

FEATURES OF CHINESE COSMOLOGY

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Abstract: This paper outlines some key features of Chinese cosmology and discusses its significance on contemporary philosophical issues. Contrary to popular approaches to comparative philosophy, I aim to offer a holistic picture of Chinese cosmology by examining its own concerns and its internal dynamics. In particular, I have traced the development of Chinese cosmology from the Shang dynasty to the Song dynasty. Due to the general nature of this study, many details need to be expanded in the future.

IN HIS 2010 PAPER “New Projects in Chinese Philosophy,” Robert Neville outlines eight new projects in which Chinese philosophy can be used as resources for “addressing contemporary first-order problems” (p. 46).¹ The fourth and the fifth projects concern cosmogony and philosophical cosmology. This paper is inspired by Neville’s paper and aims to address some issues raised in the above two projects. This does not imply that I agree with Neville on how these issues are classified or how they should be tackled. I do think these issues are important, and I agree with Neville that a good understanding of Chinese cosmology and cosmology is not just valuable for understanding Chinese culture, but also for resolving many contemporary challenges we face today, whether in Chinese culture or other cultures.

The purpose of this paper is to identify some unique features of Chinese cosmogony and cosmology, and to outline some directions for future research on these issues. As a result, many details will be omitted. Hopefully, we’ll see a comprehensive and systematic explication of Chinese cosmogony and cosmology in the near future.

I. Neville’s Projects

Neville’s fourth project of cosmogony is concerned with “the arising of cosmos.” (ibid., p. 49) This question goes beyond the big bang theory of contemporary physics and asks how the creation of the universe is philosophically possible. Neville outlines three possible solutions. The first one claims the universe is created by a transcendental God who is not part of the universe; the second one says the universe arises from a primordial being that contains all actuality. The third one, which Neville endorses and has defended in length in his 1992/1968 book *God the Creator*, claims the universe is created out of nothing, *ex nihilo*. Neville claims that this is also the dominant theme in Chinese cosmogony, and finds support from both the Daoist

¹ Neville’s paper was based on his presentation he gave at APA Eastern Division meeting on December 2009. He has been thinking and writing on these topics for quite a few years. In particular, many of his ideas on cosmogony and cosmology can be found in his 1982 book “*The Tao and the Daimon*” and 1992/1968 book “*God the Creator*.”

school (the primacy of non-being in *Daodejing*) and Neo-Confucians (Zhou Dunyi's notion of *Wuji*).

Neville's fifth project is about philosophical cosmology. Neville asks: "How should we understand nature philosophically, given what science is showing us in the fruitful reductionistic ways of science?" (ibid., p. 50) Neville's worry here is that modern science assumes that nature lacks any intrinsic value, and the great successes of science seem to threaten the values of human beings and human society. Neville reasons, "Without it [philosophical cosmology], we cannot understand the sciences of nature which, by themselves, tend to tell us that nature is without intrinsic value. Without it, we cannot understand nature as constitutive of human life and society and are likely to continue to overvalue human history and its conflicts relative to the depths of nature within us." Further, without philosophical cosmology, we cannot understand "the roles of human habitation within the evolution of cosmic nature," "the meaning of human life in any larger perspective than the projections of human ambitions", and "the true implication of human ambitions outside the ken of human interests." Again, Neville sees Chinese philosophy containing a rich source of theories and strategies which can help to resolve these issues.

It is worth noting that Neville's projects are formulated in the framework of process theology. With the cosmogony project, his analyses are framed within his own theory of creation (see Neville 1992/1968 and 1982 for more details). In philosophical cosmology, the concerns and motivations take root from religious perspectives. Though in comparative philosophy it is unavoidable to use a different conceptual framework to interpret another one, we must be aware of the potential distortions of such interpretations, especially when we try to force a fit between the two systems. Such distortions can come from the translations of concepts and propositions, but equally important, these interpretations may misplace the focus of the original system and may lose sight of the whole picture. In order to have a deep understanding of Chinese cosmology and cosmogony, we should understand the concerns and motivations from the Chinese perspective itself. For example, the issue of creation is one of primary concerns for Western theology, yet in Chinese thought its role is more diminished. Also, though I appreciate Neville's efforts to introduce Chinese philosophy to contemporary dialogues, I think first we need to get Chinese cosmology right. Otherwise we may get some fragmentary insights but fail to see the meaning of the system. In this paper, I will confine my efforts mostly to explications of Chinese cosmogony and cosmology; then I will return to one of Neville's questions in the end. Also, since cosmology and cosmogony are never clearly distinguished in Chinese philosophy, for the sake of convenience, I will use the term cosmology to cover both theories for the remainder of this paper.

II. Literature review

Many writers have noticed the uniqueness of Chinese cosmology, and have tried to characterize it in different terms. Chinese cosmology is said to be "organismic" (Needham, Mote), "non-transcendental" (Hall and Ames), and "non-dualistic" (Hall and Ames, and many others). These discussions contribute greatly to a better

understanding of Chinese cosmology, yet they are also troubled by overgeneralizations and vague descriptions.

The notion of an organismic cosmos is proposed as a contrast to the teleological cosmos of Aristotelian cosmology. However, the notion is never clearly defined, and it is not clear how an organismic cosmos is different from a teleological cosmos. A common analogy, biological organism, is often used to characterize organismic cosmos; yet biological organisms are teleological in the Aristotelian sense. More importantly, biological organism is not even the best analogy for understanding the Chinese cosmos. As Munro pointed out (reported by Schwartz 1985: 52), family is a better analogy to apply to the natural and human order of Chinese cosmology than that of biological organism, since the Chinese understanding of natural and social order has a clear hierarchical structure which a family also has. It might even be the case that the later conception of cosmos was modeled after the family structure.

David Hall and Roger Ames, in their provocative book *Thinking Through Confucius*, outlines two unique features in Chinese cosmology: an immanent cosmos (instead of a transcendental one), and conceptual polarity (instead of conceptual duality). These features in Confucian philosophy are further articulated with the resources in process philosophy. Hall and Ames's approach offers great insights into the study of Chinese philosophy and has a significant impact on later discussions. However, as it stands, the notions of transcendence and immanence need to be further clarified before we can properly apply them to Chinese cosmology. As Hall and Ames are well aware, there are different interpretations of transcendence in western thought. Their choice of understanding transcendence in terms of explanatory irreducibility is an interesting one, yet when so understood, it is not clear that Confucian cosmology (and other Chinese theories of cosmology) can qualify as non-transcendental. Even if we admit that there is a clear contrast between Chinese cosmology and its Western counterpart, it is not clear that the immanence/transcendence distinction captures that contrast. Also, the forced fit of Confucian philosophy into process philosophy does not offer a fair picture of Confucian philosophy. Hall and Ames's method of "cross-cultural anachronism" may offer great insights to contemporary philosophy, yet this cannot justify distorted interpretations which violate the integrity of original texts.

Hall and Ames's notion of conceptual polarity encapsulates nicely the interactive and dependent nature of things such as *yin* and *yang*, Heaven and earth, father and son, and husband and wife. It needs to be noted that such polarity is mostly concerned with attributes and relations rather than with substances. So this is slightly different from the dualist debate (e.g. mind/body) in the history of Western philosophy, which is primarily concerned with substances. It is not that the existence of father (as an individual) is dependent on the existence of son (which seems absurd), but that the attribute of being a father (especially, being a good father) is dependent on that of being a son. In other words a good father is a person who takes care of their sons and teaches them good values. More importantly, these polar pairs are interactive and complementary, and the relation between them is not a subject/object one. *Yin* and *yang* are complementary to each other, can penetrate into each other and are both indispensable. The relation is similar with those between father and son, Heaven and

earth, and husband and wife. Hall and Ames understand polarity as a symmetrical relation: “Such polarity requires that concepts which are significantly related are in fact symmetrically related, each requiring the other for adequate articulation” (1987: 17). In their discussion of organism analogy, they claim: “Where ‘organism’ might be applied to the Confucian cosmos, an important distinction is that there is no element or aspect that in the strictest sense transcends the rest. Every element in the world is relative to every other; all elements are *correlative*” (1987: 18).

Though their observations on conceptual polarity are penetrating, Hall and Ames fail to recognize that conceptual pairs may not be of equal status. It is clear from the history of Chinese philosophy, *yang* can play the dominant role, while *yin* plays a complementary role. The asymmetry is more clear in the relationship between father and son and between husband and wife. Also, the notion of conceptual polarity needs to be further articulated, and claims like “there is no contradiction in saying that each particular is both self-determined and determined by every other particular” don’t help. (*ibid.*) Another thing to notice is not all relations in Chinese philosophy can be understood in terms of polar relations. Even in Chinese philosophy, the relation between truth (*shi*) and falsity (*fei*) is as clearly cut as any dualistic relation can be. Hall and Ames, along with other philosophers, claim that in Chinese philosophy there is no conceptual dualism of mind/body, fact/value, knowledge/opinion, or reality/appearance; yet a more detailed study of these concepts often indicates that this is not the case.² Chinese often make such distinctions, and even if such distinctions are not made explicitly, it does not imply that Chinese do not have such distinctions. Clearly the exact nature and function of polarity relation in Chinese cosmology are complicated issues that need to be further investigated, and any oversimplified generalizations will not do justice to the complex and diverse landscape of Chinese cosmology.

III. Features of Chinese Cosmology

We need to approach Chinese cosmology from a holistic perspective. In ancient societies, cosmological theories were not just created for satisfying human curiosity; instead, such theories were created to explain a variety of phenomena, both natural and social, which were important in human life. Such theories could only be conceived by those who were educated and had to be sponsored by the ruling class in order to propagate. So it is no surprise to see that such theories addressed the concerns related to the ruling class. Yet many issues are of universal nature, and they can be found in many different civilizations. For example, the following questions seem to be fundamental in any cosmological theory: 1) what is the place of man in the universe? 2) What is the origin of the universe and of the man inside it? 3) The world is in constant flux, yet the changes are often orderly. So what are orders of change, and who/what is responsible for such orders?

² For a helpful review on these issues, see Geaney [2000].

In Chinese cosmology, these questions were not clearly separated. These questions are fundamental to human beings of all time. Human beings do not live alone in the world. There are many other things, such as the sun and the moon, animals and plants, rivers and mountains. More important, all early civilizations believed that there were spirits and gods who existed along with human beings. Though they were rarely observable, such beings were believed to be more powerful than human beings and were often invoked to explain the phenomena which early people could not control or understand. It is important to understand the nature of these entities (both natural and spiritual) and the relationship between these entities and human beings. All these inquiries fall into the scope of the first question. Similarly, the world is constantly changing, and it is important to know whether there is any orderly pattern for such changes, and if so, what those patterns may be. Both kinds of questions are of great pragmatic value. With such knowledge, one could have great predictive power and could better control what happens in the future at both the individual and the societal level. Chinese cosmology was primarily concerned with these two kinds of inquiries. The questions about the origin of universe and man were also of great theoretical interests, yet not all schools were concerned with such inquiries. This seems to indicate the practical mind-set of early Chinese philosophers, though theoretical inquiries became necessary when complex systems started to emerge.

It is necessary to distinguish philosophical cosmology from mythological stories. The latter are often based on metaphors or analogies and address some concrete concerns.³ Different myths or stories often have little internal connections and are often in conflict with each other. Philosophical cosmology is more systematic and coherent and is used to address more serious or abstract matters. The focus of this paper is only on philosophical cosmology. In the following I will identify some key stages in the development of Chinese cosmology beginning with the Shang dynasty though the Song dynasty.

Ancestor worship in China traces back to Neolithic Age, and according to Benjamin Schwartz, it has exerted a profound influence on the direction of early Chinese culture (1985: 37). From the earliest literary records in China, oracle bone inscriptions, it is clear that ancestor worship was prevalent in Shang period. It seems natural to assume that dead family members continue to live in a spiritual form and can interact with living human beings and influence human affairs. As it is common in primitive cultures, Shang people and perhaps earlier Chinese people postulated many spiritual entities, such as gods of sun, moon, river and mountains. Yet the centrality of ancestor worship seems to be a uniquely Chinese feature. This seems to indicate the preeminent role of family (including extended family or a clan) in early societies. The family seems to be the basic unit of early Chinese societies. Later, Confucius and his followers built their social and moral philosophy based on the

³ Though there are plenty of mythological stories about the origin of the universe and people, many writers have noticed that Chinese did not have a comprehensive picture of cosmogony until later in Han dynasty, and even then, the picture is superficial compared with the Western ones.

family affiliation. Since then it has shaped the basic structure of Chinese social and political systems.

Gradually, the notion of High Lord emerged in Shang period. High Lord was not just a family ancestor, but was understood as the god of all people, who wielded the power of creation and destruction. Schwartz conjectures that the High Lord might initially be the tutelary god of the Shang tribe, and became universalized when the Shang tribe gained more power to rule over others. Extant records are consistent with the theory that the High Lord might be the founding fathers of the Shang tribe, though later myths often reversed the logical order, claiming the founding fathers were sons of the High Lord by some mysterious interaction (such as eating the bird's egg or stepping on the big footprint which caused pregnancy).

In the Zhou dynasty, the notion of High Lord went through dramatic changes. In Chinese history, Zhou was initially a subject of Shang kings, who rebelled against the ruthless dictatorship of the last Shang king. Eventually, Zhou won the decisive battle and established Zhou dynasty. However, Zhou endorsed the same High Lord as the Shang people. So in order to justify their political uprising, the Duke of Zhou invented the notion of the mandate of Heaven: "it was not that our small state dared to aspire to the mandate of Yin [the Shang dynasty] but that Heaven was not with Yin. It would not strengthen its misrule. It helped us. What are we who dared to seek the royal throne? Shang-ti [High Lord] was not for them."⁴ So the god was the same for all the peoples (Zhou people preferred to use the word "Heaven" instead of "High Lord" to refer to this god). The god had no personal favor for one group of people or the other. So the High Lord did not belong to the Shang tribe only and did not prefer the Shang tribe over any other tribe. The peoples' or a state's fate was not determined by sacrificial offerings -- Zhou people could find no fault in Shang's sacrificing. Instead, Heaven transcended sacrificial offerings or personal preference and maintained an objective standard towards human affairs. This does not imply Heaven, perceived by early Zhou people, was a natural entity without any personal traits. Heaven still had wills, emotions and made decisions and acted on them. The Shang state was rejected by Heaven, therefore Heaven assisted Zhou in conquering Shang. In the *Book of Songs*, Heaven was often given human or personal attributes. Even Confucius in the later Zhou period talked about Heaven with personal characteristics. But it is clear that early in Zhou dynasty, Heaven became an independent and impartial judge of human affairs. We should not underestimate this dramatic change from Shang's god of High Lord to Zhou's god of Heaven. Heaven became a god which transcended tribe affiliation. It established an objective and independent set of order which every society needed to follow in order to avoid Heaven's disfavor and ensuing ruin.

The notion of Heaven went through further changes in later Zhou period. In the early Zhou dynasty, Heaven was conceived to be a personal god. In later Zhou dynasty and afterward, Heaven became less and less personal, and in its extreme it could be interpreted as a constant order of cosmos, governing both nature and human

⁴ Quoted from Schwartz, 1985: 47.

society. Both the Daoists and Confucians emphasized the notion of Way (Dao). Heaven, when it was not taken to mean the Way, played a much less important role in later cosmological thoughts. This was already obvious in Confucius, and more so in later philosophers of the Warrior States period. It will be a valuable project to trace the changes in the meaning of Heaven from the Shang dynasty to the Han dynasty and explore the social and political contexts for such changes.

Such naturalization of Heaven continued in the *Yin-Yang* theory of Zou Yan (邹衍), which had a tremendous influence on later Chinese cosmology. Zou Yan combined the *Yin-Yang* theory with the Five Elements theory to provide a comprehensive correlative system to explain a variety of natural and social phenomena. For example, Zou Yan applied Five Elements theory to explain the cyclical rise and fall of dynasties. During the period of the Yellow Emperor, the material *qi* of earth ruled. Earth is followed by Wood, and the ensuing dynasty of Xia was represented by Wood. Similarly the rise and fall of other dynasties also followed the generative order of five elements. Though such explanatory attempts seem outlandish to modern eyes, they are purely natural explanations which do not involve anything supernatural. Instead, the central idea is that there is a correlation between heavenly affairs and social affairs, and human beings need to follow the natural order in order to do well. This belief in the unity of Heaven and Man became the dominant theme in Chinese cosmology. According to historical records, Zou Yan was well respected by the rulers who clearly liked to utilize his knowledge to their advantage.

In Dong Zhongshu's theory during the early Han dynasty, the correlative theory was further developed and pushed to its extreme. First, many detailed correlations were now postulated. For example, the body of man was believed to resemble the shape of Heaven: "His hair resembles the stars and constellations. His ears and eyes, quick in their senses, resemble the sun and the moon. The breathing of his nostrils and mouth resembles the wind. ... The agreement of heaven and earth and the correspondence between yin and yang are ever found complete in the human body. The body is like heaven. "...the body's lesser joints correspond to the number of days in a year, and the twelve larger joints correspond to the number of months."⁵ Most of these wide-ranging correlations were quite arbitrary and could not be verified. Second, Dong believed that things of the same kind could activate each other, and in particular there were interactions between heavenly affairs and human affairs. "For example, when a horse neighs, it is horses that will respond, [and when an ox lows, it is oxen that will respond]. Similarly, when an emperor or a king is about to rise, auspicious omens will first appear, and when he is about to perish, unlucky omens will first appear. Therefore things of the same kind call for each other." (Chan, 1963, p283)

Even though Dong's theory was very popular at the time, it was later resisted by quite a few other thinkers. Not only were there many objections to the arbitrary correlations postulated by Dong, there were also criticisms against the theory of

⁵ *Luxuriant Gems of the Spring and Autumn Annals*, from Chan [1963], pp. 281-2. Also see Henderson [1984] for more details about correlative thinking.

interaction. For example, Wang Chong argued that Heaven had its own natural way and ran its own course. It would not show bad omens to warn people and would not show auspices to praise people. Even if interaction is possible, human beings in heaven and earth are like fleas in clothing and ants in their holes, which hardly ever have any impact on their hosts.

Wang Chong's ideas were close to the Daoist' view of nature, and such ideas were further articulated by the Neo-Daoists in the Wei-Jin period. Wang Bi explicitly introduced the ideas in *Dao-De-Jing* to interpret Confucian classics (esp. the *Book of Changes*). The world is governed by the Way, and man just needs to follow the way. "The Sage understands Nature perfectly and knows clearly the conditions of all things. Therefore he goes along with them but takes no unnatural action." (*Ibid.*, p. 322) Wang Bi also discussed the origin and the development of the universe and thousands of things inside it (cosmogony per se), and it had a significant impact on Neo-Confucian schools in Song dynasty.

Philosophical cosmology was a central part of neo-Confucian philosophy. Again the notion of heaven and its relation to man occupied center stage within Neo-Confucian cosmology. While the transformation of the notion of Heaven in the Zhou period was due to the need of political justification, the Neo-Confucian articulation of Heaven was mostly driven by philosophical concerns. Confucian moral theories had to be defended against Buddhist and Daoist challenges, and such arguments were often grounded in a particular cosmological framework. So many Neo-Confucians, such as Zhou Dunyi, Zhang Zai, and Zhu Xi paid serious attention to philosophical cosmology. In his commentary on the *Diagram of Taiji*, Zhou Dunyi outlined a Confucian cosmology that not only grounded Confucian ethics but also provided an explanatory framework for natural phenomena. *Taiji*, which comes from *wuji*, generates *yang* when it moves and *ying* when it rests. From *yin* and *yang* Five Elements emerge, and together they generate all the things in the world and are responsible for unlimited transformations. In their creation, human beings are endowed with the best from the Heaven, and so they are the most capable in the world and are morally good in nature. Such a cosmological picture became the foundation for neo-Confucian philosophy. Zhang Zai articulated the transformations of things with his theory of *Qi*, yet he also emphasized the generating and sustaining function of Heaven in such transformations. In Zhang Zai's theory, Heaven has its own mind which gives Him perceptions and feelings. Zhu Xi offered the most systematic and sophisticated theory of philosophical cosmology in Chinese philosophy. His dualist theory of *Li* (Principle) and *Qi* was used to explain all the difficult issues encountered in Confucian moral and political theory as well as in studies of nature. Here the original vague notion of Heaven was replaced by several distinct concepts, and no traces of personal characteristics could be found at all. Again, it should be a deeply beneficial and productive project to explore neo-Confucian cosmology and the role it plays in Confucian philosophy.

The traditional idea that Heaven and man are a united whole (*tian-ren-he-yi*) was preserved and emphasized in Neo-Confucian philosophy. The ideal relation (which is also the initial and the default relation) between Heaven and man is that of harmony. In particular, natural things and man have the same origin, as they are both created by

Heaven. Man is endowed with the best quality, and that is why man is the best among them all. Man shares the same essence with Heaven, and this explains why man is good in nature and so establishes a solid foundation for Confucian moral claims.⁶

The third question mentioned at the beginning of this section is clearly one of the central concerns of Chinese philosophers. Chinese were extremely conscious of rapid changes around them, and tried hard to understand the patterns and the causes of change. This was the case with the *Book of Changes (Yijing)* which became a Confucian classic, and remained to be the central concern of the Daoist philosophers (such as Laozi and Zhuangzi). There are many interesting topics concerning the Chinese concept of change, and a great deal of research has been done.⁷ Here I would like to point to one interesting feature: the lack of progressive view of change in Chinese cosmology. Starting with Confucius, the dominant trend was to look to the past for the ideal person (sage) or a moral society. The world often did not get better with time, but rather deviated from the previous ideal and actually got worse. So Chinese philosophers did not believe that there was an intrinsic progress toward an ideal with the advancement of time. Sometimes a cyclical theory of dynastic change was introduced, but again it was not a progressive one. The legalists tried to justify their political reformation by setting up a progressive model of social development, as Shang Yang claims: "In the highest antiquity people loved their relatives and were fond of what was their own; in middle antiquity, they honoured talent and talked of moral virtue, and, in later days, they prized honour and respected office."⁸ Yet they can hardly find any support for such claims, and the abysmal failure of Qin dynasty doomed the fate of legalism. Future studies on this aspect of Chinese cosmology are also of great significance.

IV. Future of Chinese Cosmology

Neville asks a very important question: given the scientific picture of the world we have today, how do we make sense of Chinese cosmology? Even though we can get a clear picture of what Chinese cosmology is, is it still relevant today? Can it make positive contributions to the issues we face today? Neville's question is not about contributions in terms of cultural anthropology or sociology. Certainly a better understanding of Chinese cosmology can help us understand Chinese culture and Chinese people. Hopefully we can better deal with many important social issues both domestic and international. Yet such benefits are not the direct contributions of Chinese cosmology. Even though a better understanding of radical religious systems

⁶ Such an idea seems to be common to all Confucians. Even though Xun Zi had a different understanding of human nature, he was in no way like a modern scientific philosopher who treats nature like an object. Heaven, for Xun Zi, is still the foundation for morality, though more so at the institutional level than at the individual level. See Machle (1993) for a detailed discussion on Xun Zi's understanding of Heaven and nature.

⁷ Some early studies can be found from the papers edited by Rosemont (1976). A recent paper by Wonsuk Chang is also interesting.

⁸ Chapter 7 of *Book of Lord Shang*, quoted from Rubin (1976: 97).

can help us better deal with people who believe in them, this does not necessarily imply that such a theory is correct. Neville's question is whether Chinese cosmology itself has any value, and whether it can make any direct contributions to contemporary issues.

I believe Chinese cosmology does have some intrinsic value in today's world. First, we need to make a distinction between science and scientism. Science involves any empirical studies of nature which produce knowledge we can use. Our ability to predict and control what happens has become more and more powerful with the advancement of science. Yet the empirical sciences themselves lack any value judgment. Science tells us what is the case or what can be done, but does not tell us what we should do. Scientism goes beyond the empirical sciences and enters into the realm of values, often with unjustified assumptions. For example, it claims the study of science is the only valid interpretation of the world, and any meaningful life must be based on the scientific picture. Here the meaning of life is clearly a value issue. Further, scientism often projects the progressive nature of scientific development into the human world, and claims that human society should move in a progressive way, though the meaning of such progress is often not articulated. Again it involves a value judgment about how society should develop. Such value judgments are more controversial and need to be kept separate from scientific claims. Second, we need to make a similar distinction in cosmology. Cosmology also has two components: an empirical component which overlaps with sciences, and a value component which belongs to philosophy but not to the sciences. If we keep science and scientism separate, we find that the philosophical reflections of cosmology need not be in conflict with sciences.

Chinese cosmology can be well integrated into the modern sciences. First, the empirical component of Chinese cosmology is more consistent with modern sciences. In the Western world, the tension between religion and science (especially Darwin's theory of evolution by natural selection) is very high, since claims about God's existence and attributes are not supported by modern science. In Chinese cosmology (Confucian cosmology in particular) there is no such tension. Second, in Western theology value claims are tightly tied to empirical claims about God's existence and attributes, so modern science poses an immediate threat to its value judgment. Yet in Chinese cosmology, many of its value claims are consistent with modern science. For example, the claim of the unified nature of man and Heaven is consistent with Darwin's theory of evolution, which views man as a product of natural selection. The harmonious relation between man and Heaven meshes with the theory of adaptation very well. Even the prominent role of man in nature seems to be justified in Sterelny's recent book which extols man's unique ability to change/impact the whole environment (Sterelny, 2003).

Chinese cosmology can also contribute more to the realm of values in a way consistent with modern science. For example, in Chinese cosmology nature is valuable in itself, and man is an integral part of nature rather than beyond or outside of nature. Such an understanding of nature can be very helpful to our long-term survival on earth. Similarly, the Chinese understanding of change offers an important alternative to the progressive picture which modern science assumes. The movements

can be in a cyclical pattern rather than a linear one. Also changes are often necessitated by nature itself. As a result there is no need for human beings to interfere with the nature constantly. If the system is in a natural balance, there is nothing that human beings have to change. As a Daoist would advocate, doing nothing is often the best thing to do.

A common complaint against Chinese cosmology is that it fails to make the distinction between value and fact, since it identifies moral value with the value of nature. Yet the identification of moral value and the value of nature does not entail that there is no distinction of value and fact. It only says that nature has the same value as man. The history of Chinese philosophy has plenty of examples where facts are distinguished from values; so this is really a non issue.

A profound concern is that Confucian cosmology seems to be committed to deriving moral values from the values in nature, which seems to be the case in Zhu Xi's philosophy. Yet there are no good reasons to brush this approach away immediately, and it might be a promising project if interpreted properly. Also, this is not the only way which Confucian cosmology offers. In Wang Yangming's philosophical system moral values are given a primary status. So there is no reason why Chinese cosmology cannot provide a great perspective on today's issues. More research needs to be done in this arena. There have been many illuminating studies on Confucian ethics recently, and I hope more attention can be devoted to these fundamental questions in Chinese cosmology.

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