

Deciphering Zhou Dunyi's "Taijitu" 太極圖

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Abstract

This paper aims to define the characteristics of Zhou Dunyi's (1017-1073) "Taijitu" (Diagram of the Great Ultimate) as a metaphysical cosmology rather than a cosmogony through an examination of the constitution of the Diagram itself, and to overview some derivative problems. It shall be shown that the flowchart of the Diagram has the structure of vertical symmetry and isomorphic repetition, which indicates that Zhou Dunyi's iconology was originally intended as a sort of metaphysics. Zhu Xi also seems to interpret the Diagram as the metaphysical structure of the cosmos rather than a mimetic diagram of the real cosmic generation. This paper regards Yi Hwang (1501-1570) and Jeong Ji-un's (1501-1561) "Cheonmyeong sindo" (New Diagram of the Heavenly Mandate) as one of the best examples to support the following interpretation of Zhou's and Zhu's ideas on the "Taijitu." In conclusion, this paper will suggest that Zhou's *Taijitu shuo* and Zhu Xi's metaphysical interpretation of it initiated the later unfolding of Neo-Confucianism.

Keywords: Zhou Dunyi, "Taijitu," *Taijitu shuo*, Zhu Xi, *Taijitu shuo jie*, Yi Hwang, Jeong Ji-un, "Cheonmyeong sindo"

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1. Traditional Scholarship on Zhou Dunyi's "Taijitu"

Neo-Confucianism is spoken of as systematized Confucianism, in which cosmology and metaphysics are highlighted as theoretically fundamental. As a matter of fact, the metaphysical concepts newly introduced into Neo-Confucianism contributed to the systematization of Confucianism. The metaphysical character of Neo-Confucianism originated from cosmological thought as well as philosophical and moral psychology. It was Zhou Dunyi 周敦頤 (1017-1073, Lianxi 濂溪) who introduced cosmological thinking to Confucianism, and he has been duly respected as a genuine predecessor of Neo-Confucianism and the successor of the orthodox Confucian Way after Zhu Xi 朱熹 (1130-1200) constructed the lineage of the transmission of the Way (*daotong* 道統). Among the various works of Zhou Dunyi, "Taijitu" 太極圖 or the "Diagram of the Great Ultimate" (hereafter, the Diagram) and *Taijitu shuo* 太極圖說 or the *Explanation of the Diagram of the Great Ultimate* (hereafter, the Explanation) have been explicitly regarded as some of the most important and insightful sources from which Neo-Confucian metaphysics began to unfold.¹

However, the Diagram, often referred to as just a part of the Explanation, has been a source of interminable controversies; since the Song onwards, even among Neo-Confucians there has been hardly any consensus of scholarly opinion concerning the nature of the Diagram and the Explanation. Numerous scholars have doubted Zhou Dunyi's authorship of the Diagram, suggesting that it could not have been Zhou but such influential Daoist priests as Chen Tuan 陳搏 (c. 906-989), Chong Fang 种放 (?-1014), and Mu Xiu 穆修 (979-1032) who created the Diagram.² Due to this alleged association with non-Confucian figures, it could be credibly argued that the

¹ As Chen Lai 陳來 already pointed out, Zhu Xi was not the first person who shed light on the Diagram and the Explanation although later scholars were influenced mainly by Zhu Xi. During the period of Emperor Xiaozong 孝宗 (the Qiandao 乾道 era, 1165-1173), Zhou's Diagram and Explanation already called the attention of many scholars. See Chen, *Zhuzi zhexue yanjiu*, 77.

² For a more detailed explanation of this, refer to Lao, *Xinbian Zhongguo zhhexueshi*, 3:92-114. According to Lao Siguang 勞思光, modern scholars, including Takeuchi Yoshio 武内義雄 (1886-1966) and Fan Shoukang 范壽康 (1895-1983), have taken for granted Mao Jiling's 毛奇齡 (1623-1716) opinion about the Diagram, believing that the Diagram was transmitted to Zhou from Daoists of the Tang-Song period. Although Lao did not mention, Feng Youlan 馮友蘭 also agrees with Mao. See Lao, *Xinbian Zhongguo zhhexueshi*, 3:96-97.

Diagram was not an authentic Confucian source. In fact, such doubt first materialized in the debate between Zhu Xi and the Lu brothers: Lu Jiuyan 陸九淵 (1139-1192, Zijing 子靜 and Xiangshan 象山) and Lu Jiushao 陸九韶 (1128-1205, Zimei 子美). A key point of contention in this debate was the questionable reliability of the Diagram and the Explanation as Confucian sources. Alongside this debate, many scholars applied their own interpretations to the Diagram and the Explanation, for example, Xu Qian 許謙 (1270-1337), Xue Xuan 薛宣 (1398-1464), Wang Shouren 王守仁 (1472-1529), Luo Qinshun 羅欽順 (1465-1547), Wang Tingxiang 王廷相 (1474-1554), and Wang Fuzhi 王夫之 (1619-1692).³ Korean and Japanese scholars also advanced their opinions about this topic.⁴

A possible reason for the rise of various Neo-Confucian interpretations of the Diagram is that Zhou did not adopt such Neo-Confucian concepts as *li* 理 (principle, pattern), *qi* 氣 (material/vital force), *ti* 體 (substance), *yong* 用 (function), *xing* 性 (nature), and *xin* 心 (heart-mind), which would have facilitated later Neo-Confucians' diverse elaborations on Zhou's understanding of the cosmos, the human being, and all myriad things. In other words, the unclear quality of Zhou's Diagram caused later scholars to interpret the Diagram through their own philosophical concepts, which could not but bring controversy.

As a subsequent exploration of Neo-Confucian discussions on the Diagram, this paper aims to understand the characteristics of the Diagram. However, to do justice to Zhou's original work, this paper will not impose such Neo-Confucian concepts as *li/qi* and *ti/yong* on the Diagram. This methodological avoidance of Neo-Confucian philosophical concepts does not mean that Neo-Confucian interpretations of the Diagram were misguided. Rather, it means provisional detachment from the traditional commentaries, i.e., Neo-Confucian interpretations of the Diagram. Nevertheless, the findings of this paper may help us apprehend and re-affirm Neo-Confucian interpretations of the Diagram from a new perspective. As discussed later, Zhu

³ Refer to Zhou, *Zhou Dunyi quanshu*, 74-273. As John B. Henderson points out, although this subject is not so "perennial" or "essential" as other touchstone issues such as "the potential goodness of human nature," "the one principle/diverse particularizations" formula, and "the sixteen-character transmission," scholars never ceased to discuss the Diagram and the Explanation, and the key concept, the Great Ultimate. Refer to Henderson, "Touchstones of Neo-Confucian Orthodoxy," 80.

⁴ In Joseon Korea, the "Mugeuk Taegeuk" 無極太極 debate arose between Yi Eon-jeok 李彦迪 (1491-1553, Hoejae 晦齋) and Jo Han-bo 曹漢輔 (?-?, Manggidang 忘機堂) in 1517. See E. Yi, *Hoejae jip*, 5:5b-25a. In Japan, Yamaga Sokō's 山鹿素行 (1622-1685) criticism of Zhou Dunyi is notable. Refer to Tucker, "Yamaga Sokō's Essential Lexicography of Sagely Confucian Teachings," 71-80.

Xi, the first annotator and commentator of the Diagram, will be re-appreciated from this new perspective. In conjunction with Zhu Xi's case, Joseon Korea's Neo-Confucian, Yi Hwang's 李滉 (1501-1570, Toegye 退溪) reconstruction of the Diagram will be discussed as a compatible interpretation with my position.

2. Modern Scholarship on the Diagram: Two Ways of Interpretation

In order to explain the characteristics of the Diagram, modern scholars have frequently used the term "cosmology" (*yuzhou lun* 宇宙論), and there appears nothing outwardly wrong with this label. What they mean by cosmology, however, is both unclear and inconsistent; they do not define the term properly in their contexts. Generally, cosmology is understood to concern two different fields of study: Cosmogony and Metaphysics. There has been no scholarly consensus in defining the term "cosmology" for their studies of the Diagram; the term is assumed to signify cosmogony by those who attempt to explain the origin of the cosmos and its evolution, whereas it is presumed to mean metaphysics by those who argue for the fundamental structure and the nature of the cosmos.

Although the two fields have often interfered with each other in their intellectual history, the foci of the two spheres are different: cosmogony is materialistic and practical, as it is based upon the assumption that the cosmos has evolved out of the primal physical stuff and event, whereas the metaphysical understanding of the cosmos is more constructive and theoretical than materialistic and practical. Thus, it can precipitate a lapse into confusion if one understands the term cosmology to signify both cosmogony and metaphysics simultaneously in a single context. Accordingly, what needs to be identified in modern studies of the Diagram is whether they regard the Diagram (and the Explanation) as cosmogony or metaphysics.

Although Feng Youlan 馮友蘭 once defined the Diagram as cosmogony (*yuzhou fasheng lun* 宇宙發生論), Feng's elaboration of the Diagram as cosmological speculation bears on metaphysics rather than cosmogony.⁵ When Maruyama Masao 丸山眞男 uses the expression "emanatory tendencies" in the Diagram, he understands the Diagram to be a sort of cosmogony.⁶ J. Needham

⁵ Feng claims that Zhou reinterpreted the Diagram originated from Daoist alchemy. Feng's claim was, however, not a cosmogonic interpretation. The expression "their cosmological speculations" seems closer to Feng's meaning. For this expression, see Fung, *A History of Chinese Philosophy*, 407-476.

clearly shows his understanding when he uses such terms as “cosmogony,” “evolutionary,” and “embryology.”⁷ Mou Zongsan’s 牟宗三 description of the Diagram as the theory of the original substance (*benti* 本體) belongs to metaphysics.⁸ Yamada Keiji 山田慶兒 uses “ontology” in his study of the Diagram, which is compatible with metaphysics.⁹ Lao Siguang’s 勞思光 interpretation is based upon his cosmogonic understanding of the Diagram, despite his use of the term “metaphysics” (*xingershangxue* 形而上學).¹⁰

These examples represent two antithetical viewpoints of the Diagram, i.e., cosmogonic and metaphysical interpretations. Their differences are not only regarding the connotations of the term cosmology, but also regarding scholars’ perspectives on the Diagram. Generally, the cosmogonic view considers the Diagram to be a mimetic description of the real process or evolution of the cosmos, whereas the metaphysical view defines the Diagram as the speculative construction of the cosmos.

At this juncture, what should be noted about modern scholarship on the Diagram is that most scholars have tried to explicate the characteristics of the Diagram based on the Explanation. In other words, although they often conveniently refer to both the Diagram and the Explanation as “the Diagram,” their focus has been on the Explanation, thereby not discussing the uniqueness of the Diagram *per se*. This tendency may overlook a crucial possibility: Zhou Dunyi might not have used the Diagram if he could have expressed his idea successfully without it. In other words, the Diagram itself may have a certain dimension that cannot be described as a narrative form of words. Given the importance of icons in Chinese philosophy—symbols and diagrams have conventionally been used to deliver abstract ideas that cannot be expressed effectively in words—modern scholarship on the Diagram may have some shortcomings. The two different views of the

⁶ Maruyama holds that it was Zhu Xi who reinterpreted the Diagram in a “rationalistic” way. Maruyama, *Studies in the Intellectual History of Tokugawa Japan*, 20-27.

⁷ Needham, simply put, wants to find some shoot that could have germinated into modern science. In addition, his cosmogonic reading of Zhou seems to relate to the so-called organic viewpoint of the cosmos. Refer to Needham, *Science and Civilisation in China*, vol.2, 465-466.

⁸ Mou claims that the Explanation should be read as “the mystic function of the original substance” to signify “many to the one; the one to many,” rather than the literal meaning of a linear process of cosmic generation. Refer to his *Xinti yu xingtū*, 1:305-356.

⁹ Yamada, *Ju-jia-wei jayeonhak*, 129-131.

¹⁰ Lao claims that the Diagram and the Explanation have the features of “cosmology” and “metaphysics,” but he concentrates on criticism of Zhu Xi’s metaphysical understanding by highlighting the cosmogonic or evolutionary features of the Diagram and Explanation. Lao, *Xinbian Zhongguo zhexueshi*, 3:74-77.

Diagram, i.e., the cosmogonic and metaphysical perspectives, may need investigation through a careful examination of the Diagram itself, rather than merely depending on the Explanation.

Accordingly, this paper will discuss the nature of the Diagram by analyzing the structure of the Diagram *per se*, although occasional reference to the Explanation is inevitable. Of course, inquiries into the Diagram cannot but involve some philological issues, for example, the striking similarity between Zhou's Diagram and other Daoist diagrams. However, the evidence for a philological argument is always open to converse interpretations, sometimes inconclusive, and susceptible to the philosophical presumptions of the interpreters. Given the marked influences of Zhou Dunyi's work on the history of Chinese thought despite the contentious philological issues, it might be more fruitful to extract the underlying philosophical perspectives from Zhou's work *per se* and later interpretations. Hence, I focus on a philosophical reading of the Diagram rather than the philological issues. Presently, this paper will make full use of the unique features of Zhou's Diagram, i.e. the display, sizes, and captions of symbols in the Diagram.

3. Deciphering the Diagram

My hypothesis is that the Diagram as an icon represents Zhou's metaphysics or metaphysical cosmology; in other words, the Diagram is his speculative reconstruction of the cosmic structure. For convenience, the Diagram has been divided into 5 sections, and English translations of the original captions have been added on the Diagram, as seen in Figure (a).

The division seen in the figure is not arbitrary, but obvious in the Diagram and the Explanation. However, what has to be noted is the fact that Zhou did not employ a caption in zone 1 of his original work; nevertheless, we may borrow the caption, "the Ultimateless and yet the Great Ultimate" (*Wuji er Taiji* 無極而太極) from the first sentence of the Explanation.¹¹ Why did Zhou neglect to use a caption in zone 1? Let us call this question (0) for further examination. Besides this enquiry, one might be tempted to ask a series of questions when attempting to read the Diagram:

¹¹ The Diagram used in this paper is taken from the *Seonghak sipdo* 聖學十圖 (Ten Diagrams of Sagely Learning) edited by Yi Hwang. Despite the absence of a caption in the original work, many modern publications have added a caption to zone 1. For example, Zhou, *Zhou Dunyi quanshu*, 31; Bak, *Geunsa rok*, 27.

The Ultimateless (Ultimate of Non-Being)
and yet the Gate Ultimate

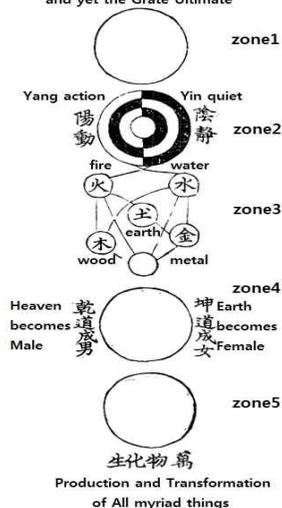


Figure (a)

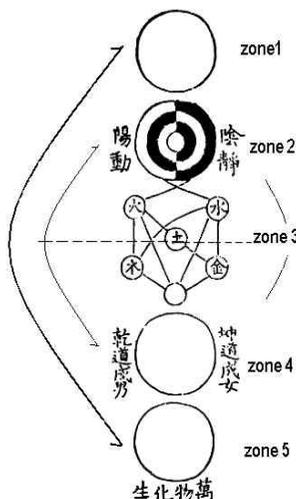


Figure (b)

- (1) Why does the Diagram use so many circles? or, Why is the Great Ultimate expressed in the form of a circle?
- (2) Why does zone 4 use an undivided white circle, despite the fact that its caption refers to male and female (*qian* 乾 and *kun* 坤)?
- (3) Why does zone 5 also use an undivided white circle, despite the caption, "production and transformation of all things"?

Question (1) will be discussed from a broader cultural perspective in the next section, because the logical or necessary reason for the use of circles cannot be identified within the Diagram itself. Questions (2) and (3) as well as (0) may be answered by examining and speculating on the Diagram. Questions (2) and (3) can be supported by the following assumptions:

Question (2): It would be more intelligible to use some sort of binary or divided circle or even two separate circles in zone 4, because the caption mentions heaven and earth, male and female.

Question (3): It would be more reasonable to use a number of dots or small circles in zone 5, because all things are numerous and countless.

These assumptions, however, may reflect that our questions appear to be directed by certain philosophical suppositions. That is to say, our questions may presume that the Diagram is a mimetic chart or the representation of cosmic generation, namely cosmogony. If the Diagram was viewed as a cosmogonic model, the Ultimateless, the Great Ultimate, *yin* 陰 and *yang* 陽, and the Five Phases would have to be regarded as individual substances respectively.¹² In this case, every icon should stand for a single substance. Only when we subscribe to this way of thinking would the foregoing questions be justified.

However, it is not beneficial or effective when deciphering the Diagram because it cannot explain why the gradual augmentation in complexity and the number of icons suddenly stop at zone 4. This predicament suggests that the Diagram may not be a cosmogonic model, and therefore a different approach is needed. The hypothesis is that the Diagram is a speculative reconstruction of the cosmos, i.e., metaphysics, thereby using the same single circle even at zone 4 and zone 5. The Diagram itself seems to represent Zhou's metaphysical scheme. This hypothesis is supported by the following experiment and reading.

As shown in Figure (b), our reading starts from folding the Diagram vertically into two. Figure (b) tells us that zone 2 overlaps with zone 4, and zone 1 with zone 5. They can perfectly overlap one another because they are equal in both shape and size. This overlapping structure may be called a "vertical decalomania" or "vertical symmetry."

From the folded diagram, we can see two interesting pairs. First, zone 2 and zone 4 are overlapped, and as expressed in the caption, the former signifies "*yin* and *yang*" and the latter stands for "male and female." Therefore, this overlapped set may imply "*yang* : *yin* = *qian* (male) : *kun* (female)." In other words, this first vertical symmetry draws our attention to binary concepts, or the fundamental dyad system of the cosmos.

Secondly, zone 1 and zone 5 overlap each other. Zone 1 is the Great Ultimate; zone 5 signifies all myriad things. This symmetry seems to emphasize the unity between these two elements. However, what is of note in this overlapping set is that the Great Ultimate as the begetter of all myriad things is now equated with all myriad things. This may indicate that the Great Ultimate is not the cosmogonic origin which is often expressed in such

¹² If we identify the Ultimateless with the Great Ultimate, it would be possible to consider the first circle to stand for both the Ultimateless and the Great Ultimate. Otherwise, the Great Ultimate should be identified with the largest or smallest concentric circle of zone 2.

biological analogies as the seed and shoot. If we assume that the Great Ultimate is first generated, then we would expect that the Great Ultimate exists as either the center or genetic nucleus inside all myriad things. However, this assumption fails to take account of the second overlapping set, which casts light on the identical shape and size of zone 1 and zone 5 in the Diagram. It seems plausible to assume that the Great Ultimate is a sort of totality or the cosmos itself that can encompass all myriad things, although we can still call it begetter as the fundamental basis of the cosmos.

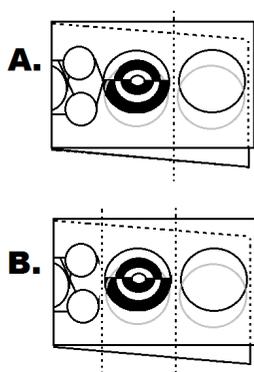


Figure (c)

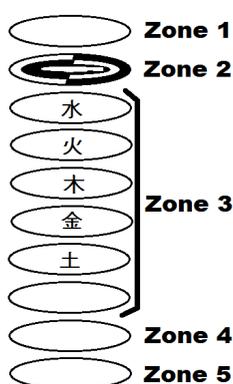


Figure (d)

Another possible interpretation is that the already folded diagram may be folded again (Figure (c)–A.) since the first and second sets consist of the same sized circles. This newly overlapped set can be interpreted to imply “the Great Ultimate = all myriad things = *yin* and *yang* = male and female.” In fact, zone 3 already overlaps zone 1 in the sense that the lower white small circle of zone 3 stands for zone 1, and encompasses the five phases. Now we may fold the twice folded diagram once again in our mind. (Figure (c)–B.) Consequently, it follows that the Diagram implies “the Great Ultimate = the Five Phases = *yin* and *yang* = *qian* and *kun*, or male and female = all myriad things.” This structure obtained from our last folding can be called isomorphic repetition (Figure (d)).

Each circle has its own quality and significance as referred to in each caption; nevertheless, they still maintain and reiterate the Great Ultimate. The structure of vertical symmetry can be reduced to isomorphic repetition at the last, but each structure has its own focus: the vertical symmetry

emphasizes a binary or dyad system of the cosmos and unity of the one and many, whereas the structure of isomorphic repetition shows the Great Ultimate as both begetter and totality, because the Great Ultimate is engraved in all things as the origin or fundamental basis, encompassing all myriad things and all constituents of the cosmos.

From the preceding commentary, we may infer that the Diagram should be considered to have a metaphysical structure, which is a speculative reconstruction of the cosmos rather than a mimetic picture of the generation. We can further assume that Zhou purposely employed identically sized circles in zone 4 and zone 5 for his metaphysical plan. Question (0) can therefore be answered by the structure of isomorphic repetition: Zhou Dunyi did not require any caption for zone 1 because every zone is nothing but a repetition of the Great Ultimate.

4. Zhu Xi and Yi Hwang on the Diagram

As to what distinctive feature or constitution the Diagram itself has, Zhu Xi also seems to possess similar ideas compatible with the thesis of this paper. As seen in Figure (e), Zhu continues to emphasize the white circle, O. We may say that he is well aware of the structure of isomorphic repetition. It is notable that he picks up two different sized circles from zone 2, which are “this O” (*ci* 此 O, the outermost circle of the *yin-yang* concentric circles) and “central o” (*zhong* 中 o, the innermost circle of the *yin-yang* concentric circles). This is indicative of a possibility that he might have kept in mind two simultaneous meanings of the Great Ultimate, i.e. begetter and totality. This suggestion gains strength from his explanations in the *Tajitu shuo jie* 太極圖說解 (Commentaries on the *Explanation of the Diagram of the Great Ultimate*):

^w
 ○ [the lowest circle of zone 3] is the reason why the Ultimateless is wondrously synthesized with the five phases, and there is no gap between two.¹⁶

At this juncture, the concept of “time” needs to be discussed because the isomorphic repetition seems to focus more on synchronic structure rather than diachronic generation. Yi Hwang shows a clearer understanding of the isomorphic repetition and synchronicity in the Diagram.

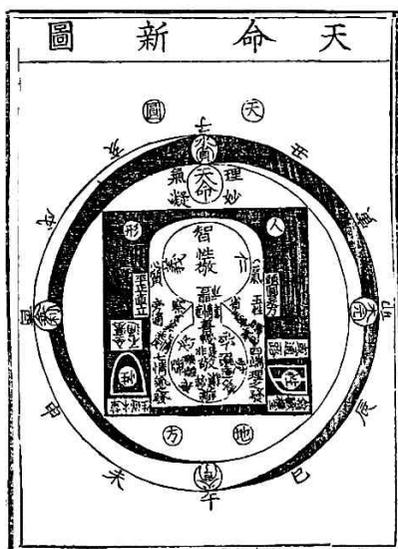


Figure (f)

The “Cheonmyeong sindo” 天命新圖 (New Diagram of Heavenly Mandate, Figure (f)) by Yi Hwang and Jeong Ji-un 鄭之雲 (1501-1561, Chuman 秋巒)¹⁷ can be deemed a new version of Zhou’s diagram, for they claimed that the “Cheonmyeong sindo” was not intended as an amendment of the Diagram, but rather as a new

be proven by both *Zhuzi yulei* 朱子語類 (A Classified Collection of the Conversations of Master Zhu) and *Zhuzi wenji* 朱子文集 (Collected Writings of Master Zhu), although Zhu Xi clearly often referred to the Great Ultimate as “only principle” and “not moving.” Teng, “On Chu Hsi’s Theory of the Great Ultimate,” 96-99.

¹⁶ H. Yi, *Toegye jeonseo*, 7:10a; Zhu Xi’s *Taijitu jieyi* in Hu, *Xingli daquan*, 1:3a; Zhou, *Zhou Dunyi quanshu*, 31-34: “^w此無極二五所以妙合而無間也。”

¹⁷ H. Yi, “Cheonmyeongdo seol huseo (budo)” 天命圖說後敘(附圖) in *Toegye jeonseo*, 41:11a.

expression of the Diagram according to their divergent focus.¹⁸ Yi Hwang thought that the narrative and flow form of Zhou's Diagram and Explanation is conducive to understanding the origin and mysterious transformation of the cosmos, while his Diagram reveals and highlights the (ontologically) right positions of all beings in the synchronically overlapped structure.¹⁹

However, as Yamada Keiji already pointed out,²⁰ zone 3 of the Diagram shows a generation process likened to diachronicity, and around the circumference of Yi Hwang's diagram, time references which include symbols for the four seasons, i.e. *yuan heng li zhen* 元亨利貞 are written down. Nevertheless, we cannot continue to claim that the Diagrams stand for diachronic generation, because the five phases return to the origin in Zhou's diagram, and time references are circulating in Yi Hwang's diagram. Accordingly, their iconology perhaps has the goal of showing the synchronic structure of the cosmos while taking into consideration the process of cosmic generation or evolution, in which the concept of time or narrative form is inevitably involved.

5. Possible Association with Others

Finally, question (0) has to be answered. It does not make sense to say that a circle is easier to draw than other icons. The image of the circle in Chinese culture at the time was related to the cosmos or the universe. This spherical or circular image of the cosmos had been dominant since Zhang Heng's 張衡 (78-139) "Huntian shuo" 渾天說 (armillary sphere theory) was proposed.²¹ The "Huntian shuo" as an astronomical and calendar theory had been merged with the philosophy of the *Yijing* 易經 (Book of Changes) where the concept of the Great Ultimate emerged.²² As J. Needham points out, the concept

¹⁸ H. Yi, "Cheonmyeongdo seol huseo (budo)" in *Toegye jeonseo*, 41:3a-b.

¹⁹ H. Yi, "Cheonmyeongdo seol huseo (budo)" in *Toegye jeonseo*, 41:1a-10a.

²⁰ Yamada, *Juja-ui jayeonhak*, 129-131.

²¹ Even before the Huntian model came to prevail, the idea of "round heaven and square earth" (*tian yuan di fang* 天圓地方) had been in wide currency. According to Kim Ihll Gwon, this idea was common in the six kinds of astronomical models, although each model defines it distinctly. Refer to his "Dongyang cheonmun-ui beomju-wa geu segyegwanjeogin yeokhal," 43-45. As for a detailed explanation of Zhang Heng's theory, refer to Yamada, *Juja-ui jayeonhak*, 69-196.

²² Kim Ihll Gwon points out the synthesis of the *Yijing* with the calendar and astronomy. In other words, during the Eastern Han period, the symbolical and numerological study of the *Yijing* (*Xiangshu Yixue* 象數易學) incorporated the calendaring system. See Kim, "Dongyang cheonmun-ui beomju-wa geu segyegwanjeogin yeokhal," 47. Nakayama Shigeru 中山茂 has already pointed out that, within the East Asian calendaring or season-granting

of “ultimate” (*ji* 極) is associated with the astronomical pole as well as the ridge-pole.²³ This indicates how the Great Ultimate could relate to astronomical thought.



Figure (g)²⁴



Figure (h)²⁵

The philosophical meanings of the round cosmos are twofold: (1) “totality” in the sense that the cosmos encompasses all myriad things, and all things also constitute the universe. (2) “begetter” in the sense that all myriad things come into existence and live by virtue of the cosmos. Both meanings of the cosmos are the same as those of the Great Ultimate. In addition, we can see how astronomical thinking is synthesized with the concept of the Great Ultimate in Figure (h).²⁶ As seen in Figures (i) and (j), Neo-Confucian interest in the armillary sphere may indicate how “Huntian shuo” influenced Neo-Confucian philosophy.

system, numericism rather than geometry has prevailed. See, Nakayama, “The Digital Revolution and East Asian Science,” 3-13. However, since the Eastern Han period, hexagrams and figures of the *Yijing* had been adopted by many scholars because the figures of the *Yijing* helped them conceptually figure out the movements of nature.

²³ Needham, *Science and Civilisation in China*, vol. 2, 464.

²⁴ This picture is Su Song’s 蘇頌 armillary sphere, *Xin yixiang fayao* 新儀象法要 in 1092. Needham, *Science and Civilisation in China*, vol. 3, 351.

²⁵ Feng, *Zhouyi sanjituguan*, 134.

²⁶ Although “time” is taken into consideration, it is basically cyclical within the framework. It seems plausible to think that this prevailing image of the cosmos at the time influenced Zhou Dunyi and later scholars’ understanding of the cosmos.



Figure (i)²⁷

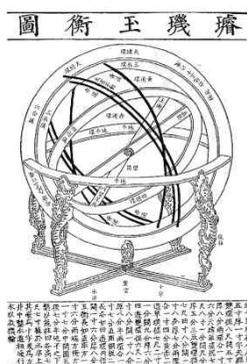


Figure (j)²⁸

The two meanings of the Great Ultimate seem to provide two directions for deciphering the Diagram. In other words, we have to read the Diagram downward in order to explain the flow or structure in which the one fundamental origin makes all beings exist; upward in order to grasp the idea of unity or totality. As we have seen in the isomorphic repetition of the Diagram and Zhu Xi's understanding of the Diagram, if all myriad things in our world already contain the Great Ultimate or noumenon, and the human being already contains the Great Ultimate, there is no better way than speculating from and within ourselves to understand the metaphysical structure of the cosmos. Zhu Xi and Yi Hwang's understanding of the Diagram can support this assertion.

However, in relation to these directions for reading the Diagram, we cannot but be reminded of Daoist thought. Isabelle Robinet has drawn an interesting comparison between Daoist and Confucian cosmogony when explaining the "Taiyi sheng shui" 太一生水 (The Great One gives birth to water) and Daoist cosmogony. According to Robinet, Daoist cosmogony has both directions of "descending (*shun* 順), or creation" and "ascending (*ni* 逆, returning to the source), or generation of cinnabar (*shengdan* 生丹)," whereas Confucian cosmogony has only the descending direction which

²⁷ This is Yi Hwang's armillary sphere for the education of his students, kept in Okjinkak 玉振閣 in Dosan Seowon 陶山書院 (Dosan Confucian Academy).

²⁸ "Seongi okhyeong do" 璣璣玉衡圖 (Figure of the Jade Armillary Sphere) in "Shundian" 舜典, "Yushu" 虞書 of *Seojeon daejeon jipju* 書傳大全集注 published in Joseon Korea in 1620. The figure was introduced to explain the sentence: "[Shun] took control of the seven directive stars, [i.e. calendric matters] through the jade frame" (在璣璣玉衡, 以齊七政).

leads to the creation of human beings.²⁹ As for the concept of “returning” (*fu* 復), she points out that the Confucian concept of returning in the *Yijing* refers to the resumption of light and movement, but in the Daoist sense, it is returning to the origin.³⁰

However, what we have seen in the Diagram and in later Confucians’ understanding is not the resumption of light and movement, but enlightenment on the origin or totality. This assertion also appears to be supported by the Neo-Confucian notion of “returning to the original (human) nature” (*fixing* 復性) because the concept of nature (*xing*) in Neo-Confucianism is equivalent to the Great Ultimate and principle (*li*), namely the origin, and immediately after returning to the original, universal nature, we become aware of the totality or unity of all myriad things. In other words, the Neo-Confucian notion “*fixing*” is allied with the important theses of Neo-Confucian metaphysics and ethics: “Principle is one, yet its manifestations are many” (*liyī fēnshū* 理一分殊), “We are all from the same womb” (*tóngbào* 同胞), and the “Unity of all myriad things” (*wanwu yītǐ* 萬物一體), which can support both the downward and upward reading of the Diagram.

Our understanding of Zhou’s Diagram and Robinet’s understanding of Daoist cosmogony help formulate two hypotheses: (1) Zhou Dunyi’s (and his followers’) metaphysical scheme as seen in the Diagram suggests an upward or ascending reading, based on its metaphysically synchronized thinking model, as opposed to a diachronic cosmogonic model (2) Zhou’s metaphysical cosmology may be a metaphysical reinterpretation of Daoist cosmogony and internal alchemy.³¹ However, these hypotheses do not necessarily imply that Zhou’s Diagram was transmitted from Daoism; rather, it can suggest that Neo-Confucian metaphysics, including Zhou’s thought, were formed in dynamic interaction with other schools of thought including Daoism.

These hypotheses provide a clue to our questions about the formation and unfolding of Neo-Confucianism. For example, “Why did Zhu Xi and other Neo-Confucians study Daoism (including internal alchemy)?”; “How were their interests in Daoism related to their philosophical position?”; “Was Wang Bi 王弼 (226-249), a Daoist metaphysician, only a Daoist philosopher

²⁹ Allan, *The Guodian Laozi*, 167.

³⁰ Robinet, “Lun Taiyi sheng shui,” 332-339.

³¹ As generally known, internal alchemy first incorporated the *Yijing* in the *Zhouyi cantong qi* 周易參同契 (The Seal of the Unity of the Three in Accordance with the *Zhouyi*). In the *Zhouyi cantong qi*, the image of the circle is regarded as the golden elixir, the highest achievement within internal alchemy.

who influenced Neo-Confucianism?"; and "How about Heshang Gong 河上公 (?-?) who provided the prototype of Daoist alchemy?"

Besides, the possibility of an "upward or ascending" reading of the Diagram may be indicative of the germination of the so-called unorthodox streams of Neo-Confucianism, such as *qi*-oriented Neo-Confucianism and the school of the heart-mind (*xinxue* 心學), because they held that any learning regarding the human being and the cosmos must start and extend from what we have now. In other words, they asserted that the ultimate enlightenment should be gained from concrete things, material force, and the heart-mind (*xin*). An understanding of these aspects is tantamount to the upward understanding. For them, this approach was the only way to understand the unity of man and Heaven (the cosmos), and the origin of all creatures. Accordingly, the rise of these unorthodox streams might be regarded as the natural unfolding of Zhou Dunyi's and Zhu Xi's metaphysical thought, because the upward or radically synchronized reading of the Diagram may be considered to have caused this unfolding.

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REFERENCES

- Allan, Sarah and Crispin Williams, eds. 2000. *The Guodian Laozi: Proceedings of the International Conference, Dartmouth Colleges, May 1998*. Berkeley, CA.: Society for the Study of Early China and Institute of East Asian Studies, University of California.
- Bak, Il-bong, trans. 1993. *Geunsa rok* 近思錄 (Reflections on Things at Hand). Seoul: Yulkmunsa.
- Chen, Lai 陳來. 2000. *Zhuzi zhexue yanjiu* 朱子哲學研究 (A Study of Zhuzi's Philosophy). Shanghai: Huadong shifan daxue chubanshe.
- Feng, Daoli 馮道立. 1992. *Zhouyi sanjituguan* 周易三極圖貫 (Collection of Zhouyi Diagrams of Three Poles). Beijing: Beijing shifan daxue chubanshe.
- Fung, Yu-lan 馮友蘭. 1983. *A History of Chinese Philosophy*. Vol. 2, *The Period of Classical Learning (From the Second Century B.C. to the Twentieth Century A.D.)*. Translated by Derk Bodde. Princeton: Princeton University Press.
- Henderson, John B. 2000. "Touchstones of Neo-Confucian Orthodoxy." In *Classics and Interpretations: The Hermeneutic Traditions in Chinese Culture*, edited by Ching-I Tu, 71-84. New Brunswick and London: Transaction Publishers.
- Hu, Guang 胡廣. 1986. *Xingli daquan* 性理大全 (Great Compendium on Human Nature and Principle). SKQS edition. Taipei: Shangwu yinshuguan.
- Kim, Ihll Gwon. 2004. "Dongyang cheonmun-ui beomju-wa geu segyegwanjeogin yeokhal" 동양천문의 범주와 그 세계관적인 역할 (Perspective and Category of East Asian Astronomy). *Jeongsin munhwa yeongu* (Korean Studies Quarterly) 27.1: 27-60.
- Lao, Siguang 勞思光. 2005. *Xinbian Zhongguo zhexueshi* 新編中國哲學史 (New Edition of A History of Chinese Philosophy). 3 vols. Guilin: Guangxi shifandaxue chubanshe.
- Maruyama, Masao 丸山眞男. 1974. *Studies in the Intellectual History of Tokugawa Japan*. Translated by Mikiso Hane. Tokyo: University of Tokyo Press; Princeton: Princeton University Press. Originally published as *Nihon seiji shishoshi kenkyu* 日本政治思想史研究 (Tokyo: Tokyodai, 1952).
- Mou, Zongsan 牟宗三. 2003. *Xinti yu xingti* 心體與性體 (Substance of the Heart/Mind and Substance of Human Nature). 3 vols. Shanghai: Shanghai guji chubanshe.
- Nakayama, Shigeru. 2002. "The Digital Revolution and East Asian Science." In *Historical Perspectives on East Asian Sciences, Technology and Medicine*, edited by Alan K. L. Chan, et al., 3-13. Singapore: Singapore University Press and World Scientific Publishers.
- Needham, Joseph. 1956. *Science and Civilisation in China*. Vol. 2, *History of Scientific Thought*. Cambridge: Cambridge University Press.

- _____. 1959. *Science and Civilisation in China*. Vol. 3, *Mathematics and the Sciences of the Heavens and Earth*. Cambridge: Cambridge University Press.
- Robinet, Isabelle. 1999. "Lun Taiyi sheng shui" 論太一生水 (On *Taiyi Sheng Shui*). *Daojia wenhua yanjiu* 17: 332-339.
- Teng, Aimin. 1986. "On Chu Hsi's Theory of the Great Ultimate." In *Chu Hsi and Neo-Confucianism*, edited by Wing-tsit Chang, 93-115. Honolulu: University of Hawaii press.
- Tucker, John Allen, trans. 2002. "Yamaga Sokō's Essential Lexicography of Sagely Confucian Teachings (*Seikyō yōroku*): Chapter Three." *Sino-Japanese Studies* 14: 71-80.
- Yamada, Keiji 山田慶兒. 1991. *Juja-ui jayeonhak* 주자의 자연학 (Natural Studies of Zhu Xi). Translated by Kim Seok-keun. Seoul: Tongnamu. Originally published as *Sushi no shigengaku* 朱熹の自然學. (Tokyo: Iwanami, 1978).
- Yi, Eon-jeok 李彦迪. [1631] 2013. *Hoejaejip* 晦齋集 (Collected Works of Hoejae). Seoul: Institute for the Translation of Korean Classics.
- Yi, Hwang 李滉. [1843] 2013. *Toegyjeonseo* 退溪全書 (Complete Works of Toegyje). Seoul: Institute for the Translation of Korean Classics.
- Zhou, Dunyi 周敦頤. 1993. *Zhou Dunyi quanshu* 周敦頤全書 (Complete Works of Zhou Dunyi). Nanchang: Jiangxi jiaoyu chubanshe.

解密“太極圖”的一個方法

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中文摘要

本文旨在通過對周敦頤(1017-1073)的《太極圖說》中圖像本身的結構進行研究,而確定以“太極圖”的特點作為形而上學(存有論)的宇宙論,而不是真正一個生成論的宇宙論(“宇宙發生論”)並概述一些衍生的問題。為確定以“太極圖”的特點作為形而上學的宇宙論,本文顯示,“太極圖”的流程結構具有“垂直對稱(vertical symmetry)”和“同構重複(isomorphic repetition)”的特徵。這中業已暗涵周敦頤的圖像學顯具一種形而上學的特徵。

朱熹(1130-1200)也似乎把“太極圖”解釋為反映宇宙的形而上學結構的圖像,而不是模仿宇宙生長的圖像。本文以朝鮮李滉(1502-1571)和鄭之雲(1509-1561)的《天命新圖》作為支持我們對周敦頤·朱熹的“太極圖”理解的最佳例子之一。

總之,本文提出,周敦頤的“太極圖”和朱熹的形而上學解釋起到新儒家思想後期展開的啟動作用。

關鍵詞：周敦頤, “太極圖”, 《太極圖說》, 朱熹, 《太極圖說解》, 李滉, 鄭之雲, “天命新圖”