

Correlative Reasoning about Water in *Mengzi* 6A2

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Abstract *Mengzi* 孟子 6A2 contains the famous (or infamous) water analogy for the innate goodness of human nature. Some evaluate Mengzi's reasoning as strong and sophisticated; others, as weak or sophistical. I urge for more nuance in our evaluation. Mengzi's reasoning fares poorly when judged by contemporary standards of analogical strength. However, if we evaluate the analogy as an instance of correlative thinking within a *yin-yang* 陰陽 cosmology, his reasoning fares well. That cosmology provides good reason to assert that water tends to flow downward, not because of available empirical evidence, but because water correlates to *yin* and *yin* correlates to naturally downward motion. Substantiating these contentions also gives occasion to better understand the nature of correlative reasoning in classical Chinese philosophy.

Keywords Analogy · Correlation · Gaozi 告子 · Human nature · Mengzi 孟子 · *Yin-Yang* 陰陽

1 Introductory Remarks

Analogies pervade Book 6A of the *Mengzi* 孟子. Mengzi pronounces that human nature (*renxing* 人性) is like flowing water (6A2); the heart-mind (*xin* 心) has predispositions akin to sprouts (*duan* 端) (6A6); cultivating these predispositions is like cultivating barley (6A7); corrupting the predispositions is like besieging forests with hatchets and axes (6A8); kings who lack wisdom are like plants lacking warmth (6A9); preferring bear's paw over fish is like preferring righteous behavior (*yi* 義) over food and sex (6A10); matured benevolence (*ren* 仁) is like ripe grain (6A19). There are negative analogies, too. Mengzi denies, for example, that hacking willow trees is like cultivating benevolence (6A1), that treating old horses as old is like treating elderly men as elders (6A4), and that crooked fingers are like corrupted heart-minds (6A12).

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This prevalence of analogy in *Mengzi* 6A explains why Keith Holyoak and Paul Thagard treat Mengzi as a paragon user of complex analogical thinking among classical Chinese philosophers (Holyoak and Thagard 1995: 182–183). However, despite their praising Mengzi's analogies as “highly sophisticated,” Holyoak and Thagard demur from evaluating the quality of his analogical reasoning. Their caution is wise, for contemporary English-speaking scholars of Mencian philosophy offer competing evaluations. Some, taking a critical view, assess Mengzi's reasoning as weak at best and sophistic wordplay at worst. For example, Arthur Waley opines that “[a]s a controversialist [Mengzi] is nugatory. The whole discussion (Book VI) about whether Goodness and Duty are internal or external is a mass of irrelevant analogies, most of which could equally well be used to disprove what they are intended to prove” (Waley 1939: 194). Similarly, according to Chad Hansen, Mengzi “deploys words almost randomly in facing his philosophical opponents. Mencius' attitude seems to be that, since he knows intuitively what is right, any move that befuddles or embarrasses the opponent or gets him to back down is acceptable. He regards argument as wordplay that he has to endure from people of *lesser cultivation*. His only consistent purpose in argument is to fend off challenges, frequently with obfuscation and verbal smoke screens” (Hansen 1992: 188).

Others, taking a more charitable view, assess Mengzi's analogies as strong and his reasoning as solid. D. C. Lau confesses that “[i]t is difficult to believe that a thinker of Mencius' caliber and reputation could have consistently indulged in what appears to be pointless argument or that his opponents were always effectively silenced by *non-sequiturs*. The fault, we suspect must lie with us. We must have somehow failed to understand these arguments” (Lau 1970: 235). More rhetorically, Weibke Denecke asks, “Why are the analogies Mencius spins out and develops in these conversations [with Gaozi 告子] among the finest examples of argument by analogy in *Mencius*?” (Denecke 2010: 178). Denecke means to say that Mengzi's reasoning is itself praiseworthy. For those with a more critical view, however, the implication is that Mengzi's argumentative oeuvre is deplorable.

This paper is a plea for more nuanced and case-driven evaluations of Mengzi's reasoning. Charitable views are appealing because they caution against dismissing arguments we do not understand. However, they are implausible, and critical views are appealing, because extant attempts to interpret Mengzi's reasoning as strong remain unpersuasive. Or so I shall argue. I shall, in addition, develop a critically charitable view of Mengzi's reasoning—or a charitably critical one—according to which he provides arguments that are simultaneously strong and weak. They are strong, I shall argue, with respect to standards for correlative reasoning likely prominent in ancient China; they are weak with respect to our contemporary standards for analogical reasoning.

I limit defense of this more nuanced view to the water analogy at *Mengzi* 6A2. This is not the only analogy Mengzi uses when discussing the natural goodness of human nature. For instance, he also uses an analogy about the tree of Ox Mountain at *Mengzi* 6A8. So far as I know, Mengzi's arguments based upon these other analogies have yet to receive sustained analytical attention from contemporary scholars. *Mengzi* 6A2, by contrast, is one of the few explicit passages for which several contemporary scholars provide reasons favoring their evaluations about the quality of Mengzi's reasoning.

I take CHONG Kim-chong to represent those who endorse a critical view of Mengzi's reasoning at 6A2 (Chong 2002); Sarah Allan and Edward Slingerland, those who

endorse a charitable one (Allan 1997; Slingerland 2011). I shall argue that both evaluations are too quick, and that more nuance is more appropriate. Allan and Slingerland rest their evaluation upon an empirical misunderstanding about water; Chong ignores the way in which *yin-yang* 陰陽 cosmology provides correlations that bolster Mengzi's reasoning. This limited defense suffices to encourage better nuance with further assessments of Mengzi's analogical reasoning.

Because the evaluative view I defend invokes results based upon correlative reasoning, restricting the scope of this paper to the single analogy at *Mengzi* 6A2 also provides an opportunity to better understand the nature of that reasoning. There is broad agreement that correlative reasoning is prominent among classical Chinese philosophers and that *yin-yang* cosmology serves as the typical context for that reasoning (see Fung 2010). Hall and Ames, moreover, advise that "Western interpretations of Chinese culture must learn to appreciate the correlative mode of thinking if they are to adequately orient themselves with respect to the Chinese world they are seeking to understand" (Hall and Ames 1995: 142). But there remain few specific studies of passages for which such reasoning would be relevant. Whence MOU Bo's remark that "it remains controversial how to identify and characterize [the *yin-yang*] way of thinking ... and thus how to understand the content of the conception of correlative thinking" (Mou 2009: 42), Mengzi's argument at 6A2, I shall argue, is a context in which correlating water with *yin* is relevant. A. C. Graham uses this same correlation, albeit taken from a later historical context, as one of his several illustrations of correlative reasoning (Graham 1986: 32). He claims, however, that "the philosophers from Confucius to HAN Fei [韓非] do not engage in [correlative thinking] at all" (Graham 1986: 8–9). Perhaps for this reason, he provides no examples from these philosophers for which correlative reasoning is relevant. So focusing on the water analogy at *Mengzi* 6A2 provides an opportunity to revisit ideas about both the nature and scope of correlative reasoning in ancient China.

I begin with Mengzi's reasoning at 6A2. I contextualize and explicate his analogy. I also present and assess competing evaluations of his reasoning. In the subsequent section, I present and defend a more nuanced evaluation. I situate Mengzi's analogy within classical *yin-yang* cosmology, explicate how that cosmology complements correlative reasoning, and explain how such reasoning renders Mengzi's argument strong with respect to the standards of ancient Chinese philosophizing but weak with respect to our contemporary standards. In doing so, I also address two potential objections: first, that my approach is inappropriate because Mengzi did not engage in correlative thinking (Graham 1986: 8–9); second, that my approach is anachronistic because Confucian tradition assimilates *yin-yang* cosmology only after Mengzi's death (Li 1999: 111).

2 Analogical Reasoning at *Mengzi* 6A2

2.1 The Water Analogy

Mengzi 6A presents Mengzi's view of human nature as an innate source of agency, common to all men, by which men are naturally inclined to generate feelings that motivate righteous behavior and, when properly cultivated, that also produce righteous

behavior. More practically, 6A presents Mengzi's lamentations about how and why the men of his day have neglected to cultivate righteous behavior, as well as his instructions and exhortations for correcting this deficiency.

The first six chapters of 6A present Mengzi's views as replies to Gaozi 告子. Gaozi, like Mengzi, sought to refine and extend Confucian ideas. We lack written records from Gaozi or his followers. However, from reports in the *Mengzi*, it seems that Gaozi understood human nature to be an innate source of agency by which men are inclined to enact their life-conducting (*sheng* 生) impulses. Human nature, for Gaozi, motivates us to pursue sex and food; in some cases it motivates us to benevolent action such as loving our siblings. But it does not, by itself, motivate us beyond these biological imperatives. Righteous behavior, in particular, results from imposing upon our innate impulses a second nature, and because our natural inclinations are fundamentally amoral, cultivating a righteous second nature is neither more nor less difficult than cultivating its contrary (see Lau 2003: 367; Chong 2009: 194–195).

In *Mengzi* 6A1, Mengzi quickly dismisses Gaozi's likening of human nature to a willow tree. Gaozi then proffers a different analogy, that human nature is like water. *Mengzi* 6A2 reports Mengzi's reply:

Gaozi said, "Human nature is like swirling water. Open a passage for it in the east, and it will flow east; open a passage for it in the west, and it will flow west. Human nature does not distinguish between good and not-good any more than water distinguishes between east and west."

Mencius said, "It is true that water does not distinguish between east and west, but does it fail to distinguish between up and down? The goodness of human nature is like the downward course of water. There is no human being lacking in the tendency to do good, just as there is no water lacking in the tendency to flow downward. Now, by striking water and splashing it, you may cause it to go over your head, and by damming and channeling it, you can force it to flow uphill. But is this the nature of water? It is force that makes this happen. While people can be made to do what is not good, what happens to their nature is like this." (Bloom 2009: 121)

Gaozi's analogy likens human nature to water swirling in a pool and moral cultivation as a matter of irrigation. Just as swirling water lacks a tendency to move eastward or westward, Gaozi suggests that human nature lacks a tendency to move toward goodness or its contrary. Moreover, just as engineers can move swirling water east or west with equal ease by manipulating the water's environment, Gaozi suggests that scholars can move humans toward goodness or its contrary with equal ease by manipulating their environment.

Mengzi agrees that scholars can move men toward goodness or its contrary by manipulating their environment, in the same way that engineers can move swirling water east or west. He denies, however, that these manipulations involve equal effort. For, Mengzi contends, just as water tends to flow downward rather than upward, human nature tends toward goodness rather than toward its contrary. This tendency does not mean that men behave righteously when left to their own devices. Just as water can be prevented from falling by fallen trees or constructed dams, our

inclinations can be stunted by neglected education or corrupt culture. But having an inclination toward goodness guarantees that cultivating righteous behavior requires only that benevolent scholars remove obstacles while malevolent scholars, in addition to removing similar obstacles, also must actively divert men from the natural course of their moral development.

2.2 On Interpreting the Analogy as an Argument

It is possible to interpret *Mengzi* 6A2 as merely reporting the competing analogies Gaozi and Mengzi used to illustrate their claims about human nature. According to this *Example-Only interpretation*, both analogies are figurative rather than argumentative: they elucidate but do not argue (see Waller 2001: 200). Charles Fu, for instance, seems to endorse some version of this interpretation, characterizing Mengzi's analogies as "loose" but his reasoning as "existential and not logical in nature" (Fu 1983: 388). But 6A2 is the only passage in the *Mengzi* that has Mengzi explicitly endorse the inherent inclination of human nature toward goodness. For example, *Mengzi* 6A6 endorses only that human nature can become good. This is compatible with humans having equally strong predispositions toward both goodness and its contrary. So if we accept the Example-Only interpretation, we must conclude that the *Mengzi* contains no argument for the central thesis at 6A2, and we should evaluate Mengzi's reply to Gaozi with respect to how well his analogy illustrates that thesis. However, I prefer to interpret texts as providing arguments when doing so would be charitable—that is, when the argument would be strong and the arguer likely would endorse the main premises. I beg indulgence from those with a different preference. But there are others who, for varying reasons, also prefer to interpret the analogies at 6A2 as argumentative rather than figurative. Hence, if only for the sake of scholarly conversation, I hereby set aside the Example-Only interpretation.

If the analogies at *Mengzi* 6A2 provide argument premises rather than only illustrative examples, the arguments in which they figure are analogical. Call this the *Analogical-Argument interpretation*. According to this interpretation, Gaozi's statement, as well as Mengzi's reply, are enthymematic arguments by analogy. Such arguments have a standard form:

1. Some object, the source for the analogy, has some feature.
2. This source object is similar to another object, the target for the analogy.
3. Therefore, the target object has the same feature. (Salmon 1973: 97–98; Waller 2001: 202)

With some gentle massaging, Gaozi's and Mengzi's reasoning fit this form. The source object is swirling water and water, respectively; the target object, in both cases, is human nature. For Gaozi, the feature that source and target share is the absence of a tendency to flow in one direction rather than its contrary; for Mengzi, the shared feature is the presence of this same tendency.

Analogical arguments, like other inductive arguments, can be evaluated as strong or weak, and as cogent or incogent (Salmon 1973: 98). Analogical arguments are *strong*—meaning that their conclusion is likely to be true if their premises are true—insofar as the known similarities between source and target objects are relevant to whether

something has the claimed common feature. They are *weak* insofar as the known dissimilarities are relevant. Analogical arguments are *cogent*, moreover, if they are strong and their premises are all true. They are *incogent* if they are weak or if they have a false premise.

If, following the Analogical-Argument interpretation, we treat the analogies in the *Mengzi* as arguments, then how we evaluate Mengzi's reply depends upon how we reconstruct Gaozi's argument. If we reconstruct Gaozi as claiming that swirling water and human nature lack a tendency to flow in a particular direction, Mengzi's reply amounts to claiming that Gaozi's source object (swirling water) in fact has that very tendency by virtue of tending to flow downward. If, preferring a less aggressive textual intervention, we reconstruct Gaozi as claiming that swirling water lacks a tendency to flow east or west—and if we do not infer from this that Gaozi means to imply that swirling water lacks a tendency to flow in a particular direction—then Mengzi's reply amounts to claiming that the dissimilarities between swirling water and human nature are more relevant than the similarities: absent further argument, up-down water flows are at least as relevant as east-west flows; and because, according to Mengzi, up-down flows have a directional tendency, nothing follows from east-west flows lacking this tendency. For either reconstruction, Gaozi's argument is incogent—and so Mengzi's reply is successful as a rebuttal—insofar as Mengzi is correct in contending that water tends to flow downward. (If Mengzi is correct, then the more aggressive reconstruction of Gaozi's argument is incogent by virtue of having a false premise, and the less aggressive reconstruction is incogent by virtue of using a weak analogy.)

2.3 Competing Evaluations of Mengzi's Reasoning

Both Allan and Slingerland hold that Mengzi's contention about water's natural directionality is correct and that, therefore, his reply succeeds in undermining Gaozi's analogy. This is a charitable view of Mengzi's reasoning, according to which his strong analogy renders his argument solid and praiseworthy. Slingerland forthrightly asserts that Mengzi's contention is correct:

Mencius subverts Gaozi's blend ... by mapping elements of an existing input that Gaozi "missed": water has no preference for East or West, but it certainly has a natural preference for traveling downhill. (Slingerland 2008: 194; see also Slingerland 2011: 22)

Yet, while Slingerland offers a "blending" theory about how analogies work and hints that Mengzi's reply is "fundamentally predicated on metaphoric blends linked to embodied emotional reactions," he does not make explicit his reason for endorsing Mengzi's contention about water (Slingerland 2008: 195; see also Slingerland 2011: 18). Allan, in contrast, explicitly argues that Mengzi's contention is empirically well-verified:

Water spontaneously moves downward. Indeed, it is this tendency of water to move downward that makes it possible to channel water and it is the reason that it will flow along a pre-established course or riverbed. That something which is not alive can move of its own accord was one of water's most fascinating

characteristics to the ancient Chinese and the innate tendency of water to flow downward is one of its most important attributes in early Chinese philosophical thinking. (Allan 1997: 41)

She continues by evaluating Mengzi's positive argument as well:

Mencius won his argument with Gaozi not for the trivial reason that his rhetoric was more ingenious than that of his opponent, but *because he had a better understanding of water than Gaozi*. Mencius—unlike Gaozi—truly understood water; therefore, he knew that, just as water goes down, human nature tends toward the good. (Allan 1997: 43)

For Allan, Mengzi not only successfully undermines Gaozi's analogy but also successfully supports his own conclusion about the natural directionality of human nature.

Chong demurs from these endorsements with a critical view of Mengzi's reasoning. Chong's criticism is twofold, and specifically targets Allan's charitable view:

[T]here is no logical connection whatsoever between the former and the latter tendencies [i.e., the tendency of water to flow downward and the tendency of human nature to be good]. Contrary to Allan, one could assert that it is Gaozi who has a better understanding of water. (Chong 2002: 107)

Chong's first criticism is a logical point: even granting that Mengzi is correct about water, the analogy is weak. That is, even if Mengzi's premises are true, they do not make his conclusion likely. Chong does not elaborate, but I take his point to be that just because a source has a feature, it does not follow that the target likely has the same feature. For example, birds are like humans, because they are both bipedal. But it does not follow from this that humans are likely to fly of their own accord just because birds are, for the dissimilarities between birds and humans might be more relevant than the similarities. Likewise, even if human nature is like water, it does not follow that human nature tends to flow in a particular direction just because water does, for the dissimilarities between human nature and water might be more relevant than the similarities.

Chong's first criticism, if correct (and I think it is), only challenges Allan's thesis that Mengzi's argument for the innate goodness of human nature is cogent. It does not falsify her thesis, because Chong provides no evidence to show that the dissimilarities between human nature and water are, in fact, more relevant to innate directionality than are the similarities. Moreover, even if such evidence exists, a charitable view of Mengzi's reasoning remains viable. It is possible to interpret Mengzi's analogy as designed to undermine Gaozi's claim and to illustrate, but not support, Mengzi's competing claim. Then Mengzi might prevail against Gaozi merely by virtue of undermining Gaozi's reasoning, and the potential weakness of Mengzi's own analogy would be irrelevant to the quality of his reasoning because that analogy would not be part of an argument. Lau seems to offer a version of this interpretation (Lau 2003: 367).

Chong's second criticism challenges even this more modest evaluation. This second criticism is that, regardless of whether the analogy of water to human nature is strong, "one could assert that it is Gaozi who has a better understanding of water" (Chong 2002: 107). Chong's meaning here is ambiguous. He might mean that it is possible to

deny Mengzi's claim that water tends to flow downward. Then Gaozi would have a better understanding of water by virtue of having a more plausible understanding. But Chong might mean, instead, that it is possible to assert that water's east-west flow is more relevant to human nature's directionality than is its up-down flow. Then Gaozi would have a better understanding of water by virtue of better understanding its relevance to human nature. In either case, however, Chong's objection is weak. It is possible to challenge similar components of *any* argument by analogy, but this possibility does not call into question the strength of those arguments. Consider, for example, a toy analogical argument: liquid water is wet; liquid water is like frozen water; therefore, frozen water is wet. It is possible to claim that liquid water is not wet; it is also possible to claim that the wateriness of water is less relevant to its wetness than the material phase of water. However, without evidence that the possibilities are likely actual, neither undermines the strength of the argument.

This weakness in Chong's second criticism can be repaired. The empirical evidence shows, contrary to Allan, that water's nature, if it has a nature at all, is to flow in the direction of least resistance. Water flows from higher pressure to lower pressure (see Pielou 1998: 21–25). If the region of low pressure is above the region of high pressure, as with artesian wells, water flows naturally upwards without the kind of impelling force Mengzi imagines (see Bear 1972: 6). Similarly, when water evaporates, it flows into the sky as vapor; when it encounters a dry wick, it flows in whichever direction the wick points. Even if the direction of least resistance for water flow often happens to be downward, it does not follow that water's nature is to flow downward. Reasoning in this way would be akin to claiming that gravity's tendency to pull massive objects toward the earth's center entails that objects naturally move toward the earth's center. This is an outdated way of thinking, prominent in Aristotle's day but not in our own. Allan or Slingerland provide no evidence that Mengzi and his followers would have accepted a cosmology similar to Aristotle's.

One might reply, on Mengzi's behalf, that by the standards of his day, Mengzi has a better empirical understanding of water than Gaozi. Both Allan and Slingerland cite *Mengzi* 6B11, arguing that Mengzi takes the sage-king Yu 禹 to have directed water wisely by virtue of taking advantage of its natural tendency to flow downward and yield to obstacles (Allan 1997: 40; Slingerland 2008: 194). But this is a questionable interpretation of 6B11. As Allan notes, citing *Mengzi* 4B26, Mengzi praises Yu because his "means of directing water was to make the water move where it had no resistance" (Allan 1997: 40–41). No resistance does not always mean downward. The textual evidence is only that Mengzi praises Yu for not trying to contain flood water but, instead, allowing the water to flow on a path of least resistance. This is not the same as not trying to contain the water by allowing water to flow downward, because the path of least resistance is not always downward.

There is, moreover, historical evidence for doubting that Mengzi understood the empirical aspects of water better than Gaozi, even by the standards of their day. Chinese history is marked by a struggle against flooding, with several irrigation efforts designed to prevent the natural upward movement of water. For example, flooding of the Minjiang 岷江 River often threatened the Dujiangyan 都江堰 region, as fast-moving spring melt water from the local mountains would flow up and over the banks when it met slow-moving and heavily-silted regions on the surrounding plains. The water from the mountains would flow naturally upward, over the

riverbank, without any externally imparted force (see Forbes 1965: 14–17). Li Bing 李冰 oversaw construction of a dam and irrigation system to control this flooding around 251 BCE. This particular irrigation project began after Mengzi died. However, Mengzi would have been familiar with similar attempts to control flooding by dredging land and channeling water flow; and he would have been familiar with waters reversing their course and overflowing farming lands in the absence of externally applied forces.

3 Correlative Reasoning with *Yin-Yang* Cosmology

If Mengzi's contention about the natural directionality of water were plausible, charitable views about his reasoning at *Mengzi* 6A2 (at least about his reply to Gaozi) would be plausible as well. Allan argues that Mengzi's contention is empirically well-verified, but the balance of our empirical knowledge about water undermines her argument. Chong's critical view of Mengzi's reasoning at 6A2 appears to be more plausible than Allan and Slingerland's charitable view. I shall argue, in this section, for a more nuanced evaluation. I shall argue, in particular, that there is a way to understand Mengzi's reasoning as strong by ancient Chinese standards even though, by contemporary scientific standards, it is weak.

The central proposition for my argument is that *yin-yang* cosmology supports Mengzi's contention that water has a tendency to move downward. This support is cosmological rather than empirical: water correlates to *yin*, *yin* correlates to naturally downward motion, and so water has a tendency to move downward. By our contemporary standards for scientific reasoning about causal tendencies, this reasoning is weak. So the critical view of Mengzi's reasoning at 6A2 remains plausible with respect to our standards. But the support for Mengzi's contention is strong with respect to ancient Chinese standards for correlative reasoning within a *yin-yang* cosmology. So a charitable view of his reasoning is possible. Before fleshing out details for this argument, however, I sketch a framework for correlative reasoning and the role of *yin-yang* cosmology in that framework. I then apply this framework to *Mengzi* 6A2. I argue that it supports Mengzi's contention about water's natural directionality, but it does not support his analogy between water and human nature.

3.1 A Framework for Correlative Reasoning

Correlative reasoning, at least on one conception, involves assigning things into categories on the basis of their connections to things already assigned into those categories. This requires, at minimum, a collection of categories and some initial members populating each category. Conceptual frameworks provide these minimal requirements, and so correlative reasoning will go differently in different conceptual frameworks. But correlative reasoning also requires, in addition to categories and initial members therein, expectations about frequencies of connection. For correlative reasoning is normative. It can be done well or poorly. This normativity is grounded upon a standard of correlational quality, and this standard is a function of expectations about frequencies of connection.

Good correlative reasoning assigns things into categories using *strong* correlations, and *bad* correlative reasoning assigns things into categories using *weak* correlations. Whether a correlation is strong or weak depends, in turn, upon how frequently the thing being categorized is expected to occur together with the things to which it is being correlated. These expectations might be grounded upon observed similarities and differences, but they need not be. They might arise, instead, from traditions or from common agreements that lack firm empirical support. Moreover, because these expectations can vary across time and culture, the quality of correlative reasoning can vary across time and culture as well.

Consider, for the sake of illustration, a conceptual framework that divides the world into two fundamental and mutually exclusive categories, good and evil (see also Graham 1989: 155–156). Suppose that, for each of these categories, the framework assigns initial members as indicated below:

Good	Knowledge	Pleasure	Normal
Evil	Ignorance	Pain	Pathological

This is a framework of conflicting contraries. We might use it to reason about *death* as follows: we do not know what happens when we die, but death causes pain to those who suffer loss. So death is evil. Because not dying is living, life is good. Because good is normal and evil is pathological, we should seek to avoid death and preserve life. This reasoning should be evaluated as strong insofar as we endorse these correlations, and as weak otherwise.

Ancient Chinese philosophical texts, because they arise from cultural traditions and historical experiences different from our own, tend to invoke categories and initial category members that do not always fit comfortably with how we might prefer to understand things. Yet, because the texts arise from similar cultural situations and historical experiences, amongst themselves they tend to draw upon similar categories and initial members. The basic categories for much correlative reasoning by classical Chinese philosophers are *yin* and *yang*. Graham specifies the initial members for these categories (Graham 1986: 27–28). Some of these members are listed below:

Yang	Heaven	Day	Above	Man
Yin	Earth	Night	Below	Woman

This is a framework of opposites. But the opposites relate intimately to each other. Each pair is complementary rather than antagonistic (see Wang 2012: 171–172). The opposites restrain rather than displace one another. So, for example, there is no day without night, above without below, man without woman—and vice versa. *Yin* and *yang* also support rather than destroy one another, each naturally transforming into the other. So, for example, night becomes day; woman becomes man. This complementarity of *yin* and *yang* does not, however, eradicate differences between *yin* and *yang*. *Yin* members are subordinate to *yang* ones, and *yang* members are superior to *yin* ones. Because nothing is superior or subordinate to itself, the hierarchical relationship among *yin* and *yang* secures their difference.

Because the *yin-yang* framework preserves differences among opposites, we can use it to guide our correlative reasoning. Whatever is *yang* shares the characteristic tendencies of other *yang* elements; whatever is *yin* shares the characteristic tendencies of other *yin* elements (see Wang 2012: 88–89). Graham provides an example from Chapter 3 of *Huainanzi* 淮南子: “Fire goes up and trails, water goes down and flows, therefore the birds flying up [by virtue of having been disturbed] go high, the fish when stirred go down” (in Graham 1986: 32). This argument analogizes birds to fire and, because fire correlates to light which qualifies as *yang*, infers that birds move toward that which is also *yang*, namely, the heavens. The argument also analogizes fish to water and, because water correlates to darkness which qualifies as *yin*, infers that fish move in the direction of that which is also *yin*, namely, toward the earth.¹

How we assess this piece of reasoning depends upon which evaluative standards we prefer. If we use contemporary scientific standards, the initial premise of the argument is implausible for the same reason that Mengzi’s contention at *Mengzi* 6A10 is flawed: water does not naturally go down. However, if we use standards from *yin-yang* cosmology, that premise—about fire going up and water going down—is plausible. This plausibility derives from cosmological expectations about conditions for membership in *yin* and *yang* categories; empirical evidence, for or against the premise, need not alter or undermine those expectations. Similarly, if we use contemporary standards to evaluate the strength of the analogy between fire and birds, or between water and fish, the analogy is weak, because there is no logical connection between either source-target pair. But if we use standards from *yin-yang* cosmology, the analogy is strong: fire is relevantly similar to birds by virtue of both being *yang*, and water is relevantly similar to fish by virtue of both being *yin*.

3.2 Correlative Reasoning at *Mengzi* 6A2

If we use *yin-yang* cosmology to evaluate Mengzi’s contention that water tends to flow downward, we should assess his contention as plausible. Water correlates to darkness which qualifies as *yin*, and so correlative reasoning warrants the inference that water naturally moves in the direction of that which is also *yin*, namely, toward the earth. But what is the direction of moving toward the earth? It must be moving away from the earth’s opposite, the heavens, because moving toward one pole means moving away from the opposite pole. Hence, because moving toward the heavens is moving upward, moving toward the earth is moving downward (away from the heavens). So water must naturally move downward. This is all perfectly cogent reasoning when judged by the standards of those who endorse *yin-yang* cosmology. Hence, at the very least, when so evaluated, Mengzi succeeds in undermining Gaozi’s analogy at *Mengzi* 6A2. He does so, moreover, because he has a better *cosmological* understanding of water than Gaozi. Contrary to Allan and Slingerland, whether he has a better *empirical* understanding is irrelevant.

The preceding line of reasoning undermines Chong’s second criticism of *Mengzi* 6A2, according to which Mengzi’s contention about water is implausible. This vindicates a charitable interpretation of Mengzi’s reasoning. But this vindication has quite a

¹ For similar examples from the *Yijing* 易经 (*Book of Change*) tradition and traditional Chinese medicine see Wang 2012: 91–92 and 174–181, respectively.

narrow scope. Mengzi's contention remains implausible with respect to contemporary scientific standards, and so a critical interpretation of his reasoning is also appropriate. Moreover, this vindication does not salvage the cogency of Mengzi's reasoning in support of his positive thesis.

Mengzi's reply to Gaozi's analogy succeeds insofar as his contention about the natural directionality of water is plausible. His positive argument, for the innate goodness of human nature, succeeds only if this contention is plausible and the analogy between water and human nature is strong. But the analogy is not strong. If it were strong, correlative reasoning would yield the result that human nature has the same natural directionality as water, namely, downward. However, so far as I know, there is no basis within *yin-yang* cosmology for associating goodness with downward directionality. One might, with equal plausibility, associate goodness with upward directionality, modifying Mengzi's argument to favor the competing thesis that human nature is innately bad. Hence, even if Mengzi gives good reason for concluding that both water and human nature have a common tendency or directionality, he has no reason for concluding, in addition, that human nature tends toward goodness rather than badness. So Mengzi's argument for the innate goodness of human nature remains incogent even with respect to the standards of ancient Chinese philosophizing. Chong's first criticism of *Mengzi* 6A2, according to which the premises do not make the conclusion likely even if they are true, stands.

3.3 Potential Objections

I imagine two potential objections to this strategy for vindicating a partially charitable view of Mengzi's reasoning. According to the first, the strategy is inappropriate because Mengzi did not engage in correlative thinking (Graham 1986: 8–9; Wang 2012: 32); according to the second, it is anachronistic because Confucian tradition assimilates *yin-yang* cosmology only after Mengzi's death (Li 1999: 111). I elaborate upon each before presenting a unified response.

Mengzi flourished in the fourth century BCE and died no later than 289 BCE. One of the earliest texts with explicit correlative thinking is *Lüshi Chunqiu* 吕氏春秋 (*Spring and Autumn Annals of Master Lü*), authored in 239 BCE, and correlative thinking rose to prominence only in the 3rd and 2nd centuries BCE. This rise might have been “a welling up into the ‘high culture’ of a way of thinking that had been latent in the populace for ages past” (Nivison 1999: 812). If so, it is possible that correlative reasoning was latent in Mengzi's thought as well, in which case Mengzi and his contemporaries would have correlated water to downward motion *tacitly*. However, this first objection continues, there is no evidence for any of these possibilities. Hence, interpretive strategies that rely upon such possibilities are inappropriate.

Even if there were evidence for attributing correlative reasoning to Mengzi, the second objection adds, there is certainly no evidence that Mengzi would have situated such reasoning within a *yin-yang* cosmology of the sort required to make cogent his reply to Gaozi. In the Spring and Autumn periods (722–481 BCE), *yin* and *yang* were only two of six basic cosmic forces. (The others were wind and rain, dark and light.) These forces play “no significant role in early Confucian philosophical canons” (Lee 2003: 314). Moreover, in Mengzi's time, they do not have the meaning associations required for making cogent his reply to Gaozi. According to John Henderson, “Down

to the fourth century B.C.E., *yang* and *yin* meant ‘sunshine’ and ‘shade,’ respectively, particularly the sunny and shady sides of a slope” (Henderson 2003: 191). So *yin*, in Mengzi’s time, was both a force separate from dark and also a force not yet correlated with water. Interpretive strategies that suppose otherwise are thereby anachronistic.

My response to both objections is to agree with historical facts and hermeneutic norms but decline the associated criticisms. Mengzi need not reason correlatively or endorse *yin-yang* cosmology in order for correlative reasoning within a *yin-yang* cosmology to support his contention about water’s natural directionality. My claim is *not* that Mengzi’s reply to Gaozi succeeds with respect to the evaluative standards of Mengzi’s contemporaries. My claim is that Mengzi’s reply succeeds with respect to the evaluative standards of those who endorse *yin-yang* cosmology. Those philosophers also happen to engage in correlative reasoning. If they appear only after Mengzi’s death, a corollary of my view is that Mengzi’s reply to Gaozi succeeds only with respect to standards adopted after his death. (Or, in more euphemistic language, the corollary would be that Mengzi’s reply to Gaozi was ahead of its time.) Urging more nuance in our evaluations of Mengzi’s reasoning requires finding only *some* culture and time relative to which Mengzi’s reasoning is cogent. If that culture and time is one or two centuries after Mengzi’s death, so be it. There is no principled reason to restrict the interpretive possibilities to either Mengzi’s own time and culture or our contemporary time and culture.

Leading interpreters of Mengzi’s water analogy through Chinese history tend to focus upon the plausibility of Mengzi’s conclusion rather than the strength of his reasoning. But there is at least one precedent for interpreting Mengzi’s views about human nature within a *yin-yang* framework. DONG Zhongshu 董仲舒, writing during the Han 漢 dynasty, pioneered the integration of earlier Confucian tradition with *yin-yang* cosmology (see Wang 2005). In *Luxuriant Dew of the Spring and Autumn Annals* (*Chunqiu Fanlu* 春秋繁露), he accepts Mengzi’s claim that human nature has directionality but denies that it is naturally good:

My way of evaluating the nature differs from that of Mengzi. Mengzi evaluates it in comparison with the doings of birds and beasts below, and therefore he says that the nature itself is good. I evaluate it in comparison with the doings of the sages above, and therefore I say that the nature is not good. (as quoted in Feng 1983: 37, replacing “Mencius” with “Mengzi”)

Dong rejects Mengzi’s thesis about human nature’s directionality and proclivity without engaging with Mengzi’s analogies. But the rejection is revealing. Dong portrays Mengzi as associating human nature with the birds and beasts below. The “below” position, as opposed to the “above” position, correlates with *yin*. While Dong does not explicitly interpret Mengzi’s reasoning at 6A2 within the *yin-yang* framework, he interprets Mengzi’s thesis within that framework. He denies Mengzi’s thesis, moreover, not because he rejects that framework or Mengzi’s reasoning, but because he claims to identify a notion of sagely goodness that “transcends” ordinary goodness (see Feng 1983: 35–37; Wang 2012: 134–135). This sagely goodness involves practicing “loyalty, good faith, widespread love, generosity, and love of propriety,” while ordinary goodness “consists in being better than the birds and the beasts” (Feng 1983: 36; see also *Mengzi* 4B19).

Dong makes explicit a connection between the ordinary notion of goodness and the downwardness of the below position, and between the sagely notion of goodness and the above position. Presumably, then, he evaluates Mengzi's reasoning as cogent, within a *yin-yang* framework, with respect to an ordinary notion of goodness. This provides some partial support for my claim that Mengzi's reply to Gaozi at 6A2 succeeds with respect to the evaluative standards of those who endorse *yin-yang* cosmology. But Dong also evaluates Mengzi's reasoning as weak, within a *yin-yang* framework, with respect to the sagely notion of goodness. He correlates sagely goodness with the above position, which is *yang*. This suggests that the success of Mengzi's reply to Gaozi is limited, extending to arguments about an ordinary notion of goodness but not to arguments about the sagely notion.

4 Concluding Remarks

Because I assess the quality of Mengzi's reasoning at *Mengzi* 6A2 with more nuance than is typical, my considered evaluation is also more convoluted than is typical. With respect to the standards of our best contemporary science, Mengzi's reasoning is weak. His reply to Gaozi fails, because his contention about water's natural directionality is implausible. His positive argument about the innate goodness of human nature fails for the same reason.

Although Mengzi's reasoning is weak, I prefer to interpret *Mengzi* 6A2 as providing more than merely figurative analogies. I prefer to interpret texts as providing arguments when doing so would be charitable; and while Mengzi's reasoning is not strong with respect to the standards of our best contemporary science, at least some of it is strong with respect to the standards of ancient *yin-yang* cosmology. In particular, Mengzi's reply to Gaozi is strong, because his contention about water's natural directionality is plausible with respect to those standards. But his positive argument about the innate goodness of human nature remains weak, because nothing in that cosmology supports the connection between naturally downward flow and innate goodness. Hence, while I arrive from a different direction, I endorse Lau's interpretation of *Mengzi* 6A2: Mengzi's analogy provides an argument against Gaozi and only an illustration of his own position (Lau 2003: 367).

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