

BIOCOSMOLOGICAL DESCRIPTIONS FOUND IN PRE-QIN CHINESE CLASSICS

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ABSTRACT. *It is well known that there are some cosmological discussions in some received Pre-Qin classics. However, interpretations on these themes have been confusing because of a sudden change of the Chinese character system in Qin dynasty (~221BC). The author spent more than five years in re-interpretation of the classics with new methodology, which has been proved effective in interpreting both received and unearthed classics. New interpretations of some classics (including received and unearthed Lao Zi, bamboo text Taiyishengshui and Genxian) reveal that the universe came from a chaos state (the first phase of evolution), which was separated by the formation of gases during a great change into heaven and earth (the second phase of evolution). Finally, the earth became habitable for creatures (the third phase of evolution – the formation of Oasis). By reinterpretation, Tao Te Ching (i.e. Lao Zi) says: “The third phase (Oasis) generates the ten-thousand creatures”. An unearthed classic, Genxian says: “Oasis came from the great transformation; life came from oasis; sounds came from life; languages came from sounds; concepts came from languages, and causes came from concepts.” In conclusion, the ancient Chinese scholars believed that the universe has a long evolution process, during which the most critical and meaningful change is the formation of oasis – a bio-habitat for all creatures. In this paper a brief introduction gives the reinterpretation methodology and its reliability. Emphasis is focused on translation and analysis of the original texts; however, detailed annotations of the original Chinese characters have been omitted to limit the length and to keep readability of the work in English.*

KEY WORDS: *Biocosmology, Bio-universality, Integralist studies, Chinese classics, Reinterpretation*

Introduction

Cosmology has been and will be an eternal topic of philosophy, religion, theology as well as science. In accordance to impossibility of any human experience, people are confused in various descriptions that full of discrepancies with each other. Even scientific interpretations, e.g. the Big Bang Theory, are not completely convincing. No methods or experimental devices can trace back or repeat the process. That is why this topic is philosophical, religious and theological but not purely scientific. It is reasonable to assume that solution of this problem can be solved only

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philosophically based upon well-established and correctly understood scientific principles because science and philosophy were both at the beginning of civilization and could not be completely separated from each other when the concept of science emerged. Man has difficulty even in clearly identifying or defining of the two important concepts. Moreover, during the past few centuries scientific methods enabled man to approach in depth both towards microscopic world and outer space, which greatly enlarged the difference of the concepts of science and philosophy but actually science really had not get rid of using philosophical thinking even in one second. From this point of view the author identified philosophy from science as explorations of truth that cannot be determined by experimental methods both in scales of time and space. (Wang, to be published)Cosmology is such a topic. Humanity is also such a kind of topic despite the fact that it involves only ideological problems of human beings, which has, of course, a shorter history than that of cosmology.

At the same time, “cosmology” can be treated (as Biocosmological association does, rehabilitating the original meaning of the concepts “cosmology” and “cosmological studies”) – as one of the three main (autonomous) types (and spheres) of rational cognition which (each one) initially deals with the four main areas:

1. A study of the Universe in its wholeness, i.e. fundamental rational representation about the world as a whole;

2. A definite rational resolution of the issue about active (driving) causes in the cosmic whole;

3. A definition of the fundamental (universal) laws in respect to both physical (Non-Organic) phenomena and processes, and equally, – in relation to life (Organic) phenomena and processes, and, herein, – referring to all spheres of life (biological, ecological, anthropological, of the individual’s ontogenesis, sociocultural, of the global evolution, including the world history and evolution of the sociocultural processes, etc.);

4. Elucidation, in the accepted cosmological sphere, of the place and role of the individual in current evolutionary processes of the one cosmic universal evolution of the life on Earth. (Khroutski 2011, p. 371)

Biocosmology as a form of neo-Aristotelism and which aims at the rehabilitation and development of scientific Organicism – it essentially does not distinguish between scientific and philosophical knowledge (equally to original Aristotle’s approach) – Biocosmology is precisely the form of scientific Organicism that treats the real world as the one Organic whole (Khroutski 2013). In other words, this is the neo-Aristotelian (autonomous) all-embracing sphere (supersystem) of knowledge which is based on its own (Aristotle’s – Organicist) universalizing physics and metaphysics; its own Four-causal aetiology (with the leading role of teleodrive causes) and its own Functionalist methodology, anthropology and socioculturology (based on the principles of *hylomorphism* and *fundamental functionalism*).

Since the First International seminar on Biocosmology (Veliky Novgorod, July 21–24, 2010), the formula of Biocosmological activity – “Bio-3/4” – is established.

Quoting K.S. Khroutski: “Here, in addition to Bio-universality, the notions of “Three-dimensionality” and “Four-causality” are introduced as the essential bases of scientific activity. The “three-dimensional” approach to the study of life processes implies the understanding and presumption of the synchronous (equal) existence of the three autonomous – independent from each other – spheres: two polar, and the third – intermediate, but fundamental.” (2010, p. 5) A significant moment, in this relation, is that Biocosmology itself (as a form of Organicism – neo-Aristotelism) is just one of the three main types of rational knowledge. Essentially, Biocosmology is the polar (opposite) realm to the currently dominating pole (sphere, supersystem) of Physicalist (Humanist – Anthropocentric) knowledge, wherein teleodrive causes are excluded from aetiology and basic methodology; and wherein the main dominating cosmological principle is Dualism – fundamental separation of human (idealist) consciousness and the outward world; while the chief cosmological principle in Organicism is *hylomorphism* – the unity of passive material forces and the active (leading and goal-driven) non-material causes.

Essentially, at the same time - the cornerstone is that exactly the third autonomous sphere of knowledge – an Integralist supersystem that is placed in-between the two poles (of Organicist and Physicalist knowledge) – is the main scope of Biocosmological Association. Integralist knowledge naturally integrates in itself (uses) the principles and patterns from both poles of cognition (Organicist and Physicalist). A crucial point is that any Integralist approach (like Yin and Yang theory) cannot have its own rational foundations (to which we can reduce the entire knowledge, for, it naturally contains in itself the polar meanings and mechanisms); but, in turn, in the case of adequate using the rational means from both (polar) spheres of knowledge – anyone (as well as taken from Pre-Qin Chinese Classics) – can be contemporarily explained by the accepted rational terms and notions (taken from the entire conceptual apparatus) and, thus – directly integrated into the whole scientific realm.

1. Background and Methodology

In the history of China, great amount of historical classics has been maintained and discovered, including both Pre-Qin received classics (They had been translated from Pre-Qin characters into Post-Qin characters) and unearthed Pre-Qin classics. However, the interpretation to these texts has been so various that many different and ambiguous versions of same texts are coexisting and continue to emerge. For example, hundreds or even thousands of books appeared in interpretation of Tao Te Ching (or Lao Tzu) since Han Dynasty. This famous book contains only about 5000 Chinese characters but obviously incorporates important philosophical ideas in it.

What’s the cause of the diversion? An answer to this question is the sudden change of the Chinese character system at Qin Dynasty. That is why Qin is a fateful demarcation of Chinese cultural history. Qin lasted only about 14 years, but in this period the imperial court had changed the character system that had lasted over two or three thousand years. The ancient character system had been designed carefully by

expressing meanings via shapes of subunits of a character. Compared to ancient Egyptian characters which had limited basic characters (to be precise, letters, as they had been transformed later), the Chinese characters were true pictorial character system. In Pre-Qin system, every part of a character has a definite meaning, and the combination of them consists the meaning of the character. Many mistakes appeared in the new characters when the system changed, in addition to it Qin was not a culturally developed state at that time among many states in the country. Newly unearthed material (Compiling Team of Qinghua University 2011) reveals that Qin State was a new state established for defending the territory of West Zhou Dynasty in its western frontier and consisted of immigrants from the former Shang Dynasty. Therefore, it was a state with a very strong army instead of a developed culture. When the central government was weakened the era of Warring States (East Zhou period) came into being and Qin finally demolished all other states including those with deep cultural background, e.g. Chu and Lu, and established Qin Dynasty in 221BC.

In spite of the fact that Qin lasted only 14 years, change of the character system caused further fatal changes during the following Han Dynasty. The Qin system basically kept pictorial characteristics but with appreciate amount of erroneous evolution. Then the Han system was a thorough transformation of the previous system because the royal court had changed the pictorial strokes into those with mostly vertical or horizontal ones and simplified thousands of pictorial morphemes into about 500 basic parts of the characters whose power of meaning impression was weakened and was mainly used for character classification purposes in compiling dictionaries. After one or two generations had passed (about 30 to 60 years later), when the scholars could recompile and translate the Pre-Qin classics, they found that they had difficulties to recognize the old characters. They translated many of them into the post Qin square characters obviously with great difficulty, and because of this, reinterpretations of some important classics began almost at the same time.

It is necessary to point out that, due to the discontinuance of different systems, modern theories of ancient Chinese philology have mainly been established on the basis of post Qin systems. As a result, it has been proved almost helpless in interpreting Pre-Qin classics. The phenomenon continues at present. All the scholars are interpreting pre-Qin characters via the so-called homophone substitution, which has been proved again and again by leading to diverse and erroneous results. The meaning of ancient Chinese characters is not decided by their pronunciation but the basic structure.

The author has been practiced in interpreting structures of each such character based on detailed analysis since 2006 and many positive results have been obtained. The method starts from analysis and recognition of each part of a character according to its pictorial shape, then according to their position (grammatical function) in different texts to get a most feasible meaning. This, in turn, is tested in other texts that contain the same character. Therefore, as examples accumulate, the reliability of its meaning from structural analysis can be well established.

The concrete analysis and exemplification are complicate and, therefore, are not included in this paper. Readers interested in it and able to read Chinese papers can refer to the papers published in Chinese (Wang 2010).

2. English Translation

At the very beginning, there was no oasis. Everywhere was viscosity, darkness and scrap. The viscosity was extremely viscous; the darkness was extremely dark and the scrap was extremely scrappy. Finally after a while the system became uncontrollable, and an enormous transformation occurred. The transformation generated atmosphere; the atmosphere cultured the oasis; the oasis brought the starting point for all the living creatures and the starting point developed the history thereafter. When there were no the Heavens and the Earth, there was no evolution. [The Heavens and the Earth] came from the scrappy and dark state: everywhere was muddy, just like sewage, and completely dark without a ray of light as well as life. The gas (atmosphere) was generated spontaneously, and it was generated at the end of the chaos period. Moreover, the gas generated and developed spontaneously. The gas generated at that time was not a single species but a mixture. The enormous transformation happened a long time ago, the generation of gas was then too. At that time the system became unstable, some products were going to be produced. Therefore, tangible things generated tangible things; invisible things generated invisible things; circles derived branches and the branches again developed into circles – layer-by-layer things developed. For its own purposes, the system developed continuously and repeatedly. The generation process repeated. As a result, heavy gas formed the Earth; light gas formed the Heavens. The tenacity of the gas worked. Cloud drift extended continuously. The tenacity of the gas separated the Heavens and the Earth, so that they came from the same source but behaves differently. It realized the first purpose of the system. The closely related Heavens and Earth gradually became dry and ready to serve as the second purpose: generating all the living creatures. The Sun and the Moon walk in space and they appear and disappear strictly obeying a rule.

Understanding the history enables further thoughts. Oasis came from the great transformation; life came from oasis; sounds came from life; languages came from sounds; concepts came from languages, and causes came from concepts. If the great transformation was not perfect, it would not be a great transformation; if the oasis was not perfect, it would not be an oasis; if life was not perfect, it would not be life; if sounds were not perfect, they would not be sounds; if languages were not perfect, they would not be languages; if concepts were not perfect, they would not be concepts; if causes were not perfect, they would not be causes.

To meet needs of food and maintain life span, plants for gathering developed. Developing provides causes; without developing, there would be no causes. Causes concerning with Nature. The Heavens¹ began with the great transformation, like a

¹ In Chinese ancient classics, the character (Tian) refers to the Nature.

suspending bronze bell that can be rung forever. Talking about a concept, men who first met it usually put forward one in hurry and others imitated or chosen the best one from several of them. Care must be taken to concepts in the world, people could not change while using to the wrong ones. Only the strongest can carry out at the time of evolutions in the world. There are many kinds of plants, which are the good things and going well without any trouble. Some bad things and troubles appeared, when Man came into being. Many things changed from their original statuses: the interior forms first and exterior after it; small things become large ones; soft things become hard things; round things then form edges and corners; darkness becomes lightness; short become long.

When Tao in the Nature administrates, the invariable One is always the One¹, but the variable matter repeats unlimitedly. The generation of the gas caused a great development, which had deep effect and great significance. There are two possible results in casting a baron bell: success and failure, both of them has reasons. Processes in the world happen spontaneously day and night without driving. There are two common features for life in the world: it cannot persist unlimitedly and cannot leave its habitat. Very long period is required for achieving all evolutions in the world. The concepts in the world may be adequate or inappropriate; the inappropriate can be referred to a learned king, learned monarch or learned scholars for elaboration. Therefore, even there are imperfect concepts, there will be no harm.

3. Discussion

The text was written on bamboo strips in Warring States period (~300BC) and first published in *Warring States Bamboo Strips Housed by Shanghai Museum (III)*. (Compiling Team of Shanghai Museum 2003) The title was added according to the first two characters of the text (Gen Xian) and was interpreted originally by the editor as “Tao”, which had been widely questioned and denied. As shown in this translation, the two characters actually mean “At the very beginning”, just like the first phrase appeared in the *Genesis* of the Bible.

The philosophical value of the text is not only the vision of the Heaven and the Earth formation, but put great emphasis on the formation of the Oasis, the habitable Earth for all the living things, and the meaning of life, languages and concepts. If there were no formation of the Oasis after the great transformation, there would be no life, no sound, no languages, no concepts on this world and, therefore, no causes that had been carried out on the Earth. In that case, the Earth would have been no more than a dead planet as anyone in the galaxy.

Traditional cosmology enquires origin of the universe, so did the ancient Chinese. However, the latter believed that the universe does not come from nothing, but from some kind of primitive matter – the chaos, which is formless, dark and viscous. This conforms to the conservation law of matter. Unfortunately, the appearance of quantum mechanics led some people to deny the validity of

¹ The One is another way to address Tao.

macroscopic laws on the basis of microscopic properties of basic particles. It is the basic particles that build up the macroscopic world; therefore, macroscopic properties of matter come from the collective microscopic properties of basic particles. For example, both the first and the second laws of thermodynamics are based on molecular properties, atoms or even electrons. When a volume of gas expands and does work due to heating at a specific pressure, it is done by the accelerating motion of gas atoms; the acceleration of atoms comes from the transition of some electrons from their lower energy level to higher level; the transition is caused by the incoming energy (it may be heat from the environment). Of course, one cannot see the effect of gas expansion by tracing only one molecule or atom, but each of them in the gas contributes to the effect. Hence, we cannot say that the macroscopic laws cease to be effective when we see it in respect of one molecule or atom. As a matter of fact, even for an electron, it tends to stay at the lowest stable energy level and energy is conserved in all processes. Therefore, macroscopic laws need to be described in some other way in case of microscopic processes, and that does not mean they ceased to be effective.

Some overwhelming but controversy theories breach natural and scientific laws. According to the Big Bang Theory energy and matter can accumulate infinitely at a very tiny spot (the so-called black hole), therefore, the universe can be contracted into a black hole and explode as well (the Big Bang). In this “theory”, the conservation law of matter is no longer working; the Newtonian laws lost their validity; the thermodynamic laws are overturned. But no new laws are established. On the other hand, once the “nut-shell” exploded, all the laws are working again.

Does it mean that such theories are wrong? It might be so. Because the “black hole” is almost beyond our vision and the tiniest particles are still in searching. During the past few centuries, thanks to the construction of powerful microscopes and telescopes our vision has been greatly broadened. However does it mean an infinite extension? Obviously it is doubtful.

Both dynamics and equilibrium are central concepts of thermodynamics, which suggest that, on a macroscopic perspective, while things are tending to reach equilibrium at some place, some dynamic processes are still happening somewhere else. These two factors are maintaining the world active but stable. Things are not suggested to be extreme and this is why the so-called “heat death” will never happen in the universe. As the text says, Tao (the laws) in the nature does administrate and no extreme things (annihilation of matter, unlimited gathering of energy) will happen. Philosophically, if matter can completely transformed into energy and vice versa, as suggested by the black hole theory, then the so-called “energy” must be a form of matter. Up to date, experimentally observed amount of matter that being annihilated is tiny, and it cannot be sure whether the amount of matter annihilated is due to lack of detection technique, or it has been transformed into some kind of unknown substance. On the other hand, the precious Oasis can be destroyed at much milder change of environments, say an increase of **average** temperature of 5 degrees. It is time for us to think more about Biocosmology and bio-universality. The text also tell

us that individual life cannot be immortal and leave its habitat, therefore, it is fatal for us to maintain the Oasis and all the living species in it.

Conclusion

The text, written about 2000 years ago, depicts in much detail the genesis of the heaven and the Earth, which came from a primitive matter. The great transformation brought with atmosphere and light from the formation of the Moon and the Sun. Thereafter, oasis formed, plants for food developed and hence life appeared. On these basis, sounds pronounced by living things, and languages came into being. By the way concepts were created by human beings and tested, elaborated through practicing. People gained the ability of philosophizing. These ideas call for the introduction and development of biocosmological conceptions (mainly of Integralist essence) – for the realization of numerous chances to re-think some controversy "scientific results" in the frontline of modern sciences.

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