile neutrinos and electron split to find possible new fundamental elementary particles in the substructure of leptons and quarks. On the basis of the review results and the author's hypothesis of the ultron-logotron theory, the author proposed the yin-and yang-ultron, and yin-yang neutrino as the new fundamental particles that are the building blocks of matter of the universe Both LSND (Liquid Scintillator Neutrino Detector) at Los Alamos National Laboratory and MiniBooNE at Fermilab carefully counted how many neutrinos of each type strike the detector. Both experiments involve firing beams of neutrinos behind an insulator to block out all other radiation. Both experiments have now reported more neutrino detections than the Standard Model's description of neutrino oscillation can explain. That suggests that the neutrinos are oscillating into hidden heavier "sterile" neutrinos that the detector can't directly detect before oscillating back into the detectable realms. MiniBooNE and LSND combined represent a 6.1-sigma result (meaning more than one in 500 million odds of being a fluke) (LiveScience, 2018). "Sterile neutrinos may be responsible for a number of unexplained phenomena in physical cosmology and astrophysics, including dark matter, baryogenesis, leptogenesis and dark radiation", and further for "a possible decay of heavy sterile neutrino into light (active) neutrinos" (Drewes, 2015; Wikipedia, 2018). "Neutrinos are the only matter particles in the Standard Model of particle physics that have only observed with left handed chirality to date. If right handed neutrinos exist, they could be responsible for several phenomena that have no explanation within the Standard Model, including neutrino oscillation, the baryon asymmetry of the universe, the dark matter and dark radiation" (Drewes, 2015). On the basis of review of findings in recent researches in the field of fundamental particles of particle physics, the author attempted to find new fundamental particles in the substructure of leptons and quarks. The following conclusion is proposed from the author's hypothesis of the ultron-logotron theory:

1. Yin-and yang-ultrons are the fundamental particles in the substructure of leptons and quarks, and the building blocks of matter of the universe.
2. Yin-and yang-ultrons and yin-yang neutrino would be a new family of physical particles beyond the Standard Model.
3. Dark matter is postulated to be the yin-yang-neutrinos. Sterile neutrinos originate from leptons and quarks; they are actually composed of yin-yang neutrinos.
4. Yin-and yang-ultrons, and yin-yang neutrinos are involved in leptogenesis and baryogenesis as well as in lepton decay and baryon decay.
5. The results of this study seem to provide evidence for the Ultron-Logotron Theory (ULT)

8. Self-Controls Brain Activity by Interacting with Prefrontal Cortex in fMRI Study (Chung, 2018a, 2018b)

The scientific relationship among self, mind and brain is not clearly known. Self's subjective experience of perception and cognition of words, feelings, thoughts etc. is supported by the integrity of the human brain. The relationship between the self and the human brain is not understood. Recent experimental evidence suggests that the neural correlate of consciousness is located in certain parts, cortical areas, layers or neuronal populations of the corticothalamic system. However, it is not known specifically which parts of the human brain are involved in the human cognitive activity. (Tononi, 2012; Tononi et al., 2016; Molina et al., 2017). Consequently, neuroscientists, psychologists, psychiatrists, medical scientists and philosophers have been investigating to find the scientific relationship between mind and brain, consciousness and quantum physics, and further among self, mind and brain. Functional magnetic resonance imaging (fMRI) has been used in the study of normalcy and psychiatric disorders. fMRI is applied in diagnosis and drug treatment of psychiatric disorders. In this study, the author analyzed results of published articles related to the above described fields to find the relationship among self, mind and body, and proposed the mechanism involved in the self, mind and brain in normalcy and psychiatric disorders. Blood-oxygen-level-dependent, BOLD responses in fMRI are considered to indicate the metabolism in voxels of human brain activity that include chemical processes of dopamine, norepinephrine, serotonin neurotransmitter, and further reflect the tree-pattern image of ultron complexes as correlates of brain activity. Antidepressants normalize adrenergic-dopaminergic and metabolic function to reinstate

PFC dominance over limbic and subcortical regions (Salerian and Altar, 2012). Remission from depression normalizes hypofunctioning in frontal, prefrontal and orbitofrontal regions while it reduces activity in paralimbic, parietal-temporal regions including amygdala, hippocampus and parahippocampal gyrus. Any disruption of communication between PFC and other brain regions would represent diminished influence of PFC as prescribed in the author's recent article (Chung, 2018a). There seems to be a remarkable agreement between Salerian's hypothesis and the author's hypothesis (Chung, 2018b) regarding the function of the PFC in normalcy and psychiatric disorders

8. 1. Semantic Maps ('Words Atlas') in Human Brain

The figures published by Gallant and his coworkers in their article show semantic maps ('Words Atlas') of the cortex of bilateral cerebral hemisphere. BOLD responses in fMRI in multiple cortical areas of the parietal, frontal, temporal, occipital lobe and insula as well as the prefrontal cortex reveal specificity. Each word in the stories was projected into voxels within regions of interest, ROIs. The semantic system is organized and appears common across individual subjects. The results suggest that most areas within the semantic system represent information about specific semantic domains, or groups of related concepts (Huth et al, 2016). This study seems to provide a powerful and important means for mapping functional representations in the brain, and presumably to clarify the spatiotemporal, matching relationship between ultron-and logotron-complex. Figures 1-12 of the article of Huth et al (2016) clearly show the above described findings that are strongly suggestive of a tree-pattern architecture (pain matrix) of neural correlates of words, feelings, thoughts etc. in the human brain [Chung, 2018b], and further suggest a tree-like-pattern of the ultron-complex (Figure 3)

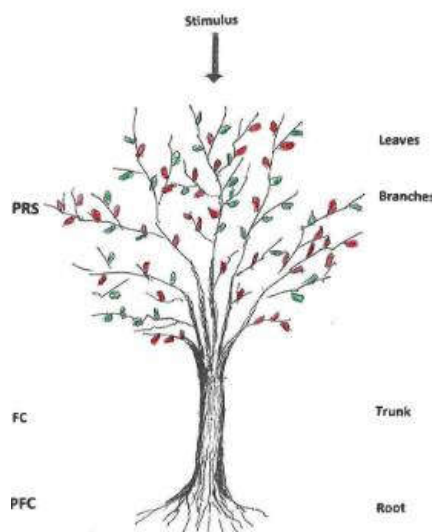


Figure 3. Tree-pattern images of ultron-and logotron-complrx in human brain. Leaves represent cell bodies of neurons. The red leaves represent positive BOLD (blood-oxygen-level-dependent) response, and the green leaves negative BOLD response. Branches represent dendrites and axons of neurons, and the trunk neural connections (functional connections, FC) between the prefrontal cortex (PFC) and the other brain areas (the author names "the prefrontal-rear system, PRS), respectively. The root represents the prefrontal cortex (PFC) (see text). The tree-pattern, four-dimensional depression-related ultron-complexes give rise to matching logotron-complexes in neurons of human brain, resulting in depression. Antidepressant treatments restore the normal ultron-complexes and subsequent matching normal logotron-complexes, resulting in remission or recovery. Antidepressant treatments include drugs such as venlafaxine, ketamine, amphetamine, fluoxetine; direct current stimulation (DCS), electroconvulsive treatment (ECT), transcranial magnetic stimulation (TMS). The self, the true inner self cognizes the normalcy or abnormal, psychiatric disorders in conscious mind, interacting with the PFC.

Cognition of stimulus from the external world is dependent upon the three processes as follows:

1. A stimulus coming from the external world via the corresponding sense organ is transmitted through the peripheral nerve, the spinal cord and reach multiple regions of the prefrontal-rear system ('PRS') (leaves and branches in Figure 3).
2. The stimulus information is then transmitted through the functional connection, FC (trunk) that is the neural path connecting the 'PRS' and the PFC, to the prefrontal cortex.
3. The PFC receives the incoming stimulus information from the 'PRS'. The PFC seems to correspond to the root of the tree-pattern image. Any damage or distortion in any parts of the above processing of information would result in clinical diseases and disorders. The inner self interacts with the PFC and perceives and cognizes the incoming information with the matching logotron -complex. Any injury, infection, degeneration and abnormal excitement or suppression state of certain parts of cerebral regions (ROIs or voxels) will result in clinical diseases and disorders such as aphasia, hearing loss, blindness, hallucination, amnesia, depression, bipolar disorder, Alzheimer's disease, coma and so on due to

modulation of the matrix pattern of the brain activity, resulting in a modulated ultron-complex that is transmitted to and/or within the prefrontal cortex (PFC), and subsequently giving rise to an abnormal logotron-complex, generating abnormal perception and cognition of the self's conscious mind, and resulting in clinical diseases and disorders. Dissociation between the PFC and the PRS results in unconsciousness. The inner true self interacts with the PFC. The physical false self is associated with the PRS.

On the basis of review of findings and data reported in recent functional magnetic resonance imaging studies in the psychiatric depressive disorder, the following conclusion is proposed from the author's hypothesis of the ultron-logotron theory (ULT) and the tree-pattern image of neural correlate of consciousness (Chung, 2018a, 2018b)

(1) The prefrontal cortex controls the brain activity in normalcy and psychiatric disorders. The self, the inner/super true self controls the physical self/body by interacting with the prefrontal cortex (PFC)

2) A tree-pattern architecture of the cerebral neural substrate (Figure 3) is proposed in cognitive understanding of words, feelings, and thoughts on the basis of the author's hypothesis of the ultron-logotron theory to explain the neural correlate of consciousness.

(3) The conclusive findings in this functional magnetic resonance imaging study and the author's previous study (Chung 2018a, 2018b, 2018c) seem to provide evidence for the ultron-logotron theory applicable to the relationship between mind and brain, consciousness and matter, the relationship among self, mind and brain, and further dualistic existence of self and non-self in human individuals.

(4) A remarkable agreement is present between the conclusion proposed in the Salerian's articles and that of the author's study (Chung, 2018a, 2018b) regarding the mechanism involved in the PFC and other brain regions in normalcy and psychiatric disorders. Further research would be needed for verification of the above described conclusion

9. Special Subjects Relating to Savior, Miracle, and Holy Spirit and Respiration of O₂-CO₂ Cycle

9.1. 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

9.2. 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 as well as neutrinos. 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 of truth 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 by the power of the Holy Spirit (John 10:38, Acts). 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). Logotrons are inferred to be potentially powerful. 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).

9.3. The Holy Spirit and 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 Holy Spirit from the Creator God, 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 Holy Spirit with love, wisdom and power enters each of our selves in inspiration of breath, and cleanses our hearts and souls (Kang, 2018), 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 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 Holy Spirit in our breathing

10. Personal Experiences Possibly Related to the Spiritual World

10. 1. Mt. Kyeryong in Korea (Chung, 2014b, 2017c)

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 (Kim, 1885), 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 (Chung, 2017c). God said, "A miserable-looking, hungry beggar clothed in rags is standing in a rainy day. I am within him. I cry for him". God taught us to respect and love neighbors as our Father in heaven loves us. "If people starves for one day, bloody tears flow for three days." "Those who govern the people let people live in lofty buildings and large houses." "Keep your mind as broad as the universe." "You shall penetrate saints with one" (the author's note: you will clarify words of teachings of saints with the one truth, the Word of the Creator God). Tears were flowing down my cheeks, and my heart was pounding with respect, awe, gratitude, joy and faith. According to the Bible (Acts 2:4), the Holy Spirit came to people who gathered at one place on the day of Pentecost; 'And they were all filled with the Holy Spirit, and began to speak with other tongues, as the Spirit gave them utterance.' Both events at Mt. Kyeryong and at the place on the day of Pentecost seem to be similar spiritual phenomena

10. 2. Precognitive Dreams in the World War II and the Korean War (Chung, 2014a, 2014b)

The author had unusual but valid precognitive dreams during the World War II and the Korean War that saved not only the author but also other people (Chung 2009; 2012, 2014a). The author's personal experiences could have important scientific and philosophical implications.

10. 2. 1. A Precognitive Dream in Prison during the World War II

In 1944 during the World War II, Korea was under the suppressive colonial Japanese government when I was a medical student. I joined an underground organization, the Hyeopdong Party for Korea's independence movement. The movement was detected by the police in December 1944. I was imprisoned after interrogation and inhumane torture in the Seodaemun Prison in Seoul in January 1945. There was a typhus epidemic, infecting many prisoners. I heard that quite a number of patients died of typhus. I was one of the patients and placed in an isolation room without any treatment. I suffered high fever, headache, loss of hearing and vague consciousness. I eventually recovered from typhus fever and was transferred to a general prison cell. One night in June 1945, I had an unusual dream. An old man wearing a gray Korean coat suddenly appeared in front of me. I fell to the ground face down and asked him, "When shall I be released from prison?" He answered instantly, "The date is the thirty first". Then, the old man disappeared, and at the same time I woke up from the dream. I believed that I had experienced a precognitive dream of a revelation from heaven. I began to wait for the thirty-first day of next month July. I whispered my dream to my Korean roommate who was a member of the Hyeopdong Party. After this event, days passed, and there was no special events or news with regard to my legal case. Eventually the thirty-first day of July came. I was suddenly ordered to appear in the court. I met the Japanese prosecutor, Ei Kurokawa, who handled the Hyeopdong Party case. He said to me, "For the last month, when I came home after finishing my daily work, your name suddenly came across my mind. I have kept thinking of you. I have been led to reconsider your case of the independence movement. I do not understand why I kept thinking about you every evening." He continued, "I have made up my mind today. There have been no cases in the past in which the accused detainees involved in any underground independence movement with suspected offenses against the security laws like you students who joined the student organization of the independence movement, were all released. I have taken legal action so that all the other students except you have already been released from prison on probation. I had intended that only you among the students involved in the illegal independence movement should be continuously incarcerated and prosecuted in the upcoming trial." He said, "However, although there have been no similar cases in the history of the prosecutor's office, I have made up my mind today, after one month of unusually difficult deliberation. I'm going to release you from prison today." It was incredible that I was actually

released from the Seodemun Prison the night of July 31, 1945. Was it a coincidence? It was an experience beyond my comprehension. Since then, I have come to absolutely believe that the dream in June 1945 was a revelation from heaven. Two weeks later on August 15, 1945, Korea was liberated from the thirty-six-years Japanese colonial rule forever, following Japanese surrender to the Allied Forces (Chung 2009)

10. 2.2. Precognitive Dream in North Korea during the Korean War Outbreak of the Korean War

On June 25, 1950, the Republic of Korea (ROK) was suddenly invaded by North Korean enemy forces. ROK forces and the government were forced to retreat south by the advancing, ruthless North Korean forces (Gruenberg 1959). Many Seoul citizens lost opportunities to flee Seoul. After the UN Security Council unanimously passed a resolution to denounce the lawless aggression of North Korea and to provide military aid to South Korea, the US-led United Nations forces came to South Korea to block the advance of the North Korean forces and to save the Republic of Korea.

Forced Transportation to the North and Experiences in the Early Part of the Korean War in North Korea

I lost a good chance to take refuge to the south. I was one of hundreds of South Korean physicians forcefully transported from South Korea to North Korea. My group of six South Korean physicians was sent to Hamhung, North Korea and ordered to treat patients at the Hamhung Provincial Hospital. Air raids involving machine-gun strafing by US fighter planes and by scores of US B-29 bombers were daily getting severe. Each time siren signals of air raid ceased, hospital relief teams were dispatched to the bombed areas to rescue wounded civilians.

Revelation in a Dream, Escape from North Korea, and Return to South Korea

One night in September 1950, I had an unusual dream. I saw a wall calendar with a black printed number of the date in the middle of white paper. The number was a crystal-clear 13. That seemed to indicate that the date of the coming thirteenth day of October would be an especially important and critical day. The calendar disappeared, and I saw a night scene. In the darkness of night, I was walking in one direction with other people in a line. I looked around both sides of the road. There was a flowing river on the left side, and a mountain on the right side. While walking, I told a nearby nurse, "If we pass the thirteenth day tonight, we will survive and have good days ahead. Let's be patient. We have hope". The nurse who walked beside me appeared glad to hear me say it. After talking to the nurse, I woke up. I felt that the thirteenth day would be the coming October 13. I awaited especially the thirteenth day of the next month, October. I believed that if I pass October 13 without any difficult events, I would have good days thereafter. Next morning, I actually told my dream to my South Korean physician colleagues. The great historical battle at Incheon Harbor involving landing by UN and South Korean forces on September 15, 1950, recapture of the capital, Seoul, crossing the 38th parallel on October 9, and the northward advance of UN and South Korean forces, totally changed the situation of the war in the Korean peninsula (Gruenberg 1959). One day a North Korean nurse confided me that she was listening to South Korean radio news secretly every night. She said, "According to the radio news, UN and ROK forces have advanced to Wonsan. They will be near Hamhung in a few days." What she said was startling news to me. The day she confided this to me was probably October 11, 1950. The community was lacquer-black dark with the complete control of lighting at night. I opened a window of the classroom (in daytime it was used as an outpatient clinic) to see the night scene of nature outside. I could see black-looking mountains under the starlit sky. As I recognized daily changes in situation on the battlefield on the basis of the secret information, I began to feel strongly a strange wonder and joy because my dream appeared to be becoming a reality in terms of the date and the war situation. The thought crossed my mind that we might see a true phase of the universe that would transcend the specific time phases of the past, present and future when the great mind behind the far, dark-appearing mountains of nature would fuse into one mind with the little, clear minds residing within our human small bodies. On the night of October 12, I opened the window of the classroom as before. I saw the dark night scene of nature outside. I felt especially that night a very close and dear feeling for the far, black mountains. I realized that the special dream was transforming into a reality. I felt my heart beating strongly. Immeasurable joy mixed with wonder was springing in my bosom. I began to believe strongly in heaven's grace and help. The next day was finally October 13, the day I had been waiting for. An unexpected event took place. The entire staff of the Hamhung Provincial Hospital gathered at the hospital campus that evening to prepare to retreat north, following the order of the communist agent. Scores of North and South Korean doctors, nurses and non-medical staff members then started to retreat north on foot in a formation of lines, leaving the hospital and Hamhung City in the darkness of night. I got out of Hamhung City for the first time. All of the hospital personnel were walking in lines on a dark road leading north. I looked around at the surrounding natural scene while I walked. The Sungchun River was on my left side, and mountains were on my right side. It was an amazing event. The night scene and the date exactly matched the landscape and the number thirteen on the wall calendar in my dream a few weeks earlier. The coincidence of the dream and the reality was unbelievably extraordinary, and it convinced me that the special dream was a precognitive dream and a revelation from heaven. I spoke to a nurse who was walking beside me, as I had done in my dream, I said, "Hello. If we pass the thirteenth day tonight, we will be free. Let's be patient. We will have good days from tomorrow." The nurse was glad to hear me say it. I did not tell her about my dream. I just talked similarly in reality as I had done in my dream. I felt inexpressible joy and hope while I was walking. We reached the playground of an elementary school in a village in the north around midnight, after walking scores of miles. We were told to take a temporary rest there. At that time we six South Korean physicians determined to take advantage of this opportunity to flee toward the south. We promised that each person would

go back to Hamhung and gather at Dr. Myung Hak Kim's hospital in the city. We left separately in groups of two. My partner and I began to walk toward the south along ridges between rice fields in the dark night. We had to avoid any villages. We found another group of two South Korean physicians. They joined us, and we continued our forced march. The sun rose in the morning. We were able to pass uneventfully a police branch office in a village. We encountered apparent refugees heading south. Getting close to them, they turned out to be two South Korean physicians, one North Korean physician, several North Korean nurses of the Hamhung Provincial Hospital, and one North Korean army officer wearing hospital inpatient clothes who was a patient at the same hospital. They joined us, making a total of eleven or twelve people. We all continued to walk south. Littering both sides of the road were numerous dead bodies of North Korean soldiers and civilians killed in the war. The scene of carnage was terrible on October 14, 1950. Countless retreating North Korean foot soldiers in formation, straggling soldiers, and civilian refugees were on the road, heading north. Among the crowd of people, ours was the only one group —making its way to the south, in the opposite direction. We saw North Korean troops stationed at a location far ahead of us. A guard with a bayonet-fixed rifle was standing on the road in front of the troops. The area that we had to pass looked fierce and brutal. We moved toward the last front line of the Korean War that our group had to pass through. I asked my senior physician to go in front of our group. He declined and advised me to go ahead of us. No one wanted to go in front, leading us. I thought to myself about this difficult situation. When I recalled the special dream of revelation that I had dreamed in the previous month, and the fact that I had acted in reality similarly to my actions in the dream, joy, faith, and courage spontaneously arose and filled my heart. I would not die here because heaven was helping me. There would surely some job that I would be obliged to perform in the future. I had unshakable faith and peace of mind to go ahead of us for the sake of our group. Alone, I went close to the North Korean rifleman. The guard questioned me as expected. "Comrade, where are you going?" The following words came out smoothly and uninterrupted from my mouth, without my thinking in advance, "Yes, I am a physician working at the Hamhung Provincial Hospital. Those people over there are physicians and nurses working together at the same hospital. Here is my I.D. card." After showing my I.D. card, I continued to speak. "As a matter of fact, all of the hospital staff members evacuated the hospital yesterday and retreated north. There is some medical equipment and supplies left at the hospital. We are going back and will bring them with us." I answered with a calm attitude. The guard stared at my face. He appeared to trust my answer and attitude. He allowed me and all of my group to pass the guard line uneventfully. I had no doubt of heaven's help when I got the guard's permission. We all safely passed the most dangerous front line. On October 15, we visited Dr. Myung Hak Kim's hospital in the city and spent several days. We went to Wonsan Harbor by a ROK army truck where our group of South Korean physician refugees boarded the US Navy LST ship. We finally arrived at Pusan Harbor of South Korea. Our six Korean physicians followed the dream with faith and could safely return from North Korea, an autocratic communist country to South Korea, a free democratic country, passing the frontline of the war. The dream helped not only me but also other people in the war (Chung 2009, 2014a). The above special predictive dreams that are verified as true seem to strongly suggest the work of the author's inner self and further to reveal a possible glimpse into an unknown, timeless and nonlocal consciousness world of reality, i.e. the invisible spiritual world (Chung 2009; 2012, 2014a). In the history of the United States, one of the great presidents, Abraham Lincoln had dreams of his death 13 days before he was assassinated (Joseph, 2001, 2011a). According to Joseph, certain cognitive capacities are well developed in just a few people. There are numerous reports of individuals who claim to have cognitive dreams of future events that took place (Joseph, 2011a). Cindi Welch (2003) describes in her book that time frames in precognitive dreams, at least for her had been rather unreliable. There seem to be no articles of cases of precognitive dreams in the literature except Jucelino, Brazilian "Dream Prophet" (Jucelino Nobrega da Luz, 2008) that the author has read and researched that have a clear description of a prediction of an exact date when future actual events would take place in the near future beyond twenty-four hours of the dream. Subhash Kak, Regents Professor at Oklahoma State University, wrote in his letter to the author (June 2, 2014) after reading the author's article, "Self and Consciousness: Mind and Matter" (Chung, 2014a) that the author's personal accounts constitute a compelling story.

11. Possible Fundamental Virtual Particles of Logotrons of the Spiritual World

Jesus Christ, Buddha, Kim Hang and other saints of the major world religions taught the humanity the truth of the physical world and the spiritual world. Man lives in both of the physical and the spiritual worlds that coexist.

11. 1. Christianity

The author studied the Bible to find particular statements regarding the word (logotron) of Jesus Christ. Some important words of Jesus are described here: In the beginning was the Word, and the Word was with God, and the Word was God (John 1:1). Heaven and earth will pass away, but my words will never pass away (Matthew 24:35, Luke 21:33). I am the true vine, and my Father is the husbandman. Every branch in me that beareth not fruit he taketh away: and every branch that beareth fruit, he purgeth it, that it may bring forth more fruit. Now you are clean through the word which I have spoken unto you. Abide in me, and I in you. ... I am the vine, ye are the branches: He that abideth in me, and I in him, the same bringeth forth much fruit: for without me ye can do nothing... If you remain in me and my words remain in you, ask what you wish, and it will be given you (John 15:1-12). I am the way, the truth, the life: no man cometh unto the Father but by me (John 14:6). Verily, verily, I say unto you. He that believeth on me, the works that I do shall he do also; and greater works than these shall he do; because I go unto my Father (John 14:12, Luke 11:9, 10, 13). For verily I say unto you, That whosoever shall say unto this mountain, Be thou removed, and be thou cast into the sea; and shall not doubt in his heart, but shall believe that those things which he saith shall come to pass; he shall have whatsoever he saith (Mark 11:23). The words of Jesus which the author believes as truth, and truly support that words (logotrons) are

fundamental virtual particles of the spiritual world as well as consciousness of humanity of the physical world. The logotron (word) is the unknown God substance. The Word of God is absolutely powerful and creative. Words (logotrons) of truth, goodness and faith are potentially powerful and creative. In contrast, the ultrons are the building block of the physical world and created from virtual logotrons. Jesus, the Son of God, connects the Father and man, the humanity. The Holy Spirit comes from the Father (John 14:16, 15:26). The Father, the Son Jesus and the Holy Spirit are one. The words of Jesus suggest that the relationship among the Father, Jesus, and man may be similarly represented by a beautiful tree-symbol of the Figure 3. The trunk (FC) and the root (PFC) may represent Jesus, the branches humans and the red leaves the fruit, and the green leaves non-fruit. The Father, the Creator God is the Farmer of the universe. Nourishment of food, water, sunlight and air is provided by the Father, the Holy Spirit from outside of the tree. Man lives in both of the physical world and the spiritual world that coexist. The spiritual world is invisible but real and eternal, and the physical world is visible but temporary. The self of man is postulated to be composed of three selves, the super self, the inner self and the physical self, reflecting heaven, man and earth (Jeong Yeok). The super self is the Holy Spirit that comes from the Father (John 14:16). The inner self is the main self of the individual true self of man (the soul of each of human beings) and the physical self is associated with the body that is created by the Creator and not the true self but the false self. The false self (the false ego) would disappear at the death of the body. The false self behaves for pleasure-desire and instinct, and disguises as the true inner self, the apparent ego, and delivers temptations to the inner self. The physical self is felt like our inner true self. This is to be fully aware of its importance in our daily life. The inner true self of our own self should control the physical false self/body that is the temple of the Holy Spirit (1 Corinthians 6:19) and keep health, peace and harmony (Kang, 2018). The inner self is also contacts the super self to different extents depending on individuals. The inner self follows and obeys the super self in order to act in love and righteousness. The goal of human life is to cultivate virtues, to follow teachings of saints and to live by faith in the way of Jesus, and to love and glorify the Father and love one another (Mark 12:30; John 13:34; Caldwell, 2008; Won, 2014), and live for the ultimate goal of becoming united with the Creator God, our Father, being one as Jesus said –“I and my Father are one” (John 10:30).” Jesus said –“Love the Lord your God with all your heart and with all your soul and with all your mind and with all your strength” (Mark 12:30). Jesus Christ is the Son of God and his Inner Self is believed to have become completely united with the Father, the Creator God and to be in a complete union of his super self with the Holy Spirit (Yogananda, 1996). Jesus said –“where two or three gather together in my name, there am I in the midst of them” (Matthew 18:20). In our prayer, meditation, singing of hymn, and church service, the Father, Jesus and the Holy Spirit are believed to instantly abide at the place of these activities. The quantum entanglement in the physical world enables us to understand the above described belief. Jesus said “Therefore go and make disciples of all nations, baptizing them in the name of the Father and of the Son and of the Holy Spirit, and teaching them to obey everything I have commanded you. And surely I am with you always, to the very end of the age (Matthew 28:19, 20).” “You did not choose me, but I chose you and appointed you to go and bear fruit-fruit that will last. Then the Father will give you whatever you ask in my name (John 15:16).” Paul said-“However, I consider my life worth nothing to me, if only I may finish the race and complete the task the Lord Jesus has given me-the task of testifying to the gospel of God’s grace (Acts 20:24).” We, the humanity will have happiness, peace and harmony in the world

11. 1. 1. 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)

11. 2. Buddhism

Buddha taught the noble eight path that leads to liberation, Nirvana, through its practice. The eight path of Right understanding, Right thought, Right speech, Right action, Right livelihood, Right effort, Right mindfulness and Right concentration is given to followers as his first sermon after his enlightenment (Buddhist scripture: the words of truth, Dhammapada). In the bible (John 8:31, 32), ‘Then said Jesus to those Jews which believed on him, “If ye continue in my word, then are ye my disciples indeed; And if ye shall know the truth and the truth shall make you free.” All things of the physical world are created by mind and changeable. There seems to be an agreement between the teachings of Buddha and Jesus.

11. 3. Confucianism

Kim Hang, the author of Jeong Yeok, described in his Book of Right Change: “Heaven and earth say, so Il Bu*dares to say. Heaven and earth say that Il Bu should say. Il Bu says what heaven and earth say. Heaven and earth would be an empty shell without the sun and the moon. The sun and the moon would be a vacant shadow without the supreme man. Not saying words and believing with faith are the way of Confucius. ” Il Bu admired Confucius as our teacher of ten thousand generations. (*Il Bu is another name of Kim Hang who was called by Confucius Il Bu in his vision. He is said to complete Confucianism teachings, the I Ching). There seems to be an agreement among the words of teachings

of Jesus, Buddha and Il But If one thing related to the universe, Nature or the humanity is really true, the truth discovered in religion and philosophy is supposed to be true and valid in science and vice versa. If the above described findings related to the word of truth (logotron) in three religions, Christianity, Buddhism and Confucianism that have existed for more than two millenniums are really true, logotrons (words) as fundamental virtual particles of consciousness of human beings in the physical world and building blocks of the spiritual world are supposed to be true and valid in science.

Table 3 shows postulated comparison of characteristic aspects of the physical world and the spiritual world

| Table 3. Postulated comparison of the physical world and the spiritual world. | | | | | |
|---|---|--------------------|---|---------------------|--|
| Characteristic aspect | | The physical world | | The spiritual world | Reference |
| Building block | Ultron | | Logotron | | Chung 2014a, 2015b and 2017c |
| Life | Birth and death | | Forever | | 1 John 2:17 |
| World | Nations, seen but temporary | | The kingdom of heaven, unseen but eternal | | Revelation 21:3-6 2 Corinthians 4:18 Dhammapada 230 Chung 2012b, 2017a |
| Progress | Evolution | | Completion | | Revelation 3-6 Chung 2015a |
| Self | Super self/inner self within physical self/body | | Super self (inner self) | | Chung 2012a |
| Law | Physical and chemical laws, law of cause and effect | | Miracle | | Mark 9:39 John 4:54 1 Corinthians 12:4-11 Acts 2:22 Chung 2017c |
| Space and time | Spatiotemporal, 4 dimensional | | Nonlocal and timeless | | Chung 2014a, 2015b |
| Behavior | Egoistic | | Altruistic | | Chung 2018c |
| Freedom | No freedom | | Freedom | | John 8:31, 32 |
| Pain and suffering | Pain and suffering | | No pain and no suffering | | Psalm 55:4 ; Revelation 21-4 Dhammapada 191, 273 |
| Purpose of life | Educatio and training, love and service | | Love and glorify God | | Matthew 28:19,20 Mark 12:30, 31; Acts 20:24 John 13:34, 35, 15:16 Caldwell 2008; Won 2014 Chung 2012b, 2017c |

12. Conclusion

On the basis of review of quantum physics, especially particle physics and findings in my studies of Christianity, Buddhism and Confucianism, particularly words (logotrons) of the Bible, the author attempted to find unknown building blocks of the consciousness of mind and further the spiritual world. The following conclusion is proposed based on the author's hypothesis of the Ultron -logotron theory based on Jeong Yeok and the Bible, and personal religious experiences:

1. Logotrons are the fundamental virtual particles of the spiritual world and consciousness of the human mind of the physical world.
2. The Word of the Creator God(logotron) is absolutely powerful and creative. Words (logotrons) of truth, goodness and faith are potentially powerful and creative.
3. The purpose of human lives is to live by faith in the way of Jesus, to love and glorify the Creator God and love one another, and further to live for the ultimate goal of becoming united with the Creator God, our Father, being one as Jesus said-“I and my Father are one.”
4. The Holy Spirit comes from the Creator God. The super self of the individual represents the Holy Spirit abiding in the individual self.
5. The relationship among the super self, the inner self and the physical self of the individual human is described in this study. Further research would be needed for verification of the conclusion

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