

Wesleyan University

From the Selected Works of Stephen C. Angle

2018

Tian as Cosmos in Zhu Xi's Neo-Confucianism

Stephen C. Angle, *Wesleyan University*



Available at: <https://works.bepress.com/stephen-c-angle/>

Tian (天) as Cosmos in Zhu Xi's Neo-Confucianism¹

Stephen C. Angle, Wesleyan University

Abstract

“*Tian*” is central to the metaphysics, cosmology, and ethics of the eight-hundred-year-long Chinese philosophical tradition we call “Neo-Confucianism,” but there is considerable confusion over what *tian* means—confusion which is exacerbated by its standard translation into English as “Heaven.” This essay analyzes the meaning of *tian* in the works of the most influential Neo-Confucian, Zhu Xi (1130-1200), presents a coherent interpretation that unifies the disparate aspects of the term’s meaning, and argues that “cosmos” does an excellent job of capturing this meaning, and therefore should be adopted as our translation of *tian*.

Keywords

Metaphysics, Ethics, Tian, Cosmos, Neo-Confucianism, Zhu Xi, Translation

No student of the eight-hundred-year-long philosophical tradition known in English as “Neo-Confucianism” would deny that “*tian* 天” is central to its metaphysics, cosmology,

¹ I am grateful to comments from two anonymous reviewers that helped me to improve this essay, to Ben Huff for extensive comments on an earlier draft, and to Justin Tiwald for many conversations that have significantly shaped my understanding of Zhu Xi and of Neo-Confucianism more generally.

and ethics.² Ask what it means, though, and things rapidly get murky. A quick summary of the career of *tian* runs something like the following. Early meanings include “the sky” and the name of the Zhou people’s sky deity. During the classical era, many texts continue to imbue *tian* with what we can loosely call normative and religious significances, though compared to the early Zhou, *tian* in the classical period is often considerably abstracted or naturalized. *Tian* plays many roles for thinkers in the imperial era. Most Neo-Confucians, and the great synthesizer Zhu Xi (1130-1200) in particular, attach great importance to *tian*, both as a standalone term and in compounds such as *tianli* 天理, *tiandi* 天地, and *tianming* 天命. My goal in this essay is to explain what Neo-Confucians like Zhu mean by *tian*.

No matter which era’s texts we examine, a broad consensus on how to translate *tian*—if not, perhaps, on its fuller meaning—is evident: most scholars follow James Legge’s nineteenth-century rendering of *tian* as “Heaven.” In recent years there has been a bit of dissention regarding *tian* in Warring States texts, with some scholars preferring to translate it as “nature” (at least in certain texts) and others arguing that it is best left romanized as “*tian*,”³ but almost all scholars of Neo-Confucianism seem to feel that “Heaven”

² Labeling the tradition “Neo-Confucianism” is somewhat contested, but there is no better term for capturing its full length and breadth. For discussion and references, see (Angle and Tiwald 2017, ch. 1).

³ One recent and thorough account of the meaning and translation of *tian* in the *Analects* and *Mencius* is (Huff 2016). Huff employs a similar methodology to mine, arguing that the various dimensions to the meaning of *tian* form a “complex unity,” though in the context of Warring States thought he argues that *tian* is best translated in most contexts as “Heaven.”

best captures the meaning of *tian* for these later thinkers.⁴ Everyone agrees that *tian* plays multiple roles or has different dimensions of meaning, in part because Zhu Xi explicitly says so. But the general sense seems to be that “Heaven” adequately captures what these meanings have in common, or at least gives us the most important or core meaning of the term. I will argue here this this complacency is a mistake. “Heaven” fails to capture what is most important about *tian* in Neo-Confucianism, and is seriously misleading besides. By looking at several distinct aspects of *tian*’s meaning, I will show that there is a way to make unified sense of the concept, and that this unified sense is reasonably well-expressed by the translations “cosmos” and “cosmic.”

1. Meanings

A natural place to start is with a well-known passage in which Zhu Xi makes it explicit that *tian* can be understood in three different ways:

Zhuang Zhong asked: “*Tian* sees as the people see, and *tian* hears as the people hear’; this says that *tian* is Pattern (*li*), right?” Zhu Xi replied:

⁴ Two of the rare exceptions I have found: (1) In an article about Zhu Xi and Wang Yangming, Brian Bruya writes: “When translating the terms 天 *tian* and 天地 *tiandi*, I choose to emphasize their organismic relationship to the processes of nature by rendering them in terms of ‘nature’ and ‘natural’ rather than the conventional terms of ‘Heaven’ or ‘Heaven and earth,’ which retain undesirable theistic connotations.” (Bruya 2001, 54n24). (2) Kirill Thompson translates *tianli* 天理 as “natural patterning”; see (Thompson 2015, 149-75). A few other contemporary scholars choose to leave *tian* romanized; for example, see (Baba 2015, 197-225).

“*Tian* certainly is Pattern. But the blue sky is also *tian*. That which is above and has mastery (*zhuzai*) is also *tian*. Each discusses *tian* following a different aspect.”⁵

莊仲問：「『天視自我民視，天聽自我民聽』，謂天即理也。」曰：「天固是理，然蒼蒼者亦是天，在上而有主宰者亦是天，各隨他所說。」

We can enumerate these meanings as follows:

[1] *Tian* as Pattern

[2] *Tian* as sky

[3] *Tian* as master

In addition, contemporary scholar Kim Yung Sik adds a fourth meaning, in which *tian* either alone or in combination with *di* 地 (meaning “earth”) refers to the “whole natural world,” as in: “This Pattern exists, and so this *tiandi* 天地 exists; if it were not for this Pattern, there would be no *tiandi*, no people, no things 有此理，便有此天地；若無此理，便亦無天地。無人無物” (YL 1/114); see (Kim 2000, 110-11, and 135-171). Thus:

[4] *Tian* as natural world

When *tian* (or *tiandi*) is referring to the natural world, Zhu Xi of course understands it to be referring to something made of vital stuff (*qi* 氣). I will address a bit later the puzzle created by the fact that *tian* can also mean Pattern (Meaning 1). Zhu does not spend much time on the question of how *tian/tiandi* came to be; he is content to go along with generally accepted views about the production of the tangible world out of undifferentiated

⁵ (Zhu 2002a, *juan* 79, 2702). Subsequent references to the *Yulei* will be cited as: YL *juan*/page number from the *Quan Shu* edition. See also (Kim 2000, 109).

formlessness. Zhu endorses Shao Yong's theory of 10,800-year cycles, but here again he does not put much theoretical weight on such ideas (Kim 2000, 135-8).

Already some crucial distinctions should be apparent among these four meanings. To begin with, whatever one may say about meanings 1, 3, and 4, there is no way that we can translate *tian*-as-sky as "cosmos." In some contexts, *tian* simply has this narrow meaning, and so can be rendered as "heaven" or "heavens."⁶ For example, Neo-Confucians often quote this poem from the *Book of Odes*: "The hawk flies up to the heavens (*tian*); the fish bounce and bob in the deep waters" (*Book of Odes*, Mao #192). Similarly, it is probably appropriate to render "*tianxia* 天下" as "all-under-heaven" or "all under the heavens," though given the inclusive sweep of Neo-Confucian thinking, "everyone in the cosmos" might also be appropriate.

Before discussing meanings 1 (Pattern) and 3 (master) in more detail in Section 3, it will be helpful to make explicit some additional meanings so we can see the full puzzle that I aim to fit together. A. C. Graham has plausibly argued, "One of the main functions of the terms 'heaven' [sic; i.e., *tian*] and the 'decree' had been to indicate what was objectively given, independent of human action and desire."⁷ So:

⁶ (Kim 2000, 138-9) points out that there are actually two different versions of this meaning, a broad one including "the atmosphere of the earth as well as the blue firmament," thus beginning immediately above the earth's surface; and a narrower one referring only to the blue sky above.

⁷ (Graham 1992, 23). He is speaking here of Cheng Yi, and tying Cheng's usage back to Mencius's statement (5A:6), "The doer of what no one has done is heaven. That which happens when no one has caused it is

[5] *Tian* as objectively given

Another, very important dimension of *tian*'s meaning which seems to be less discussed by recent scholars is that marking something with *tian* emphasizes its all-inclusive or universal nature. Thus:

[6] *Tian* as all-inclusive

The best example of this is the crucial term "*tianli* 天理": whatever else we conclude about the relations between *tian* and *li*, it is clear that *tianli* includes all the *li*, whereas *li* used on its own sometimes refer to distinct aspects Pattern.⁸

Furthermore, there is a clear connection between *tian* and the production of things—especially living things—in our world. For example, Zhu writes that "*tian* is Pattern as it is in itself and the source from which human beings are born 蓋天者，理之自然而人之所由以生者也" (Zhu 2002b, *juan* 67, 3273). So we can add the following to our list:

decreed 莫之為而為者，天也；莫之致而至者，命也。” Zhu Xi's own comment on this statement is, "To speak of it in terms of Pattern and thus call it *tian*, or to speak of it from our human perspective and thus call it the decree: in both cases the substance is the same 蓋以理言之謂之天，自人言之謂之命，其實則一而已。” (Zhu N.d., 5A:6). Graham's statement that *tian* is "independent of human ... desire" may be somewhat too strong. Certainly *tian* is meant to signal things that are not simply up to us to decide, but the fact of human desire being what it is may be thought of as itself objective, not up to us. See (Ziporyn 2012, 90) for some stimulating discussion.

⁸ For example: "Someone asked, 'There is the single Pattern, yet also the Five Norms; how is this?' Master Zhu replied, 'You can call it the single Pattern and you can also call it five Patterns. When covering everything, we speak of one; when distinguishing, we speak of five' 問：「既是一理，又謂五常，何也？」曰：「謂之一理亦可，五理亦可。以一包之則一，分之則五」" (YL 6/237).

[7] *Tian* as source of life

This idea that *tian* is the source of life comes out in many contexts, but the idea is not that *tian* specifically makes each thing. As we read elsewhere:

Someone asked: “Xie Liangzuo said, ‘Regarding *tian*’s relation to the many forms, it is not that *tian* carved and sculpted them’; do you agree?”

Zhu Xi replied: “*Tian* is simply the flow and movement of the one vital stuff (*qi*). The myriad things spontaneously come into being, grow, and take physical forms and colors; there is no need for each to be individually prettified! (YL 45/1585); cp. (Kim 2000, 110)

問：「謝氏謂『如天之於眾形，非物刻而雕之』，是如何？」曰：「天只是一氣流行，萬物自生自長，自形自色，豈是逐一粧點得如此！」

Quite in keeping with meaning 4 (natural world), *tian* is the source of life in that it is the all-inclusive movement of *qi*—which naturally involves the on-going production of life.

The final dimension of *tian*’s meaning that I want to consider is broadly speaking religious. As noted at the outset, one of the earliest uses of *tian* is to name the sky-deity of the Zhou people, and so discussions of worshipping or sacrificing to *tian* can of course be found in early texts. Even in classical texts that seem not to accept *tian* as the name for a specific deity, we still find passages redolent with religious meaning. Turning to Neo-Confucians, many scholars have argued that for Neo-Confucians as well, *tian* is bound up with a kind of religiosity, but the exact sense in which this is true is somewhat elusive. Julia Ching argues that what I have labeled meaning 3 (*tian* as master) is a “religious” sense and refers to “a ruler above, a god-like figure, ... a lord and master” (Ching 2000, 55). In a

related context, Ching asserts that Zhu “seems to be speaking of a higher intelligence and intentionality and offers what might seem to be an argument from design about the existence of God” (Ching 2000, 58). However, although I do want to endorse the relevance of some kind of religiosity, I am afraid that Ching is reading in Judeo-Christian tropes where they do not belong. The passage that leads her to infer the role of a “higher intelligence” can be readily understood without such a posit.⁹ After all, near the beginning of his *Collected Conversations*, Zhu Xi is asked about a series of ancient quotations that attribute agency to *tian*, and he replies: “These three passages all mean the same thing: they are just saying the Pattern is thus-and-such 此三段只一意。這箇也只是理如此” (YL 1/118). Even more explicitly, he says, ““It is certainly improper to say that within *tian* is a person judging guilt and sin; however, to say that the Way is completely without a master is also improper 而今說天有箇人在那裏批判罪惡，固不可；說道全無主之者，又不可。”¹⁰ I will return to the issue of “mastery” below. The point for now is that Zhu Xi clearly rejects the idea that *tian* is anything like a “lord above” or a deity to whom one should pray. As he says when asked

⁹ Here is the passage that Ching quotes: “Should Heaven and Earth [sic] have no *xin* [i.e., heartmind], then cows would give birth to horses and peach trees would produce pears. But Heaven and Earth ... have been able to maintain self-determination in these things.... The *xin* is the locus of Heaven and Earth as ruler. That is why we say Heaven and Earth take the production of things as their *xin*. 若果無心，則須牛生出馬，桃樹上發李花，他又卻自定。。。。他這名義自定，心便是他箇主宰處，所以謂天地以生物為心” (YL 1/117); cp. (Ching 2000, p. 58). I offer my own interpretation of the “heartmind of *tian* and earth” later in this essay.

¹⁰ YL 1/118; cp. (Tillman 1987, 36). Tillman translates *zhu* 主, which I render as “master,” as “lord,” which seems to lean too far in the direction of personification. See below for more on master/mastery.

about burning incense to *tian*: “*tian* is simply within the self, so what is there to pray to? 天只在我，更禱箇甚麼。”¹¹

If *tian* is not a deity to whom one should pray, though, wherein lies its religious meaning? First of all, we must follow those theologians and scholars of religion who insist that religiosity need not involve worshipping supernatural entities, but always involves something like an “ultimate concern” (according to Paul Tillich) or a “means of ultimate transformation” (according to Frederick Streng).¹² Consider, in this regard, Zhu’s assertion, “...When one is naturally in accordance with *tian*, it is said that one delights in *tian*. When one does not dare violate Pattern, it is said that one stands in awe of *tian* 自然合理，故曰樂天。不敢違理，故曰畏天” (Zhu N.d., 1B:3); cp. (Chan 1989, 186). “Delight” and “awe” are apt because of the wonderful possibility and yet immensity of the task of fully realizing the potential, the Pattern, of *tian* in our world. The most important means of self-cultivation that Zhu teaches is “reverence (*jing* 敬),” which he also explains in terms of awe (Angle 2009, 85-6 and 155). I think there is no question that these attitudes are well-described as “religious.” Let me therefore add:

[8] *Tian* as religious object

In addition to the dimensions of religiosity I have mentioned so far, one final possibility is also worth our consideration. A major theme of Araki Kengo’s magisterial *Buddhism and*

¹¹ YL 90/3023; cp. (Tillman 1987, 37). (Kim 2000, 111) is also helpful on Zhu’s rejection of *tian* as an anthropomorphic deity.

¹² For discussions of Neo-Confucian religiosity that make use of Tillich and Streng, see (Taylor 1990) and (Tucker 2003, especially 27n4), and also compare (Neville 1990, ix-x).

Confucianism is that a particular kind of faith or confidence (*xin* 信) in the natural flow of *tian* is a cornerstone of Zhu Xi's philosophy (Araki 2008, 268-9 and *passim*). This is not the place to expand upon the exact nature of the "faith" that Araki has in mind, but I find his arguments to be very persuasive, and believe they contribute to a broad species of religiosity that my understanding *tian* needs to take very seriously.

2. Setting the Stage: Translation and "Cosmos"

By way of introduction to my argument that we should translate *tian* as "cosmos," let me begin with some clarifications. It will be helpful to keep in mind a distinction between my interpretation of *tian* and my proposal to translate *tian* as "cosmos" and "cosmic." The argument of this essay is really two-fold: first, that the interpretation offered here is correct; and second, that "cosmos" and "cosmic" are apt translations of *tian*, given that my interpretation of *tian* is correct. If my interpretation is in some significant way mistaken, then it is likely that my proposed translations will fail as well. But the reverse is not true: readers might accept my interpretive argument but disagree with my choice of translations. After all, translations must meet at least the following two criteria. First, they must adequately express the meaning of the underlying concept. If no potential translation meets this criterion, then we may be better off leaving that term untranslated, and using phonetic Romanization instead—as I have been doing so far with *tian*. Suppose that at least one potential translation meets this criterion. Then the second criterion is that a choice-worthy translation must be better than alternatives. If one translation is already in common use (such as "Heaven" in this case), then an alternative would have to be

substantially better in order to justify the potential confusion engendered by switching. In some cases, we may decide that two different translations both pass the first test and neither is obviously superior (or perhaps their different strengths and weaknesses balance out). In such a case, scholars and our readers may still benefit from adopting a single translation, but the choice of which one is arbitrary. My argument here therefore has three steps: articulate and defend my interpretation; show that my preferred translations are adequate to capture this concept; and then argue that the main alternative is significantly inferior. I take the first two steps in the next section, and turn to the third in Section 4, where I will show that not only is “Heaven” inferior to “cosmos,” but in fact it fails to adequately express the Neo-Confucian idea of *tian*.

What does it mean to say that a translation “adequately” expresses the meaning of the underlying concept? Here we must balance two considerations. On the one hand, the meaning of the proposed translation must sufficiently relate to the target concept so that the translation is of real use to its audience.¹³ That is, the translation should help readers to get a handle on the concept: to understand and even be able to deploy it in new contexts. It must be more than a bare label, since if all we want is a label, we can just use the Romanized version of the original word. On the other hand, we should not expect a complete match. It is a mistake to assume that the underlying concept shares the precise meaning that the translation indicates to any given reader. Indeed, it is a mistake even among speakers of the same language to assume that a word that I use at a given moment

¹³ Here and throughout this essay, I mean to be neutral with respect to competing accounts of linguistic meaning, and to be inclusive of its differing dimensions (e.g., sense, reference, inferential connections, etc.).

shares all the same meaning that the word means to you at a given moment.¹⁴ An adequate translation, therefore, is one that makes a real contribution to a reader's grasp of the underlying concept, but we should expect that this will need to be accompanied by careful observation on the reader's part of how the translation (and underlying concept) is deployed in various contexts, as well as—at least for particularly difficult terms—by the reader's attention to glosses and other explanations provided by the translator.

The final step before getting to the main substance of my interpretation is to introduce the term “cosmos.” To modern American speakers of English, “cosmos” is simply a synonym for “universe,” and “cosmic” suggests an association with far-off reaches of outer space. In proposing “cosmos” as a translation for *tian*, I am suggesting that modern English speakers readily can come to use the word with a somewhat expanded meaning, as compared to current usage, by drawing on earlier meanings.¹⁵ Two ancestors of our contemporary word help to fill out the meanings upon which I would like to draw. First, cosmos of course originated with the Greek word κόσμος (*kosmos*), the core meaning of which is order. One type of early use (found in Homer and Hesiod) is to refer to military, institutional, or governmental order, but Hesiod also uses it to speak of the order that emerges out of chaos, and many early philosophers use *kosmos* to refer to the organized

¹⁴ Robert Brandom's account of meaning brings this out particularly well; see (Brandom 1994).

¹⁵ I thank an anonymous reviewer for pressing me to clarify this point. It is important to keep in mind that translation is an inexact science: as I noted above, its goal is “adequately” capturing the meaning it is intended to express. Some variation in how completely contemporary English speakers grasp the extended meaning of “cosmos” on which I am relying is to be expected.

interrelationship of all things (even as they debate about what the underlying principle of this order might be). Some Greek thinkers took *kosmos* to be like a language that could be understood by those properly attuned to it, and others emphasized its inter-relationship with the idea of harmony: the *kosmos* is ordered similarly to the way that music is ordered, which is ultimately based on numerical ratios.¹⁶ Quite generally, in fact, *kosmos* is understood not just as a bare order but as a beautiful order, a valuable order that is pleasant to behold. One related meaning of *kosmos* is “adornment,” and this dimension of the word survives in modern English in words like our “cosmetics.”¹⁷

The word “cosmos” is used sparingly, if at all, in English prior to the nineteenth century.¹⁸ In 1845, Alexander von Humboldt begins publication of his multi-volume magnum opus, *Kosmos*, which soon appears in English translation as *Cosmos*. Humboldt’s synthetic account of nature and of humanity’s place therein is hugely influential on both sides of the Atlantic. Importantly for my purposes, Humboldt is well aware of the order-and-beauty meaning of his title. In the words of a contemporary scholar, for Humboldt:

¹⁶ Several of these features of the concept of *kosmos* lead David Hall and Roger Ames to argue that early Chinese thinking is in fact “acosmotic” and to resist thinking of early Chinese views as expressing anything like a cosmos. See (Hall and Ames 1987, 183-97). I will discuss their concerns, insofar as they apply to Neo-Confucianism, in Section 4.

¹⁷ This summary of the Greek idea of *kosmos* is based on: (Liddell and Scott 1940, s.v. k.156.ko/smos); (Barnes 1987, p. xx); (Graßhoff, 2016); (Curd 2016); and the assistance of my colleagues Tushar Irani and Andrew Szegedy-Masak, which I gratefully acknowledge.

¹⁸ The *Oxford English Dictionary* has only one entry prior to 1848: Bulwer’s *Anthropometamorphosis*, to the effect that “As the greater World is called Cosmus from the beauty thereof.”

Cosmos signifies both the *order of the world*, and *adornment* of this universal order. Herein lies his distinctive use of the word: there are two aspects of the Cosmos, “order” and “adornment.” The first speaks to the observed fact that the physical universe, quite independently of us, exhibits regularities and patterns that we can identify as laws. Beauty, “adornment,” however, is perceptual, literally in the mind of the beholder.... Humboldt’s *Cosmos* is thus fundamentally developmental and dynamic. It emerges and grows as human conceptions of nature and the depth of human feeling about nature enlarge and deepen. As a narrative, *Cosmos* is still being written. Or, in Humboldt’s favorite metaphor, *Cosmos* is a “picture” which comes into being as we paint it and view it. Without art—taking the word in its broadest sense to include science, technology, exploration, literature and the visual arts, gardening and the painting of landscapes—there may be a perfectly fine universe, but there will never be a *Cosmos* (Walls 2009).

I dwell on Humboldt at this length because despite the fact that in many ways his understanding of cosmos resonates with Neo-Confucian ideas of *tian*, Humboldt’s romantic emphasis on human subjectivity puts more distance between objective order and subjective beauty than Neo-Confucians (or, for that matter, most Greeks) would allow. *Tian* is not an orderly universe to which beauty or value is then added via separate acts of human activity: for the Neo-Confucians, while human valuing may be a particularly important kind of valuing, it is not distinct to anything like Humboldt’s degree from the valuing activity of *tian* as a whole.

3. *Tian* as Cosmos

In order to understand what I mean by “the valuing activity of *tian* as a whole,” let me now switch to speaking in terms of the Neo-Confucian idea of cosmos, and show how a unified account of cosmos can capture (almost) all the aspects of *tian*’s meaning that I outlined above. To begin with, cosmos is extremely well-suited to express and help explain what might otherwise be the most puzzling aspect of *tian*: namely, that we can think of it both as Pattern (*li*) and as vital stuff (*qi*). *Tian* (as *tian* alone or as *tiandi*—meaning 4) is not just all the vital stuff: it is the patterned, coherent, orderly, life-productive interactions of all the vital stuff. Just as the Greek *kosmos* is the orderly interrelationship of all things, so is *tian*: it is both the “all things” and their “orderly interrelationship.” One can emphasize that cosmos is vital stuff by referring explicitly to *tiandi* (“heavens and earth”) or by saying things like “the cosmos is simply the flow and movement of the one vital stuff” (as quoted above). Or one can emphasize that cosmos is Pattern by referring explicitly to *tianli* (“cosmic Pattern”) or by invoking the cosmos’s role as “master,” to which I now turn.

As with the Greek *kosmos*, there is nothing over-and-above the Neo-Confucian cosmos that institutes or enforces order. Greek gods are part of the *kosmos* and have their role and powers within it; so, too, for all things—including ghosts and spirits—in the Neo-Confucian cosmos. The “rules (*ze* 則)” and “mastery” exhibited by the cosmos are intrinsic to it, emergent from its functioning. Zhu says: “This Pattern exists, and so this cosmos (or heaven-and-earth; *tiandi* 天地) exists; if it were not for this Pattern, there would be no cosmos, no people, no things 有此理，便有此天地；若無此理，便亦無天地。無人無物” (YL 1/114). Pattern is the set of background conditions that make our cosmos possible. Zhu

gives a more specific example elsewhere: “In the cosmos’s production of things, there is nothing that does not have a shell. For example, men have bodies, and fruits have skins 天之生物，莫不各有軀殼。如人之有體，果實之有皮核” (YL 68/2277); cp. (Kim 2000, 110). The cosmic order it is not limited to the spare background laws of the physicist or the generalizations of the biologist, however. It is much more inclusive: it is the complete network of interdependencies that makes possible not just our physical world, but also a fully flourishing, harmonious cosmos. It is thus more vast but also weaker than physical law, and in the absence of any lawgiver, we should probably avoid thinking of “laws” altogether. Cosmic Pattern limns what can and should happen for all things to fit together. While it cannot insist that it is followed, it does make its presence felt in two ways. First, when things interact according to cosmic Pattern, they work well and are supportive of the on-going production of life. Second, these favored interactions are often supported by positive emotions, at least among those aspects of the cosmos capable of experiencing emotions (chief among which are humans). It is not a coincidence, Zhu Xi might say, that parents and children feel love for one another.

Still, emotions like love, empathy, deference, and so on are not the only motivations we experience, and can even lead us astray. The “mastery” of Pattern over vital stuff is thus limited and indirect. In fact, one of Zhu’s slogans is that “Vital stuff is strong; Pattern is weak,” as seen here:

Although Pattern produces vital stuff, once it has been produced Pattern is no longer able to control it. Once a Pattern comes to reside in some vital stuff, then how it is deployed in daily affairs depends on this vital stuff: vital stuff is strong while Pattern

is weak.... It is like the relationship between fathers and sons. If the sons are worthless characters then their fathers aren't able to control them. The reason that the sages established their teachings is precisely because they wanted to save these sorts of sons. (YL 4/200)

氣雖是理之所生，然既生出，則理管他不得。如這理寓於氣了，日用間運用都由這箇氣，只是氣強理弱。。。。。又如父子，若子不肖，父亦管他不得。聖人所以立教，正是要救這些子。

Pattern articulates the rules of the game and the means of success, but it does not make us play well.

Sons with worthless characters, perhaps overly irascible or insufficiently empathetic, will undermine cosmic harmony rather than promote it, taking us further from realizing cosmic Pattern. However, the cosmos has a tendency to nudge us back in the right direction.¹⁹ Think of Zhu's famous analogy between vital stuff and Pattern, on the one and, and a horse and its rider, on the other: what are the ways that horse and rider can fit together? A wild horse (representing bad or imbalanced vital stuff) might try to buck a rider off of its back, or even ignore the rider and rub against a tree to scratch an itch. A well-trained horse (now representing good or balanced vital stuff) will do none of these things, but will carry the rider swiftly and safely. A danger of this analogy is that it tempts us to think Pattern controls vital stuff in the way that a rider might guide the horse via

¹⁹ For a thought-provoking look at the way that the cosmos can constrain or nudge us, see the pendulum model in (Ziporyn 2013, 7-15).

spurs and reins. But Zhu never says anything that requires such a reading. Instead, Pattern is something that is natural to follow, not an order that must be obeyed.²⁰

So far I have been arguing that the “mastery” of the cosmos is precisely the same as the mastery exercised by Pattern as a whole, and that this is what “cosmic Pattern” means. But some things that Zhu says may appear to suggest a greater distinction between cosmos and Pattern, and some analysts believe that this creates a problem for Zhu. Yamanoi Yu, for example, says, “The *li* in the phrase *tianli* means the *li* based on *tian* or the *li* following *tian*.... *Tian* has authority over *li* and guarantees its existence.” He elaborates as follows: “The idea that *tian* is the creator or organizer of the natural or human world was so powerful in the Confucian tradition that Zhu Xi could not escape its influence. Even his wide-scale *li-qi* philosophy could not encompass this notion successfully” (Yu 1986, 87 and 88-9). Yu cites three short passages as evidence, the clearest of which is: “nature is the Pattern possessed by the heartmind; the cosmos is that which Pattern follows in its emergence 性則心之所具之理，而天又理之所從以出者也。”²¹ This passage indeed sounds like the cosmos is somehow prior to Pattern and provides a template for Pattern. It seems that either this must mean that *tian* is, after all, a master outside of the system (here, see Julia Ching’s interpretation, which I rejected earlier), or else that Zhu is simply contradicting himself, as Yu suggests. Wing-tsit Chan urges a different answer, though, arguing that Zhu does not contradict himself because Pattern “is above time and cannot be

²⁰ See (Graham 1992, 12), speaking here of CHENG Yi.

²¹ (Zhu N.d., 7A:1). Yu translates this as “Nature is equal to *li* that the mind possess, and *Tian* is the origin of *li*”; (Yu 1986, 88). (Chan 1989, 186) translates the latter clause as “*Tian* is where principle comes from.”

described as before or after.” Zhu’s claim that Pattern is omnipresent simply means that “everything in the world has to follow [Pattern] before it can fulfill its nature to become a thing” (Chan 1989, 186). Returning to the passage that Yu cited as his evidence, we can see that rather than asserting that the cosmos comes before Pattern or controls Pattern, it is expressing the mutual entailment of Pattern and the whole of vital stuff (i.e., the cosmos): it is only in and through the cosmos that Pattern has any function or effect.

The relationship between Pattern and vital stuff and the related concept of mastery, for which the cosmos is the nexus, is philosophically complex and leads to many misunderstandings and debates.²² Zhu acknowledges its difficulty and indeed, often characterizes it as mysterious. But I believe Chan slightly misses Zhu’s point when he says: “The idea of a master is basically mysterious, belonging to the sphere of personal belief, and cannot be rationally determined. Therefore Zhu Xi repeatedly urged pupils to find out for themselves” (Chan 1989, 188). The problem with this is that Chan suggests that the mystery lies in understanding the type of mastery at issue. This, however, I believe we can understand. What is mysterious is how and why things are as they are: how and why do we come to inhabit a life-giving cosmos in which Pattern makes possible an ultimate harmony? Zhu certainly thinks that we have reasons to believe that we do inhabit such a cosmos—if challenged, he would be quick to refer to the “four beginnings (*si duan* 四段),” for example—but this is not simply a matter of drawing a reasoned conclusion. When Zhu speaks of the need for personal experience, he is adverting to the apt reactions of awe (an

²² For more on this subject and a characterization of the Pattern–vital stuff relation in terms of “asymmetrical codependence,” see (Angle and Tiwald 2017, ch. 2).

essential component of which is some degree of mystery), reverence, and faith to which I referred above. The personal realization that we are a critical part of a whole that is forever making possible the harmonious flourishing of all things: this is the essence to Neo-Confucian religiosity.²³

A final topic for us to consider is Zhu Xi's fascinating reflections on the "cosmic heartmind" (*tian xin* 天心 or, more frequently, *tiandi zhi xin* 天地之心).²⁴ "Cosmic heartmind" is a classical expression (it occurs in both the *Book of Changes* and the *Record of Rites*) which means that Zhu has little choice but to discuss it. The question is, do these discussions lead him to assign some role or power to the heartmind of *tian* that is inconsistent with understanding *tian* as I have been advocating, and with translating *tian* as cosmos? If we follow Hoyt Tillman's careful, thought-provoking analysis, the answer to these questions might be "yes." Tillman feels that ultimately Zhu is compelled to assign to *tian* a "transcendent, but moral, consciousness." He explains as follows:

As Qian Mu has observed, to support such traditional Confucian linkages between human ethics and cosmic or natural processes, Zhu Xi apparently needed to posit *tian* as having some characteristics which made it a master over principle [i.e., *li* or

²³ Tu Wei-ming has written influentially, and in related terms, about Neo-Confucian religiosity; one of his words is "anthropocosmic," describing humanity as "embedded in the cosmic order," which he contrasts to "an anthropocentric worldview, in which the human is alienated, either by choice or by default, from the natural world" (Tu 2001). However, Tu unfortunately continues to translate *tian* as Heaven throughout his writings.

²⁴ This topic is discussed in English by several scholars, including (Chan 1989) and (Ching 2000); I find (Tillman 1987) to be the most substantive and insightful exploration.

Pattern]. If cosmic processes were totally naturalistic and without conscious intent (*wu xin*), traditional Confucian grounds for such linkages would be weakened. Qian Mu reasoned that Zhu Xi posited a ruling power over the flux of *qi* because principle itself did not have the capacity to govern *qi*. In light of this incapacity of principle itself to govern, Zhu Xi apparently equated principle with lord to support the order of Confucian virtues upon which relationships in family, society and polity were founded. (Tillman 1987, pp. 47-8)

The idea seems to be that the “moral consciousness” of *tian* is separate from its more naturalistic side, and that this consciousness is needed to master or control things (i.e., vital stuff) due to the inability of Pattern to play this role. On this account, *tian* is master over Pattern itself—an idea we saw above and rejected, but which seems to be supported in the following passage that Tillman cites: “The agent by which these principles are controlled (所以主宰管攝是理者) is the mind of Heaven (天之心)” (Tillman 1987, p. 41). For reasons that will immediately become apparent, I quote here Tillman’s precise translation.

Tillman and Qian Mu both acknowledge that there is something troubling, even incoherent, about assigning the cosmic heartmind a mastery over Pattern, given everything else that Zhu says about *tian* and about *li*, but believe that he is forced to this position because of worries about the otherwise-weak link that would exist between ethics and nature. We have already seen that Zhu does indeed think that Pattern is “weak” compared to vital stuff (*qi*). But this does not mean that there is nothing to the idea of Pattern as master (as discussed above), nor does it mean that Pattern-as-master itself needs a master. Let us re-examine the most recent passage invoked by Tillman. He is citing from a

compilation called the *Zhuzi Daquan*. No identical passage to this appears in the *Yulei* or the *Wenji*. However, there is a very similar passage in the *Yulei*, and if we look at that—including its context—we will begin to see that Zhu is not, after all, asserting the need for a second kind of master. In the *Yulei* version of the passage, Zhu Xi has been discussing the meaning of key terms from the opening of the *Zhong Yong*, cosmic mandate (*tianming*) and nature (*xing*), as they apply to people. A student then asks them how these same ideas apply to *tian*. Zhu replies: “With respect to the pervasive circulation of the cosmic mandate, that whereby this Pattern is mastered and controlled is its heartmind, and the existence of this Pattern is its nature 天命流行，所以主宰管攝是理者，即其心也；而有是理者，即其性也。” This version of the passage does not explicitly invoke “cosmic heartmind,” but the “its” in “its heartmind” (and “its nature”) presumably refers to the cosmos via the more specific idea of “cosmic mandate,” so there may be no important difference between the passages on this score. The question is, what does the reference to mastery here mean?

I think that the key is to see that expressions of value—for example, via emotions of empathy or deference—through which mastery is conveyed are built into the system (that is, the cosmos), and are themselves manifestations of Pattern, rather than being somehow external to the system and controlling it. Elsewhere, Zhu makes this explicit: “The heartmind definitely has the meaning of ‘mastery,’ but that which is mastering is Pattern, and it is not that independent of the heartmind there is some further Pattern, or that independent of Pattern there is some further heartmind 心固是主宰底意，然所謂主宰者，即是理也，不是心外別有箇理，理外別有箇心” (YL 1/117). The idea is that the “heartmind,” whether of a person or of the cosmos, is that locus at which Pattern can be

perfectly expressed as various pure configurations of vital stuff. Humans are the most frequently discussed examples, but often enough other aspects of the cosmos also perfectly manifest Pattern—in a wolf’s concern for its pack, or in a gentle rain’s nurturing effect on budding plants in springtime, for example. Unlike Humboldt’s idea that nature and “adornment” (i.e., value) are two distinct sides of “cosmos,” with the latter added onto the former only by human willing, that is, the Neo-Confucian cosmos has value and valuing as inseparable parts of an interdependent system. By stressing that the cosmos as a whole has a “heartmind,” Zhu Xi is making precisely this point.

To sum up the argument of this section, let me first remind us all of the various meanings of *tian* that we have been trying to capture:

- [1] *Tian* as Pattern
- [2] *Tian* as sky
- [3] *Tian* as master
- [4] *Tian* as natural world
- [5] *Tian* as objectively given
- [6] *Tian* as all-inclusive
- [7] *Tian* as source of life
- [8] *Tian* as religious object

I said at the outset of this section that “cosmos” captures “(almost) all” of *tian*’s meaning. My only hesitation concerned meaning 2, “sky.” “Cosmos” seems like overkill in this case, though it is perhaps worth noting that one of the senses in which Plato used the Greek word *kosmos* was precisely for the “firmament” above (Graßhoff 2016). In any event, there

seems to be little harm in rendering those uses of *tian* that refer just to the sky as “heavens” or “sky” or even “firmament.” Two other lingering questions concerns whether to render “*tiandi* 天地” as “cosmos,” or as “heavens-and-earth” or in some other way; and also whether, especially if we adopt “cosmos” for *tiandi*, we should also use “cosmos” for “*yuzhou* 宇宙.” My current view is that Zhu Xi is not marking any significant difference in his use of these various terms, and so we should use “cosmos” for all of them, though I do confess to a slight bit of unease at effacing the Chinese terminological distinctions from my English translations.

In any event, these small issues aside, I think that “cosmos” is extremely effective at conveying the remaining dimensions of the meaning of *tian*. To reiterate what was said above, cosmos refers not simply to a jumbled collection of stuff or to an area, but to the coherently ordered, life-productive, interdependent network of all stuffs. It is thus both Pattern in its most inclusive sense, and all the interrelated, ever-transforming vital stuff through which Pattern is expressed—sometimes well or even perfectly, often less well or even terribly. Even though we humans are part of this cosmos, we cannot simply decide what we value, nor what is valuable to other, more distance aspects of the cosmos. So cosmos is not “up to us,” but is suitably objective. Finally, the vastness and value of the cosmos—not to mention our unavoidable indebtedness to it—encourages in us feelings of reverent awe. Founding one’s religiosity on the cosmos is not simply to worship nature nor to engage in self-idolatry: cosmos is an apt object of reverence, beyond our ability to ever fully comprehend but never wholly out of reach.

4. Problems with “Heaven” and Objections to “Cosmos”

Taken together, Sections 1 and 3 of this essay have argued for two theses: first, for the cogency of a particular understanding of *tian*, and second, that “cosmos” does a sufficiently good job at capturing and expressing this interpretation, so that we should use “cosmos” to translate *tian* rather than leave *tian* untranslated. In this final section, I cover two loose ends: showing that “Heaven” is a deeply problematic translation, and responding to concerns about using “cosmos” to translate *tian* that I have so far been glossing over.

The problems with “Heaven” as a translation can be grouped into two kinds: ways in which it fails to readily capture key dimensions of *tian*’s meaning, and ways in which the baggage that “Heaven” carries in its wake is seriously misleading. Let us suppose that the basic meaning of “Heaven” is a space or realm that we think of as somehow “above” us, though in fact it transcends our world; it is associated with divine law and the creation of our world by God; and it represents the possibility of a blessed life-after-death. How does this match with the meaning of *tian*? At least on the face of things it looks like “Heaven” might be able to account for about half of the eight dimensions of *tian* that we have been tracking:

[2] *Tian* as sky;

[3] *Tian* as master;

[7] *Tian* as source of life; and

[8] *Tian* as religious object.

In *some sense*, it is natural to see Heaven as “master” and as “source of life”—through its associations with God—and thus as a religious object. However, if the interpretation offered above is correct, these apparent strengths of the “Heaven” translation are in fact illusory, because the specific senses of mastery, source of life, and even religiosity are dramatically different from the way that Christian discourse about Heaven and God would lead us to think.

As for the remaining four dimensions, things here look even worse. The remaining four are:

[1] *Tian* as Pattern

[4] *Tian* as natural world

[5] *Tian* as objectively given

[6] *Tian* as all-inclusive

Possibly one could make an argument for “Heaven” pointing readers in the direction of “objectively given”; certainly Heaven is not “up to us.” But it fails almost completely to gain traction on the remaining three aspects of *tian*, and these three are, arguably, the very core of the concept for Zhu Xi. *Tian* is both the entirety of Pattern and the entirety of vital stuff; labeling Pattern as “cosmic” Pattern (*tianli*) does not mean that this is a special, higher Pattern (whatever that would mean), but that it takes everything into account: it is all-inclusive.

So “Heaven” does poorly with respect to our eight criteria. Furthermore, it brings with it a range of associations in the minds of modern readers that fit very poorly with *tian*

and Neo-Confucianism more generally. I said a few moments ago that Heaven suggests something that transcends our world, is associated with divine law and the creation of our world by God, and is connected to the possibility of eternal life after death. None of this—transcendence of (i.e., radical separation from) our world, divine law, creation *ex nihilo*, God, eternal life—has any place in a Neo-Confucian worldview. If our only choices are to leave *tian* untranslated or to render it as “Heaven,” we should leave it untranslated.

Of course we have another option: to translate *tian* as “cosmos.” I must acknowledge that Roger Ames and the late David Hall argued for many years against the idea that “cosmos” is a useful category for understanding early Chinese thinking. They were not reacting to any specific proposal to translate *tian* (or anything else) as “cosmos,” and in fact they themselves chose to leave *tian* romanized. Furthermore, they focused their attention on early China (up through the Han dynasty), more than a millennium before Zhu Xi’s birth. Still, their arguments are at least partly relevant to my present proposal, and deserve to be taken seriously.

The arguments of Hall and Ames against “cosmos” span three books, but at least for our purposes, I think there are two central concerns.²⁵ First, Greek ideas of *kosmos* tend to be associated with a particular type of causal origin of the cosmos: “In a cosmos the totality of things is necessarily ordered, and hence each thing is in principle explicable. The explanation is patterned after the causal agency responsible for the construal of cosmos

²⁵ See (Hall and Ames 1987, ch. IV); (Hall and Ames 1995, pp. 183-197); and (Hall and Ames 1998, pp. 232-244).

from chaos” (Hall and Ames 1995, p. 183). Hall and Ames argue that Chinese do not understand their world to have undergone a “cosmogenesis” in this way. Second, Hall and Ames maintain that the order that is so central to the Greek conception of *kosmos* is fixed and general, based on one or more principles that we can explicate and follow. In contrast to this “cosmology,” they say that order in the Chinese world is particularist, dynamic, and ultimately “aesthetic” rather than “rational.”

These two issues are separable, and I believe that the first one need not detain us very long. While Zhu Xi does have a bit to say about how *tian* emerges from nothingness, it is not a major concern of his, and he clearly does not envision the kind of causal agency that worries Hall and Ames (Kim 2000, ch. 9). Hall and Ames themselves acknowledge that one can have an “acosmogonical” cosmology, though they do not consider this option at any length; this idea—that the cosmos does not have a specific causal origin imprinted on it—seems to me to be precisely what Zhu envisions (Hall and Ames 1995, p. 184).

The important issue, then, lies with the type of order that talk of “cosmos” entails, and how that fits with Zhu Xi’s understanding of *tian*, Pattern, and so on. I accept that Greek thinkers often understood the order (or *logos*) inherent in *kosmos* in something like the way that Hall and Ames describe. I further agree that Pattern, as Zhu Xi understands it, is not articulable via one or more universal principle, nor is it helpfully modeled on mathematical ratios or our knowledge thereof. We can make useful generalizations about it, such as its connection to life-giving generativity, but it is too particularist to fit into the Greek model of order (as Hall and Ames describe it). A more detailed account of both sides

of this comparison would be needed to firmly establish just how wide the gap is between these two ways of thinking about order, but for present purposes, it suffices for me to acknowledge that there is indeed a significant difference.

If my goal had been to demonstrate that *tian* and *kosmos* (or at least Zhu Xi's *tian* and some particular Greek thinker's *kosmos*) were identical—or at least, quite similar in all respects—then this acknowledgement of dissimilarity would show that I had failed. However, my actual objectives are quite different: to articulate and defend a particular interpretation of Zhu's idea of *tian*, and to argue that “cosmos” is an apt translation for *tian*, thusly understood. As I have explained, to be an apt translation, “cosmos” has to capture the multi-faceted meaning of *tian* well enough that it is better than no translation at all, and it also has to be better than alternative translations. In this context, the challenge posed by what Hall and Ames call the “rational conception of order” at the heart of *kosmos* is that as a result, “cosmos” fares badly enough at expressing *tian* as to fail by one or both of these criteria.

Back in Section 2 I argued that in order to count as an adequate translation, the proposed translation must sufficiently relate to the target concept so that the translation is of real use to its audience. This means that depending on the audience—and more specifically, on the goals of a given author with respect to an audience—a particular translation might or might not make sense. In the context of Hall and Ames's project, one central point of which is to show the difference between Greek and Chinese assumptions, it

would indeed be folly to translate *tian* as “cosmos,” because confusion would result rather than any significant aid to their readers.

For most contexts in which one is considering how to handle Zhu Xi’s notion of *tian*, in contrast, a specific comparison with Greek ideas is not on offer. Backgrounds such as ancient Greek usage and Humboldt’s nineteenth-century version of the concept are of course relevant; they help us to know what we, today, might mean by the word. But they are hardly determinative. The order involved in *tian* is different from that involved in *kosmos*, to be sure, but surely the idea that the whole is characterized by some sort of order is more basic than the particular type of order involved? “Cosmos” does very well for *tian* in most respects, especially when we supplement the translation by pointing out that the order in question is that of *li*, not *logos*. I conclude that “cosmos” succeeds at the task I have set for it, and encourage its adoption in studies of Neo-Confucianism.

Bibliography

- Araki, Kengo 荒木見悟. *Fojiao yu Rujiao* 佛教與儒教 [*Buddhism and Confucianism*], trans. 廖肇亨 Liao Zhaoheng (Taipei: Lianjing chubanshe, 2008)
- Baba, Eiho. “*Li* as Emergent Patterns of *Qi*: A Nonreductive Interpretation,” in *Emerging Patterns Within the Supreme Polarity: Rethinking Zhu Xi*, ed. David and He Jinli Jones (Albany: SUNY, 2015), pp. 197-225.
- Barnes, Jonathan, ed., *Early Greek Philosophy* (London: Penguin Classics, 1987)

- Brandom, Robert. *Making it Explicit: Reasoning, Representing, and Discursive Commitment* (Cambridge: Harvard University Press, 1994)
- Bruya, Brian. "Emotion, Desire, and Numismatic Experience in Rene Descartes, Zhu Xi, and Wang Yangming," *Ming Qing Yanjiu* 2001
- Chan, Wing-Tsit. *Chu Hsi: New Studies* (Honolulu: University of Hawaii Press, 1989).
- Ching, Julia. *The Religious Thought of Chu Hsi* (New York: Oxford University Press, 2000)
- Curd, Patricia. "Presocratic Philosophy", *The Stanford Encyclopedia of Philosophy* (Summer 2016 Edition), Edward N. Zalta (ed.), forthcoming URL = <http://plato.stanford.edu/archives/sum2016/entries/presocratics/>
- Graham, A. C. *Two Chinese Philosophers: The Metaphysics of the Brothers Ch'eng* (La Salle: Open Court, 1992)
- Graßhoff, Gerd. "Cosmology," in *Brill's New Pauly*, eds., Hubert Cancik and Helmuth Schneider (Brill Online, 2016), <http://referenceworks.brillonline.com/entries/brill-s-new-pauly/cosmology-e621140>
- Hall, David L. and Roger T. Ames. *Thinking Through Confucius* (Albany: State University of New York Press, 1987)
- . *Anticipating China: Thinking Through the Narratives of Chinese and Western Culture* (Albany, NY: State University of New York Press, 1995)
- . *Thinking From the Han: Self, Truth, and Transcendence in Chinese and Western Culture* (Albany: State University of New York Press, 1998)
- Huff, Benjamin. "Servants of Heaven: The Place of Virtue in the Confucian Cosmos" (unpublished, 2016)

- Kim, Yung Sik. *The Natural Philosophy of Chu Hsi, 1130-1200* (Philadelphia: Memoirs of the American Philosophic Society, 2000)
- Liddell, Henry George and Robert Scott. *A Greek-English Lexicon*, revised and augmented throughout by Sir Henry Stuart Jones, with the assistance of Roderick McKenzie (Oxford: Clarendon Press, 1940); on-line at <http://www.perseus.tufts.edu/hopper/>, s.v. k.156.ko/smos;
- Neville, Robert Cummings. "Foreword," in Rodney L. Taylor, *The Religious Dimensions of Confucianism* (Albany: SUNY Press, 1990)
- Taylor, Rodney L. *The Religious Dimensions of Confucianism* (Albany: SUNY Press, 1990), and Mary Evelyn Tucker, "Introduction," in *Confucian Spirituality, Volume One*, ed. Wei-ming Tu and Mary Evelyn Tucker (New York: Crossroad Publishing Co., 2003)
- Thompson, Kirill O. "Opposition and Complementarity in Zhu Xi's Thought," in *Emerging Patterns Within the Supreme Polarity: Rethinking Zhu Xi*, ed. David and He Jinli Jones (Albany: SUNY, 2015), pp. 149-75.
- Tillman, Hoyt Cleveland. "Consciousness of T'ien in Chu Hsi's Thought," *Harvard Journal of Asiatic Studies* 47 (1987)
- Tu, Wei-ming. "The Ecological Turn in New Confucian Humanism: Implications for China and the World," *Daedalus* 130 (2001)
- Tucker, Mary Evelyn. "Introduction," in *Confucian Spirituality, Volume One*, ed. Wei-ming Tu and Mary Evelyn Tucker (New York: Crossroad Publishing Co., 2003)
- Walls, Laura Dassow. "Introducing Humboldt's Cosmos," *Minding Nature* 2:2 (2009), pp. 3-15; <http://www.humansandnature.org/introducing-humboldt-s-cosmos-article-26.php>.

- Yu, Yamanoi. "The Great Ultimate and Heaven in Chu Hsi's Philosophy," in *Chu Hsi and Neo-Confucianism*, ed. Wing-tsit Chan (Honolulu: University of Hawaii Press, 1986)
- Zhu, Xi 朱熹. *Zhuzi Yulei* 朱子語類 [*Classified Conversations of Master Zhu*], in *Zhuzi Quanshu* 朱子全書 [*Complete Works of Master Zhu*] (Shanghai and Hefei: Shanghai Guji Chuban She and Anhui Jiaoyu Chuban She, 2002a)
- . *Zhu Wengong Wenji* 朱文公文集 [*Collected Writings of Zhu Xi*], in *Zhuzi Quanshu* 朱子全書 [*Complete Works of Master Zhu*] (Shanghai and Hefei: Shanghai Guji Chuban She and Anhui Jiaoyu Chuban She, 2002b)
- . *Mengzi Jizhu* 孟子集註 [*Collected Commentaries on the Mencius*]. N.d.
- Ziporyn, Brook. *Beyond Oneness and Difference: Li and Coherence in Chinese Buddhist Thought and Its Antecedents* (Albany: SUNY, 2013)
- . *Ironies of Oneness and Difference: Coherence in Early Chinese Thought; Prolegomena to the Study of Li* 理 (Albany: State University of New York Press, 2012)