

12-2012

## Mapping Kant's Architectonic onto the Yijing Via the Geometry of Logic

Stephen R. Palmquist

Department of Religion and Philosophy, Hong Kong Baptist University, [stevepq@hkbu.edu.hk](mailto:stevepq@hkbu.edu.hk)

Follow this and additional works at: [https://repository.hkbu.edu.hk/hkbu\\_staff\\_publication](https://repository.hkbu.edu.hk/hkbu_staff_publication)



Part of the [Philosophy Commons](#)

This document is the authors' final version of the published article.

Link to published article: <http://dx.doi.org/10.1111/1540-6253.12007>

---

### APA Citation

Palmquist, S. (2012). Mapping Kant's Architectonic onto the Yijing Via the Geometry of Logic. *Journal of Chinese Philosophy*, 39 (Supplement S1), 93-111. <https://doi.org/10.1111/1540-6253.12007>

This Journal Article is brought to you for free and open access by HKBU Institutional Repository. It has been accepted for inclusion in HKBU Staff Publication by an authorized administrator of HKBU Institutional Repository. For more information, please contact [repository@hkbu.edu.hk](mailto:repository@hkbu.edu.hk).

# MAPPING KANT'S ARCHITECTONIC ONTO THE *YIJING*

## VIA THE GEOMETRY OF LOGIC

### ABSTRACT

Both Kant's architectonic and the *Yijing* can be structured as four perspectival levels:  $0+4+12+(4 \times 12)=64$ . The first, unknowable level is unrepresentable. The geometry of logic provides well-structured maps for levels two to four. Level two consists of four basic *gua* (2, 64, 63, 1), corresponding to Kant's category-headings (quantity, quality, relation, modality). Level three's twelve *gua*, derived logically from the initial four, correspond to Kant's twelve categories. Level four correlates the remaining 48 *gua* (in twelve sets of four) to Kant's theory of the four university faculties (philosophy, theology, law, medicine), and to four categorially-organized (twelfefold) domains comprising his philosophical system.

### I. GEOMETRICAL FIGURES AS MAPS FOR THE FOUR LEVELS OF PERSPECTIVES

In a recent issue of this journal I briefly sketched a framework for comparing the architectonic structure of Kant's philosophy with that of the 64 hexagrams (*gua* 卦) that constitute the *Yijing* 《易經》.<sup>1</sup> The core claim is that both systems of thought can be understood in terms of four perspectival "levels," each exhibiting an increasingly complex systematic structure. Previously I explained (though only briefly) how Kant's system,

organized around twelve categories, corresponds *exactly* to the *Yijing* on the first three levels, given a non-standard method of arranging the 64 *gua*<sup>2</sup> that I shall call the “Compound *Yijing*.”<sup>3</sup> I then *predicted* that some of Kant’s metaphysical applications of his Critical theories could be interpreted in such a way that they would correspond to the 48 *gua* that comprise the outer, or fourth level of the Compound *Yijing*. My purpose in this follow-up article is to provide a more detailed explanation of the initial idea by showing exactly how the first three levels of both systems can be “mapped” onto a set of simple geometrical figures that have a direct structural correspondence to certain basic logical relations, then to sketch a possible way to fulfill the prediction made in the previous article.

As I have previously introduced the mapping technique called “the geometry of logic” in numerous other contexts,<sup>4</sup> I begin here in §I with only a brief explanation of the procedure and its guiding rules, together with an account of the simplest (first) level of systemization. I proceed to apply the technique in §II to the second level, by mapping both the four basic *gua* and Kant’s four category headings onto two intersecting line segments, and in §III to the third level, by mapping both the twelve intermediate *gua* and Kant’s two main categorial tables<sup>5</sup> onto a set of four triangles arranged (roughly) in a circle. The article concludes in §IV by offering some tentative suggestions as to how the fourth level, the remaining 48 *gua* that constitute the outer circle of the Compound *Yijing*, might be discerned as operating in some of the key features of Kant’s philosophical system, and by proposing a map that could assist in

examining such correlations more deeply at some later stage.

The first (or grounding, core) level for both Kant's architectonic and that of the Compound *Yijing* is pre-systematic: just as Kant's "thing in itself" is by definition unknowable,<sup>6</sup> so also the "Dao" that underlies the *Yijing*'s complex distinctions ultimately cannot be named;<sup>7</sup> as a result, neither plays any constitutive role in the architectonic forms that shape the content of what *can* be known within its respective system. (That is, the thing in itself is *not* a representation; and there is no *gua* called "The Dao.") In classical (Aristotelian) logic, this grounding level corresponds to the principle of identity:  $A=A$ . Those unaccustomed (or opposed) to metaphysical thinking often have difficulty appreciating why such a principle should be employed at all. Functioning as the necessary starting-point for any (philosophically complete) discussion of reality, it corresponds to what Parmenides called "the One"—i.e., the principle that "what is, is".

The geometry of logic maps this essential starting point onto the geometrical *point*—a figure that technically cannot be represented, since it occupies a *position* without being *extended* in space.<sup>8</sup> Just as a mathematical point is indivisible, no *system* (as such) has yet arisen when one refers *only* to "the thing in itself" (in Kant's philosophy) or to "the Dao" (in the *Yijing*). The system begins to arise in each case only when the initial (postulated) unity becomes *two*, a logical relation called "analysis" in western logic and corresponding to the basic distinction between *yin* and *yang* in Chinese philosophy. This transformation of 1 (what is)

into 2 (the distinction between what is and what is not) completely describes the first level of the geometry of logic, and can be mapped onto a straight line segment with the opposite components of the system situated at the two endpoints. (Placing an arrowhead at either end of the line segment depicts the fact that neither component of a first-level analytic relation is “prior” to the other; from a purely logical point of view, *opposites arise together*.) To maximize simplicity, I normally use “+” to represent positivity (or the *yang* force—i.e., what *is*) and “-” to represent negativity (or the *yin* force—i.e., what *is not*). However, the solid and broken lines of the *Yijing* convey the same logical distinction; employing two sets of identical terms would be redundant, so in this essay I shall normally let the traditional forms of the 64 *gua* replace my customary “+/-” apparatus. With this overview as a basic introduction, let us now proceed in the next two sections to examine the precise correlations between the second and third levels of Kant’s categorial system and the Compound *Yijing*.

## II. CORRELATING KANT’S CATEGORY HEADINGS WITH THE FOUR BASIC *GUA*

The key to recognizing within the *Yijing* a pattern of relations that is more than just binary ( $2^6=64$ ), but *compound* ( $4+12+[4 \times 12]=64$ )—i.e., a pattern that contains *triadic* relations (because, as we shall see in §III, the “12” consists of four sets of *three*) as well as *dyadic* relations—is to put aside the time-honored tradition of grouping the 64 hexagrams into eight (*ba* 八) “houses.” Treating the *trigram* as the fundamental unit, the latter tradition takes the

eight *gua* that consist of an identical trigram on the top and bottom and regards each of these as the heading for a unique set of eight *gua*. The resulting 8x8=64 pattern has become so deeply entrenched that it takes quite an effort to be open to the possibility of using other ordering patterns. But if the goal is to identify an overlap between the *Yijing* and any *twelvefold* architectonic, such as Kant's, then identifying an alternative to the *bagua* 八卦 is essential. Ironically, we shall see in §IV that the traditional *bagua* form an intriguing pattern within the Compound *Yijing*.

In place of the *bagua* the Compound *Yijing* identifies the first and last pair of *gua* as being the most basic, for they serve (explicitly) as the starting-points and the end-points of the system. The first two—*gua* 1 (☰), called *qian* 乾 (“the creative”), and *gua* 2 (☷), called *kun* 坤 (“the receptive”)—are the only two that are completely “pure” (i.e., composed entirely of either *yang* lines or *yin* lines). Since they are both composed of identical trigrams on the top and bottom, they are included in the traditional *bagua*. A crucial weakness of the *bagua* is that it does *not* include the dual *end-points* of the system: *gua* 63 (☵), called *jiji* 既濟 (“after completion”), and *gua* 64 (☲), called *weiji* 未濟 (“before completion”). One of the main arguments for regarding the Compound *Yijing* as an architectonically richer way of ordering the overall system than the traditional ordering in terms of eight houses is that the former properly acknowledges the importance of this unique pair of *gua*, the only two in the entire *Yijing* that are thoroughly “mixed” (i.e., where the *yin* and *yang* lines *alternate*, so that the same

type of line never appears twice in succession).

Once we have identified the inner (fourfold) core of the Compound *Yijing*, relating it to Kant's categorial system is quite straightforward. For Kant likewise organizes his Table of Categories (and the initial table of logical functions in judgment) around four headings: the distinction between *quantity*, *quality*, *relation*, and *modality* colors virtually every theory he defends, in much the same way that *gua* numbers 1, 2, 63, and 64, define the ultimate starting and ending points of the *Yijing*. Moreover, in his discussion of how the categories are applied to objects in the form of "principles of pure understanding," Kant groups his basic fourfold classification into "mathematical" (quantity and quality) and "dynamical" (relation and modality) types.<sup>9</sup> While we might be tempted to associate this distinction with the distinction between the first two *gua* and the last two (since *gua* 1 and 2 depict absolute and therefore an apparently mathematical opposition, while *gua* 63 and 64 express the system's only entirely relative and therefore apparently most dynamical opposition), I shall argue that Kant's distinction is more complex.

In Chapter II of *CPR*'s Analytic of Principles Kant defines "mathematical" principles as conditions for the possibility of the "intuitive" (i.e., immediately *experienced*) content of an experience, while "dynamical" principles are conditions for the possibility of the "discursive" content (i.e., content mediated by our thinking about a thing's *existence*).<sup>10</sup> The second distinction that defines this fourfold relation is between principles (and so also, original

category classes) that are “extensive” (cf. quantity and relation) versus those that are “intensive” (cf. quality and modality).<sup>11</sup> I have argued elsewhere<sup>12</sup> that the latter distinction should be given priority, with the category headings corresponding to “extensive” principles best being mapped onto the horizontal (-) axis of a cross, while those corresponding to the “intensive” principles are mapped onto the vertical (+) axis. The “intuitive” (-) versus “discursive” (+) distinction then defines the polar oppositions at the endpoints of each axis: whereas *quantity* is extensive and intuitive (- -), *relation* is extensive and discursive (- +); likewise, *quality* is intensive and intuitive (+ -), while *modality* is intensive and discursive (+ +). Using the conventions of placing positive (*yang*) terms *above* and/or to the *left* of negative (*yin*) terms, and of depicting arrows as pointing *from* pure *to* mixed components, we can now easily correlate Kant’s four classes with the four basic *gua* of the Compound *Yijing*, as shown in

Figure 1:

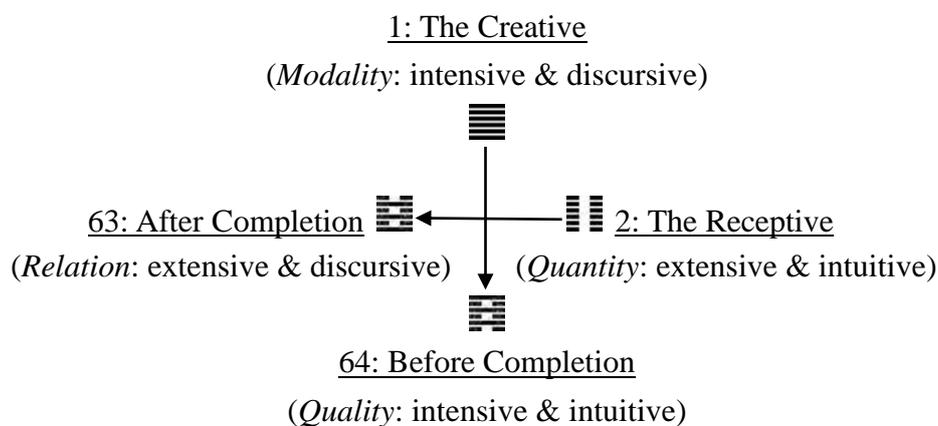


Figure 1: Kant’s four category classes and the four second-level *gua*

At this level (as in every diagram throughout this article), lines 1 and 6 determine the position of each *gua* on the cross. So, *gua* 1 is placed at the top because it begins and ends with *yang* (+) lines; it points to and is completed by *gua* 64, placed at the lowest position, because the latter has *yang* (+) as line 1 and *yin* (-) as line 6; etc. The significance (i.e., the architectonic function) of the inner four lines will emerge at the next two levels; their only function here is to confirm the distinction between the pure (initial) *gua* and the completely mixed (final) *gua*.

Considerable attention could be given to the question of whether or not the correlations shown in Figure 1 are anything more than arbitrary. In order to reserve sufficient space to discuss the third and fourth levels, I shall here offer only a few observations. First, associating quantity (i.e., the extended nature of the basic “stuff” that we intuit in our day-to-day experiences) with “the receptive” seems virtually self-evident, from Kant’s perspective. Kant famously calls sensibility (the human power that gives rise to sensible intuition) the faculty of “receptivity,” in contrast to the understanding (the human power to think) as the faculty of “spontaneity.”<sup>13</sup>

Second, this comparative map suggests that the role of modality in Kant’s system *just is* the understanding. Indeed, the fact that Kant concludes his discussion of the Principles of Pure Understanding with the principle corresponding to this class is no accident: the *Yijing* could not be more succinct in identifying this position as “the creative,” for understanding *begins* only when the mind acknowledges its modes (i.e., the specific ways that intuition and conception are

internally related [see note 13]). We shall explore this further in §III, when we discuss the correlations that emerge at the third level of both systems.

Third, just as the two *gua* that define each fundamental pair are themselves exact opposites (i.e., each *yin* changes to *yang* and vice versa), so also the map highlights the fact (often neglected by interpreters) that the absolute opposite of Kant's "quantity" is not "quality" (the latter being its *polar* opposite, since it shares the characteristic of being "intuitive," just as *gua* 2 and 64 share three lines and are opposite in three lines), but "modality," just as *gua* 1 and 2 have no lines in common.

Fourth, this comparison also sheds light on aspects of the *Yijing* that might otherwise remain mysterious, such as why "before completion" comes *after* "after completion": the arrangement shown in Figure 1 suggests that *gua* 64 has a *logical* priority over *gua* 63, even though the understanding only reaching completion when it *extends* into the realm of actual relationships. That is, the last *gua* is derived from the first one, with this pair defining the abstract axis of intension-al creativity; but like modality and quality, these features of human thought do not become *real* until they interact with the extended quantities (objects of receptivity) that are genuinely completed when they enter into *relation* with other things.

### III. CORRELATING KANT'S TWELVE CATEGORIES WITH THE THIRD-LEVEL *GUA*

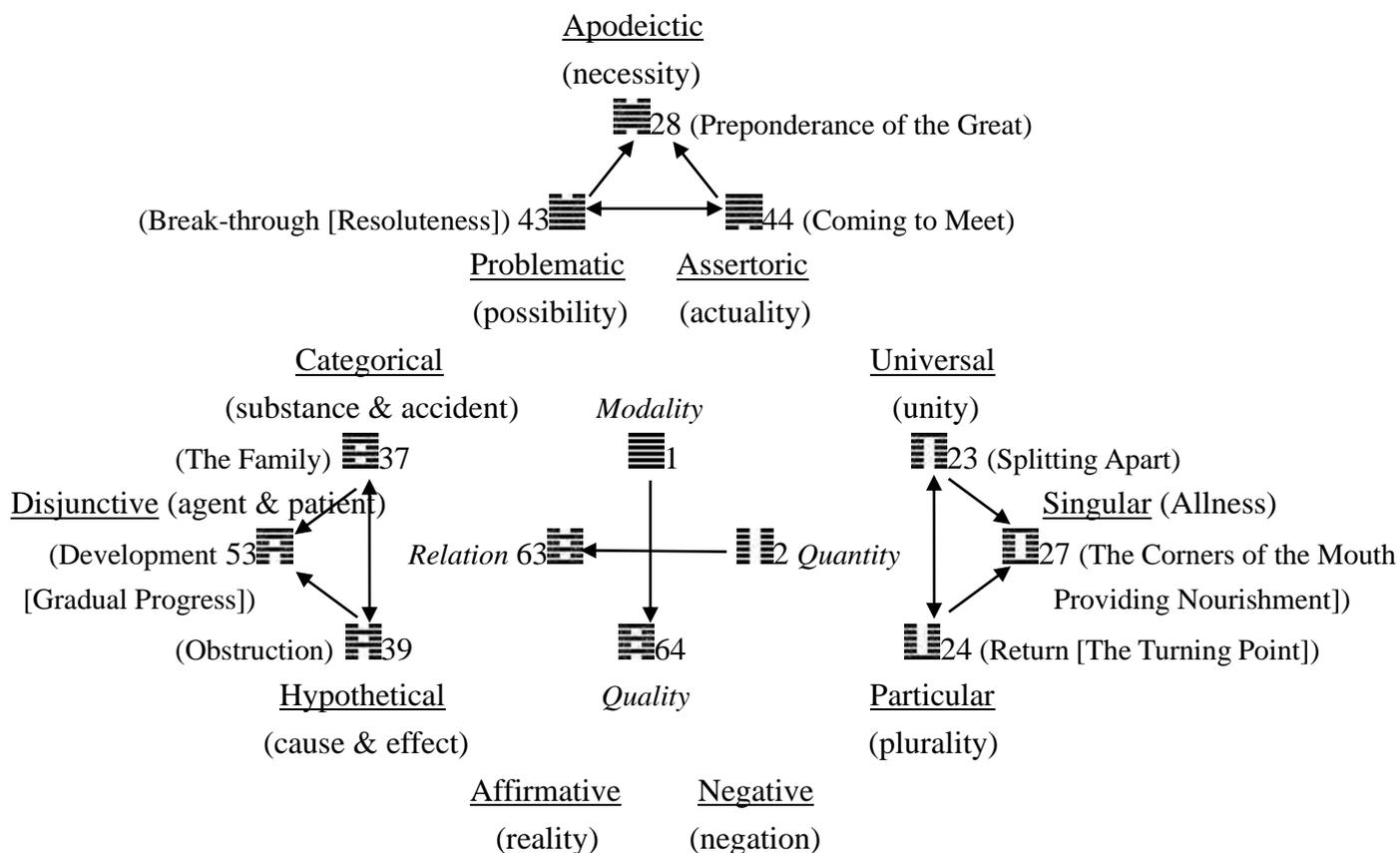
To unpack the full range of (potentially rich) implications that arise out of a comparison of

the architectonic structure of Kant's philosophy with that of the Compound *Yijing* would require a book-length work. Our focus here is more limited: to identify the *rules of mapping* that enable us to display such correlations clearly. This is why I have grounded the discussion in the geometry of logic, whose rules I have already elaborated in detail elsewhere (see note 4).

All too often interpreters tend to think of both Kant's categories and the progression of the *Yijing*'s *gua* as a merely random aggregate of features that just happen to add up to a certain number. A cursory glance at the traditional numbering of the *Yijing*, for example, shows that, although the *gua* appear in ordered pairs (with every even-numbered *gua* exactly mirroring the odd-numbered *gua* that precedes it, with every *yang* line changing to a *yin*, and vice versa), the arrangement appears random beyond this obvious pattern. Without claiming that Kant's categories provide a key that unlocks a secret order for the entire system, I shall provide a set of *rules* that demonstrate how every *gua* can be generated directly from the basic four, whose order (as we saw in §II) is anything but random. Drawing out all the potentially rich implications of the resulting correlations, however, lies beyond the scope of this article.

Just as Kant derives his twelvefold table of categories from his four basic category headings, with each heading giving rise first to a set of opposites (a thesis and an antithesis) followed by a third term that combines key features of the first two (i.e., a synthesis), so also the mapping rules applied to the third level of the Compound *Yijing* employ a triadic structure. In order to derive a third-level *opposition* from each of the basic *gua*, we merely change the top

line (from *yang* to *yin*, or vice versa) to generate the first new *gua*, then change the bottom line to generate the second. In each case this produces two derivative *gua* that are opposites in lines 1 and 6. To form a synthesis between these two derivative *gua*, we merely perform *both* operations at the same time, so that both the top and bottom lines of the second-level *gua* are changed into their opposites. Thus, for example, in Figure 2 (below), *gua* 1 (☰) changes first to *gua* 43 (☶), called *guai* 夬 (“break-through [resoluteness]”), and then to *gua* 44 (☱), called *gou* 姤 (“coming to meet”), with this pair being synthesized to produce *gua* 28 (☰), called *daguo* 大過 (“preponderance of the great”). Once these rules of synthesis are recognized, the ordered relations of the entire system of twelve third-level *gua* are easy to see.



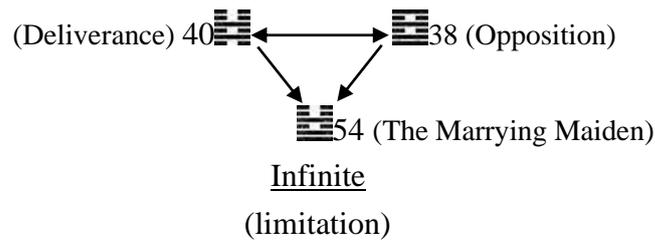


Figure 2: Kant's categories and the twelve second-level *gua*

The structural identity of Kant's table of categories with the third level of the Compound *Yijing* becomes evident once we realize (a point often overlooked in the secondary literature on Kant) that in his official presentation of the initial tables (of categories and of logical functions), Kant does not count the basic four headings as *members* of the system as such. Clearly identifying the twelfold table as delineating a distinct *level* of Kant's architectonic enables us easily to correlate its components with those of the third level of the Compound *Yijing*. Given the mapping rules set out above, and following the correlations between the basic classes that were shown in Figure 1, we can construct Figure 2 as a proposal for correlating the twelve third-level *gua* with Kant's twelfold tables. Because Kant introduces his twelve terms in *two* tables, as the logical functions *in* any judgment and then as the twelve *categories*, I include both sets of terms in Figure 2, with the logical functions underlined and the category names provided in parentheses.

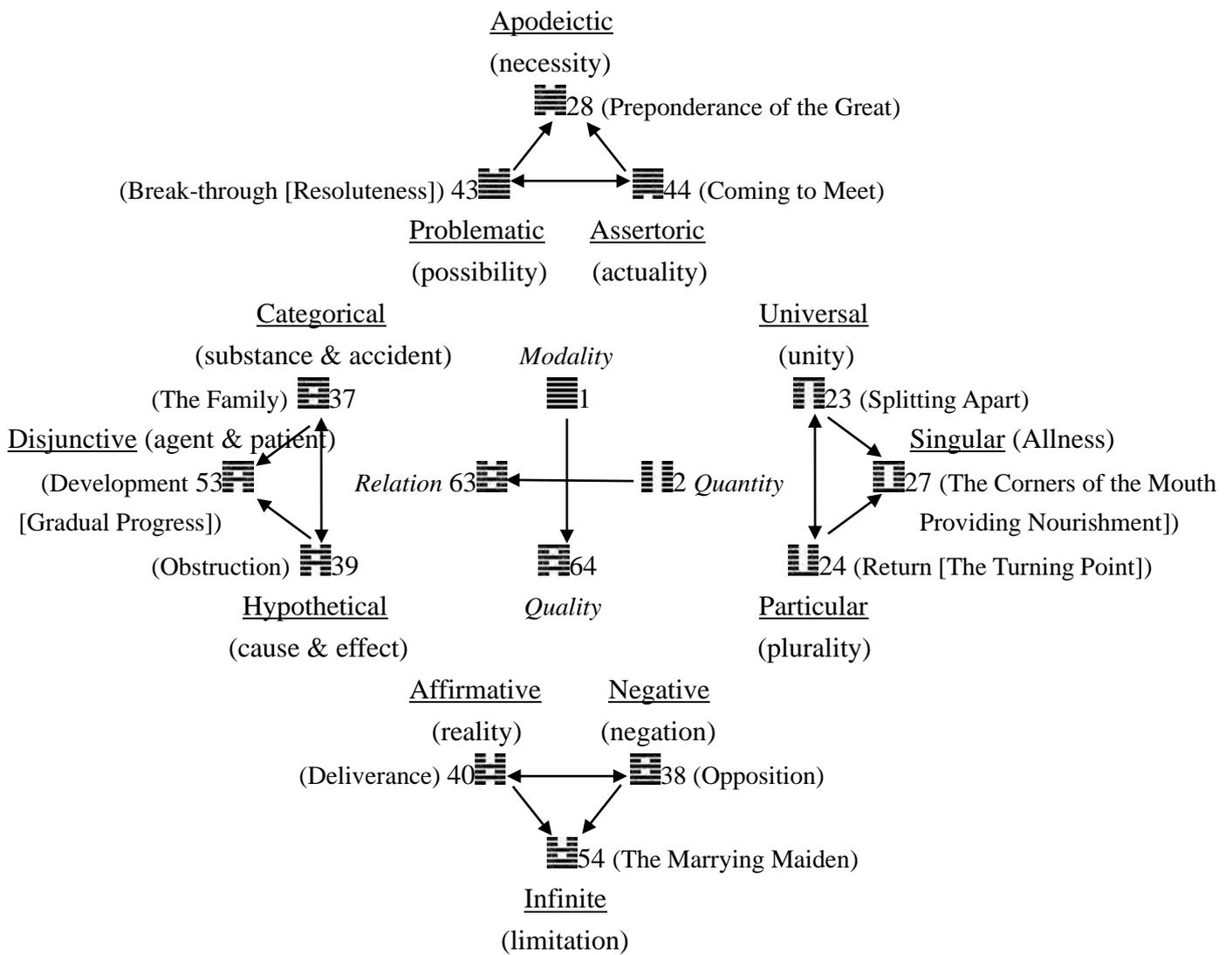


Figure 2: Kant's categories and the twelve second-level *gua*

I shall now make some tentative observations about the various correlations that emerge on this third level of the Kantian/*Yijing* architectonic, as depicted in Figure 2. In so doing, I shall focus on one “quadrant” at a time, where a quadrant is defined (at this level) as the set of three components that arise out of one of the four basic *gua*; on the fourth level (see §IV) each quadrant will be extended to twelve additional *gua*, with a set of four being derived from each third-level *gua* in that quadrant. As we shall see, lines 3 and 4 remain the same for each *gua* that

appears in a given quadrant, so that each quadrant can be named after these two inner lines. (To facilitate seeing these connections, Figure 2 includes the four second-level *gua*.) Obviously, we should not expect a perfect fit between the conceptual *content* of these two very different systems. My goal in this section is to demonstrate that their *architectonic structure* is identical on this third level; any resonance between their respective contents will be a pleasant surprise.

Before proceeding to a detailed analysis of the correlations between Kant's categories and the twelve third-level *gua*, we should take note of two types of pattern that first emerge at this level of the Compound *Yijing*. First, we must understand how the third term in each triad shown in Figure 2 constitutes a *genuine synthesis* of the first two terms, because this synthesis is what transforms this ordering of the *Yijing* into more than just a simple system based on binary (analytic) relations. Indeed, understanding how the triads are composed is a necessary requirement for understanding why this system of ordering is properly called *Compound*. The synthetic component (i.e., each *gua* that has two arrows pointing to it) can be derived from the initial analytic pair (i.e., each pair of *gua* with a double-headed arrow between them) in two ways. One method of constructing the synthetic *gua* is to put the *top* trigram from the first *gua* (i.e., the *gua* that appears either on the left or on top) together with the *bottom* trigram of the second *gua* (i.e., the *gua* that appears either on the right or on the bottom). The other method yields the same result, because each set of three *gua* on the third level (and, incidentally, also its corresponding second-level *gua*) all share the same four internal lines: to construct the

synthetic *gua*, use the top line from the first *gua* and the bottom line from the second *gua*, keeping the four internal lines the same for all *gua* in that quadrant.

Second, if each second-level *gua* is taken together with the three third-level *gua* derived from it, then (as just noted) the resulting set of four *gua* all share exactly the same four internal lines. As we shall see in §IV, the same holds true for *every* set of four *gua* that are mapped onto a cross in the entire Compound *Yijing*. That is, every time a set of four *gua* appears, they will share the same four inner lines; these lines can therefore be treated as a *label* for that set—the only exception being the first-level quaternity, which (as we saw in §II) is derived not from the identity of inner lines, but from the selection of the first two (totally pure) and last two (totally mixed) *gua* in the overall system of 64. What is common to *every* quaternity that will be mapped onto a cross, including the basic four, is that the top and bottom lines of each *gua* follow the pattern previously stipulated by the geometry of logic (i.e., ++ or *yang-yang* being at the top and pointing downward to +- or *yang-yin*, and -- or *yin-yin* being at the right and pointing leftward to -+ or *yin-yang*).

Of all the correlations shown in Figure 2, probably the most striking is that between the three categories of quantity and the three *gua* that are directly derived from *gua* 2 (the receptive). No set of three *gua* serves to *depict* more obviously than in this triad the nature of the three categories in Kant's table: just as universal judgments (e.g., "All bodies have weight") employ "top-down" reasoning and particular judgments (e.g., "This book weighs a pound")

employ “bottom-up” reasoning, *gua* 23 and 24 place the only *solid* line at the top or at the bottom, respectively, of the set of otherwise broken lines. The *names* assigned to these two *gua* might seem inappropriate at first; but for anyone who grasps the internal logic that guides the naming of the *Yijing*’s *gua*, the names also make good sense. When a concept expresses *unity* (or a judgment, *universality*), it has nowhere else to *go*, should any change be required, but to “split apart” (*bo* 剝), just as a concept that expresses *plurality* (or a judgment, *particularity*) must be viewed (if faced with any future *change*) as beginning a “return” (*fu* 復) to the universal. That the *synthesis* of these two categories expresses concepts of “allness” or “totality” (“*Allheit*” in German) (or judgments, *singularity*) is symbolized by the actual shape of the corresponding *gua*, the only hexagram in the *Yijing* that resembles a square. The Chinese name, *yi* 頤 (“the corners of the mouth”), derives in part from the shape of the *gua* (reminiscent of an open mouth), and more literally means “providing nourishment,” in the sense of being *receptive to what is good*. The judgment relating to *gua* 27 clarifies that this is the character and life situation of the “superior man”—the person who has achieved the perfect balance of universality and particularity in such a way as to have become a *singular individual*, or what might nowadays be called a “whole person.”

A similarly intriguing set of resonances occurs in the modality quadrant of Figure 2, between Kant’s terms for the three modal categories and both the *image* and the *name* of each corresponding *gua*: just as “problematic” judgments express concepts of *possibility* and

“assertoric” judgments express concepts of *actuality*, *gua* 43 depicts the strength of pure *yang* opening up into a single *yin* gap (as if to suggest a new possibility just emerging into view), while *gua* 44 depicts this single *yin* gap at the bottom (as if to suggest that the possibility has now become *fully actualized*). The names for these *gua* also dovetail nicely with Kant’s categories: one must possess “resoluteness” to “break-through” (*guai* 夬) old barriers in order to be open to a new *possibility*; and the experience of transforming a possibility into an *actuality* just is “coming to meet” (*gou* 姤) the object in one’s own experience. The connection between the synthetic components in this quadrant is not entirely obvious, but is nevertheless detectable: just as Kant thinks concepts of *necessity*, as conveyed by apodeictic judgments, somehow *combine* aspects of possibility with aspects of actuality (yet move beyond both), so also *gua* 28 depicts the excessive strength of pure *yang* in the inner four lines being eclipsed by (or necessarily bound up in) two outer *yin* lines. Claims to have achieved *apodeictic certainty* (such as Kant makes for some of his own theories) are undoubtedly the “highest” judgment-claims in all of philosophy, and can hardly be described with a more appropriate phrase than “preponderance of the great” (*daguo* 大過).<sup>14</sup>

The third-level components of the quadrant opposite to modality, the three categories of quality, also resonate with the corresponding *gua*, though not as clearly as those considered above. For example, affirmative judgments (those that attribute concepts of *reality* to an object) are not obviously judgments of “deliverance” (*jie* 解), the name of *gua* 40. The further

explanation of this *gua* in the *Yijing*, however, does connote a significant emphasis on *affirming* one's current situation: based on a conditional, it links both sides to an assessment of where one finds *reality*. "If there is no longer anything where one has to go, / Return brings good fortune. / If there is still something where one has to go, / Hastening brings good fortune."<sup>15</sup> Either way, the value of one's current project is being affirmed: if the job is done, affirm its reality and go home; if the job is still ongoing, affirm its worth and bring it to full fruition quickly. By contrast, negative judgments (those that attribute concepts of *negation* to an object) resonate quite obviously with "opposition" (*kui* 睽), the name of *gua* 38. The two trigrams that compose this *gua* represent a flame on top of a lake<sup>16</sup>—fire and water being the two most strongly *opposed* members of the traditional Chinese five elements. The synthesis in this quadrant seems rather remote from Kant's corresponding category: infinite judgments (those that attribute concepts of *limitation* to an object) seem wholly unrelated to "the marrying maiden" (*gui mei* 歸妹), the name of *gua* 54. Yet even here some indirect correlation can be discerned, once we realize that this is one of four *gua* that are typically taken as symbolizing the relationship between a man and a woman. Indeed, this *gua* is the only one emphasizing the importance of establishing appropriate boundary-conditions: through the institution of a marriage that recognizes proper limits, the infinite value of love can be nurtured.<sup>17</sup>

The remaining quadrant, consisting of the three categories of relation, conveys the most tenuous correlations of all those that emerge at this level. One of the problems is that, because

of the nature of this classification of judgment (i.e., as *relating* one thing to another), the *concepts* each type expresses always come in pairs. Thus, categorical judgments (e.g., “Duty must always be obeyed”) express concepts of *both* substance and accident, while hypothetical judgments (e.g., “If the readers are bored, they will stop reading”) express concepts of both cause and effect. Attempting to correlate the former to *gua* 37, called *jia ren* 家人 (“the family”), seems at first like comparing apples and oranges. However, once again, consulting the text reveals some intriguing resonances, for the emphasis here is on the *laws* that govern family relationships, and in Chinese culture there is no closer correlate to Kant’s categorical imperative than the principle of filial piety.<sup>18</sup> Correlating the latter, with its emphasis on causal relationships within the empirical world (as opposed to the moral world constituted by the relations between persons), to *gua* 39, called *jian* 蹇 (“obstruction”), is more straightforward. For here, the two trigrams represent (following traditional Chinese symbolism) “a dangerous abyss lying before us and a steep, inaccessible mountain lying behind us.”<sup>19</sup> What better imagery could depict the transcendently mysterious (yet inescapable) relationship between cause (the inaccessible mountain) and effect (the dangerous abyss)? Just as the advice provided in the *Yijing* text focuses on how to *deal* with such obstructions, so also Kant’s treatment of the principle of cause and effect does not encourage us to climb the mountain (much less jump over the abyss), but focuses on how to cope with the inevitable obstruction that the phenomenal world places along the path of the moral agent. The synthetic component in this quadrant,

disjunctive judgment (e.g., “Authorities should be obeyed, but without neglecting one’s own well-being”), expresses conceptual relations between an “agent” and a “patient” (i.e., one who experiences the *effect* of another’s actions). In the same way that Kant portrays this classification as a synthesis of the categorical and hypothetical forms of judgment, and as the direct opposite of infinite judgments (since what is disjunctive by definition cannot approach a limit), so also the *Yijing* conveys *gua* 53, called *jian* 漸 (“development (gradual progress)”), as placing the “tree” trigram from *gua* 37 on top of the “mountain” trigram from *gua* 39, yet also as representing the direct opposite to *gua* 54 (the synthetic component in the quality or *yang-yin* quadrant of Figure 2). Before marriage (*gua* 54), one must experience a gradual progress of development in a relationship; the “agent” perspective of morality must be merged with the “patient” perspective of causality, if such a disjunction (i.e., a marriage, in the *Yijing*, or the reciprocity of nature’s wholeness, in *CPR*’s Third Analogy) is to emerge.

My main reason for noting these resonances between Kant’s categories and the *gua* that constitute the third level of the Compound *Yijing* is not to argue that the *Yijing* somehow foreshadowed Kant’s philosophy, nor that Kant discovered the “true meaning” of the *Yijing*’s ancient symbolism. That any significant historical linkage exists between these two systems is extremely unlikely. Rather, such resonances suggest that both Kant and the *Yijing* have appealed to *one and the same architectonic backdrop* that is determined by the structure of reason itself and therefore influences the way the human mind tends to organize its experience

of the real world; only the existence of such a backdrop could explain how two such different systems of thought have independently arrived at theories with such strikingly similar structural features. But the most challenging question is whether this structural parallelism continues when we examine the fourth level of the Compound *Yijing*. In the final section I shall sketch a possible way of meeting that challenge.

#### IV. OVERVIEW AND IMPLICATIONS OF THE FOURTH LEVEL

The fourth level of the Compound *Yijing* arises directly out of each of the twelve *gua* that make up the third level, by following one additional mapping rule. To avoid confusion, let us first review the basic rules introduced in §§II-III: (1) the core quaternity consists of the first two (“pure”) *gua* and the last two (perfectly “mixed”) *gua*; (2) lines 3 and 4 of each *gua* within the same quadrant remain fixed and thus establish the *identity* of all *gua* on every level of that quadrant; (3) positions of the *gua* on each third-level triad are derived from the corresponding second-level *gua* by changing first its top line (to define the “thesis” *gua*), then its bottom line (to define the “antithesis” *gua*), then both its top and bottom lines (to define the “synthesis” *gua*); and finally (4) the variation in lines 1 and 6 determines the position where each *gua* is placed on the cross, regardless of where the cross appears in the overall system, such that *yang* (+) always appears above and/or to the left of *yin* (-).

The new rule that explains how the fourth-level *gua* are derived from those on the third

level is that lines 2 and 5 of the corresponding third-level *gua* determine which set of four inner lines will define the corresponding quaternary at the level of the outer 48 *gua*, with the line next to the one that did *not* change (when deriving the third-level *gua*) now changing. The exact application of this rule *seems* to differ, depending on which position the third-level *gua* occupies in its quadrant; but that is only apparent, because each third-level *gua* was composed by changing a *different line* of its corresponding second-level *gua*. (Recall rule 3, above.) For example, to generate the first quaternary in the *yang-yang* (+ +) quadrant, start with *gua* 43 (☰☷); this *gua* was derived from *gua* 1 by changing the *top* line, so now *line* 2 changes in order to derive the inner four lines shared by all four *gua* in the corresponding fourth-level quaternary. The complete Compound *Yijing* is generated by following the same procedure with each of the twelve third-level *gua*, as shown in Figure 3:

< INSERT FIGURE 3 *HERE* >

Significantly, each quadrant in Figure 3 includes *two* of the traditional *bagua* (cf. §I), as indicated by the eight underlined numbers. In both pure quadrants, one of these eight key *gua* appears as the basic (second-level) *gua* initiating the whole quadrant (i.e., *gua* 1 and 2), while the other appears at the outer extremity of the fourth level, at the furthest point beyond the synthetic *gua* (i.e., *gua* 30 and 29, respectively). In both mixed quadrants, by contrast, the two

representative *bagua* appear in the same position on opposite fourth-level crosses—on the vertical axis for the quadrant stemming from the second-level horizontal axis, and on the horizontal axis for the quadrant stemming from the vertical level. Far from ignoring the significance of the *bagua*, therefore, the Compound *Yijing* demonstrates that their positions in the overall system follow non-random rules of *balance*.

The remaining challenge is to find a way of correlating this fourth level of the Compound *Yijing* with the architectonic structure of Kant’s broader philosophical system. While there may be several plausible ways of doing this,<sup>20</sup> one good approach is to identify each quadrant with one of the four university *faculties* that Kant discusses in his book, *The Conflict of the Faculties* (1798):<sup>21</sup> my hypothesis is that philosophy, being the “lower” faculty, corresponds to the *yin-yin* (- -) quadrant; theology, being the highest of the three “higher” faculties, corresponds to the *yang-yang* (+ +) quadrant; law (theology brought down to earth, so to speak) corresponds to the *yang-yin* (+ -) quadrant; and medicine (the philosophy of the body) corresponds to the *yin-yang* (- +) quadrant. This application has the advantage of being simple, complete, and fully grounded in Kant’s text. Its disadvantage is that it appears to leave out of consideration quite a large proportion of Kant’s philosophical writings. However, if we stretch what is covered by each faculty just slightly, fruitful ways of making the relevant correlations emerge. Confirmation of this hypothesis would require identifying twelve basic sets of (fourfold) categorial principles, each introduced within (or at least implied by) Kant’s writings, each

-serving to guide our understanding of concrete human situations related to one of the four university faculties, and each corresponding to one fourth-level quaternity in Figure 3.

Since the second and third levels of the Compound *Yijing* both correspond to Kant’s main tables of categories and logical functions, as introduced and applied in *CPR*’s Transcendental Analytic, fulfilling this remaining task requires locating correlations within *other* areas of Kant’s philosophy. In the next four paragraphs, each heading correlates one of the four university faculties to the relevant quadrant of the Compound *Yijing*, following the order of quadrants as presented in §III (i.e., *gua* 2, 1, 64, and 63)—the *same order* Kant follows in *Conflict*. In each case I shall then suggest three areas of Kant’s philosophy (and, where readily discernible, the four principles presented therein) that correlate with the three quaternities in that quadrant. In each case, I derive the first area from later sections of *CPR*, the second from Kant’s explicitly moral/metaphysical writings, and the third from other post-1781 writings. *Justifying* these tentative hypotheses will have to wait for another occasion.

*The philosophy faculty: yin-yin (- -) quadrant.* My hypothesis is that *CPR*’s distinction between the four categories of nothing (see *CPR* A290-292/ B346-349), which serves as a propaedeutic to Kant’s whole critique of metaphysics in the Transcendental Dialectic, corresponds to the quaternity consisting of *gua* 3, 8, 20, and 42. The second *Critique*’s table of the categories of freedom<sup>22</sup> should then correspond to the quaternity consisting of *gua* 4, 7, 19, and 41, with the third *Critique*’s distinction between the four “moments” of beauty<sup>23</sup>

corresponding to the quaternity consisting of *gua* 29, 59, 60, and 61.

*The theology faculty: yang-yang (+ +) quadrant.* The main purpose of the theology faculty, according to Kant, is to train professionals to take care of people's spiritual needs. Here and in each higher faculty, one quaternity (corresponding to the first third-level *gua* that arises in that quadrant) should correlate with an idea of reason discussed in *CPR*'s Dialectic—in this case, the idea of *God*. Kant's distinction between three ways of proving God's existence (the ontological, cosmological, and physico-theological), taken together with his own "possibility proof,"<sup>24</sup> should correspond to the quaternity consisting of *gua* 14, 32, 34, and 50. Since religion for Kant must be grounded not only in good theology but also in good *ethics*,<sup>25</sup> the opposite quaternity, consisting of *gua* 13, 31, 33, and 49, should correspond to a quaternity in the second part of the *Metaphysics of Morals* (1797), the Doctrine of Virtue. My initial suggestion is that the fourfold "Schema of Duties of Virtue" (6:398) might fulfill that role, while the four categorical principles establishing the guidelines for a "true church" in the Third Piece of *Religion within the Bounds of Bare Reason*<sup>26</sup> correspond to the synthetic quaternity, *gua* 30, 55, 56, and 62.

*The law faculty: yang-yin (+ -) quadrant.* Here the purpose is to train lawyers to take care of people's property rights, both during life and after death; so the relevant idea of reason is *immortality*. The main quaternity proposed in the corresponding area of metaphysics, *rational psychology* (as treated in *CPR*'s Dialectic, A341-405/B399-432), distinguishes between the

fourfold nature of the soul, as substantial, simple, unified, and related to spatial objects. My hypothesis, therefore, is that this set corresponds to the quaternity consisting of *gua* 6, 10, 47, and 58, with the opposite quaternity, consisting of *gua* 16, 21, 35, and 51, corresponding to four principles established in the first part of the *Metaphysics of Morals*, the Doctrine of Right. The division of the objective relation of law to duty (6:240-241) seems to be the best candidate presented in Kant's text. For the synthetic quaternity, four basic principles from Kant's vision of the ultimate political situation, in *Toward Perpetual Peace* (1795), should correspond to *gua* 12, 17, 25, and 45; and here I propose the three "Definitive Articles," with the "Secret Article" as the fourth component (8:349,354,357,368).

*The medicine faculty: yin-yang (- +) quadrant.* The purpose here is to train doctors to care for people's *physical* well-being, as free agents imbedded in nature; so the relevant idea of reason is *freedom*. The corresponding area of metaphysics, *rational cosmology*, as treated in the Dialectic's Antinomy of Reason (*CPR* A405-567/B432- 595), examines four irresolvable issues: whether the world has a beginning in time; whether composite substances consist of simple parts; whether a causality of freedom operates in the natural world; and whether an absolutely necessary being exists. I suggest that these should correspond to the quaternity consisting of *gua* 15, 22, 36, and 52, with the opposite quaternity, consisting of *gua* 5, 9, 48, and 57, corresponding to the four ways of understanding *motion*, in *Metaphysical Foundations of Natural Science* (1786): phronomy, dynamics, mechanics, and phenomenology. The best

place to search for four basic principles describing Kant's vision of the ultimate unity of nature and freedom, corresponding to the synthetic quaternary consisting of *gua* 11, 18, 26, and 46, is his final (uncompleted) work, known as *Opus Postumum*. Unfortunately, Kant's notes are so sketchy and contain so many fourfold distinctions (usually with little or no explanation) that identifying the most important quaternary would be extremely difficult, if not impossible.

The next step would be to assess whether and to what extent the *names* for the four *gua* in each of these twelve third-level quaternities resonate with Kant's descriptions of the corresponding principles, as suggested above (or with others, if better candidates emerge). This task is well beyond the scope of the current essay; but carrying it out would require being prepared sometimes to employ the names and/or symbolism of the *Yijing's gua* to revise Kant's selection of terms, and at other times to use Kant's terms to suggest refinements of how the Chinese name for a specific *gua* is traditionally understood. As the suggested correlations presented in §III illustrate, however, resonances between the two systems may be more readily available than one first expects, once the full text of the *Yijing* is consulted.

I make no claim here to have discovered *the* "correct" way to order the *Yijing*; rather, I claim only that *this* way of arranging the 64 *gua* has the advantage of displaying a systematic structure very similar (if not identical) to that employed by Kant. To those who disapprove of Kant's architectonic to begin with, this exercise will merely bolster their confidence in downplaying any theory or concept that seems to be introduced "merely" to fill a gap in the

architectonic structure. Yet it would be wrong to view the correlations I have demonstrated, especially in §III, as *merely* coincidental. Nor, as explained above, is it likely that the *Yijing* and Kant exhibit such striking structural parallels as a result of some unknown historical connection. Rather, the foregoing evidence should encourage others interested in exploring the vast field of East-West dialogue to focus on developing some of these specific correlations in further detail.<sup>27</sup> Indeed, for those who share Kant's bias in *favor* of architectonic reasoning, this effort to forge a deep connection between two apparently disparate systems of thought should provide numerous seeds for further fruitful application.

HONG KONG BAPTIST UNIVERSITY

Hong Kong, China

#### Endnotes

I would like to thank Lok Yuen Ching, whose interest in the *Yijing* relates mostly to its application to Chinese medicine, for assisting me at various stages in the development of this project, especially in constructing Figure 3 and in the on-going task of exploring the various interpretive possibilities contained therein. Thanks also to Eric Nelson and the editorial team of *JCP* for providing feedback that led to numerous corrections and improvements.

---

<sup>1</sup> See “Introduction: Levels of Perspectives in Kant and Chinese Philosophy,” *Journal of Chinese Philosophy* 38, no. 4 (2011): 505–508. Kant defines “architectonic” as “the art of systems” in *Critique of Pure Reason*, trans. Werner S. Pluhar (Indianapolis: Hackett, 1996), A832/B860; hereafter *CPR*. For a detailed discussion of Kant’s concept of architectonic as such (rather than as *structuring* his own system) and an argument that the *Yijing* adopts a similar approach to philosophizing, see my article, “Architectonic Reasoning and Interpretation in Kant and the *Yijing*,” *Journal of Chinese Philosophy* 38, no. 4 (2011): 569–583.

<sup>2</sup> Peter D. Hershock, “The Structure of Change in the *Yijing*,” in *Philosophy of the Yi: Unity and Dialectics*, Supplement to Volume 36 of *Journal of Chinese Philosophy* (2009): 48–72, organizes the 64 *gua* into what he calls a “three-leveled order” (not counting “the common, empty center of all three levels”) by identifying *gua* numbers 1, 2, 63, and 64 as the system’s fundamental core (56; see also 69–72), a set of twelve secondary *gua* as generated directly from these basic four (using one of four different types of rule for determining the changes), and the remaining 48 *gua* as forming an outer core that can be similarly arranged as twelve sets of four *gua* each (with lines 2–5 being identical for each set of four). My detailed account of this way of organizing the *Yijing* (unnamed by Hershock) follows this same pattern, but rearranges the order of the *gua* using slightly different (and much simpler) mapping rules. In a nutshell, Hershock uses what he calls “inner linking,” whereby one starts at the level of the outer 48 *gua* and derives each of the twelve middle-level *gua* from a corresponding set of four: the top trigram is defined by lines 2–4 of the four outer-level *gua*, and the bottom trigram by lines 3–5 of that set. What this ignores is that the time-honored tradition of *Yijing* philosophy is that *some lines change while others remain constant*. In the revised ordering I shall adopt, by rearranging only two pair of *gua*, each quadrant retains a rigorous systematic identity not exhibited by any

---

of the maps Hershock presents.

<sup>3</sup> I derive this name as follows. Hershock's (unnamed) method identifies four basic *gua*, forming what I elsewhere (see note 4) refer to as a "second-level *analytic* relation," and posits a *synthetic* (threefold) relation between certain other *gua*; the geometry of logic calls any combination of analytic and synthetic relations a "compound" relation.

<sup>4</sup> I first applied the geometry of logic to Kant's system in "The Architectonic Form of Kant's Copernican Logic," *Metaphilosophy* 17, no. 4 (1986): 266-288, revised and reprinted as Chapter III in my book, *Kant's System of Perspectives: An architectonic interpretation of the Critical philosophy* (Lanham: University Press of America, 1993); hereafter *KSP*. For applications outside the realm of Kant studies, see my article "Analysis and Synthesis in the Geometry of Logic," *Indian Philosophical Quarterly* 19, no. 1 (1992): 1-14, and my book, *The Tree of Philosophy: A course of introductory lectures for beginning students of philosophy*, fourth edition (Hong Kong: Philopsychy Press, 2000), especially Lectures 13 and 14; hereafter *TP*.

<sup>5</sup> Kant introduces his standard twelvefold division as a table of the "logical functions in judgment" (*CPR* A70/B95), then uses these to construct his official "Table of Categories" (A80/B106) that eventually becomes the basis for his defense of the Principles of Pure Understanding (A148/B188-A235/B294); cf. note 11, below.

<sup>6</sup> See my article, "The Radical Unknowability of Kant's 'Thing in Itself,'" *Cogito* 3, no. 2 (1985): 101-115; revised and reprinted as Appendix V of *KSP*.

<sup>7</sup> The namelessness of the Dao is implied throughout the *Yijing*, but is stated explicitly (though paradoxically) in Chapter 1 of Laozi's *Dao De Jing*.

<sup>8</sup> Euclid's definition (in *Elements*, Book I, Definition 1) is: "A point is that of which there is no part." Pythagoras' definition was "a monad having position" (quoted in Leslie Jaye Kavanaugh, *The Architectonic of Philosophy: Plato, Aristotle, Leibniz* [Amsterdam:

---

Amsterdam University Press, 2007], 106).

<sup>9</sup> *CPR* A160-161/B199-200.

<sup>10</sup> *CPR* A160-162/B199-201.

<sup>11</sup> Kant defines “axioms” (the principles corresponding to quantity) as “extensive magnitude” (*CPR* A162f/B202f) and “anticipations” (those corresponding to quality) as “intensive magnitude” (A166f/B207f). His definitions of “analogies” (the principles corresponding to relation) and “postulates” (those corresponding to modality) imply a similar distinction by referring to the external “connection of perceptions” (A176-177f/B218f) and the internal agreement or “coherence” of intuition and conception (A218f/B265-266f), respectively.

<sup>12</sup> *KSP* III.3; see especially Figure III.4 and Table III.7 (83,89).

<sup>13</sup> *CPR* A50/B74. Chung-ying Cheng has suggested associating *yin* with quality and *yang* with quantity. With a different set of mapping rules to define the onto-epistemic correlation between these sets of terms, such an alternative would certainly be plausible. However, as I shall explain further in §III, I am here adopting the mapping rules employed in my previous publications on the geometry of logic, and these rules make the choice of correlations shown in Figure 1 non-arbitrary. An intriguing question would be to ask what is at stake when the mapping rules change. Different rules could certainly be established, for example, that would require quantity to be associated with “the creative” (pure *yang*) and quality with “the receptive” (pure *yin*). Perhaps what is at stake in this case is whether one considers the point of the creation of all things to begin with the determination of their quantity (as in traditional realism) or with the determination of their modality (as I am claiming Kant’s transcendental idealism requires). Unfortunately, the intriguing question of how one’s choice of mapping rules relates to one’s underlying worldview is beyond the scope of this paper.

<sup>14</sup> Another interesting implication of these correlations is that a singular judgment (e.g., “Socrates is mortal”) is *never* apodeictic, just as *gua* 27 and 28 are exact opposites (cautious

---

attention to nourishment and bold claims to greatness being mutually exclusive in any system that values *balance*).

<sup>15</sup> *I Ching or Book of Changes*,<sup>3</sup> tr. Richard Wilhelm and Cary F. Baynes (London: Routledge & Kegan Paul, 1968[1951]), 154.

<sup>16</sup> *Ibid.*, 147.

<sup>17</sup> *Ibid.*, 208-209.

<sup>18</sup> *Ibid.*, 143.

<sup>19</sup> *Ibid.*, 151.

<sup>20</sup> In *KSP* X.1, for example, I present a diagram (Figure X.1) whose structure closely resembles that of Figure 3, above. *KSP* presents that diagram as a possible way of laying bare “the idea [of Kant’s philosophical system] as a whole” that Kant says his readers must grasp in order to resolve his book’s apparent inconsistencies (*CPR* Bxliv). It defines the four main quadrants as those belonging to Critique (- -), analytic restatement of Critique (+ -), the realms of experience dealt with by the three *Critiques* (- +), and (Kantian) metaphysics proper (+ +).

<sup>21</sup> While Kant’s book applies this fourfold distinction to the “faculties” (i.e., departments or schools) of the university, it closely parallels the distinction he makes throughout his mature works between the four faculties (i.e., powers or abilities) of the human mind: sensibility (- -), understanding (+ -), judgment (- +), and reason (+ +).

<sup>22</sup> See *Critique of Practical Reason*, 66 (Academy Edition pagination), where Kant provides a table listing twelve categories of freedom, but does not specify any special heading for each.

<sup>23</sup> See *Critique of the Power of Judgment*, 203-240 (Academy Edition pagination); for summaries of how Kant explicitly links these “moments” to the four categories, see *KSP* IX.2.A (295-297) and *TP*, Lecture 29.

<sup>24</sup> See my book, *Kant’s Critical Religion: Volume Two of Kant’s System of Perspectives* (Aldershot: Ashgate, 2000), Chapter V; hereafter *KCR*.

---

<sup>25</sup> See *Ibid.*, Chapter VI, especially Figure VI.2 (126).

<sup>26</sup> See *KCR*, VII.3.A and VIII.3.A, especially Figure VII.5 (171).

<sup>27</sup> My attention has been limited almost exclusively to the structural patterns themselves and the *names* traditionally assigned to the 64 *gua*; when appealing to the text of the *Yijing*, I have gone no further than to consult the introductory explanation and “Judgment” section. This leaves open a huge area of potential further research, into the question of whether a more thorough examination of the *Yijing* (including, especially, the Commentaries) would reveal *still further* insights into the depth of its consistency with (or in some cases, perhaps its challenge to) Kant’s architectonic system.