

Oriental Thought and Unified Science

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The following speech was given at the First International Conference on the Unity of the Sciences in November of 1972. Dr. Yoon, dean of the College of Engineering at Kyung Hee University in Seoul, Korea, compares traditional Oriental Thought with the concepts of Unified Science, as explained by Edward Haskell in Full Circle, the Moral Force of Unified Science.

I am sure that until my father's generation, all that Oriental intellectuals learned about such subjects as politics, economics, religion, literature, and natural science was based on Oriental philosophy. Although I am an alien to my father's way of thinking in intellectual fields, my way of living and my viewpoint have naturally developed under the same philosophical influence as those of my ancestors. Having benefited from the consequence which grace Oriental thoughts, I now discover similar thoughts hidden in Full Circle. Thus, it seems to me that the philosophy, civilization, way of life, religion, and politics which are enjoyed by Orientals are in harmony with the thought of Unified Science.

The Oriental systems of thought were not originally divided into scientific culture and literary culture. Rather, their unity is essentially due to the beginning-point of Oriental thought, which unifies the whole phenomena of man and nature. It is known that it was the first, legendary Emperor of China, Fu-i, who derived the world creation thought; and that the Yellow Emperor, Huang-Ti (2,600 BC) derived the theory of the dual power of Yin and Yang and the five elements theory. Lao-Tze and Confucius, two famous philosophers who lived six centuries before Christ, arranged and systematized all the Oriental thoughts up to their time in their books. The Book of Change (Chou-I), which was originally described by Confucius and later supplemented by Che-Tze (1130-1260 AD), affirms that the man of a gentle spirit is a man whose virtue is consistent with Heaven and Earth, his brightness with the sun and moon, his order with the four seasons, and his fate with spirit.

This view has not only reigned over the spiritual powers of our ancestors without any marked changes in its ruling principles, but has also been very active in our Oriental subconscious.

Taoist origins

The origin of our Oriental thoughts was in Taoism, whose function is to form a picture of cosmogony: the philosophy of the origin of the world. In other words, the conception of Taoism is similar to that found in St. John's Gospel, Chapter 1: "In the beginning was the Word, and the Word was with God, and the Word was God." To express Taoism in more familiar terms, Tao is the Way, and is subdivided into the Tao of Heaven, the Tao of Earth, and the Tao of Man: for each fits into the other as an indivisible entity. The following is quoted from Lieh-tze (400 BC), the oldest author who proposed a theory of creation. "...starts from chaos, in which the three primary elements of the universe-force, form and substance-were still undivided.

This first stage, chaos, is followed by a second, the great inception, when force becomes separated; then

by a third, the great beginning, when form appears; and a fourth, the great homogeneity, when substance becomes visible. The light and pure substances rise upward and form Heaven; the heavier and coarser sink down and produce the Earth."

This concept of the division of substance into a lighter and heavier part is one of the many forms which express the origin of the Oriental people's belief in a dual power.

Meaning of Yin and Yang

The dual power that arose from the primary state was held to be the instigator of all change. For change was viewed as an expression of duality, as an emergence of a second out of a first state. The two components of the dual power were designated Yin and Yang. The two characters which stand for Yin and Yang have received a vast variety of interpretations. But an analysis of the ideographs themselves will ascertain the original and basic meaning of the character. A literal translation of the components of the two characters gives this meaning: the shady side of a hill for Yin, and the sunny side of a hill for Yang.

Yang stands for sun, heaven, day, fire, heat, dryness, light, and many other related subjects; Yang tends to expand and to flow upwards and outwards. Yin stands for moon, earth, night, water, cold, dampness, and darkness; Yin tends to contract and to flow downward. A heaven, Yang sends fertility in the form of sun (and rain) upon the earth; hence heaven's relation to earth is like that of man and wife, the man being Yang and the wife being Yin.

A few examples showing the extension of Yin and Yang from the physical to the moral, from the concrete to the abstract, may be instructive. Yang's motion and life; Yin is immobility and death. Yang is high and noble; Yin is low and common. Yang is good and beautiful; Yin is evil and ugly. Further Yang-Yin contrasts are: virtue-vice; order-confusion; reward-punishment; joy-sadness; wealth-poverty; health-sickness. In these contrasts, Yang represented the positive and Yin the negative side. It must always be borne in mind that Yin and Yang were conceived of as one entity, and that both together were ever-present. Day changed into night, light into darkness, spring and summer into fall and winter. From these, the most striking and regular manifestations, it was deduced that all happenings in nature as well as in human life were conditioned by the constantly changing relationship of these two cosmic regulators.

In this sense, the Yin and Yang theory, derived from Taoism, is very similar to the interpretation of light properties in the quantum theory of physics, in which light has both corpuscle and wave properties. It is clear, of course, that whenever they make their appearances, the corpuscle character and wave character of light come out separately; but they are essentially inseparable.

The five basic elements

We traced the close connection between the Tao and Yin and Yang, but it is necessary to break down the concept of Yin and Yang into more tangible components. The tangible components or creations of Yin and Yang are the five elements: metal, wood, water, fire, and earth. The essence of the five elements theory is that Yin and Yang, in addition to exerting their dual power, are subdivided into the five elements. Man, who was said to be the product of heaven and earth by the interaction of Yin and Yang, therefore contains the five elements also. The close relationship between the five elements and the human body was also extended to include human thought and actions.

The sequence of the five elements varies according to the viewpoint with which they are enumerated, for they are said to vanquish one another and to produce one another, Oriental philosophy explains the mutual victories of the elements in the following manner: "Wood brought in contact with metal is felled. Fire brought in contact with water is extinguished. Earth brought in contact with wood is penetrated. Metal brought in contact with earth is halted. Thus the sequence of subjugation is:

metal subjugates wood
wood subjugates earth
earth subjugates water
water subjugates fire
fire subjugates metal.

The sequence of creation is:

metal creates water
water creates wood
wood creates fire
fire creates earth
earth creates metal.

The theory of five elements is philosophically as well as essentially different from Empedocles' four-elements theory. If the four elements (water, air, fire, and earth) can be extended to 92 or 105 elements (such as hydrogen, helium, lithium etc.), then Empedocles' four-element theory is consistent with the conception of modern chemistry that all materials are characterized by the proportion of the elements composing them.

Broader application of Theory

On the other hand, the Oriental theory of five elements classifies not only the whole of universal matter, as Mendeleev's Periodic table classifies all of the chemical elements, but also the interactional relationships of the natural world, as well as the symmetrical movements of emotional and fatal vitality among human beings. In this way, all physical matter and spiritual phenomena are described within the boundaries of classification of the five elements, including the creation and subjugation of the five elements among each other. In addition, the theory of five elements classifies the four seasons of the year, and such items as flavors, orders, climates, musical scales, grains, animals, and many other groups of things.

The theory of the five elements extends not only through the natural world, but also through human affairs. It expounds the consequences of the acts of nations, politics and economics, as well as those of personal fate; and the desirable goals it describes are always too far away for us to reach to any appreciable degree in the scope of human experience up to our time.

In light of this, I do not doubt that the thoughts of Yin and Yang and of the five elements theory are very deeply rooted in all aspects of our Oriental spiritual, moral and habitual life.

After reading the book Full Circle, I suspected Mr. Haskell would be one whose personality is essentially attuned to Oriental thinking. He succeeded in systematizing Mendeleev's Periodic Table of atoms and extending the system-hierarchy from atomic particles up through human culture, generalizing it to both the natural and the human world. It will take a long time and much effort for us to recognize that Unified Science should not only criticize and reorganize Western thought and civilizations through a Copernican change of attitude, but also that it should re-evaluate and comprehend the viewpoint of Oriental thought, especially ancient Oriental philosophy, which is even now dying out among modern Asian peoples.

Oriental philosophy and system Hierarchy

I do not know exactly whether the Oriental philosophy can accept the system-hierarchy as a category or not. But I am sure that when we study and analyze Oriental philosophy from the modern scientific approach, periodicity and system-hierarchy should be included in it. As yet I am uncertain as to how "periodicity" and "system-hierarchy" should be abstracted from Taoism's dual power of Yin and Yang and its five elements theory. I am sure, however, that Oriental philosophy can be consistent with what Unified Science advocates and that the difference between Oriental and Occidental world views vanishes when the fundamental principle of the universe (human and natural) is explained.

Recently I have witnessed the surgical operation of an appendectomy carried out by a team composed of a doctor of Oriental medicine and two surgeons. The Oriental doctor used ten acupuncture needles (eight 1.5 inch needles and two 2-inch needles) for the purpose of anesthesia instead of the conventional method. It took 50 minutes, and then the surgery took 45 minutes, during which the patient was fully awake and even conversed with the doctors.

Immediately after the operation, the patient was not only able to stand up by himself but to step out of the operating room and walk to his room, which was about a hundred meters away. This astonishing event happened three weeks ago at the Kyung Hee University Hospital.

If Western medicine is closely interrelated with Oriental medicine, we don't know what other wonderful achievements can happen in the medical world in the near future. If Oriental wisdom and Western civilization keep in harmony, I am sure that great achievements can be made in Unified Science, Unified Religion, and in a Unified World.