

# THE PHILOSOPHY OF TAO AND THE INSIGHT OF SCIENCE

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It might be a valuable endeavor to interpret philosophical questions, especially oriental philosophies through natural science including biochemistry. Eventually, philosophy is an ontology, which is logic to explain the existences, and in the same time, science is also logic to explain the properties of existences. Truth in philosophy should be truth in science and vice versa.

However, There have been a trend that traditionally western science have stood against oriental philosophy since the enchantment of the objective reasonability of natural science have fascinated global people and made the people to ignore the oriental philosophy. The oriental philosophies, e.g., Buddhism, Taoism, Confucianism, Sutra, Chan, Tantra, Yoga, and others are all conceptions of subjectivism. In oriental philosophies, objective physical matters are recognized as no genuine existences and as only manifestations of real existences.

While natural scientists have concentrated to the objective knowledge, which was acquired by investigation of experiments into physical matters, oriental philosophers devoted themselves to expand their ideology through subjective cognizances. They mainly adopted intuition to understand the core of real existences; however, the lack of objective lawfulness of the oriental philosophies even shed somewhat religious taste. In this point of view, Hinduism may be the first runner in the religious inclination that based on the “Veda Scripture” as its ground theory. There have been four major Veda Scriptures among which the “Rig Veda” was the utmost one. The idea of Hinduism is that the nature of whole creations exists as in relatively correlated fashion, which is changing continuously; in other word, every existence transfers their identity into other one in dynamic states.

In the 6th B.C., in the period of a bunch of spiritual leaders, such as Laos and Confucius in China, Zarathustra in Persia, Heraclitus in Greece, Buddha in India taught in Sutra that

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there always be mutual interaction of matters which are suggested to be the manifestations of background real existences, and simultaneously, the real existence is taught to be consolidated oneness of whole universe. In Taoism also, it is persisted that there is unified noumenon of whole creatures in the universe, which is defined as “Tao”. Tao claimed that the physically manifested matters as individual are not static existences but are continuously changing or cycling existences in dynamic state. The principle of the change is based on the interaction of two essences of existences named as “plus essence” and “minus essence”, respectively. This dynamically changing status of existences can be illustrated in a diagram called “Taekuegdo”, which is composed of two exactly matching half circles, the one of which is colored in black, and the other one of which is white. The two symmetrical halves are interacting each other to generate transformations so that the whole circle is involving endlessly. Therefore, the circle (sum of the “plus” (white half) and the “minus” (black half)) stays not in any suspended state but in dynamically changing state. This is the core idea of the Taoism, and based on the ideology, Chinese people developed the “Yiking (易經)” theory, which is another one of sacred scripture wrote by so many persons in Chinese history

Now, the basic peculiarity of the oriental philosophies as a whole can be summarized to be that both of individual identity and whole universe are based on a common oneness of background reality. Therefore, the oriental philosophers recognize the existences as revelations of background-intrinsic, true nature, which is concealed within consciousness. Hence, they claimed that any individual identities are not really divisible into individual matters and not independent each other in their nature but are simply manifestations of background true existence. This intrinsic nature of real existence concealed is defined as “Brahman (梵)” (ubiquitous) in Hinduism, “Dharmakaya (法身)” (true existence) in Buddhism, and “Tao (道)” (way) in Taoism.

These concepts might be the basic foundation of the oriental philosophies described ahead. The subjectivism like these conceptions appeared to have not any common denominators with western natural sciences for long time during the period when the Newtonian ideology of “Determinism” ruled over people in the whole globe. However, the gab or discrepancies between the oriental philosophies and western sciences became to be narrowed after new paradigm came into view in the name of “Quantum theory”.

During the paradigm of the Newtonian philosophy have dominated the global people, the subjectivism of the oriental philosophies was estimated as ambiguous, unbelievable ideology since the Newtonian thought esteemed each individual matters as authentic, true

essence of existence, which have unique and independent properties by itself, so that simply the summation of the individual subsists turns out to be the universe. Therefore; in these scientific views; in which absolute space, absolute time, objective measurement of matters, and the law of causality are believed to be true, intrinsic reality; the western scientists didn’t hesitate to evaluate the oriental philosophies as something ambiguous or superstitious ideals.

However; during the passage of time and tide, evolutionary upheavals such as atomic particle, atomic nucleus and electron were discovered, so that at the first time in the human history, atomic physicists could be seemed to deal with the reality of the fundamental particles of the physical matters. Other than that, with the divulgement of partial mistakes in the theories of Descartes and Newton, the interpretation of existences was required to be partly rectified, so that concepts of space, time, particle, and the law of causality etc. were have to be corrected. Besides, at the beginning of the last century, two great discoveries in physics e.g., “quantum theory” and “theories of relativities” endowed a momentum to the interpretation of existences to be changed from the Newtonian theory of “mechanism” to rather organic or subjective version. Addition to these discoveries, the findings of electromagnetic phenomena and confirmation of nonexistence of ether in the space were followed so that finally, concepts of absolute space, absolute time, law of causality, solid particle that doesn’t have any vacancy within it should be corrected. Two papers of Einstein (the two theories of relativity) also brought evolution in physics; therefore, finally Newtonian paradigm was needed to be revised to the new “quantum paradigm”.

Complex living organisms were created on the surface of the earth through the organization of light elements e.g., carbon, hydrogen, oxygen and nitrogen. These elements build up small molecules from the atoms, and finally from the small molecular units to large bio-molecules such as nucleic acids, proteins, carbohydrates, and lipids. Two peculiar properties such as complexity and orderliness (negentropy) of the bimolecular clusters generated living organisms from the bio-molecules on the earth.

Currently, the most widely accepted cosmological theory for the origin of the universe is the “Big Bang”. Immediately after the big bang, the temperature was extremely high on the order of 15 billion0K. However; after some time, the average temperature of the universe has been lowered as a result of expansion, and the low temperature allowed the formation of stars. In the earliest stages, the universe had a fairly simple composition that is composed of only hydrogen and helium, and the rest of elements have been formed in three ways: (1) by thermonuclear reactions, (2) by the explosion of stars, (3) by the action of cosmic rays.

At the beginning of the big bang, the whole matters of the universe existed in an extremely coagulated cluster called “cosmic egg”, and at the stage of maximum condensation, the cosmic egg couldn’t help going to be exploded because of the exorbitant energy. At the very moment of the explosion, everything existed was only radioactive rays which have very high frequencies, and after some time, they are transformed into particles e.g., hydrogen and helium. These atoms clustered together through gravity to form stars. Explosions called “supernovas, and the materials of the stars were negentropy (negative entropy) recycled to produce second-generation stars such as our own sun, along with our solar system destroyed the stars of the first generation. With the passage of time, the temperature at the center of the star reached as high as nuclear reaction could take place; and consequently, the stars were exploded with blowing out of vast amount of light and heat. As the result, second generation stars like our solar system were formed. At the center of the stars, other heavier elements were born through nuclear fusions, and finally living organisms including human beings were created from the new elements. When we think about this secrete, through which our body were made up with the glorious stars in the sky, anybody might be proud of himself.

Each levels of particle have their own unique vibration and spin, and therefore, all individual matters could be claimed to be oscillating matters. Therefore, when the waves of the vibration are in constructing interference, they can be in resonance state with each other. For an example, in the wave of sound, there are constructive interference, destructive interference, and beat frequencies to be understood. With those concepts understood, the resonance system comes to be familiar. As matter of fact, when a violin is playing on F string, the same F string of the other violin sitting on a table close to the playing violin will make the same sound, if the two violin was tuned precisely. This phenomenon means that wave energy can be transferred between matters when they are tuned in the identical frequencies to make them in resonance-state. In this case, the more the members of resonance, the more stabilized or stronger resonance system can be established.

Human bodies are always surrounded with endless sound since when air is vibrated in any way, there should be sound generated. When sound comes into being, the compressed air spreads out at the speed of 340m/sec. The sound is waves composed of various frequencies among which there is even inaudible one by human ear, which is composed of ultra-low frequencies called infrasound.

In one dimension, when the nodes of a certain wave are motionless, and the other parts of the wave are vibrating, the one is called “standing wave”. The same logic is applied to two

dimension which means that there can be the same standing waves, so that a fistful sands which are spread out on a metal plate makes an uniquely shaped pattern on the plane, since the sands moved to the motionless parts of the plate which corresponds to the nodes of the wave in one dimension when an edge of the plate is scratched with a violin-arrow.

In three dimensions too, the same logic applied. A regular distribution of atoms in a three-dimensional crystal lattice might be claimed that it is a result of wave-motion arose from the interaction of atoms with each other. When we understand interference patterns of waves, which are subdivided into constructive and destructive interferences along with beat frequencies, it might be helpful to understand the mechanism of transfer of spiritual energy.

The resonance or coherency of waves is an important factor of mechanism in the transfer of information in the nature. Especially in the human brain, the mechanism of the preservation of information might be explained by “Hologram” (M. Talbot). In the same talking, the genetic information of DNA might be explained in the same way that is hologram mechanism (M. Talbot).

In a pendulum motion, the closer the pendulum goes to the returning point, the slower the speed becomes, and finally it stops at the returning point before returning back. In the Newtonian physics, at the returning point, the degree of acceleration is minimum, and the speed is zero. However, in quantum mechanics, at the same point, when moving distance is shorter than Plank-distance, e.g.,  $10^{-33}$  cm, the pendulum moves without any consumption of time. The concept of speed (S) is defined as  $S = \text{Distance moved} / \text{Time consumed}$ .

Therefore, when the time consumed is zero, the speed becomes infinite. What it means is that at the location, which is extremely close to the returning point, the speed of pendulum is infinitive. To understand this situation precisely, one more theory of Heisenberg is needed at this point. In the “uncertainty principle” of Heisenberg, when speed and location is determined, both of the two quantities can never be measured precisely at once but can do only one of the two quantities. Let’s go back to the experiment, then at the very moment of the returning point, the one quantity; speed is zero that is certain value. Consequently, the other quantity, location of the pendulum should be uncertain, which means that the location of the pendulum is everywhere in the universe.

At ambient temperature, atomic particles have vibration at 1015 Hertz, so that physical matters are blinking (appear/disappear alternatively) by that speed even though anybody can’t see the reality. When we look into the very inside of our body, there is nothing visible but is only vacant space which is actually filled with interacting electromagnetic fields. The reality

is that the physical matters touchable exist only when they are in motion but are not in the world as physical matters when they are motionless. It means that when we recognize any physical matters, they are in motion. These are the world of the objective physical existences. By the way, virtual particles in quantum theory and the relationship of the virtual particles to vacancy have also really dynamic property.

Now, isn't it close to the logic of existence in the oriental philosophies?

At ambient temperature, atomic nucleus's are vibrating at the speed of 1022 Hertz. Molecules are much bigger in size than atoms so that they are vibrating at 109 Hertz. Both of nonliving physical matters and human body are composed of identical units, particles, which are vibrating in electromagnetic fields. The Nature (the God) made of living cells with clusters of the unit particles called "molecules" and of the next step of cluster called "macromolecules". Addition to that, anew machinery, which is called neuron was made or differentiated from the cells to communicate with surroundings. The cells are vibrating at around 103Hertz. If our cells could vibrate or harmonize their frequency to the levels of outside matters, human bodies could have exchange information faster or more effectively. However, the reality is that our sensory organs have dramatically low speed in communication or receive information's from outer matters. However, we can increase this function through various ways of practice described below.

Vital energy for human life can come into body through two different ways. The one is a way of using physical materials, e.g., nutrition which is oxidized in the body to be converted to vital energy (ATP). The other one is a way of energy transfer from the outside donors as a shape of energy itself, even though it is extremely limited. The function of accepting energy from donors in surroundings is lot superior in plants than animals including human beings since they are equipped with chlorophylls, which are antenna for the reception of solar energy.

However, though it is very low level, human body can accept energy per se from surroundings, but this function is extremely lowered by various reasons, so that human body can acquire energy mainly from the oxidation of carbohydrates and lipids through biochemical reaction. Nevertheless, there are some ways (Methods) of practice to increase the function of reception of outer energy that are the very ascetic exercises in the oriental philosophies such as "Yoga" "Dan", "Chan, "Meditation", "telepathy", and specific practices of respiration etc.

Our heart is the strongest vibrator in our body making it chaotic, noisy state. Whenever blood is pumping out from the left ventricle of heart, the moving of molecules in vessels dramatically increases noisy disturbance making the body-state like facing an earthquake.

At the next moment in which pumping is stopped, body recovers tranquility. It is difficult to be in resonance-state with incoming waves (information or energy) from surroundings at the disturbed state of body, but at the tranquil state e.g., the mildest vibration, body's antenna (brain) for information can be adopted to the best function in reception of the outer information.

However, each cells of human body have to acquire nutritional materials to generate energy for viability. For the request, heart can't help pumping to transport materials to the cells, and at this time, a particular substance is charged in a very important role as solvent for the materials transported and that is just water. At every moment of the heart pumping which is indispensable for the viability of the cells in our life, disturbance (vibration) is maximized, and the function of brain is minimized. Therefore, at one moment, one may be genius; and at the next moment, the one be blockheaded alternatively; hence, the level of brain function might be the average of the two extremes. Based on the argument, the "Dan", "Chan", "Yoga", "Meditation" and special practice of respiration may be suggested to be practical ways to make body stayed in the lowest vibration-state, and the best way to communicate with spiritual teachers.

Physical universe and nonphysical universe also have modular system in their construction. What that means is that a clustering of smaller units forms a matter of next larger level and another next level and so on sequentially; and backwardly, the larger matters can be divided into smaller components sequentially. In the same way, a clustering of atoms through chemical reaction forms molecules and then macromolecules, and sequential clustering of the molecules forms visible matters, such as crystals or living organisms. The more the stages of clustering goes on, the more different shape from atomic structure are formed.

However, after so many stages of clustering, the matter comes back to the similar shape to the beginning atomic shape. As a matter of fact, the orbital structure of solar system is partly resembles the orbital structure of atoms. Whole matters are reiterated like this in modular repetition. This logic may be partly coherent with the logics of "quantum theory".

**Tip:** In the most case, death of human body is not ascribed to genetic life span but is ascribed to nutritional deficiencies. There are known kinds of essential substances, which can never be lacked for keeping our life. However, most of people doesn't aware of what the essential substances are. What should be emphasized here is that the essential substances are always lacked in our daily foodstuff. Nevertheless, people don't care the danger of the deficiencies of the essential nutrition because they don't know what the essential substances

are doing. Death or diseases are not because of only pathological organisms or aging but because of deficiencies of essential materials. When all the essential substances are fulfilled in our body, even if pathological bacteria came into our body, we could avoid illness, even if got old in high age, we didn't have to have wrinkles, could avoid cancers, and elongate the life span. The answers for the most important question or curiosity about what those essential substances are will be given in the original paper.