

Symbolic Structures as Systems

On the Near Isomorphism of Two Religious Symbols¹

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ABSTRACT

Many symbolic structures used in religious and philosophical traditions are composed of “elements” and relations between elements. Similarities between such structures can be described using the systems theoretic idea of “isomorphism.” This paper demonstrates the existence of a near isomorphism between two symbolic structures: the Diagram of the Supreme Pole of Song Neo-Confucianism and the Kabbalistic Tree of medieval Jewish mysticism. The similarities of these two symbols in form and meaning are remarkable in the light of the many differences that exist between Chinese and Judaic thought. Intercultural influence might account for these similarities, but there is no historical evidence for such influence. An alternative explanation would invoke the ubiquity of ideas about hierarchy, polarity, and macrocosm-microcosm parallelism, but this does not adequately account for the extent of similarity of the symbols. The question of how to explain their resemblance remains unresolved.

1. A shorter version of this paper has appeared as “The Diagram of the Supreme Pole and the Kabbalistic Tree: On the Similarity of Two Symbolic Structures,” *Religion East & West, the Journal of the Institute for World Religions*, 9 (2009) 67–87.

INTRODUCTION

A “SYSTEM” IS A set of elements and relations between elements. Two systems are isomorphic if the elements of one can be mapped onto the elements of the other with the same relations holding between corresponding elements. Symbolic structures are systems, and this paper notes a near isomorphism between the structures of two religious-philosophical symbols: the Diagram of the Supreme Pole² (*Taiji tu*) of the Chinese Song Neo-Confucian School (11th and 12th century) and the Kabbalistic Tree of the medieval Jewish mystical tradition (Figure 5.1). The elements and the relations between elements in the Diagram of the Supreme Pole (referred to henceforth as “the Diagram”) can be mapped onto the elements and the relations between elements in the Kabbalistic Tree (referred to henceforth as “the Tree”), and when this is done many of the corresponding relations are similar. While corresponding elements differ in meaning due to differences between Chinese and Jewish thought, their roles within their respective structures often resemble one another.

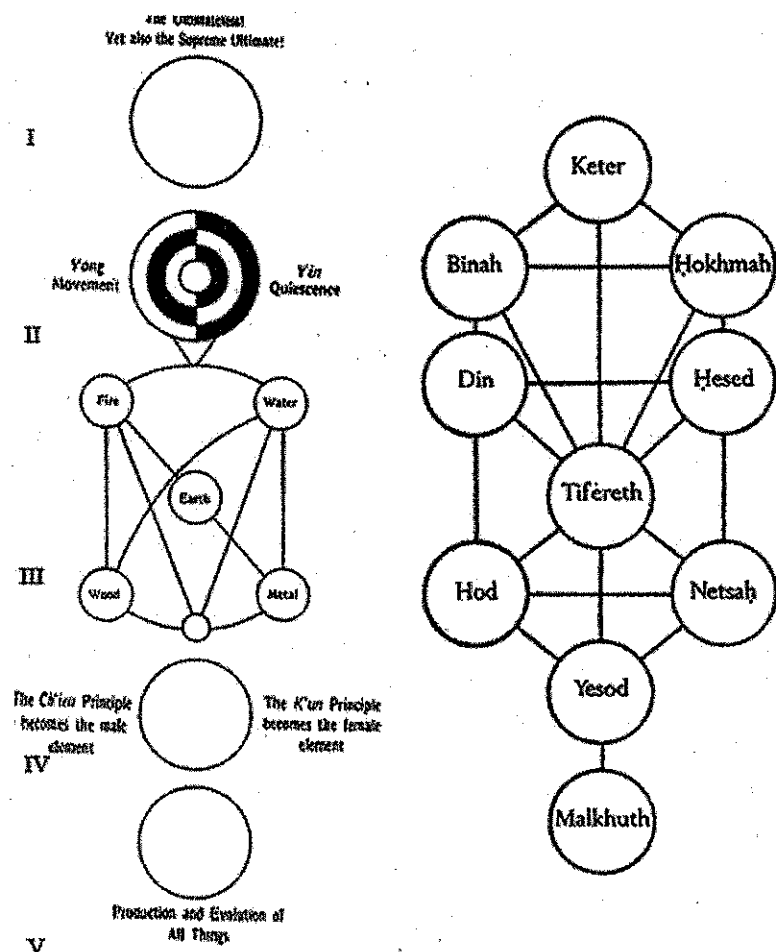
The idea of isomorphism is relevant not only for comparing different symbolic structures but for describing the use of such symbols. Chinese thought correlated many phenomena with the Two Forces (Yin and Yang) or with the Five Agents (Earth, Wood, Metal, Fire, and Water) and similar tabulations were ubiquitous in European pre-scientific writings, including those of the Kabbalah. “Correlative tabulations” are implicit—and inexact—isomorphisms. Needham called such tabulations “proto-scientific,”³ and one might more specifically regard them as an early form of systems thinking. Modern systems theory revives this analogical mode of thought but formalizes it. Instead of tabulations justified by intuition, relations are defined mathematically. If the same relations hold between corresponding elements of two systems, the systems are mathematically isomorphic.

2. The major alternative translation is “Supreme Ultimate.” Needham’s (*Science and Civilization in China*) translation of the word as “Pole” is used in this paper, despite the fact that “Ultimate” is more common. See also footnote 31.

3. Needham, *Science and Civilization in China*, 97.

FIGURE 5.1. Diagram of the Supreme Pole (left) and the Kabbalistic Tree (right).⁴

The numerals, I—V, label Diagram components (substructures), not individual elements, e.g., II includes the Two Forces (Yang and Yin); III includes the Five Agents (Fire, Water, Earth, Wood, Metal). The structures correspond if either one is left-right reversed.



4. The Kabbalist Tree is from Scholem, *On the Mystical Shape of the Godhead*, 44; the Diagram of the Supreme Pole is from Fung, *History of Chinese Philosophy*, 436.

A classic illustration of isomorphism is the analogy that exists between electrical and mechanical systems, in which variables and parameters of one system type map onto those of the other type, and these elements are related in both via a 2nd order differential equation.⁵ Mathematics not only makes the analogy exact; it also defines the limits of its scope. (The electrical system and the mechanical system differ in aspects not included in the isomorphism; for example, only the former can give electric shocks; only the latter manifests visible motion.)

This electrical-mechanical isomorphism is quantitative, but an isomorphism can instead be qualitative. For example, two systems might have the same graph-theoretic structure. The isomorphism would then consist in the existence of links (relations) between corresponding elements in the two systems, where the nature of these relations need not be specified. For example, if system1 has elements A, B, and C and links AB and BC,⁶ and system2 has elements D, E, and F, and links DF and FE, then by mapping A onto D, B onto E, and C onto E, the relations are preserved, i.e., AB maps onto DF and BC maps onto FE, and the two systems are isomorphic.

5. The electrical system contains a resistance, capacitance, inductance, and applied voltage; the mechanical system is a disk that rotates in a dissipative medium and is connected to a spring that also resists the rotation. The correspondences are:

	(i)	(ii)	(iii)	(iv)	(v)	(vi)
Electrical	charge	Current	voltage	inductance	resistance	capacitance
Mechanical	rotational angle	rotational velocity	torque	moment of inertia	rotational resistance	rotational spring constant

Both systems obey a differential equation of the form, $a \frac{d^2x}{dt^2} + b \frac{dx}{dt} + c x = e$, where $x = (i)$, $\frac{dx}{dt} = (ii)$, and $e = (iii)$, and a , b , and c depend on (iv) , (v) , and (vi) , respectively.

6. In simple graphs, a link connects only two elements, but links need not be dyadic. For example, in the graph-theoretic structures used in Reconstructability Analysis (see Zwick, "Overview of Reconstructability Analysis," 877-905), triadic, tetradic, etc. links (relations) are also possible between elements. (Graphs that have such relations are "hyper-graphs.") In principle, symbolic structures could exhibit such higher ordinality relations between their elements, but usually only pair-wise relations are considered. One analysis of symbolic structures that begins to explore higher ordinality relations is J. G. Bennett's "systematics" (not to be confused with the word's meaning in biological taxonomy) (Bennett, *The Dramatic Universe*). The syntactic (but not semantic) aspects of Bennett's framework of number symbolism has close affinity to graph-theoretic analysis of structure, and systematics can be thought of as the Reconstructability Analysis of ideas, as opposed to quantitative data.

The similarity of the Diagram and the Tree is graph-theoretic; there are no quantities that might be related by some differential equation. But the symbols are plainly not completely isomorphic. For example, the Diagram is “partially decomposable”⁷ into separate components I to V, while the Tree is a single connected graph. What is especially similar in these symbols is the relative *spatial* arrangement of the elements, i.e., their vertical and horizontal locations, more than their specific connectivities. The Diagram and Tree both make use of a “dimensional domain”⁸ in which elements are organized vertically by the principle of hierarchy and horizontally by the principle of polarity. The symbols are thus more than graph-theoretic structures: relations between elements are defined not only by connectivity but also by spatial location.

CHRONOLOGY, OVERVIEW, AND SOURCES

Since the most plausible null hypothesis about a cosmological symbol from Neo-Confucianism and a theosophical symbol from Kabbalah is difference, similarities are noteworthy, but differences are no less important, and one prominent difference between these two symbols is their status within their individual traditions. The Diagram had Daoist precursors⁹ and its importance to Neo-Confucianism was evident at the inception of this movement. By contrast, the origins of the Tree are shrouded in mystery. As a canonical structure it appears late in the Kabbalist tradition, more as a visual mnemonic than as a symbolic centerpiece.

The symbols differ greatly in the precision with which their first appearances can be dated and the degree to which a few seminal writings gave them definitive interpretations. Two principal commentaries on the Diagram were written: one in 1060 by Zhou Dunyi, who recast an earlier Daoist symbol into Neo-Confucian form, and the other in 1175 by Zhu Xi, a later—and the most prominent—philosopher of the Song Neo-Confucian school. The emergence of this school is described by Fung as follows: “By the beginning of the Song Dynasty, i.e., around the year 1000, the major existing schools of thought (Confucianism, Taoism, and Buddhism) had all reached roughly comparable stages of develop-

7. Simon, *Sciences of the Artificial*.

8. Angyal, “Structure of Wholes,” 25–37.

9. This is the dominant view and is assumed in this paper, but Robin R. Wang (“Zhou Dunyi’s Diagram,” 307–23) mentions an argument that the diagram was original to Zhou Dunyi and was plagiarized by a Daoist in the Song Dynasty.

ment in the course of which a considerable intermingling of ideas had occurred. All that was lacking was the series of great men who were presently to appear, and were to organize and unify all that had gone before into one great system.”

Zhou Dunyi and Zhu Xi, among others, accomplished this unification. Driven by the desire for a coherent cosmology and by the syncretic motive of linking Confucianism to the other Chinese traditions, the Song scholars produced a Neo-Confucian metaphysics influenced by Daoism and Buddhism.¹⁰ The Diagram of the Zhou Dunyi was the symbolic centerpiece of the Song Neo-Confucian synthesis.

By contrast, the Tree appears late and its origin is obscure. There is no definitive treatment of the symbol that is analogous to the two commentaries on the Diagram. The *Zohar* (ca. 1286, Moshe de Léon, Guadalajara, Spain) was the central book of the Kabbalah, but Kabbalist doctrine had roots in many earlier works, including the *Sefer Yetsirah*, third to sixth centuries, and *Sefer Bahir*, 1150–1200, Provence, France.¹¹ The Tree did not appear in these books, emerging as a canonical structure only in the fourteenth century.¹² It was not a central symbol for the Kabbalists. The prominence it later gained is partially due to its importance in occult and Christian Kabbalah. It was the doctrine of the *Sefirot* (plural of *Sefirah*, literally “enumeration”)—the ten elements of the Tree—that was central to the medieval Jewish mystical tradition. The *Sefirot* were religious concepts long before they were integrated and visually represented in the Tree. Similarly, the Chinese doctrines of the Two Forces and Five Agents predated their use in the Diagram.

The subjects of these symbols, although not the same, play similar roles in their respective cultural contexts: for the neo-Confucians, the fundamental metaphysical principle, the Supreme Pole, with its Forces, Agents, and other manifestations; for the Kabbalists, God, with the *Sefirot* representing divine attributes or instruments.¹³ To the Western mind,

10. This is a paraphrase of the account of Henderson, chapter 4: Correlative Cosmology in the Neo-Confucian Tradition, *The Development and Decline*, 125.

11. The dates of these works are uncertain and in dispute. Dates given here are from Scholem in *Kabbalah*, 57 (for the *Zohar*), 27 (for *Sefer Yetsirah*), and 42 (for *Sefer Bahir*).

12. Scholem, *Kabbalah*, 106.

13. Idel (*Kabbalah: New Perspectives*, 137) distinguishes between this common view, (1) the *Sefirot* as the components of the “divine essence,” and its variations, (2) the *Sefirot* as “nondivine in essence” but as “instruments” or “vessels for the divine influx,” and

the Diagram is philosophical (“cosmological”) while the Tree is religious (“theosophical”). One could say that the Diagram is also religious, just not in the Western sense of implying a personal, law-giving, creator God. Conversely, given that for the Kabbalists, the structure of God was mirrored in His creation, Kabbalah also offers a cosmology.¹⁴ This emphasizes its Neo-Platonic aspects, but in Kabbalah, mythological and biblical aspects predominate, and these have no Chinese parallel. Nothing in the Diagram corresponds to applications of the *Sefirotic* doctrine to biblical persons, passages, and events, or the mystical aspects of the Hebrew language. The differences between Neo-Confucianism and Kabbalah, and between Chinese and Jewish thought are substantial. Given these differences, the similarities of the symbols are striking.

These symbols were not only cosmological or theosophical. Both Neo-Confucianism and Kabbalah asserted the parallelism of macrocosm and microcosm. For the Neo-Confucians, this is illustrated by Zhou Dunyi’s use of cosmological ideas for moral discourse. His “It is man alone who receives the finest (substance),” is a dramatic application of cosmology to anthropology. The Confucian centrality of human action is reaffirmed, deepened by a new metaphysical foundation. A human focus also characterized the Daoist precursor of the Diagram, where it referred to the “subtle body” of man which was the instrument and object of meditation. Similarly, as Idel notes, Kabbalah was both theosophical and “ecstatic.”¹⁵ The *Sefirot* applied to the human body, psyche,¹⁶ and be-

(3) the *Sefirot* as “divine emanations within created reality,” i.e., as “the immanent element of divinity”

14. Scholem (*Kabbalah*, 96) explicitly rejects the view of Franck that the Kabbalah was pantheist, but it is not necessary to go this far to see a cosmology in Kabbalah.

15. The dichotomy of theosophical (theoretical) and ecstatic (experiential) Kabbalah corresponds to a predominant focus on macrocosm and microcosm, respectively, but there is a continuum from theosophy to prayer to meditation. Where to place the “mystical” along this continuum is not always clear. The psychological interpretation of the *Sefirot*—which merges with the meditational and mystical—is more identified with ecstatic Kabbalah (e.g., Abulafia); it was de-emphasized in Lurianic Kabbalah but was later extensively taken up in Hasidism (Idel, *Kabbalah: New Perspectives*, 148–50).

16. Idel (*Kabbalah: New Perspectives*, 152) remarks about the later Hasidic emphasis on the psychological interpretation of the *Sefirot*: “Thus, the entire zoharic and Lurianic superstructure is viewed, not only as comprised in man ... but, according to Rabbi David’s testimony, only in man. According to the Hasidic sources I am familiar with, Kabbalah is preeminently a paradigm of the human psyche and man’s activities rather than a theosophical system.” The human-centeredness of traditional Judaism was reaffirmed in Hasidism, gaining vigor and subtlety from the powerful adventure of Kabbalah.

havior, and to meditative and mystical practice. In the doctrines of *Shi’ur Komah*, the measurement of the “bodily parts,” as it were, of God, and *Adam Kadmon*, the primordial man or cosmic anthropos, the Kabbalists gave symbolic human physical form to God. The Diagram and Tree thus depict not only cosmos and God, respectively, but also human physical, moral, psychological, and spiritual structures. Both symbols were used to declare that by perfecting oneself, one harmonized the macrocosm.

The literatures relevant to these symbols are large and diverse. The Diagram was Confucian, but had Daoist origins, and showed Buddhist influence; the focus here is on the Confucian and Daoist sources. In addition to the original Jewish Kabbalah, there were Christian and occult offshoots, and Jewish Kabbalah gave much less emphasis to the Tree than these later derivatives. Even within Jewish Kabbalah there were various doctrines; this paper emphasizes early (pre-Lurianic) Kabbalah.

The scholarly literatures on Neo-Confucianism and Kabbalah also differ in the extent to which they are dominated by a single investigator. For Neo-Confucianism and the Diagram, this paper relies heavily on Needham and Fung, especially Needham, whose translations¹⁷ of Zhou Dunyi’s and Zhu Xi’s commentaries are used in this paper. Unless otherwise noted, all references to these authors are to these translations, which are also included as an Appendix for convenient reference. But there is no intention here to suggest that Needham’s views are more authoritative than other interpretations. By contrast, Kabbalah as a subject for scholarly research is due to the monumental work of Gershom Scholem. He is thus the major source for the discussion of the Tree,¹⁸ though this essay also draws on the work of Idel and other Kabbalah scholars. Relying on these prominent sources must suffice since, as both Idel and Abrams¹⁹

There is a distinct similarity in the worldliness and moral focus of Confucianism (less salient in both Taoism and Buddhism) and rabbinic Judaism. Worldliness and moral focus was reinvigorated in both traditions by excursions into cosmology/theosophy and esoteric spirituality.

17. Needham, *Science and Civilization in China*, 460–64. For other translations, see, e.g., Bruce, *Chu Hsi [Zhu Xi] and His Masters*, 128–33; Fung, *A History of Chinese Philosophy*, 435–38 (Zhou Dunyi’s commentary).

18. Other Scholem works that have been consulted are *Major Trends in Jewish Mysticism*; *On the Kabbalah and Its Symbolism*; *Origins of the Kabbalah*.

19. Idel (*Kabbalah: New Perspectives*, 136) writes: “there is as yet no comprehensive study of the history of the Kabbalistic doctrines of the Sefirot.” Daniel Abrams concurs (“New Study Tools from the Kabbalists of Today”).

note, there is yet no definitive treatment of the history of the doctrine of the *Sefirot* and their use in Kabbalistic structures.

MEANING AND SEQUENCE

The sequence of components in the Diagram is:

- (I) *Taiji* ("the Supreme Pole");
- (II) the Two Forces, Yang and Yin;
- (III) the Five Agents;
- (IV) *Qian* and *Kun* (*Ch'ien* and *K'un* in Figure 5.1);
- (V) the myriad things.

The connection between the Forces and the Agents is not itself a separate element; nor is the small circle at the bottom of the Agents. The sequence in the Tree (the *Sefirot* are numbered from right to left) is:

	(1) <i>Keter</i> , Crown
(3) <i>Binah</i> , Understanding, Intelligence	(2) <i>Hokhmah</i> , Wisdom
(5) <i>Din</i> , Judgment, Law, Rigor	(4) <i>Hesed</i> , Love, Mercy
	(6) <i>Tifereth</i> , Beauty, Splendor
(8) <i>Hod</i> , Majesty	(7) <i>Netsah</i> , Eternity, Endurance
	(9) <i>Yesod</i> , Foundation
	(10) <i>Malkhuth</i> , Kingdom

Sometimes a supplementary *Sefira*, *Da'at*, Knowledge, was interposed between *Hokhmah-Binah* and *Hesed-Din*, but this was not numbered among the canonical *Sefirot*.²⁰

20. Scholem, *Kabbalah*, 107.

The First Three Elements

Both symbols begin at the top with a neutral element representing the highest reality: *Taiji*, the Supreme Pole in the Diagram and *Keter*, Crown, in the Tree. Yet the identity of this first element is not free of ambiguity. Zhou Dunyi and Zhu Xi both note that, "The Supreme Pole is essentially (identical with) that which has no Pole." There are two concepts here: the Supreme Pole, *Taiji*, from the Confucian (and Daoist) classic, the *Yijing*, and "that which has no Pole," the "Ultimateless," *Wuji*, from the *Dao Dejing*.²¹ The identity of these "positive" and "negative" ("full" and "empty") concepts is asserted in the commentaries, but these concepts were not completely synonymous. As Henderson points out,²² the identification of *Taiji* and *Wuji* is a syncretic statement uniting notions from different Chinese traditions.

A parallel union of positive and negative concepts existed in the Kabbalah in the relationship between *Keter* and—not included in the symbol—*Ein-Sof*.²³ In some Kabbalist writings, *Ein-Sof*, "that which has no end," is more fundamental than *Keter* and beyond description. In other writings, *Keter* is the external aspect of *Ein-Sof*, indicating a closer relationship. *Keter* is also referred to as *Ayin*, "nothingness," a negative concept like *Ein-Sof*, whose polar opposite is *Yesh*, existence, literally "there is."²⁴ There is a relationship between that which is manifested—*Keter*—and that which is unmanifested—*Ein-Sof* or *Ayin*: *Yesh* arises from *Ayin*, Being from Nothingness. In both traditions, beyond what can be stated as the highest is that which has no name, no end, no pole. Both traditions wrestled with the problem of whether the unmanifested is prior to and distinct from the manifested, or whether the two are in some sense equivalent. Neither the solution of difference nor the solution of identity was completely satisfactory, and so different positions inevitably arose on this matter. It is not being asserted here that *Wuji* is identical with *Ein-Sof* or *Ayin* (although *Wuji* means "no extreme," quite close to *Ein-Sof*, which means "no end"). Virtually every mystical tradition has some notion of Nothingness, as doctrine and as meditative or mystical experience. While notions of Nothingness in different cultures

21. Needham, *Science and Civilization in China*, 464.

22. Henderson, *Development and Decline*.

23. Scholem, *Kabbalah*, 88–92; Tishby, *Wisdom of the Zohar*, 235 ff.

24. Matt, "Concept of Nothingness," 67–108.

are not the same, it is equally implausible to believe they are completely different. Both Neo-Confucians and Kabbalists faced the question of the relationship between Nothingness and Plenitude. Corresponding terms do not mean the same thing—*Ein Sof* and *Keter* are theistic concepts but *Wuji* and *Taiji* are not²⁵—but the relation between *Wuji* and *Taiji* and the relation between *Ein-Sof* and *Keter* are similar.

In both symbols, the first element gives rise to a dyad representing the fundamental polarity that emanates from the fundamental unity: for the Diagram, the Two Forces, Yang and Yin; for the Tree, *Hokhmah*, Wisdom, and *Binah*, Understanding or Intelligence. In this dyad, the male element is first and the female element second. Zhou Dunyi writes, “The Supreme Pole moves and produces the Yang. When the movement has reached its limit, rest (ensues). Resting, the Supreme Pole produces the Yin.” Correspondingly, Wisdom and Understanding are second and third in the canonical order of the *Sefirot*. But one should not make too much of this ordering. The placement of Yang and Yin and Wisdom and Understanding implies symmetry for the two elements; for the Diagram, this symmetry also inheres in the fact that Yang generates Yin and Yin generates Yang. There is a tension here between asserting symmetry and breaking symmetry (sequencing the elements); both are required. The first three elements in each structure constitute a primary triad from which the rest of the symbol follows. In Daoist thought, the union in the Dao of Yin and Yang was an explicit triad, and this was incorporated into Neo-Confucian philosophy. In the Tree, this triad is also recognized as an explicit unit and the generative source from which creation proceeds.²⁶ Both triads represent the differentiation of unity into duality with a resulting symbolism of one, two, and three, rooted in an ineffable zero, empty yet also full.

The Yin character of Understanding was prominent in Kabbalist thought. While the tenth *Sefirah* of *Malkhuth*, Kingdom, represented the *Shekhinah*, the “Divine Presence” and female aspect of God, there was

25. *Wuji* and *Taiji* might qualify as “philosophically theistic”: Wang observes (Zhou Dunyi’s Diagram of the Supreme Ultimate Explained, 318) that Fung (*History of Chinese Philosophy*, 537), commenting on Zhu Xi’s interpretation of Zhou Dunyi, says: “Spoken of in this way the Supreme Ultimate is very much like what Plato called the Idea of the Good, or what Aristotle called God.” But Wang insists that, “the differences are equally fundamental. *Wuji/Taiji* is emphatically nontheistic, for it cannot be understood as God in any way that might confuse it with the specific teachings of classical theism.”

26. Scholem, *Kabbalah*, 108; Scholem, *On the Kabbalah and Its Symbolism*, 103.

a doctrine of a higher and a lower *Shekhinah*, of which the higher was Understanding and the lower was Kingdom. Scholem writes, “As the upper *Shekhinah* of the *Sefirah* of *Binah*, [the principle of] femininity is the full expression of ceaseless creative power—it is receptive, to be sure, but is spontaneously and incessantly transformed into an element that gives birth, as the stream of eternally flowing divine life enters into it.”²⁷

In both symbols, the first three elements encompass the distinction between form and substance, although they do so in different ways. Zhu Xi linked the Supreme Pole itself (circle I) with *Li*, principle, whose original meaning was “order” or “pattern,” sometimes equated with Aristotelian “form.”²⁸ *Li* is interpreted by Needham in scientific terms as “organization,” in contemporary scientific language, “information,”²⁹ and Yin and Yang (circle II) with *Qi*, interpreted by Needham as “matter-energy,” which accords with the inherent generativity of the Two Forces; *Li* and *Qi* are inherently linked, as information is always associated with matter-energy. In the Tree, however, the form-substance distinction is not in *Keter* vs. *Hokhmah* and *Binah*, but rather in *Hokhmah* vs. *Binah*. Scholem notes, “This conception formulated by Plato in the *Timaeus*, where *hyle* [matter] is called mother and form [*morph*] is called father, corresponds to symbolism commonly used among the Kabbalists for *Hokhmah* and *Binah*.”³⁰

The Five Agents and the Central Sefirot

The middle portion of the Diagram consists of the Five Agents, Fire, Water, Earth, Wood, and Metal.³¹ Zhou Dunyi writes, “The Yang is transformed (by) reacting with the Yin and so Water, Fire, Wood, Metal, and Earth are produced.” For Zhu Xi, the order is Water-Wood-Fire-Earth-Metal. The Five Agents are not material entities but rather are processes that are fire-like, water-like, etc. In modern terms, they are functional and

27. Scholem, *On the Mystical Shape of the Godhead*, 174.

28. Patt-Shamir, *To Broaden*, 232.

29. Needham, *Science and Civilization in China*, 472 ff. In Needham’s interpretation of *Li* and *Qi* as organization (information) and matter-energy, one can also see an echo of the Hindu *gunas*: *Sattva* (intelligence) is *Li*, and *Rajas* (energy) and *Tamas* (material inertia) are joined together as the Yang and Yin of *Qi*.

30. Scholem, *Origins of the Kabbalah*, 1987, 428n.

31. Needham’s translation of “Five Elements” is replaced here by the more common “Five Agents.”

abstract and reflect a “stuff-free” systems-theoretic viewpoint. Just as systems theories focus on modes of organization and process for which the materiality of the phenomena described is not important,³² the names of the Agents are concrete illustrations that are not intended literally. (The same can be said of “four elements” ideas in Greek and medieval thought.) Agents are categorized as major and minor Yang (Fire and Wood), major and minor Yin (Water and Metal), and neutral (Earth). They are ordered by a number of different sequences, and the main ones are given in Table 5.1. In graph-theoretic language, these sequences are ‘directed graphs’ (‘digraphs’) that are either cyclic or acyclic.

TABLE 5.1. Enumeration Orders of the Five Agents (Needham³³)

The repetition of Wood in the 2nd and 3rd order indicates the cyclicity of these two orders.

The Cosmogonic Order	Water-Fire-Wood-Metal-Earth
The Mutual Production Order	Wood-Fire-Earth-Metal-Water-(Wood-...)
The Mutual Conquest Order	Wood-Metal-Fire-Water-Earth-(Wood-...)
The “Modern” Order	Metal-Wood-Water-Fire-Earth

Zhou Dunyi’s commentary on the Diagram uses the acyclic Cosmogonic Order, while Zhu Xi’s commentary uses the cyclic Mutual Production Order, starting with Water. In the Diagram as shown in Figure 5.1, Earth is directly connected to both Fire and Metal, and Water and Wood are also directly connected, which points to the Mutual Production Order. Needham notes that the relations of “production” and “conquest” are very close to modern scientific ideas; indeed these ideas are standard in causal (directed graph) analysis.³⁴ Needham’s view

32. The idea of a “stuff-free” science is from Mario Bunge’s *Method, Model and Matter*, ch. 2 (Testability Today), ch. 8 (Is Scientific Metaphysics Possible?).

33. Needham, *Science and Civilization in China*, 253 ff. The Cosmogonic Order is the “evolutionary order in which the elements [agents] were supposed to come into being.” In the Mutual Production Order, Fire is produced (increased) by Wood, Earth by Fire, etc. In the Mutual Conquest Order, Wood is “conquered by” Metal, Metal by Fire, etc. Needham says that the Modern order is obscure and primarily of popular and not philosophical significance.

34. Given some $A \rightarrow B$ relation, interpreted either as (i) $dB/dt = kA$ or as (ii) $B = kA$, for some constant k , the relation is one of ‘production’ when k is positive and one of

of early Chinese thought as proto-scientific, and—from the perspective of this paper—as a non-mathematical precursor of systems theory, is especially appropriate to the doctrine of the Five Agents.³⁵

The middle portion of the Tree are the five *Sefirot*: *Hesed*, Benevolence (Love, Mercy; or *Gedulah*, Greatness); *Din*, Judgment (Law, Rigor; or *Gevurah*, Power);³⁶ *Tiferet*, Beauty (Splendor; or *Rahamim*, Compassion); *Netsah*, Eternity; and *Hod*, Glory (Majesty). Benevolence and Eternity are primary and secondary male *Sefirot*, Judgment and Glory are primary and secondary female *Sefirot*, and Beauty (6) is neutral. Here a major difference exists between the symbols: the substructure of the Five Agents is plain in the Diagram, but an explicit pentad of Benevolence to Glory does not appear in the Tree or in Kabbalist literature. While the symbolism of five was salient in Chinese philosophy, it was largely absent in Jewish thought,³⁷ although it existed in occult Kabbalah.³⁸

‘conquest’ when k is negative. For an odd number of relations of type (i), cycles consisting only of relations of production or only of relations of conquest (the second and third orders of Table 5.1) are examples of positive and negative feedback loops, respectively. Complex systems encompass loops of both types, and their analysis normally requires knowing the magnitudes of the k ’s for all the individual relations. In special cases, however, knowing only the signs of the k ’s—such systems are called “signed digraphs”—suffices to determine the overall dynamic behavior; see Richard Levins, “The Qualitative Analysis of Partially Specified Systems.”

35. Needham’s view applies also to ideas and diagrams associated with the *Yijing*; see Ryan, “Leibniz’s Binary System and Shao Yong’s *Yijing*.”

36. *Din* is chosen here although *Gevurah* is more common for this *Sefirah*, because Figure 5.1 uses *Din*, and because the meaning of *Din* is clearer.

37. Needham, *Science and Civilization in China*, 297. In Kabbalistic ideas about hierarchical components of the soul (*Nefesh*, *Ruach*, and *Neshamah*), one can find *Ruach* sometimes identified with the six *Sefirot*, Benevolence through Foundation and sometimes simply with Beauty. According to Tishby (120 ff.), this tripartite conception is the prevailing view of the soul in the *Zohar*, the central book of the Kabbalah. Most commonly, *Nefesh* is the lowest component of the soul, *Neshamah* the highest, and *Ruach* is intermediate between the two. The traditional assignments were *Neshamah* to *Understanding*, *Ruach* to *Beauty* or to Benevolence through Foundation, and *Nefesh* to Kingdome, but Tishby notes that the Kabbalist literature is not at all consistent in the correlations of *Sefirot* to these components of soul. Sometimes other components (*Chiah* and *Yechidah*) were added, usually as still higher levels of the soul (Scholem, 1974, 157). Roughly, then, *Ruach* is associated with the middle portion of the Tree, approximately analogous to Five Agents in the Diagram, but the correspondence is far from exact. There do not appear to be pentadic groupings parallel to the Five Agents in Kabbalistic correlations of planets with the *Sefirot*, or in the doctrine of the four “worlds” (*Atziluth*, *Briah*, *Yetsirah*, *Assiah*).

38. Occult Kabbalah had a developed symbolism of five, and Regardie associated *Ruach* with Benevolence through Glory (Regardie, *Garden of Pomegranates*). Regardie

If one aligns major and minor Yang Agents with primary and secondary Male *Sefirot*, and major and minor Yin Agents with primary and secondary Female *Sefirot*, one obtains the correspondences of Fire-Benevolence, Water-Judgment, Earth-Beauty, Wood-Eternity, and Metal-Glory, as shown in Table 5.2. The sequence of Agents, following the canonical order of the *Sefirot*, is Fire-Water-Earth-Wood-Metal, i.e., the Mutual Conquest Order starting with Fire.

TABLE 5.2. The Five Agents and *Sefirot* 4–8

Agents		Sefirot	
Yin	Yang	Female	Male
Water	Fire	Judgment (5)	Benevolence (4)
	Earth		Beauty (6)
Metal	Wood	Glory (8)	Eternity (7)

A more interesting parallelism, however, aligns the central *Sefirot* with the Chinese pentad of Five Virtues, as shown in Table 5.3. These are the primary Yang and Yin virtues of (a) *Ren*, Benevolence (Humanity, Love) and (b) *Yi*, Righteousness (Rightness), (c) the neutral virtue of *Xin*, Sincerity (Honesty, Good Faith, Trustworthiness), and the secondary Yang and Yin virtues of (d) *Li*, Reverence (Propriety; not the same as but related to *Li*, Principle) and (e) *Zhi*, Wisdom; these are associated with Wood, Metal, Fire, Water, and Earth, respectively. This mirror-reflects the Five Agents, correlating primary and secondary *Sefirot* with major and minor Virtues instead of major and minor Agents.³⁹

claims this conception of *Ruach* is "essentially derived" from Rabbi Azriel of Gerona, a pupil of Isaac the Blind, but this claim is not consistent with Tishby's (*Wisdom of the Zohar*, 32) assertion that the Rabbi Azriel's five parts of the soul "originated from the first five *Sefirot*."

39. Although *Ren* and *Yi* are the major Virtues, for some reason they are assigned to the minor Yang and Yin elements, *Wood* and *Metal*. The sequence of Agents obtained in this way, following the order of *Sefirot*, is Wood-Metal-Earth-Fire-Water, which is the Modern Order taken as cyclic (though Needham gives this order as acyclic) and in reverse, starting with Wood. This is plainly not a canonical order. Still, aligning major and minor Virtues with primary and secondary *Sefirot* does still yield a plausible correlation.

TABLE 5.3. The Five Virtues and *Sefirot* 4–8

Virtues		Sefirot	
Yin	Yang	Female	Male
<i>Yi</i>	<i>Ren</i>	<i>Din</i>	<i>Hesed</i>
Righteousness (Metal)	Benevolence (Wood)	Judgment	Benevolence
	<i>Xin</i>		<i>Tiferet</i>
	Sincerity (Earth)		Beauty
<i>Zhi</i>	<i>Li</i>	<i>Hod</i>	<i>Netsah</i>
Wisdom (Water)	Reverence (Fire)	Glory	Eternity

The pentad of Virtues was central to the transformation of the Daoist precursor of the Diagram to its Neo-Confucian form. In the earlier Daoist version, the Agents referred to aspects of meditation, but for Zhou Dunyi—and Zhu Xi agrees⁴⁰—their primary relevance was to the Virtues and the achieving of sagehood: "The sages ordered their lives by the Correct, by Love and Righteousness. They adopted ataraxy as their dominant attitude, and set up the highest standards for mankind. Thus it was that the 'virtue of the sages was in harmony with that of heaven and earth' . . . The good fortune of the noble man lies in cultivating these virtues; the bad fortune of the ignoble man lies in proceeding contrary to them."

The Diagram was a metaphysical basis for ethics.⁴¹ As Zhou Dunyi writes, it was the harmonious development of the Virtues (component III) which provided the basis for the distinction between good and evil (circle IV). Human conduct remained the central concern of the Neo-Confucians, however much they were influenced by the spiritual focus

40. For Zhu Xi, see Chiu Hansheng, "Zhu Xi's Doctrine of Principle," in Wing-tsit Chan, *Chu Hsi and Neo-Confucianism*, 129–35.

41. Teng Aimin, "Chu Hsi's [Zhu Xi's] Theory of the Great Ultimate," in Wing-tsit Chan, *Chu Hsi and Neo-Confucianism*, 110. Welch expressed this idea directly: "This Neo-Confucianism . . . developed because Confucius had never formulated a metaphysics and the lack of it put his later followers at a disadvantage in their rivalry with the complete philosophical systems of Taoism and Buddhism" (Welch, *Taoism*, 158.) Welch also quotes Fung as saying that the Neo-Confucians were "more Taoistic than the Taoists and more Buddhist than the Buddhists."

of Buddhism and Taoism.⁴² While meditation (“quiet-sitting”) provided a means of self-cultivation, it was not viewed as an end in itself. Shu-Hsien Liu notes that “the Buddhists’ ultimate commitment is . . . *Shunyata* or Emptiness,” but the “ultimate commitment for the Confucianists [remained] *Ren* (Humanity).”⁴³

In this pentad of Virtues, *Ren* and *Yi* is the principal dyad, the first Yang and the second Yin. Benevolence is primary, and all other virtues, especially Righteousness, flow from it. So too in the Tree, *Hesed* (Benevolence) is prior to and the source of *Din* (Judgment), the first being masculine, the second feminine. Fung notes that Righteousness was “the goodness that comes from hardness” and included “decisiveness, strictness, firmness, determination, and steadfastness,”⁴⁴ which are also the qualities of *Din*. Also, the predominance of *Ren* and *Yi* over the other three Virtues matches the predominance of *Hesed* and *Din* over the following three *Sefirot*. But it is not being asserted here that *Ren* and *Hesed* are identical, despite the appropriateness of the translation ‘benevolence’ for both, or that *Yi* and *Din* are identical. *Ren* is rooted in the different human relationships (father–son, ruler–subject, etc.) whose specific obligations are emphasized in Confucianism, but understood as “benevolence” *Ren* transcends these relationships. *Ren* was the subject of extensive scholarly discourse in Confucianism, and the concept of *Hesed* was similarly complex. Still, with respect to the male–female polarity, *Ren* and *Yi* clearly parallel *Hesed* and *Din*. What is especially interesting in this parallelism is that, contrary to popular Western gender correlations, both Jewish and Chinese medieval philosophy assigned mercy to the

42. The conceptualization of the Virtues was influenced by these “more spiritual” traditions. For example, Julia Ching notes that Zhu Xi speaks of “abiding in Reverence, defining it in terms of single-mindedness and freedom from distraction and comparing it to the Buddhist practice of mindful alertness” (Ching, “Chu Hsi,” 280). Ching goes on to compare the practice of Reverence to the “recollection” of Western Christian spirituality.

43. Liu, “Orthodoxy in Chu Hsi’s Philosophy” in Wing-tsit Chan, *Chu Hsi and Neo-Confucianism*, 441.

44. Fung, *A History of Chinese Philosophy*, 447.

masculine and severity to the feminine.⁴⁵ Both Jewish and Chinese thinkers also regarded imbalance within these dyads as a source of evil.⁴⁶

One might see parallels between Reverence and Eternity (Zhu Xi reinterpreted Reverence as mindfulness, collectedness, a kind of dwelling in eternity) and between Wisdom and Glory (both of which give content to this dwelling). Sincerity and Beauty, neutral in polarity, center and “give reality” and dynamism to adjacent elements. But these correlations seem less compelling than the *Ren-Hesed* and *Yi-Din* correlations.

Aligning the Chinese pentad of Virtues with the central *Sefirot* according to Table 5.3 has a consequence that is intriguing, though it would be hard to argue that this is not mere coincidence. At the bottom of the Five Agents in the Diagram, there is a small circle that is not an element in its own right, but about which Zhu Xi writes, “The small circle below, connected by the four lines with the Five Agents above, indicates that which has no Pole, in which all are mysteriously unified.” If Wood and Metal are placed at the top of the Five Agents as displayed in Table 5.3, the small circle is then above them, precisely at the site of the

45. The matter is not as simple as this. Fung notes that Righteousness was “the goodness that comes from hardness,” and this is supported by Zhou Dunyi’s comment, “Therefore it is said, ‘In representing the Tao of Heaven one uses the terms Yin and Yang, and in representing the Tao of Earth one uses the terms Soft and Hard; while in representing the Tao of Man, one uses the terms Love and Righteousness.’ Yet the Virtues of Benevolence and Righteousness are Yang and Yin, respectively, not the reverse, which these quotes seem to imply.

46. Scholem, *On the Mystical Shape of the Godhead*, 1991, chapter 2: Good and Evil in the Kabbalah, and Fung, *A History of Chinese Philosophy*, 446–47, discussing Zhou Dunyi’s commentary. Virtues—more precisely, their absence—is about “moral evil,” rather than a more general “metaphysical evil”—this distinction being one commonly made by Western philosophers—but metaphysical evil was also of concern to both Kabbalists and Neo-Confucians. Indeed, one might say that in both traditions, moral good and evil are metaphysical. In both traditions, there is another account of the origin of evil that does not attribute it to an imbalance between Benevolence and Righteousness (Judgment) but instead locates it at a higher level. According to Fung (*A History of Chinese Philosophy*, 552–56) Zhu Xi’s views on this resemble Plato’s notion that imperfection arises from the material instantiation of the Ideas (Forms). What corresponds to the Ideas is Principle (*Li*), which is *Taiji*, where according to Zhu Xi perfection reigns. What adds materiality—and hence imperfection—to all manifestations are the Two Forces. In this view, it is in the transition from level I to level II that evil is introduced into the cosmos. The top portion of the Tree is also implicated in metaphysical evil. In Nahmanides’ early form of the Lurianic *tsimtsum*, the contraction of God that is necessary for Creation, the ultimate source of metaphysical evil, is located in a disruption caused by *tsimtsum*, not in *Ein-Sof* but in Crown in its origination of Understanding (Scholem, *Origins of the Kabbalah*, 449).

"supplementary" *Sefirah* of *Da'at*, Knowledge—not numbered among the canonical *Sefirot*⁴⁷ and not shown in Figure 5.1—that is sometimes interposed between Wisdom-Understanding and Benevolence-Judgment.

The Last Two Elements

The last two elements of both symbols are neutral in gender: in the Diagram, circle IV, *Qian* and *Kun*, and circle V, the myriad things; in the Tree, *Yesod*, Foundation, and *Malkhuth*, Kingdom. In both, the next to last element is the sexual generative power and the funnel through which all elements above merge and flow into the final element. The last element is the multiplicity of all things which results from this influx via the union of sexual powers.

The sexually generative character of the last two circles of the Diagram is asserted by both Zhou Dunyi and Zhu Xi. "The Two Qi (of maleness and femaleness), reacting with and influencing each other change and bring the myriad things into being. Generation follows generation, and there is no end to their changes and transformations." (Zhou Dunyi)

"The fourth figure represents (the operations of the Qi of Yin and Yang exhibited in) the principles of (heavenly) maleness and of (earthly) femaleness which pervade the universe . . . The fifth figure represents the birth and transformation of the myriad things in their sensible forms, each of which has its own nature." (Zhu Xi)

Qian and *Kun*, the male and female aspects of circle IV, are the primary Yang and Yin trigrams and hexagrams in the *Yijing*; they consist exclusively of Yang and Yin lines, respectively.⁴⁸ This circle thus links the Diagram to this Confucian classic which Zhou Dunyi says "is the most perfect." While Yin and Yang are not generally sexual, in circle IV they are. Needham states that Zhou Dunyi's commentary on circle IV is "undoubtedly chemical, cf., the sexual symbolism of the alchemists."⁴⁹ In the Daoist antecedent of the Diagram, used to guide meditation, the commentary on circle IV is explicitly alchemical; Zhou Dunyi retained this association. About the Tree, Scholem writes: "The ninth Sefirah, *Yesod*, is the male potency, described with clearly phallic symbolism, the 'founda-

47. Scholem, *Kabbalah*, 107.

48. Fung, *A History of Chinese Philosophy*, 454–56.

49. Needham, *Science and Civilization in China*, 461. Fung (*History of Chinese Philosophy*, 441) concurs.

tion' of all life, which guarantees and consummates the hieros gamos, the holy union of male and female powers."⁵⁰

Foundation has a masculine character in relation to Kingdom, but it is not exclusively masculine, as its placement on the central column attests. The phallic symbolism comes from using the male figure to associate *Sefirot* with bodily parts, but genital symbolism is really intended. Scholem notes, "The ninth Sefirah, *Yesod*, 'the foundation,' is correlated with the male and female sex organs . . . out of which all the higher *Sefirot*—welded together in the image of the King—flow in to the *Shekhinah*, [and] is interpreted as the procreative life force dynamically active in the universe."⁵¹

Sexual rites and meditations were associated with Foundation. Scholem quotes a Friday evening hymn of Isaac Luria, the great Safed Kabbalist, which speaks of the union of husband and wife and makes this quite explicit.⁵² The argument here is not that there was a sexual alchemy within Kabbalah⁵³ but that the sexual symbolism of Foundation resembles the sexual aspect of Chinese alchemy.

A moral dimension of circle IV augments its sexual aspect. Zhou Dunyi writes, "It is man alone, however, who receives the finest (substance) and is the most spiritual of beings. After his (bodily) form has been produced, his spirit develops consciousness; (when) his five agents are stimulated and move, (there develops the) distinction between good and evil, and the myriad phenomena of conduct appear."

The distinction between good and evil is circle IV; the "myriad phenomena of conduct" which flow from this distinction is circle V. *Qian*, the Yang aspect of circle IV, is associated with sincerity, which for Zhou Dunyi is the basis, the beginning, of sagehood,⁵⁴ the sage being the high-

50. Scholem, *On the Kabbalah and Its Symbolism*, 104.

51. *ibid.*, 143 and 227.

52. *Ibid.*, 143.

53. While Patai has documented evidence of Jewish involvement in alchemy since at least the Hellenistic era (100 BCE to 100 CE), he does not indicate that any sexual aspect was prominent in Jewish alchemy either in this period or much later, when alchemy was influenced by Kabbalah (Patai, *Jewish Alchemists*). In the later alchemical use of Kabbalah, Foundation does not appear to have been singled out for special attention.

54. Patt-Shamir, *To Broaden*, 174, quotes Zhou Dunyi as saying in his Book of Comprehensiveness (*Tongshu*) that "sincerity is the foundation of the sage." The sincerity being spoken of here is *cheng*, not *xin*, correlated with Earth, which Patt-Shamir translates instead as trustworthiness.

est human moral ideal in Confucianism. Similarly Foundation is also called *Zaddik*, "the righteous one," the *zaddik* being the highest moral ideal of Judaism: Righteousness is the foundation of the world,⁵⁵ and is associated with moral distinctions and harmonious equilibrium, with setting things in their proper places. (The Righteousness of the *Sefirah* Judgment is a more general concept, meaning also Rigor and Power; the Righteousness of Foundation refers to specific behavior.) There is also a moral connection to the sexual aspect of Foundation. This *Sefirah* was associated with the biblical figure of Joseph, who resisted sexual temptation.

The symbolism of the last element is also similar. Circle V, the "myriad things"⁵⁶ is the multiplicity finally engendered by the Supreme Pole.⁵⁷ Although this circle is not considered Yin by either Zhou Dunyi or Zhu Xi, in the Daoist precursor of the Diagram it is called the "Doorway of the Mysterious Female" or "The Gate of the Dark Femininity."⁵⁸ Circle V corresponds to Kingdom, which unites the *Sefirot* and represents the attribute of God linked most closely with the Material World. Kingdom is distinctively female, corresponding to the lower *Shekhinah*, the female aspect of God, the divine immanence within the multiplicity of existence. It is "in everything" (*ba-kol*), the "form that embraces all forms" and renders to each form its specific individuality.⁵⁹ Plurality is also reflected in the interpretation of this last *Sefirah* as representing "*Knesset Israel*," the mystical archetype of the community of Israel.⁶⁰

The last element is farthest from the first, and is a terminus, yet like the other elements, it remains connected to its source. The words of the

55. Scholem, *Kabbalah*, chapter 3: Tsaddik: The Righteous One.

56. Also translated as the "ten thousand things" (Fung, *History of Chinese Philosophy*, 445), a concept that dates at least back to the *Dao Dejing*, and used in Chinese thought to indicate the multiplicity of existence. There is a possible Jewish parallel. Joseph Dan, in his *The Ancient Jewish Mysticism* (p. 74) writes, "Ancient Hebrew, as modern-day Hebrew, does not have a word for any number larger than 10,000. Today, when we wish to discuss astronomical distances or deal with the state budget, we are forced to use Latin terms: million, billion, etc. The Hebrew horizon did not extend beyond 10,000."

57. This multiplicity is different from the multiplicity generated by the binary exponentiation of the *Yijing*. The Diagram treats this latter multiplicity as a unity by its referring to the *Yijing* with the simple circle IV.

58. Fung, *History of Chinese Philosophy*, 441; Chang (*Creativity and Taoism*, 166). The concept comes from Laozi.

59. Scholem, *On the Mystical Shape of the Godhead*, 171, 179.

60. Scholem, *Origins of the Kabbalah*, 167-69.

Sefer Yetsirah 1:7, "Ten *Sefirot* of Nothingness: Their end is imbedded in their beginning and their beginning in their end"⁶¹ resembles Zhu Xi's commentary on circle V, "But (as indicated again by reproduction of the original circle) all the myriad things go back to the one Supreme Pole." (The point is weakened by Zhu Xi saying the same thing about circle IV, but he means that all the elements of the Diagram are united in their source, as was also held by the Kabbalists about the *Sefirot*.) Circularity in the Diagram is also suggested by its mirror symmetry: circle V mirrors circle I and circle IV mirrors circle II (Yang and Yin being inside circle II makes this possible). In the Tree, circularity is suggested by Kingdom being related in meaning to the first *Sefirah*, Crown. Kingdom is also called *Atarah*, another word for crown.⁶² The Tree, however, is visually less symmetric because Wisdom and Understanding are structurally separate, unlike Yang and Yin in circle II of the Diagram.

OVERALL ARCHITECTURE

If one steps back from the elements and their relationships and looks at the overall architecture of the symbols, one sees that their global structures, the hierarchical sequence of levels and the spatial arrangement of male, female, and neutral elements, are very similar. The vertical hierarchy in each symbol articulates levels of differentiation from the primal unity to the multiplicity of existence, but this progression does not imply a simple directionality that privileges the higher elements. Like the tension between symmetry vs. asymmetry (e.g., sequence, gender polarity) for elements at the same level, there is tension between hierarchy (directionality) vs. non-hierarchy in the relations between levels. Although levels reflect a progression, the circularity of the symbols counters directionality. Moreover, Zhu Xi insists that "the Supreme Pole . . . should be regarded neither as separate from, nor as identical with, the Two Forces . . . The Five Agents all come from the Yin and Yang (Forces). The five different things (fit into) the two realities without the slightest excess or deficiency. And the Yin and the Yang (go back to) the Supreme Pole (perfectly), neither one of them being more or less elaborate than the other, nor more or less fundamental than the other." (Yet Zhu Xi

61. Aryeh Kaplan (*Sefer Yesirah*, 57) notes that "beginning" refers to Crown and "end" to Kingdom, and explicitly offers a circular visualization of their connection.

62. Scholem, *On the Possibility of Jewish Mysticism*, 143.

affirms that the Five Agents and the myriad things all have their "specific natures," which is not said by him about *Taiji* or Yin-Yang, suggesting a difference that still distinguishes the elements.) While the Kabbalists did not stress the equality of all parts of the Tree, homogeneity is suggested in the multiple polar dyads of the neutral column: Crown-Kingdom, Beauty-Kingdom, and Foundation-Kingdom. (There are no vertical polar dyads in the Diagram.) Crown is echoed in Beauty, Foundation, and Kingdom.

The elements of both symbols can be assigned to male, female, and neutral vertical columns. Classifying entities as male, female, or neutral was a ubiquitous feature of traditional thought, and Needham noted the tendency in Kabbalah to arrange lists of pairs in a manner similar to the Chinese Yin-Yang categories.⁶³ In the Diagram, the columns are not explicit, but the principle is clear. Yang, associated with expansion,⁶⁴ encompasses Fire (major Yang) and Wood (minor Yang). Yin, associated with concentration, encompasses Water (major Yin) and Metal (minor Yin). The central neutral column includes circles I, IV, and V, and Earth, which is a synthesis of Yin and Yang. For the Tree (left-right assignments are reversed relative to the Diagram), the columns are quite explicit: the right column includes Wisdom, Benevolence, and Eternity, the left column Understanding, Judgment, and Glory, and the central column, includes Crown, Beauty, Foundation, and Kingdom. The right and left columns represent male and "expansive" versus female and "concentrative" attributes of God.⁶⁵ The central column is neutral but includes the vertical gender polarities mentioned above.

One can alternatively see the structures as consisting of horizontal male-female dyads⁶⁶ often elaborated by the introduction of a third element representing either⁶⁷

63. Needham, *Science and Civilization in China*, 297.

64. *Ibid.*, 471.

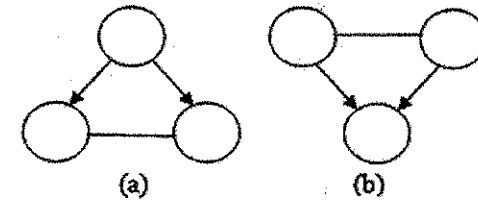
65. Frank, *The Kabbalah*, 106.

66. Needham, *Science and Civilization in China*, 297.

67. These two types of triad are discussed by René Guénon (*Great Triad*). The differentiating triad (Figure 5.2a) is a transition from the monad to the dyad. The integrating triad (Figure 5.2b) resembles Bennett's (*Dramatic Universe*) "evolutionary" triad of creation, in which an active element interacts with a passive one to yield a neutral result.

- a. the origin of the dyad, i.e., the (higher) unity of which they are (lower) parts; this manifests *differentiation* (Figure 5.2a); or
- b. a (lower) synthesis which reconciles their (higher) opposition; this manifests *integration* (Figure 5.2b).

FIGURE 5.2. Differentiating (a) and Integrating (b) Triads



Differentiation is illustrated in the Diagram by the relation between *Taiji* and the dyad of Yang and Yin, and in the Tree by the relation of Crown with Wisdom and Understanding. Integration is illustrated in the Tree by the triads of Benevolence-Judgment-Beauty and Eternity-Glory-Foundation. Integrating triads in the Diagram are less apparent; Earth might be considered a synthesis of major and minor Yin and Yang Agents, but this synthesis is not triadic, and circle IV derives from all the Five Agents rather than from any single Yin-Yang dyad. However, there is a triad implicit in the relation between the two aspects of circle IV with circle V: *Qian* (Heaven, primary Yang) and *Kun* (Earth, primary Yin) unite to generate the "myriad things," but this triad is not explicit since circle IV is visually a monad, not a dyad, like circle II.

Symbolic triads were widely prevalent in both East and West, so it is not surprising to see such triadic schemes in these Chinese and Jewish symbols. What is remarkable is that the union of hierarchical and polar organizing principles produces an identical spatial distribution of elements: proceeding downward, both symbols begin with a neutral element, which splits into a male-female dyad, from which are derived a dyad, a neutral element, and another dyad, after which the symbol is completed by two neutral elements.

The Diagram and Tree have the same or nearly the same number of elements. The Tree is explicitly constructed from the ten *Sefirot*. The number ten had great symbolic resonance in Jewish thought, and the *Sefer Yetsirah* explicitly insisted upon this precise number: "Ten and not

nine; ten and not eleven."⁶⁸ The Diagram is also composed of ten elements if one counts Yang and Yin, the parts of circle II, as two elements, which is suggested by the Two Forces being visually distinct, and if one counts circle IV as one element, since two-foldedness is not visually indicated. But it is unnecessary to insist that the Chinese structure has precisely ten elements. It is the similarity of this structure to the Tree, not its number of elements, which is interesting. While the symbolism of two and three is found in both traditions, the symbolism of ten is a Western one, being present in Jewish, Pythagorean, Gnostic, and early Christian writings, and is not indigenous to Chinese thought. (It was, however, prominent in Indian thought which passed into China through Buddhism.)

The Tree was sometimes also conceptualized as a triad Crown-Wisdom-Understanding, followed by a heptad of the remaining seven "Sefirot of Construction," or as three triads (Crown-Wisdom-Understanding pointing up, and Benevolence-Judgment-Beauty and Eternity-Glory-Foundation pointing down) leading to and summarized in Kingdom,⁶⁹ or as a monad (Crown), followed by an octad (Wisdom to Foundation), completed by a monad (Kingdom).⁷⁰ Other spatial configurations appear in the history of the symbol,⁷¹ and there are also different representations of the channels connecting the Sefirot.⁷²

68. Scholem, *Origins of the Kabbalah*, 144.

69. Scholem, *Kabbalah*, 107-9.

70. Idel, *Kabbalah: New Perspectives*, 55.

71. See footnote 6. The possibility of decomposing a system in many different ways is a potential source of semantic richness, since each decomposition can embody a different meaning. If one allows relations of higher ordinality than two, i.e., considers not only graphs but hypergraphs, in which relations can be triadic, tetradic, etc., an even greater number of decompositions is possible. For example, four elements have 114 different hypergraph structures (Zwick, "Overview of Reconstructability Analysis"), and thus a tetradic symbol could have as many as 114 different meanings. If relations have directions, there are still more. A symbol consisting of ten elements could in principle have a very large number of structural decompositions and meanings. If one restricts oneself to the much smaller subset of "partitions" in which every element appears in only one substructure, this subset is still quite large. Or, if one restricts oneself to only to graphs, i.e., to structures having only dyadic links, this subset is also large. Table 5.1 just gives a very small hint of this combinatorial explosion, and only samples the sequences that appear in the Chinese literature for the Five Agents.

72. For example, the Tree in Figure 5.1 has only twenty channels, but when channels are correlated with the twenty-two Hebrew letters, two more channels are required; usually these are either Wisdom-Judgment and Understanding-Benevolence or Eternity-Kingdom and Glory-Kingdom.

The Diagram, by comparison, is simpler. The Diagram is built around a composite of the Two Forces and the Five Agents. Chinese philosophy did not utilize a symbolism of seven, although the union of the Two Forces and Five Agents was conceptualized early in Chinese thought, and the seven elements are referred to as a whole by Zhu Xi.⁷³ Note that this heptad does not parallel the Sefirot of Construction, nor does it parallel the seven vertical levels of the Tree.⁷⁴ In the language of systems theory, this composite exemplifies Simon's idea that complexity is often achieved by joining together stable subassemblies⁷⁵; this also illustrates von Bertalanffy's⁷⁶ notion of "progressive systematization." To this heptad, circles I, IV, and V are added, these additions being already present in the Daoist precursors of the Diagram. Interestingly, it is precisely the addition of these three circles that establishes the near isomorphism of the Diagram with the Tree.

Because of its symbolism of ten and multiple ways of defining substructures and because the Sefirot constitute a homogeneous set of elements, the Tree is more integrated than the Diagram. The channels between the Sefirot, associated with the Hebrew letters, were often a significant part of the symbolism. In contrast, explicit relations between elements of the Diagram show up only within the Five Agents. There are no links between an individual Force and an individual Agent or between a Force or Agent and circle IV or V, nothing analogous to the direct relations between Wisdom and Benevolence or between Beauty and Foundation. The Diagram looks like a set of unconnected sub-

73. Fung (*History of Chinese Philosophy*, 547) gives the Zhu Xi quote. The linkage of the Two Forces and the Five Agents was an ancient one, not an innovation of Zhu Xi. Berling notes that "Yin and Yang and the Five Agents had first been united in a primitive cosmology by one Tsou Yen, two hundred years before the Han" dynasty of 200 BCE—220 CE (Berling, *Syncretic Religion*, 21). This heptadic grouping notwithstanding, an explicit symbolism of seven was generally absent from Chinese thought. By contrast, seven is ubiquitous in Western symbolism.

74. These seven levels were connected in occult Kabbalah to the seven chakras.

75. Simon, *Sciences of the Artificial*, chapter "The architecture of complexity." Because the Diagram was constructed from these subassemblies it was not readily decomposable in other ways; by comparison, the Tree was not a fusion of preexisting subassemblies, so the variety of its structural representations was greater. Simon argues that most systems are 'nearly decomposable' that is, if one partitions them into disjoint substructures, not a great deal is lost. In these terms, the Diagram is much more 'nearly decomposable' than the Tree. Or, to use another systems term, the Tree is more "holistic" than the Diagram, structurally speaking.

76. von Bertalanffy, "General System Theory."

structures. Nonetheless, Yin and Yang Agents are obviously related to the Yin and Yang of the Two Forces, although the Diagram does not display these relations explicitly. Zhou Dunyi writes, "The true (principle) of that which has no Pole, and the essences of the Two (Forces) and the Five (Agents) unite (react) with one another in marvelous ways, and consolidations ensue."

Meditative Uses

The Diagram traces back to a Daoist symbol used to guide meditation. Needham suggests that "it originated with Chen Tuan (d. +969), the famous Wu Dai expositor of the *Yijing*."⁷⁷ The elements of Chen Tuan's diagram are listed in Table 5.4. As a meditation guide,⁷⁸ it was read from the bottom up rather than from the top down, and served spiritual practice rather than philosophical theory.

TABLE 5.4. Labels of the Diagram of Chen Tuan⁷⁹

Circle I	Transmuting the Spirit so That It May Revert to Vacuity; Reversion to the Ultimateless
Circle II	Taking from <i>Kan</i> to Supplement <i>Li</i>
Five Agents (III)	The Five Forces Assembled at the Source
Circle IV	Transmuting the Essence so as to Transform It Into the Vital Force; Transmuting the Vital Force so as to Transform It Into the Spirit
Circle V	Doorway of the Mysterious Female

The Diagram commentaries reflect Daoist influence in the alchemical reference of circle IV, in the Five Forces, and in the reference

77. Needham, *Science and Civilization in China*, 467.

78. In their meditative context, circle IV represented the transformation of essence (whose material form is semen) into breath into spirit; component III, the "lesser circulation" of the "Five Breaths," *Kan* and *Li*, the "grand circulation" of the breath, leading to circle II, spiritual consciousness; ending finally in circle I, the return of spirit to non-being (*Hsu* or *Wuji*) (Fischer-Schreiber, *Shambhala Dictionary of Taoism*, Shambhala, 14–16; see also the more extensive discussions of Chang). This progression roughly resembles (but certainly not in detail) the levels of the human soul in Kabbalah (see footnotes 37 & 38). In this connection, an eighteenth century diagram on Daoist meditation given by Richard Wilhelm in *Secret of the Golden Flower* is similar to the Diagram and its precursors, and in fact looks even more like the Tree.

79. Fung, *History of Chinese Philosophy*, 441.

to the "Ultimateless" of circle I. Zhou Dunyi reinterpreted this symbol cosmologically and morally. Although meditation was practiced by Neo-Confucians⁸⁰ as part of self-cultivation, the Diagram does not seem to have been linked to this practice. The *Sefirot* were also used for meditation,⁸¹ and a bottom-up reading of the Tree sometimes characterized such uses.⁸² So both Chinese and Jewish symbols were read upwards to guide meditative practice and downwards to represent cosmological or divine unfolding. Both symbols offered a hierarchical scheme for the soul (spirit, mind). Both characterized the bottom element as female, but not in the abstract and straightforward sense of Yin and Understanding. The femaleness of circle V is "mysterious" and a "doorway," just as "the last *Sefirah* is for man the door or gate through which he can begin the ascent up the ladder of perception to the Divine Mystery."⁸³

As for meditative practice itself, the two traditions were quite different. Generally the personal experiences of the Kabbalists were not made public, but their meditation practices that we know of were centered in the names and attributes of God and focused on words and letters which were conceptualized, visualized, or vocalized. In contrast, Daoist meditation employed the circulation of vital energies strongly coupled to breath, sensation, and awareness. The Kabbalist Abulafia, however, did also make use of breathing exercises.⁸⁴ A discussion of Daoist and Kabbalist spiritual practices that asserts a deep similarity of the Diagram and the Tree is given by Yudelove.⁸⁵

80. Meditation, as "self-cultivation" was practiced by both Zhou Dunyi and Zhu Xi (Julia Ching, in Wing-tsit Chan *Chu Hsi and Neo-Confucianism*, 282).

81. Kaplan (*Sefer Yeszirah: The Book of Creation*, xi) asserts that the *Sefer Yetsirah* is a meditation manual, but such a characterization is clearer for the *Shaarey Orah* of Joseph Gikatila (1248–1323), translated into Latin by Paul Ricci in 1516 and printed in Hebrew forty-five years later (Kaplan, *Meditation and Kabbalah*, 127).

82. Kaplan (*Meditation and Kabbalah*, 118, 121, 125, 132) asserts this, referring to the Kabbalist books of *The Gate of Kavanah of the Early Kabbalists* (*Shaar HaKavanah LeMekubalim HaRishonim*; late 1100's), probably authored by Rabbi Azriel of Gerona, and *Shaarey Orah* of Rabbi Joseph Gikatila. See also Scholem, *On the Kabbalah and Its Symbolism*, 126. Abulafia also hinted at the ascent through the "ladder of the *Sefirot*" (Kaplan, *Meditation and Kabbalah*, 78–79).

83. Scholem, *Kabbalah*, 112.

84. Kaplan, *Meditation and Kabbalah*, 79.

85. Yudelove, *The Tao & The Tree of Life*.

ON THE POSSIBILITY OF INFLUENCE

Since the "null hypothesis" in comparing a Chinese and a Jewish symbol must be difference, it is similarity that requires explanation. It would be simplest to assume that the symbols developed independently and commonalities reflect religious or philosophical universals of thought and experience. But the possibility of intercultural contact should also be examined, especially since diagrams travel light. To consider the possibility of influence, some relevant dates are worth reviewing. The essay of Zhou Dunyi and the commentary of Zhu Xi were written in the eleventh and twelfth centuries, respectively. The similar symbol of Chen Tuan is said to date from the tenth century, and Needham writes that a similar structure occurs even earlier in an eighth century Daoist book.⁸⁶ While Chen Tuan's symbol⁸⁷ was the same as Zhou Dunyi's Diagram, the eighth century structure⁸⁸ was different from it.

The doctrine of *Sefirot* goes back at least to the pre-Kabbalistic *Sefer Yetsirah* (third to sixth century), and the decad as central to creation derives from still older Jewish and Gnostic sources.⁸⁹ The *Sefer Yetsirah* referred to ten *Sefirot*, but a full metaphysical theory of the *Sefirot* was not yet explicitly developed. In the *Sefer Bahir* of Provence (and other texts of the thirteenth century), Foundation was assigned to the seventh place. It was moved to the ninth position in writings of the later Kabbalist school in Gerona, Spain.⁹⁰ As for the Tree itself, Scholem indicates that it dates at least to the fourteenth century. At the latest, it appears as the frontispiece of the Latin translation by Paul Ricci published in 1516 of

86. Needham (*Science and Civilization in China*, 467) gives the title as: *Shang Fang Ta Tung-Chen Yuan Miao Ching Thu* (*Diagrams of the Mysterious Cosmogenic Classic of the Tung-Chen Scriptures*).

87. Fung (*History of Chinese Philosophy*, 441) gives only the commentary but not the structure. Chang, (*Creativity and Taoism*, 164ff.) gives both; these are reproduced in *The Shambhala Dictionary of Taoism* (p. 15). The small circle on the bottom of the Five Agents is omitted there.

88. Fung (*History of Chinese Philosophy*, 439) also provides the structure and gives its title as *Diagram of the Truly First and Mysterious Classic of the Transcendent Great Cave*.

89. Idel, *Kabbalah: New Perspectives*, 112-22.

90. Scholem indicates that Foundation in the *Bahir* preceded Eternity and Glory (*Kabbalah*, 107). Yet a different order is given by Aryeh Kaplan in his translation and commentary (*Bahir*, 117): Glory (6), Foundation (7), Beauty (8), Eternity (9), Kingdom (10).

the *Shaarey Orah* of Joseph Gikatila (1248-1323), a translation which contributed to the development of Christian and occult Kabbalah.

Thus the doctrine of the *Sefirot* and the symbolism of ten appear to be earlier than the Diagram and its Daoist precursors, but the canonical structure of the Tree appears to be later. Since it is not known when *Sefirotic* diagrams first came into being, there is no solid chronological basis on which to build hypotheses of contact or influence from one culture to another. If one tried to construct such a hypothesis, the known dates of appearance of the symbols would argue for a Chinese to Jewish direction, and this might be supported by the fact that a permanent Jewish settlement was established in Kaifeng in the eleventh century, which was then the capital city for the Song dynasty and China's principal cultural and commercial center.⁹¹ Jews are thought to have arrived between 960 and 1126 perhaps from Persia (or Yemen, Bokhara, or even India); the first synagogue was built in 1163. There were earlier visits of Jews to China. A possible—later—link on the European side might have been the Jewish community of the Italian city of Ancona, which in the thirteenth century had trade relations throughout the Mediterranean and "to major hubs for Asian Commerce like Cairo and Baghdad, Constantinople and the Black Sea ports."⁹²

On the other hand, the appearance of the structures themselves might suggest a Jewish to Chinese direction. The Tree is highly integrated compared to the composite Diagram. One is struck in the Diagram with the *ad hoc* quality of circles I, IV, and V, which are added to the canonical Two Forces and Five Agents. A symbol whose structure is partially *ad hoc* is more likely to have been influenced by one whose structure is well integrated rather than the reverse. Nonetheless, it is hard to imagine the availability of a version of the Tree to tenth century (or earlier) Daoists, since the Tree seems to have been articulated only much later.⁹³

91. Michael Pollak, *Mandarins, Jews, and Missionaries*, chapter 13: Beginning of Judaism in China. Pollak sees evidence that the Kaifeng community maintained contact with extra-Chinese Jewish centers for at least several generations in the fact that this community was familiar with Maimonidean doctrine.

92. Spence, "Leaky Boat to China," 20-21.

93. A much earlier origin for the Tree has been proposed by Simo Parpola ("Assyrian Tree of Life," 161-208), who argues that the Tree derives from ancient Assyrian "tree of life" symbolism. This radical proposal is best left to scholars of Kabbalah to evaluate, but it seems inconsistent with the very late public emergence of the canonical structure of the Tree. The structural similarities of Assyrian and Kabbalist diagrams are much weaker than the similarity noted here between the Tree and Diagram.

But as there is no historical evidence for influence in either direction, one might turn to the alternative hypothesis of independent convergent development, since the symbolisms of number and form and the macrocosm-microcosm analogy are ubiquitous in traditional religions and philosophies,⁹⁴ and represent a universal mode of metaphysical understanding. The Neo-Confucian and Kabbalist traditions both encompass this type of metaphysics. However, this hypothesis does not seem satisfactory either, since it is hard to believe that these commonalities adequately account for the extent of resemblance between the symbols.

SUMMARY

To recapitulate: Structurally, the two symbols reflect an early (non-scientific and pre-mathematical) form of systems thinking. The symbols are nearly isomorphic, i.e., the elements of one map onto those of the other

94. To complicate matters further, there is another similar metaphysical symbol, the Hindu Tantrik Sanhkya Tattva diagram (Rawson, *Art of Tantra*, 182), which has some similarities to the Diagram and the Tree. This symbol depicts "creation" and the downwards transition from unity to multiplicity—and simultaneously—the structure of the "subtle body" and its upwards reintegration by Sadhana. The diagram features male and female columns, beginning with Shiva and Shakti which might be correlated with Yang and Yin and with Wisdom and Understanding. This primary dyad emerges out of or separates within "Brahman without Qualities" and "All-embracing Parasamvit" recalling perhaps *Wuji* or *Ein Sof*. It descends on the side of Shakti to a cluster of five Kanchukas, possibly paralleling the Five Agents, which are attributes of consciousness or thought and the domain of Maya, illusion. Beneath this, the columns diverge distinctly into male and female Purusa and Prakrti which parallel in erotic imagery (Rawson, *Art of Tantra*, 130) the male and female aspects of circle IV and Foundation. The lowest level of the diagram in the male column consists of the multiplicity of Purusas—"I's" which "believe themselves separate," paralleling the Chinese "myriad things" of circle V and the multiplicity of Kingdom. The Tantrik diagram differs significantly from both Chinese and Jewish symbols in the absence of neutral elements, and there are numerous other differences, but this symbol is clearly of the same "genre" as the Diagram and the Tree.

Scholem (*On the Mystical Shape of the Godhead*, 194-96) in fact compared the representations of the *Sefirotic* world with the yantras (meditation diagrams) of Indian Tantrik religion. He pointed to the similarity between the *Sefirotic* pair of Understanding-Wisdom and Shakti and her male counterpart, but also insisted that the differences between the Tantrik and Kabbalistic symbols were "no less profound than their affinities." Scholem must have been surprised to encounter other similarities as he wrote, "The student [of Heinrich Zimmer's work on these diagrams] will be amazed to discover the Kabbalist symbols of the point and the triangle in these remarkable discussions of Indian material." Borrowing, generalizing, and reversing Scholem's phrase, one can argue that the affinities of the Tree and the Diagram are no less profound than their differences.

and many corresponding elements and relations are similar in meaning or structure. Beyond their graph-theoretic connectivities, both symbols have the same spatial distribution of horizontal polar dyads and vertical hierarchical levels. In both, neutral elements harmonize these polarities or are their source or terminus. If, in the Diagram, Yang and Yin (circle II) are counted as two elements and circle IV as one, there is in fact a 1:1 mapping between the ten elements of the two symbols (but no 1:1 mapping between their linkages). The hierarchy of each diagram closes upon itself, with the first and last elements, primal unity and unfolded multiplicity, closely linked. Both symbols declare the isomorphism of macrocosm and microcosm: they are read downwards as cosmological or theosophical diagrams, but upwards as instruments of spiritual practice. In both symbols, two ideas—positive and negative, the manifest and the unmanifest—are associated with the first element, with the dualism resolved in different ways. The meanings of the first three and last two elements are similar, with sexual generativity implied in elements two and three and element nine. The central portions of both diagrams exhibit two dyads and a neutral harmonizing element. They present benevolence (love, mercy, humanity) and righteousness (justice, rigor) as the primary virtues, and as male and female, respectively. Moral action is referred in both to element nine. Element ten is feminine and represents the consequences flowing from sexual generativity (or moral discrimination) of element nine, namely the material (or behavioral) multiplicity of the world.

Given the many differences between Chinese and Judaic thought in general, and between Neo-Confucianism and Kabbalah in particular, this list of similarities is striking. The purpose of this paper is to call attention to these similarities, which remain to be explained, while noting also the differences between the symbols. The similarities that exist may arise from the presence in Chinese and Jewish thought of universal ideas and modes of thought also prominent in other philosophical and religious traditions; or, there may have been some actual intercultural influence. No attempt has been made here to resolve this question, which will hopefully be the subject of future investigation.⁹⁵

95. Acknowledgements: The author is indebted to Anthony Blake for stimulating discussions on religious symbolism, to Joseph Adler and Anne Birdwhistell for their valuable comments on Neo-Confucianism and the Diagram, to Joseph Dan for his observations on the peripheral status of the Tree in Kabbalist thought, and to Irene Eber

APPENDIX: COMMENTARIES ON THE DIAGRAM OF THE
SUPREME POLE (TRANSLATED BY NEEDHAM)

The exposition of Zhou Dunyi

- (1) That which has no Pole! And yet (itself) the Supreme Pole!
- (2) The Supreme Pole moves and produces the Yang. When the movement has reached its limit, rest (ensues). Resting, the Supreme Pole produces the Yin. When the rest has reached its limit, there is a return to motion. Motion and rest alternate, each being the root of the other. The Yin and Yang take up their appointed functions and so the Two Forces are established.
- (3) The Yang is transformed (by) reacting with the Yin and so Water, Fire, Wood, Metal, and Earth are produced. Then the Five *Qi* diffuse harmoniously, and the Four Seasons proceed on their course.
- (4) The Five Agents (if combined, would form), Yin and Yang. Yin and Yang (if combined, would form) the Supreme Pole. The Supreme Pole is essentially (identical with) that which has no Pole. As soon as the Five Agents are formed, they have each their specific nature.
- (5) The true (principle) of that which has no Pole, and the essences of the Two (Forces) and the Five (Agents) unite (react) with one another in marvelous ways, and consolidations ensue. The Dao of the heavens perfects maleness and the Dao of the earth perfects femaleness. The Two *Qi* (of maleness and femaleness), reacting with and influencing each other change and bring the myriad things into being. Generation follows generation, and there is no end to their changes and transformations.
- (6) It is man alone, however, who receives the finest (substance) and is the most spiritual of beings. After his (bodily) form has been produced, his spirit develops consciousness; (when) his five agents are stimulated and move, (there develops the) distinction between good and evil, and the myriad phenomena of conduct appear.

for helpful assistance with Chinese philosophical ideas and terminology. Anonymous reviewers of past drafts of this paper have made useful comments, and the author is also grateful for the valuable suggestions of David Rounds, the editor of *Religion East and West*, in which a shorter version of this article has been published. The assertions of this paper are of course the responsibility only of the author.

- (7) The sages ordered their lives by the Mean, by the Correct, by Love and Righteousness. They adopted ataraxy as their dominant attitude, and set up the highest possible standards for mankind. Thus it was that the 'virtue of the sages was in harmony with that of heaven and earth, their brightness was one with the Four Seasons, and their control over fortune and misfortune was one with that of the gods and spirits.'
- (8) The good fortune of the noble man lies in cultivating these virtues; the bad fortune of the ignoble man lies in proceeding contrary to them.
- (9) Therefore it is said, "In representing the Dao of Heaven one uses the terms Yin and Yang, and in representing the Dao of Earth one uses the terms Soft and Hard; while in representing the Dao of Man, one uses the terms Love and Righteousness." And it is also said, "If one traces things back to their beginnings, and follows them to their ends, one will understand all that can be said about life and death."
- (10) Great is the (Book of) Changes [*Yijing*]! (Of all descriptions) it is the most perfect.

The Commentary of Zhu Xi

- (a) The uppermost figure represents that of which it is said, "That which has no Pole! And yet (itself) the Supreme Pole!" It is the original substance of that motion which generates the Yang (force), and of that rest which generates the Yin (force). It should be regarded neither as separate from, nor as identical with, the Two Forces.
- (b) The concentric circles in the second figure symbolize motion giving rise to Yang and rest giving rise to Yin. The complete circle in the center symbolizes the substance which does this (equivalent to the circle of the first figure). The semicircles on the left indicate the motion which produces Yang; this is the operation of the Supreme Pole when moving. The semicircles on the right indicate the rest which produces Yin; this is the substance when at rest. Those on the right are the root from which those on the left are produced and vice versa (i.e., Yang generating Yin, and Yin generating Yang).
- (c) The third figure symbolizes the transformations of the Yang and Yin forces in union with each other, and thus the generation of the Five

Agents. The diagonal line from left to right symbolizes the transformation of the Yang, and that from right to left symbolizes the unions of the Yin.

Water is predominantly Yin and its place is therefore on the right. Fire is predominantly Yang and its place is therefore on the left. Wood and Metal are modifications of the Yang and Yin respectively, and therefore they are placed to the left and right under Fire and Water. Earth is of mixed nature, therefore it is placed centrally. The crossing of the lines above the positions of Fire and Water indicates that the Yin generates Yang and vice versa. (The order of their generation is indicated by the intersection lines connecting the Five Agents), Water, being followed by Wood, Wood by Fire, Fire by Earth, Earth by Metal, and Metal again by Water, in an endless unceasing round, so that the five *Qi* spread abroad and the four seasons revolve.

(d) The Five Agents all come from the Yin and Yang (Forces). The five different things (fit into) the two realities without the slightest excess or deficiency. And the Yin and the Yang (go back to) the Supreme Pole (perfectly), neither one of them being more or less elaborate than the other, nor more or less fundamental than the other.

The Supreme Pole is essentially the same as that which has no Pole. Noiseless, odorless, it exists everywhere in the universe. As soon as the Five Agents are generated, they have each their specific natures. Since these *Qi* are different, the tangible matters (which manifest them) are also different. Each sort has its completeness, and this there is no gainsaying.

The small circle below, connected by the four lines with the Five Agents above, indicates that which has no Pole, in which all are mysteriously unified, as indeed again cannot be denied.

(e) The fourth figure represents (the operations of the *Qi* of Yin and Yang exhibited in) the principles of (heavenly) maleness and of (earthly) femaleness which pervade the universe, each having their own natures, but (both going back to) the one Supreme Pole, (as indicated by the reproduction of the original circle).

(f) The fifth figure represents the birth and transformation of the myriad things in their sensible forms, each of which has its own nature. But, (as indicated again by the reproduction of the original circle), all the myriad things go back to the one Supreme Pole.

Religion and the System of Meaning

DAVID J. KRIEGER

ABSTRACT

Science has always asked questions about order in nature, human existence, and society. Nature manifests many different forms of order, for example, galaxies, planetary systems, geological formations, meteorological phenomena, chemical compounds, organisms, tissues, cells, molecules and atoms. Human society and culture also manifest order, for example, social systems, political institutions, languages, works of art, and scientific theories. The paradigm of self-organizing systems attempts to approach the problem of emerging order by developing a theory that views reality, both natural and cultural, as a systemic phenomenon. There may be said to be three levels of emergent order: mechanical systems, biological systems, and systems of meaning. A system of meaning is a human society or culture. It operates in order to construct meaning. The boundary of the system is at the same time always a border between meaning and meaninglessness. The uttermost boundary of the system of meaning builds a common horizon of meaning, a worldview, shared values, and a basic understanding of what is real, true, good, and beautiful. It is this "life world horizon" that makes mutual understanding, cooperative action, and a shared life within society possible. Everything outside this uttermost boundary of shared meaning and value simply does not "fit" in the world. It is marked as "impossible," "evil," "abnormal," "irrational," "barbaric," and so on. The way in which a system of meaning differentiates itself from meaninglessness, chaos, and

Systems Theory and Theology
The Living Interplay between Science and Religion

Edited by
MARKUS EKKEHARD LOCKER

2011

PICKWICK Publications • Eugene, Oregon