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Ziolkowski Literature, Religion, and East/West Comparison

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Essays in Honor of Anthony C. Yu

DELAWARE

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Craft Analogies in Chinese and Greek Argumentation

Lisa Raphals

ὁ βίος βραχύς, ἡ δὲ τέχνη μακρή
(Life is short; art is long.)
—Hippocrates

Skill comes so slow, and life so fast doth fly,
We learn so little and forget so much.
—Sir John Davies (1569–1626), *Nosce Teipsum*, xix

ANALOGIES BETWEEN WISDOM, VIRTUE, AND GOOD GOVERNMENT AND craft(s) or skills are pervasive in both Greek and Chinese Warring States accounts of both virtue and political excellence. These analogies invoke a variety of established arts, crafts, *technē*, or branches of specialized knowledge. Greek craft metaphors such as the "body politic" and "ship of state" have become so commonplace as to conceal their sources in Platonic analogies.[1] A wide range of crafts analogies are equally well established in Warring States philosophical works and in metaphors hidden in common expressions.[2] Against a history of their being treated as a literary or rhetorical device, recent research has underscored the importance of both metaphor and more generally, imagination, in scientific reasoning, philosophy, and as a basic principle of human cognition and understanding.[3] This renewed interest in the study of both metaphor and analogy is rarely if ever applied to analogies and metaphors based on skills or crafts.

By analogy I mean the process of asserting a parallelism between two cases, based on similar attributes, and reasoning or arguing from those parallels. By metaphor I mean the use of a word, phrase, or image for something else that is analogous to it. Metaphor is thus a highly compressed (and sometimes concealed or poorly expressed) form of analogy. I examine a range of Chinese and Greek analogies and metaphors based on comparison of the mastery, practice, or acquisition of a technical craft and the mastery, practice, or acquisition of wisdom or ethical or political virtue. As limitations of space here prohibit a full discussion of the use of craft analogies, the present discussion is confined to a preliminary sample of craft analogies and metaphors. One compares wisdom or virtue with broad values of skill or maladroitness. The other draws on specific skills of archery, weaving, and medicine.

Some Chinese philosophical works use the mastery, acquisition, or skilled performance of particular crafts or skills as an analog for sageliness or good

government. They identify knowledge, wisdom, or realization of *dao* either with the mastery or acquisition of a particular craft or skill, or with the exemplary character of the skillful individual. They invoke a wide range of expertise, and praise (or blame) a variety of experts (or maladroits) at the arts of: archery, cooking and butchering, engineering and more generally technological innovation, farming in various aspects, hunting and trapping, medicine, accurate prediction or prognostication (including medical diagnosis), military strategy (defensive and offensive), music (both musicians and listeners), swordsmanship, weaving and wheelmaking.[4] Some Chinese accounts highlight characters who have been marginalized from or have rejected, the political world and the public domain. They also include a complementary negative trope of "dolt-stories" based on the lack of some crucial skill. We may distinguish several kinds of Chinese skill-knowledge analogy. (1) In wisdom/craft analogies, wisdom or virtue is compared to a skill, craft, or practice either in its entirety or in one prominent aspect. It is a comparison of two elements. (2) Analogies based on parts in relation to the whole compare the component parts of wisdom or virtue and the component elements of a craft. Analogous component parts come together (or do not) to make up the whole. This is a comparison of two sets or networks of elements. (3) Analogies based on skilled performance, including the process of mastery, compare the actions of a sage to the performance of a master at the craft or skill.

Most Greek craft imagery focuses on practitioners of received crafts. Given Plato's hostile depictions of craft and art, it is of some interest that he refers to practically every technical art extant at his time. References to crafts include: barbering, building (including masonry, carpentry, cabinetmaking, and shipbuilding), carving, cooking and butchering, cobbling, cloth and clothes making (including dyeing, spinning, weaving and embroidery), flute making, hunting, medicine, metalworking (including coppersmithing, gold refining and the minting of coins), navigation and the arts of warfare.[5]

In his study of the use of polarity and analogy in the Greek world, G. E. R. Lloyd makes several points about Greek craft metaphors and imagery that are particularly pertinent for the present study. First, the imagery of Greek philosophical texts cannot be read in isolation from earlier literature. Secondly, we must maintain but not overdraw the distinction between literal and metaphorical uses of language, for example in the image of the spinning and weaving of the fates.[6] He also emphasizes that analogies between virtue and any particular craft must be considered in the light of a prevailing analogy within Greek philosophy: the conception of the world as the product of intelligent designing agencies.[7] He also draws our attention to an important function of analogies in Greek texts: as a means to make inferences from the known to the unknown. For example, Herodotus infers knowledge about the Nile by analogy to known rivers, and several Hippocratic texts use analogies to common phenomena to infer about obscure ones, especially from the qualities of foodstuffs and procedures of cooking.[8]

Turning to specifically philosophical craft analogies, Plato and Aristotle show a striking contrast between their the low regard for crafts and craftsmen and their repeated use of crafts imagery.[9] While not a metaphor or an analogy, an interesting example of this problem is the regard accorded to *mêtis* or "wily intelligence," despite its moral ambiguities, to success at many skills valued on the Greek world, including archery, weaving and medicine. For example, in the Homeric account of the return of Odysseus, husband and wife deploy *mêtis* as a shared case of mind to save (and recreate) the social and political context of their marriage. The skills they use are both specialized and gender-specific, but the excellence of each is firmly grounded in *mêtis*. Penelope forestalls remarriage by weaving and unweaving the shroud of Laertes. Under the ruse of dream interpretation, she and Odysseus agree upon an archery contest as a means to remove the suitors from their house. His strength bends the bow, but his *mêtis* guides the arrow through the line of axe handles.[10]

Virtue and Craft

A range of Chinese skill stories about "rulers" describe wisdom and virtue as a single *kind* of skill knowledge, disposition, or activity. It is described positively in accounts of "brightening virtue" (*ming de*) by the ancient sage-kings, and negatively in Daoist accounts of the negative capabilities of sage rulers who act by not acting *(wuwei*). In the Five Classics, "brightening virtue" is connected with ordering the family, the self and the state. It is not compared to specific skills, and may have been viewed as a magical aspect of quasi-divine kingship.[11] Brightening virtue appears in two contexts: the need for self-cultivation by a *junzi* or nobleman and the rhetoric of dynastic transition, to justify the replacement of the Shang dynasty by the Zhou. The *Yijing* hexagram *Jin* (hexagram 35) likens the *junzi* brightening his virtue to the sun rising over the earth.[12] Both the *Shijing* and *Shujing* praise the sage-kings of antiquity and the founders of the Shang and Zhou dynasties as rulers who were able to make their virtue bright (*ming de*).[13] According to the *Daxue*, when the ancients wanted to brighten their bright virtue (*ming ming de*) throughout the empire, they first put their states in order; brightening bright virtue was part of the way of great learning of antiquity.[14] The phrase also occurs frequently in the *Zuo zhuan*, which typically advises the ruler to cultivate the bright virtue (*ming de*) of the sage-kings of the ancient past.[15] In all these passages, brightening virtue is associated with problems of government, but is not defined in terms of any particular activity.

The *Lunyu* describes specific virtues: *shu* or reciprocity (LY 4.15 and 15.24), associated with the sagacity of Yao and Shun; *zhi* or wisdom, (12.22), defined in terms of benevolence (*ren*); *xue* or study (17.7), and *si* or reflection (2.15). There is no suggestion of the mastery of any body of technical

expertise (other than the details of the *li*, which do include archery and music). Nor is there emphasis on the practical skills associated with prescience or foresight. *Tianwen*, a term associated in other texts with the abilities of prediction, does not appear in the *Lunyu*; *tiandao* appears only once, in Zigong's assertion that Confucius would not speak about it (LY 5.13).

The *Daodejing* describes its sage-ruler as maladroit. The ruler whose subjects barely see is more preeminent than the ones they praise, fear, or despise.[16] The sage nurtures the people by making them maladroit: he empties their minds, and curtails knowledge, and exterminates wisdom and skill as causes of artfulness, hypocrisy, destructive learning, names, distinctions, desires, and deliberative action. The one exception to this negative treatment of both knowledge and skill is an analogy between ruling a large state and cooking a small fish (DDJ 60).[17]

Mencius uses craft analogies from farming, carving, archery, and engineering. Their moral force is to contrast socially constructive technical skill that works in accordance with the nature of its object, and socially destructive cleverness that violates the nature of its object: "If those knowing ones (*zhi zhe*) could emulate Yu's directing the waters, then being knowing would hold nothing hateful. Yu directed the waters without overaction [against their nature]. If those knowing ones also directed things without overaction, their knowledge would be truly great" (4B26). The essence of Yu's technical skill is that he does not interfere with the natural tendencies of things or force them against their natures. The same values appear other famous analogies in the *Mengzi*. In the debate between Mencius and Gaozi on human nature, Gaozi likens moral instruction to carving cups and bowls from unformed willow wood; Mencius argues that both go against the grain (2A2). In the analogy of the "four sprouts" of virtue, the survival of the seedlings depends on nurture that is timely and appropriate (2A6). To mature, they must be tended, but without excess, and in accord with the season.[18] The same point appears in the memorable negative skill story of the farmer from Song who exerted himself out of season in "helping" his sprouts to grow by pulling them up, an urge, which, according to Mencius, few can resist. (2A2).

The *Zhuangzi* also contains a series of parallel analogies that liken the mastery of the Way to the process of mastery of a craft (rather than on skilled performance). These analogies are striking because of their emphasis on the skills of commoners; they bypass the elite skills of archery, hydraulics or government in favor of the skills of butchers, wheelwrights, and cicada-catchers. Most detailed is the exegesis of Pao Ding, the skillful butcher who instructs Lord Wenhui. He describes the process by which he acquired his skill: first studying oxen as wholes, next as parts, and finally with the daemonic faculties rather than the eyes. He never needs to change his blade because he sees what can't be seen (the space between the joints of the ox) and relies on the natural structuring of things (Z 3/9-11).[19] The story of Wheelwright Bian makes the general claim that skill is not teachable. He himself has the knack of chipping wheels at precisely the right speed, but he cannot explain it or teach it to his son (Z 13/64-74).

Greek analogies between virtue, craft and skill begin with concepts of the world as the product of intelligent design. Plato's cosmology repeatedly invokes images of the craftsman of the cosmos, in the *Republic* (530A, 507C, 596A), *Statesman* (270A, 273B), *Laws* (902C), and most extensively in the *Timaeus*.[20] The cosmology of the Timaeus draws its crafts imagery from any number of crafts, including carpentry, agriculture, and cooking (baking bread, 73EF). Examples of carpentry in the *Timaeus* include: working lathes (33B, 69C, 73E), boring and piercing holes (91A), gluing and fastening with bolts (75D, 43A). Examples from agriculture include sowing (*Ti.* 41C), grafting (42A) and irrigation (77C). The example from cooking compares the creation of the bones with the processes of sifting, kneading and moistening used in baking bread (*Ti.* 73EF).

Several passages in the early dialogues make analogies between the health to the body and justice to the soul. The *Crito* contains an analogy between expertise at moral and political judgment and technical expertise *in general*. *Crito* 47A compares the knowledge or skill of craftsman or artist (gymnastics) to expertise in ethical and political questions. A limitation of this analogy is that experts in gymnastics agree about ends even if they disagree about means, whilst political disagreements concern both. The *Gorgias* (477B-E) makes a medical analogy between poverty, illness and injustice, which afflict a person's wealth, body, and soul; and are cured by the arts of money-making, medicine and justice. Later, the same analogy is used to suggest that suppressing the desires of the soul is better than self-indulgence (*Grg.* 504B-505C).

The *Meno* (72D) uses a different kind of analogy to argue that virtue is the same for men and women. Meno acknowledges that health, size and strength are "the same" in a man or a woman. When Socrates argues that virtue is "the same"; Meno holds that virtue differs in some way from the other cases" (*Men.* 73A). The *Statesman* (277D) uses the paradigm of weaving to discover the "kingly art." Several other passages in the *Statesman* (295B) and *Laws* (691, 709A, 720A, 961D) analogize the statesman to several skilled craftsmen: the doctor, pilot, general, and shipbuilder.

It has been noted that, although the middle dialogues and the Platonic corpus as a whole discuss, but do not use, the hypothetical method; and use, but do not discuss, analogy and imagery, and the appeal to analogies recurs in Plato's argumentation from the early Socratic dialogues to the *Laws*.[21] Lloyd ascribes to Plato several important innovations in logic and method: his emphasis on the need to verify the conclusions of analogical arguments, the importance of distinguishing between probable arguments and demonstration, and the potential for deception in apparent likeness (*homoiotêtes*), for example in the *Phaedrus* (262A-C) and *Sophist* (231A).[22]

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Plato also notes the usefulness of analogies based on familiar phenomena as an aid to instruction, and recommends their use in certain contexts: as part of instruction, as an aid to intuition, and for discovery.[23]

Weaving

Given the low status of women in both Greek and Chinese society and the specialization of weaving as a female craft, the prominence of analogies and metaphors based on weaving is striking indeed. Weaving is compared to government, language, and the human body.

Chinese Analogies from Weaving

As the primary activity of women, it is to be expected that weaving appears in analogies that compare the roles of men and women. Most famous is the story of the mother of Mencius, who took a knife to her weaving to deter her young son from neglecting his studies.[24] She compares women's weaving to men's study and self-cultivation. Both are sources of livelihood and recognition and protections against misfortune in an unpredictable world.

Weaving is also compared to government. The *Guanzi* lists ornament in weaving (and its male equivalent, carving) as one of five signs of political disorder a prince should heed (*GZ* 1:14a).[25] An extensive analogy in the *Lienü zhuan* compares knowledge of the component processes of weaving and government. Here, Jing Jiang of Lu teaches her son, the minister Wenbo, how to govern his state: governing a country is "entirely in the warp": She makes a detailed and coherent analogy between eight parts of a loom and eight offices: (1) the General and the selvage of the cloth, (2) the Director and the weaving pattern, (3) the Prefect of the Capital and the inked string that measures fiber and woven cloth, (4) the shuttle and the Director of Messengers, (5) the heddle and the Regional Mentor of Guannei, a liaison officer, (6) the reed comb and the Royal Annalist, (7) the axle and the Minister, and (8) the warp beam and the "Three Dukes" of endless virtue and ability.[26] This passage describes good government by comparing the activities of men and women. Each activity has specialized component functions, all of which must be performed adequately and correctly for the overall activity to succeed. Each component must fulfill its unique function; for example, the reed comb must be notched finely enough to separate hundreds of threads; the warp beam must be strong enough to bear the tension of all of the threads wound around it. Similarly, if a state is to be governed effectively, the component offices must be staffed by men whose qualities are those required by the specialized tasks of the offices.

Greek Analogies from Weaving

Plato also makes repeated analogies between weaving and government. The *Statesman* (279b–283b) contains a detailed comparison of the arts of kingship and weaving: "What example (*paradeigma*) could we apply which is very small, but has the same kind of activity (*pragmateia*) as statesmanship?" (*Statesman* 279b). The analogy begins by classifying weaving according to two kinds of motives for human action: making something and preventing suffering. Preventatives include charms and protections, military or not, screens or protections from wind and heat, housing or shields for the person, blankets spread below or garments wrapped around, one piece or stitched, and made of vegetable fiber or hair. Weaving (and clothesmaking) are preventatives, presumably against the violence of the climate (*Statesman* 279c–d). Weaving, like statecraft, depends on contributive and productive arts (*Statesman* 281–82); these include carding and weaving (281a), combining and separating (282b), and twisting and plaiting (282d), with the result that wool is created through the intertwining of warp and woof in a set of processes distinct from other protectives like carpentry and magic (283b). The analogy next moves to the web of the state, with the claim that all arts (*epistēmē*) that combine materials try to reject bad materials (*Statesman* 308c). Just as weavers hand over raw materials to carders and others, and oversee them, a true statesman supervises the educators of children and permits only training that results in the web of state (*Statesman* 308e). The courageous are the warp of the state; others are the weft; the statesman is the weaver who weaves together both groups (*Statesman* 309b).

A similar argument appears at *Laws* 734e, which argues that warp and weft cannot be fashioned of the same threads. The warp must be superior and tougher, while the weft may be more pliant. A similar distinction applies between magistrates and ordinary citizens. The *Timaeus* includes the notions of plaiting (*plekein*) and weaving (*uphainein*) together the soul and body (*Ti.* 36e), the veins (77e) and the mortal and immortal parts of human beings: "For the rest, do ye weave together the mortal with the immortal, and thereby fashion and generate living creatures, and give them food that they may grow, and when they waste away receive them to yourselves again" (41d).

In the *Cratylus* (387d–390b) Socrates uses the examples of weaving and building to argue that a name is a kind of instrument. By this reasoning, what has to be woven, bored, or named, has to be woven, bored, or named with something: a shuttle, a borer, or a name. Socrates goes on to argue that just as when we weave, we separate the mingled threads of warp and woof, when we name, we "teach one another something, and separate things according to their natures." Thus a name is an instrument of teaching and of separating reality, just as a shuttle is an instrument of separating the web;

and a weaver will use the shuttle well (where well means like a weaver) and a teacher will use a name well, and well means like a teacher (*Cra.* 388c). The *Laws* (806a) addresses weaving as the trivial occupation of girls and women who, instead, should be educated in gymnastics, music and the military arts, so as to be able to defend their city at need and "weave themselves instead a life that is not trivial or useless."

Weaving Metaphors

Weaving also appears as a metaphor in both Chinese and Greek texts. Chinese images of warp and weft (*jing wei*) appear metaphorically in two pervasive contexts. Han bibliographers used it in a distinction between textual canon and apocrypha, and medical writers used it in a metaphor for the conduits and vessels of the body, where warp (*jing*) appears as the *liu jing* or Six Warps, the conduits (*jing*) or conduit vessels (*jing mo*) of the body.[27]

Weaving is used metaphorically in early Greek literature, on the one hand for counsel, plans, and traps, and on the other, for language itself. Metaphors that identify weaving with both language and planned action first appear in Homer. "Weaving the web of speech" first appears at *Iliad* 3.210, where it refers to the counsel of the Greeks: "But when they began to weave the web of speech and of counsel in the presence of all, Menelaus in truth spake fluently, with few words, but very clearly." Weaving also refers to counsel, plans, and traps. Nestor "weaves a web of counsel" for the Greek leaders at feasts in the *Iliad* (7.320, 9.90). Such plans are woven in the heart, as Laertes might "weave some plan in his heart" to plead with the enemies of Odysseus (*Od.* 4.735). Athena announces to Odysseus that she will "weave a plan" with him to hide his Phaeacian treasure (obtained through her counsel [*Od.* 13.300]). He asks her to "weave some plan by which I may requite them" and stand by him in putting it to use (*Od.* 13.385).

Weaving plots as traps is a pejorative form of weaving counsel, as when Medon overhears the suitors "weaving their plot" (*Od.* 4.675) and informs Penelope. Aeschylus refers to "weaving snares" (*Cho.* 215), "weaving riddles" opposed to the simple language spoken openly to friends (*Prom. Vinct.* 609). Euripides speaks of plans woven in the desire to kill (*Andr.* 65), and describes Spartans as the most hateful of mortals, "wily plotters, masters of the lie, weavers of deadly contrivance" (*Andr.* 445). Aristotle (*Nic. Eth.* 1149b) calls Aphrodite a "weaver of wiles." Pindar weaves words (*Nem.* 4), but also destruction (*Pyth.* 2) and future prosperity (*Pyth.* 4). He also speaks of the music of a lyre weaving out song (*Nem.* 4), and finally, invokes Herakles to aid mortals to a settled life by "harnessing together shiny youth and old age" and "weaving them together in good fortune [*eudaimonia*]" (*Nem.* 96–101).

Whether practiced in the home or at the service of a patron, the skill of weaving produced a clear object of immediate economic value, as did the "equivalent" (in Plato's sense) received crafts of shoemaking and shipbuilding.[28] It is also noteworthy that the vast majority of craft analogies based on weaving portray the weaver in a positive light, and the same is probably true for the other received crafts of Plato's time.[29]

Archery

Archery presents a very different case. Chinese crafts analogies based on archery are profoundly ambivalent, beginning with myths of Archer Yi. These portray him both as a savior who shoots down the suns that threaten humankind and as a decadent and neglectful ruler who usurped the throne of Yin, followed the counsel of bad ministers, neglected his kingdom in favor of pleasure and the hunt, and taught his skill to an unworthy man who eventually killed him. In this sense he is guilty of what the Greeks might have called *hamartia*, literally missing the mark, originally an intellectual lapse, but eventually a moral one.

Chinese Skill and Dolt Stories about Archery

Skill in archery is an ambivalent virtue in late Warring States philosophical and political texts, as in earlier Zhou sources. Several non-analogical accounts of archery in the *Guanzi* portray it as at best a military skill and at worst a distraction from proper rule, when archery and hunting cause rulers to neglect the empire. Thus "Queries" (*Wen*) asks how many young people take the lead in working the fields, and how many lead others away to hunt with bow and arrow (*GZ* 9:13a). In "Admonitions" (*Jie*), Guan Zhong admonishes Duke Huan for shooting arrows, neglecting the empire, and oppressing the people (*GZ* 10:3a–b). Positive views of archery stress its ceremonial aspects in archery competitions at banquets.[30]

In skill–knowledge analogies, archery is compared to virtue (the *Mengzi*), to the "idiocy" of true Daoist masters (the *Laozi* and *Zhuangzi*), and to the regularity of nature (*Xunzi*). Mencius uses archery in a skill–knowledge analogy to elucidate the component aspects of skill–wisdom. He compares wisdom (*zhi*) to skill (*qiao*) and sagacity to strength. As in shooting from a hundred paces, strength (sagacity) brings the arrow to the target, but skill (wisdom) hits it (*MZ* 5B1). He also compares benevolence to archery: the archer should check his stance before shooting. If he misses the mark, he should seek the cause of the error within himself, rather than not begrudge the victor (*MZ* 2A7). The purpose of this analogy is to elucidate the components, or to correct manner of practice, of virtue (wisdom or benevolence). The quality common to both is the attitude or emotional disposition of the benevolent individual and the skilled archer. Other archery

analogies stress the importance of "naturalness" (*ziran*)—that is, not interfering with the natural tendencies of things or forcing them against their natures—in the teaching of the expert archer and in the intuitive learning of the student.

In a number of references in the *Guanzi* and the *Zhuangzi*, archery appears in political persuasions as one among several examples of the dire consequences of misdirected or incomplete skill. One *Guanzi* passage compares a government that lacks standards for measurement or patterns of behavior to turning one's back on the target and being confident of hitting the mark (2:2b). Another passage analogizes skill in archery to military training and preparation: "Having archers who cannot hit the target is the same thing as having no arrows. Their hitting the target but not piercing it is the same thing as having no arrowheads. Being a general over untrained men is the same thing as having no armor. Using short weapons against long-distance arrows is the same thing as sitting down to wait for death" (*GZ* 10:9a). In these examples, for the ruler to act without essential political knowledge is like performing archery without the requisite skills or material, and unrealistically expecting a satisfactory outcome.

The *Zhuangzi*'s Outer Chapters (chs. 8–22) use archery in several "dolt" stories that use the example of archery to demonstrate the unsatisfactory results of either incomplete skill acquisition or the full acquisition of a trivial skill, through the *hamartia* of focusing on "small knowledge" at the expense of "great knowledge," a theme throughout the *Zhuangzi*. The story of the archer Lie Yukou presents a case of incomplete skill: he could stand still as a statue and shoot rapidly, but when invited to do the same thing on a mountain ledge, he lost all equanimity (*ZZ* 21/57–61). Although not a skill–knowledge analogy, the *Lienü zhuan* story of the wife of the bowmaker of Jin correlates the Duke of Jin's ineptness in archery to his deficiency in moral judgment (in condemning her husband for making a bow the duke cannot shoot). She remedies both in a persuasion that combines instruction in ethics and instruction in archery.[31]

Archer Yi

Ambivalence about archery appears in conflicting stories about the legendary Archer Yi, who is portrayed as both a savior of humankind and a neglectful ruler.[32] Positive analogies between the archer and the craftsman appear in the *Guanzi*, the *Mengzi*, the *Xunzi*, and the *Liezi*.

The *Guanzi* compares Yi's archery to the craftsman's intuitive grasp of axe and adz to cut along his marking. Thus the way of Archer Yi was not only shooting arrows. He was consistently able to hit the mark by carefully maintaining the adjustment of his bow and arrows, and by accurately judging the elevation of his target. The enlightened ruler, like Yi, harmonizes laws, judges what should be kept or discarded, and guards them securely.

He masters the way of governing well, so he succeeds at whatever he undertakes. Thus Yi hits the mark and the ruler governs well, each by mastering his respective way. The mere act of shooting involves only the bowstring releasing the arrow (*GZ* 1:5a and 20:5b).

Mencius (6A20) compares the teaching of Archer Yi to that of a master carpenter. Yi's students imitate his "natural" drawing of his bow; the carpenter's students imitate his "natural" use of compasses and square. He stresses the central role of naturalness (*ziran*) in the teaching of the expert archer and the intuitive learning of the student. The *Guanzi* passage emphasizes the skilled performance, rather than the teaching, of archery. It analogizes the skill of the archer to the skill of a ruler. Each consists in full mastery of a way, not merely the successful performance of specific activities. Xunzi (11/69–70) compares Archer Yi's expertise at training archers to that of an enlightened official (*congming junzi*), who is expert in "training" men. Xunzi also uses the example of archery to show the consistency of human behavior: "Things follow their own kind. When targets are set out, bows and arrows follow" (*XZ* 1/15–16). If the lord is an archer his ministers will wear thumb rings (*XZ* 12/31). Another passage demonstrates the necessity of appropriate means to achieve acceptable ends: Yi was the greatest archer in the world, but without a bow and arrows, he would have had no way to make known his skill (*XZ* 8/80).

Two longer narratives concern the ethics of instruction. The first concerns the *Mengzi*'s account of the death of Archer Yi at the hands of his student Peng Meng. The *Mengzi* and the *Liezi* present contrasting positive examples of master archers who are clear in their choice of a student to whom to teach their skills. Mencius (4B24) recounts the tale of how Archer Yi's student Peng Meng, having learned everything Yi could teach, killed him. Mencius considers Yi partially to blame for his own end. He next gives a counterexample of Zizhuo Ruzi of Zheng. Pursued by an archer from Wei, debilitated by illness and unable to hold a bow, he anticipates death until he learns that the Wei archer is his own student's student. He reasons that his student, an upright man, would only instruct an upright man. (The implication is, of course, that Zizhuo himself is an upright man.) The pursuer resolves the conflict between his obligations to his teacher's teacher and to Wei by shooting arrows harmlessly in the air (*MZ* 4B24). Another counterexample is the *Liezi* story of the master Gan Ying, his student Fei Wei, and his student Ji Chang. When Fei Wei tried to kill Gan Ying, he caught the arrow in his teeth. When Ji Chang tried to kill Fei Wei, their arrows met in midair. Fei Wei blocked Ji Chang's last arrow with a thorn, whereupon both wept, threw down their bows, became as father and son, and vowed to instruct no one else.[33]

Negative accounts of Archer Yi's skill appear in the *Analects* and *Zhuangzi*. Confucius contrasts his violent death with the agricultural successes of Yu and Hou Ji (*LY* 14.5). The *Zhuangzi* uses Archer Yi negatively

as an example of the limitations of trivial skill and "small knowledge." Archer Yi could hit the smallest target, but could not avoid praise, unlike the sage, who is skillful in affairs of heaven rather than in human affairs. Archer Yi could hit a sparrow but was "caged" by Tang (ZZ 23/72–76). Zhuangzi uses Yi's archery and the example of the dangers of a purely perspectivist epistemology: If we call an archer skilled who accidentally hits the target, everyone can be an Archer Yi. If everyone is his own moral authority, everyone could be a Yao, as in the case of the schools of Mo [Di], Yang [Zhu], Bing [Kongsun Long] and Hui Shi himself (ZZ 24/38–40). Here the common quality is accidental success without true understanding. Finally, Zhuangzi uses the example of Archer Yi to illustrate how to navigate between fate and choice. Only a person of virtue can understand what cannot be avoided and be at peace with it, as with fate. If you wander into the center of Archer Yi's target rage and do not get hit, that is fate (ZZ 5/21).

Greek Archery Metaphors

Chinese accounts of Archer Yi freely combine analogies and metaphors. Archery does not figure in Greek craft analogies, possibly because it is not materially productive in the sense of Plato's other chosen analogies. Archery figures in Greek texts as a metaphor for accurate prophecy and law, for focused goals, and for the resourcefulness and implacability of desire and love.

Plato's *hamartia* is an archery metaphor; he compares the origin of false opinion to the bad archer who misses the mark for lack of accurate perception (*Tht.* 193e). It has tragic counterparts in the plays of Aeschylus and Sophocles. Cassandra uses the archer hitting the mark as a metaphor for accurate prophecy (*Ag.* 1195). Sophocles uses arrows metaphorically for both the false divination of greedy prophets and the true grief foretold. Creon accuses Teiresias of shooting prophetic "arrows" at him, like archers at their mark (*Ant.* 1033), and Teiresias responds "archer-like in anger" to Creon's provocation by launching "arrows for [his] heart," that "fly true," from which he cannot run (*Ant.* 1085).

Other metaphors address the goals of archery, rather than its skill. Plato compares archery to a good law that aims solely at its proper target and hits nothing else (*Laws* 705e); and the accuracy of a good archer to judges and lawgivers who accurately mete out punishment in correct amount (*Laws* 934b). Aristotle compares knowledge of the Supreme Good to an archer's target, which provides something to aim at (*Nic. Eth.* 1094a).

Finally, archery is associated with love and desire, in both their resourceful and predatory aspects. The *Symposium* (197a) describes Apollo's invention of archery, medicine, and divination under the guidance of Desire and Love. Plato (*Symp.* 203cd) describes Eros in turn as the son of Plenty (Poros), the son of Mētis and Poverty (Pēnia), and like his father and grandfather, a famous hunter, wise, always weaving stratagems, and a master of jugglery and witchcraft.

Medicine

Fundamental to any discussion of analogical reasoning in Greek or Chinese medical texts are the microcosm–macrocosm analogies of both traditions, the humoral medicines and correlative cosmologies based on them, and the body–state–cosmos analogies so pervasive in early China. They are not discussed here because the present discussion is restricted to metaphors based strictly on the skills of the physician. Both Chinese and Greek medical analogies compare medicine and morality, but by means of strikingly different systems of metaphor.

Physicians to the Body, the Soul, and the Body Politic

Greek medical analogies compare the health of the body to the justice of soul, with specific if flawed comparison of the skills of the physician and the statesman. The *Gorgias* (463b ff.) compares three kinds of ailment and the three arts that cure them: poverty, which "afflicts" money and is cured by the arts of moneymaking; illness, which afflicts the body and is cured by medicine; and injustice, which afflicts the soul and is cured by the arts of justice (*Gorg.* 477b–e). The analogy is further used to suggest that suppressing the desires of the soul is better than self-indulgence (*Gorg.* 504b–505c). Plato argues that whereas a sick person normally seeks a bona fide physician who has learned medical *technē* from a qualified teacher, people do not apply the same care to justice and the health of the soul, but rather neglect it, self-medicate, or turn to charlatans (*Gorg.* 521e). Embedded in the analogy (and the actual lack of any equivalent of medical training in the art of politics) are Socrates' claim to be a true master of the art of statesmanship and Plato's claim to have true knowledge of justice.[34] This analogy is typical of many cases in which Plato argues from imagery and analogy, rather than from any hypothetical method.[35]

Analogies and Metaphors of Prediction and Precision

Many Chinese skill stories focus on prediction as the essential skill of wisdom. For example, the central argument of the *Sunzi bingfa* (Sunzi's art of war) is that accurate prediction concerning warfare is crucial to the rise and fall of states. The first book links wise prediction to the skills of the strategist-general, who is described (like a Ruhist sage) as wise (*zhi*), trustworthy (*xin*), humane (*ren*), and courageous (*yong*), but all refracted through *mou*, predictive strategy; he is an expert in prediction and calculation of future

events. The *Chunqiu fanlu* (8:234) defines wisdom (*zhi*) as accurate prediction: "to speak first and after [for events] to conform."[36] Wisdom and correct prediction result in success, fame, and benefit to both the wise individual and the people in general. Incorrect prediction has the opposite results, and leads to the fall of states (*CQFL* 8:30:234–35).

Skill analogies based on predictive skill are especially important in medical works. According to the *Huangdi neijing suwen* (The inner classic of the Yellow Lord), "the sages do not treat those who have already fallen ill, but rather those who are not yet ill. They do not put [their state] in order only when revolt [is underway], but before an insurrection occurs" (*SW* 1:9b). This passage compares a wise physician to a wise ruler, who, in the words of Xunzi, begins to regulate his state while order still prevails; he does not wait until insurrections have already erupted (*XZ* 7/3/20).

An extended example appears in the apologia of Chunyu Yi (second century BCE), whose central claim in his defense was that he could accurately predict medical outcomes. He learned this from the secret formulas and books of his master Yangqing, who "understood whether people would live or die, and was decisive about the dubious and stipulated what could be cured" (*SJ* 105.2794–95).[37] In his defense of his system of medical diagnosis, Chunyu Yi also invokes a metaphor of accuracy as a mark of the activities of the sage kings, and ascribes the invention of vessel theory and accurate prognostic techniques to the sages of antiquity.

> By establishing compass and square, suspending weights and balances, applying the inked cord, and harmonizing *yin* and *yang*, [the ancient sages] distinguished the vessels of the body and named each, in mutual resonance with heaven and earth, and blended together in the body. As a consequence, thereafter people made distinctions among the Hundred Ailments by distinguishing between them [the pulses]. Those who have this technique of prognostication are able to distinguish between them; those who do not consider them the same. (*SJ* 105.2813)

Sima Qian structures this biography around a defining incident in Chunyu's life: charges brought against him to the Han throne, his reprieve through the memorial of his daughter Ti Ying, and his own memorial in defense of his medical practices and prognostic ability.[38] The memorial was a defense of his ability to predict accurately which illnesses were fatal and which curable (*SJ* 105.2794–95). He acknowledges that his prognosis is not perfect (*SJ* 105.2817). Nonetheless, the force of his rhetoric is to claim that, in the treatment and diagnosis of disease, he is able "to use pulse diagnosis to distinguish between life and death with infallible results" (*SJ* 105.2796). This claim justifies his withholding treatment in certain cases, and represents pulse diagnosis as a technique that separates him from potentially competing physicians, based on qualitative claims for accuracy.

Chunyu's metaphor of quantification and precision is one of many

throughout Warring States philosophical and political texts. Before the term *guiju*, "compass and square," lost most of its literal meaning and came to mean "morally well regulated," metaphors of the accuracy of craftsmen's measuring tools expressed a wider range of notions that included moral and technological advancement, innovation, human relations, skill and natural world.[39] The basis of Mozi's analogy of the mandate of heaven to the wheelwright's compass and the carpenter's square is the shared quality of accurate fit.[40] The *Mengzi* makes an analogy between the "perfection of squares and circles" of the compass and square and the sage's "perfection of human relationships (4A2).[41] Xunzi analogizes the certainty they provide (as to squareness and roundness) to the *junzi*'s use of the rites, and distinguishes its standards from the arguments of the like of Hui Shi and Deng Xi (*XZ* 1/1–2, 11/43, and 19/32–34). The *Zhuangzi* (8/13, 9/5, 10/26) equates "real skill" with throwing these instruments away, but still speaks in terms of them. The *Shang Jun Shu* argues against turning away from the clear standards established by the former kings in favor of private assessments.[42] Han Fei treats them as correctives to wrongdoing: models and distinctions, calibrations and measurements were established because "Once calibrations and measurements have been made true, there is no chance for a Bo Yi to slip from what is right, or for a Robber Zhi to do what is wrong."[43] The *Huainanzi* (5:86) draws an analogy between the "six measures" (*liu du*), the six precision measurement instruments, and heaven, earth, and the four seasons, comparing the plumbline or inked cord (*sheng*) to heaven; water level (*zhun*) to earth; the compass (*gui*) to spring; the balance (*heng*) to summer; the carpenter's square (*ju*) to autumn; and the steelyard (*cheng*) to winter. Another passage portrays an overlapping group of five carpenter's tools—the compass, balance, inked cord, carpenter's square, and plumbweight (*quan*)—wielded by the five gods (Tai Ho, Yan Di, Huang Di, Shao Hao, and Zhuan Xu) of the five directions (east, south, center, west, and north) and their respective phases (wood, fire, earth, metal, and water) and seasons (spring, summer, the four quarters [*si fang*], autumn, and winter), assisted by the five planetary spirits (Jupiter, Mars, Saturn, Venus, and Mercury; *HNZ* 3:37).[44] The same correlation appears in the "Five Phases Produce Each Other" (*wu xing xiang sheng*) section of the *Chunqiu fanlu* (30:58:334–40), which also makes the analogy between the compass and square, which are necessary to draw circles and squares correctly, and the *dao* of the former kings, which is a "compass and square" for the world (*CQFL* 1:1:11).

Conclusions

Archery, weaving, medicine, and comparisons to other crafts or their tools and skills appear in a range of analogies between wisdom, knowledge, virtue, and craft(s) in both Chinese and Greek philosophical writing. These

skill–knowledge analogies make comparisons based on (1) wisdom or virtue overall and a particular craft overall, (2) analogous components, (3) particular common elements, or (4) to skilled performance. Overall the Greek analogies between crafts and political ethics tend to suffer from a confusion between ends and means. As Renford Bambrough points out, the Greeks presumably agreed as to the desired end-products of the crafts, or the proper uses and purposes of cloth, ships shoes, and so forth; but there was no equivalent Greek cultural consensus on the proper purpose of moral and political control. A full statement of the Platonic analogy undermines it, because in reality, the unskilled customer had the power of decision, and skilled craftsmen were obliged to follow his instructions.[45] The Chinese, by contrast, disagreed on the right means to attain moral and political hegemony, but the Warring States shared a broad consensus on the nature of, and the importance of following, *dao* as the central end of virtue in government.

The Chinese and Greek weaving–statecraft analogies differ in focus and context. One Chinese analogy demonstrates the need for well-selected components that act in harmony to form a well-regulated whole by comparing the components of a loom to the offices of the state. Another addresses the regulation of individuals by showing how the analogous activities of men and women lead to livelihood, recognition, and protection against misfortune. The Chinese weaving–government analogies appear as maternal instructions to sons, who are their inferiors in generational hierarchy but their superiors in gender hierarchy. Their motivations are immediately practical, rather than rhetorical. Although the Platonic Socrates occasionally claims to have been instructed by a woman, notably Diotima in the *Symposium*, Plato's weaving analogies are attributed purely to Socrates. Greek weaving analogies vary by details, but tend to focus on the hierarchical discrimination of different "natures." The *Statesman* compares kingship and weaving overall, as "the same kind of activity," with analogous motivations and processes, but the contributive arts common to both create a hierarchy of supervision. The *Laws* defends social hierarchy by asserting different qualities to warp and weft, analogous to the different natures of rulers and citizens. The *Cratylus* analogy between weaving and teaching the correct use of language (names) focuses on the "discriminating" role of the shuttle, and compares the skilled performance of the expert weaver and the expert teacher.

In both cases, weaving metaphors are strikingly different from weaving analogies. Chinese warp and weft metaphors classify complements; Greek metaphors weave strategy (counsel, plans, traps), language, and the body (the veins, the body and soul, and the mortal and immortal components of human beings).

Chinese archery analogies are based on skill and accuracy. Epistemological analogies compare archery to the skilled performance, or learning, of wisdom or ethical virtue. Archery analogies compare the mastery of archery to: the "natural" practice of wisdom and benevolence (Mencius); understanding of the techniques of government (Guanzi); the management of subordinates (Xunzi); or the *hamartia* of seeking small, rather than great, knowledge (Zhuangzi). Other analogies present different interpretations of the skill of Archer Yi. Some liken him to an effective ruler who masters his *dao* and skillfully "hits the mark" in his choice of laws. Archer Yi is also criticized for moral laxity (in his choice of student), and for *hamartia* in mastering the wrong skills. By analogy, love of archery is used to criticize rulers for neglecting their subjects or military preparedness, and for shortsighted or dimwitted training of others or priorities.

Archery is far more prevalent as a metaphor than as a craft analogy in Greek texts. Greek archery analogies focus more on the goal of accurate archery than on its skill. Plato compares accurate archery to good lawgivers, who hit their proper target and nothing else. Aristotle uses archery to describe knowledge of the Supreme Good as being like the archer's target. Archery appears as a metaphor in poetry, drama, and philosophy: for accurate prophecy, inaccurate perception, anger, and, in the figure of Eros, for love and desire.

Both Chinese and Greek medical analogies compare the skilled physician to the skilled ruler, and compare the body and the body politic. In China, medicine figures in correlative cosmology and in the body–state–cosmos analogies, in which the physician regulates the body or accurately predicts disease. These analogies draw on older linkages between medicine and divination, in which the physician, like the shaman, predicts good auspice or malauspice, and where intervention is well- or ill-advised. The Greek analogies, by contrast, are grounded on a body–soul opposition that is alien to Chinese metaphysics. Greek medical analogies compare the respective "health" of the body and that of the soul (justice), in the arts that "cure" them and in the ways people seek (or fail to seek) a skilled practitioner to aid them. Another striking and perhaps significant difference is the pervasive presence of metaphors of quantification and precision in Chinese Warring States philosophical and political thought. Metaphors of the "accuracy" of craftsmen's measuring tools, in particular the "compass and square," expressed a range of notions of moral and technological excellence and were put to the service of a wide range of arguments.

A full exploration of craft metaphors is beyond the limitations of this essay. Recent research on Chinese root metaphors[46] and comparative metaphorology have shown the possibility of and need for comparative study of the use of metaphor, and particularly its use in philosophy.[47] To that end, the present study is a partial prolegomenon to comparative discussion of Chinese and Greek craft metaphors.

> πολὺ δὲ μέγιστον τὸ μεταφορικὸν εἶναι. μόνον γὰρ τοῦτο οὔτε παρ' ἄλλον ἔστι λαβεῖν.
> (By far the greatest thing is the use of metaphor. It alone cannot be learned from another.)
>
> —Aristotle, *Poetics* 1459a

NOTES

1. Renford Bambrough, "Plato's Political Analogies," in Peter Laslett, ed., *Philosophy, Politics and Society* (Oxford: Basil Blackwell, 1956), p. 101.

2. The role of analogy has also become an element of broad arguments about the nature of reasoning in China and Greece. See, e.g., Henri Maspéro, "Notes sur la logique de Mo-Tseu et de son école," *T'oung-Pao* 25 (1928): 1–64; J. S. Cikoski, "On Standards of Analogical Reasoning in the Late Zhou," *JCP* 2.3 (1975): 325–57; J.-P. Reding, "Analogical Reasoning in Early Chinese Philosophy," *AS* 40.1 (1986): 40–56; David Hall and Roger Ames, *Thinking through Confucius* (Albany: State University of New York Press, 1987); and Alexei Volkov, "Analogical Reasoning in Ancient China: Some Examples," *Extrême-Orient, Extrême-Occident* 14 (1992): 16–45.

3. I. A. Richards, *The Philosophy of Rhetoric* (Oxford: Oxford University Press, 1936), esp. pp. 89–138; Max Black, "Metaphor," *Proceedings of the Aristotelian Society* n.s., 55 (1954–55): 273–94 and "More About Metaphor," *Dialectica* 31, nos. 3–4 (1977): 431–57; David Burrell, *Analogy and Philosophical Language* (New Haven: Yale University Press, 1973), esp. pp. 71–83; Donald Davidson, "What Metaphors Mean," *Critical Inquiry* 5.1 (1978): 31–47, an issue devoted to the subject of metaphor; Paul Ricoeur, *La Métaphore vive* (Paris: Seuil, 1975); J. R. Searle, "Metaphor," in A. P. Martinich, ed., *The Philosophy of Language* (Oxford: Oxford University Press, 1979), pp. 416–37; Mark Johnson, ed., *Philosophical Perspectives on Metaphor* (Minneapolis: University of Minnesota Press, 1981); Mark Johnson, *The Body in the Mind: The Bodily Basis of Meaning, Imagination, and Reason* (Chicago: University of Chicago Press, 1987); and Mark Turner, "Categories and Analogies," in D. H. Helman, ed., *Analogical Reasoning: Perspectives of Artificial Intelligence, Cognitive Science, and Philosophy* (Dordrecht: Kluwer, 1988).

4. Lisa Raphals, *Knowing Words: Wisdom and Cunning in the Classical Traditions of China and Greece* (Ithaca: Cornell University Press, 1992), p. 204. Other "skills" are distinct from livelihoods or occupations: manipulating language, interpreting paradoxes, physiognomic prognostication, swimming, and deception.

5. Robert S. Brumbaugh, "Plato's Relation to the Arts and Crafts," in his *Platonic Studies of Greek Philosophy: Form, Arts, Gadgets, and Hemlock* (Albany: State University of New York Press, 1989), pp. 196–98.

6. G. E. R. Lloyd, *Polarity and Analogy: Two Types of Argumentation in Early Greek Thought* (London: Cambridge University Press, 1966), pp. 192–93.

7. Ibid., pp. 272–78. This is one of three analogies Lloyd identifies as of fundamental importance to Greek philosophy that appear in mythical beliefs but are not explicitly drawn in pre-philosophical literature. The other two are the conception of the cosmic order as (like) the political order and the conception of the world as (like) a human being. For example, Lloyd mentions steering and piloting as images of intelligent direction in Anaximander, Heraclitus, Parmenides, and Diogenes of Apollonia; and love as guiding agency in Empedocles.

8. Lloyd, *Polarity and Analogy*, pp. 343–49.

9. *Rep.* 495d–e, 522b, 590c; *Pol.* 1277a37, 1278a6, 1328b39. A partial explanation may be considerable improvements in their status. Athens accorded them full citizenship and even offered citizenship to foreign craftsmen, though Plato enjoins in the *Laws* (846d) that no resident citizen may be a craftsman. Cf. Lloyd, *Polarity and Analogy*, pp. 292–94.

10. Marcel Detienne and Jean-Pierre Vernant, *Cunning Intelligence in Greek Culture and Society*, tr. Janet Lloyd (Atlantic Highlands, NJ: Humanities Press, 1978); Raphals, *Knowing Words*; I. E. Holmberg, "The sign of METIS," *Arethusa* 30.1 (Winter 1997): 1–33; James C. Scott, *Seeing like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven: Yale University Press, 1998).

11. Henri Maspéro, "Le Mot Ming," *Journal asiatique* 223 (1933): 249–96.

12. *Zhou yi yinde* (Harvard–Yenching Concordance Series), 22/35/xiang.

13. *Shi jing*, Mao 236, 241, 260; *Shang shu* (*Shisanjing zhushu*, ed. Ruan Yuan) 14:3a, 14:27a, 15:13a, 16:3b, 16:19a, 17:8a, 18:11a, and 20:2a.

14. *Liji zhushu* (*Shisanjing zhushu*), 42:1a.

15. *Chunqiu Zuo zhuan zhu*, ed. Yang Bojun (Gaoxiong: Fuwen tushu chubanshe, 1991), Xi 22.7. Cf. Yin 8.8; Xi 5.8 and 28.9; Wen 18.7; Hui 3.3 and 15.6; Cheng 2.6 and 8.6; Xiang 19.4, 24.2 and 26.7; Zhao 1.5, 7.12, and 8.6; and Ding 4.1.

16. *Laozi benyi* in *Zhuzi jicheng* (Beijing: Zhonghua shuju, 1957), p. 17.

17. Raphals, *Knowing Words*, ch. 4.

18. Cf. *MZ* 2A1: "A man may be clever, but that is not as good as rising to the occasion. A man may have farming tools, but that is not as good as awaiting the correct season."

19. *Zhuangzi yinde* (Shanghai: Guji chubanshe, 1982).

20. For a much fuller discussion of imagery in Plato's cosmological theories, see Lloyd, *Polarity and Analogy*, pp. 275–86, to which the following discussion is indebted.

21. R. Robinson, *Plato's Earlier Dialectic*, 2nd ed. (Oxford: Clarendon Press, 1953), pp. 2 and 204 ff.; as cited and discussed in Lloyd, *Polarity and Analogy*, pp. 389–90.

22. Lloyd, *Polarity and Analogy*, pp. 390–403.

23. Cf. *Sophist* 218c–d, where he uses the angler, a familiar and unimportant example (*paradeigma*), as a preliminary for method of inquiry to be used on the sophist. Later in the dialogue (221d) he particularizes the similarity by noting that both the angler and sophist are hunters. The point is made even more strongly at *Statesman* 277d, when the Eleatic stranger says that "it is difficult to make clear anything of importance without the use of paradigms." He then gives the case of children learning to read as a "paradigm of a paradigm" (*Statesman* 278e).

24. *Lienü zhuan* 1.11; *MZ* 1A12; and *Hanshi waizhuan* 9.1 and 9.17.

25. Edition used: *Guanzi* (Sibu beiyao); cf. *GZ* 10:19a and 15:11b.

26. *Lienü zhuan* 1.9. For discussion of the logic of this analogy see Lisa Raphals, "A Woman Who Understood the Rites" in *Essays on the Analects of Confucius*, ed. Bryan W. Van Norden (Oxford: Oxford University Press, 2002).

27. For the body see the "Jingmo bielun" section (*juan* 7, *pian* 21) of the [*Huangdi neijing*] *suwen* (Sibu beiyao) and ch. 105 of the *Shiji*. The joints of the ox carved by Bao Ding in the *Zhuangzi* are also described as *jing* (ZZ 7/3/2, 4, and 7). For further information on *jing* in medicine see Paul U. Unschuld, *Medicine in China: a History of Ideas* (Berkeley: University of California Press, 1985), pp. 75, 81–83.

28. For this equivalence see Bambrough, "Plato's Political Analogies," p. 100.

29. Weaving metaphors, on the other hand, may be more negative, e.g., the metaphors of "weaving" deceits, traps, and snares. Even here, the animus may be more on the object (the ruse or trap) than on the practice of weaving.

30. E.g., *Shi jing*, Mao 220; *LY* 3.7.

31. *Lienü zhuan* 6.3. For detailed analysis of this argument see Lisa Raphals, "Arguments by Women in Classical Chinese Texts," *Nan Nü* 3.2 (2001): 157–95.

32. Accounts of Yi saving the world by shooting the ten suns appear at *Shanhaijing jiaozhu* (Sibu beiyao) 18:7b and *Huainanzi* (Zhuzi jicheng) 8:118–19 and 13:233. Accounts of his misdeeds appear in the *Zuo zhuan* (Xiang 4) and "Tianwen" section of the *Chuci* (Sibu congkan), 3:15b. Archer Yi and Peng Men are described as the best archers in the world at *Huainanzi* 17:292 and *Xunzi* (*Xunzi yinde*, Shanghai: Guji chubanshe, 1986), 8/80 and 11/69.

33. *Liezi* (Zhuzi jicheng) 5:61–62. Another *Liezi* narrative (5:58–59) describes balancing give and pull as the ultimate principle in dealing with the world, exemplified by the skill of a fisherman at equalizing the push and pull on his line, based on the model of archery.

34. Bambrough, "Plato's Political Analogies," pp. 103–9. He also observes that the "body politic" analogy, between justice and bodily health and between the moralist and physician, rests on Plato's sharpening of the Greek dualism between body and soul, as does the "ship of state" of the *Republic* (488a–89a). Other comparisons appear in the *Statesman* 293a and *Laws* 905e.

35. For discussion see Lloyd, *Polarity and Analogy*, pp. 391–92.
36. Edition used: *Chunqiu fanlu jinzhu jinyi* (Taipei: Shangwu, 1984).
37. Edition used: *Shiji* (Beijing: Zhongua, 1959).
38. Ti Ying's arguments against mutilating punishments persuades Xiao Wen not only to release her father but to change the law. These contentions are repeated verbatim at *Lienü zhuan* 6.16, and are a very interesting example of argumentation by women. See Lisa Raphals, *Sharing the Light: Representations of Women and Virtue in Early China* (Albany: State University of New York Press, 1998); and "The Treatment of Women in a Second-century Medical Casebook," *Chinese Science* 15 (1998): 7–28.
39. Derk Bodde, "Types of Chinese Categorical Thinking," in *Essays on Chinese Civilization by Derk Bodde*, ed. Charles Le Blanc and Dorothy Borei (Princeton, NJ: Princeton University Press, 1981), pp. 134–40.
40. *Mozi yinde* (Shanghai: Guji chubanshe, 1982) 26/41; cf. 4/2–3, 27/63–67, and 28/44–45.
41. Cf. *MZ* 4A1, 6A20, and 7B5.
42. *Shang Jun shu* (Zhuzi jicheng) 14:24–25; cf. 4:10 and 24:39.
43. *Hanfeizi jishi*, ed. Chen Qiyou (Beijing: Zhonghua shuju, 1958), 26:492; cf. 6:88 and 27:498.
44. See John S. Major, *Heaven and Earth in Early Han Thought* (Albany: State University of New York Press, 1993), pp. 70–73, 264–66.
45. Bambrough, "Plato's Political Analogies," p. 111.
46. See George Lakoff and Mark Johnson, *Metaphors We Live By* (Chicago: University of Chicago Press, 1980); Sarah Allan, *The Way of Water and Sprouts of Virtue* (Albany: State University of New York Press, 1997).
47. Jean-Paul Reding, "Light and the Mirror: Elements of Comparative Metaphorology," paper presented for the Association for Asian Studies, Honolulu, Hawaii, 11–14 April 1996; and Jean-Paul Reding, "L'Utilisation philosophique de la métaphore en Grèce et en Chine," *Revue de Théologie et de Philosophie* 129 (1997): 1–30.

Glossary

cheng 秤
Chunyu Yi 淳于意
congming junzi 聰明君子
Deng Xi 鄧析
Fei Wei 飛衛
Gan Ying 甘蠅
gui 規
guiju 規矩
heng 衡
Hui Shi 惠施
Ji Chang 紀昌
Jie 戒
Jin 晉 (hexagram 35)
Jin Ping Gong 晉平公
jing 經
jingmo 經脈
Jingmo bielun 經脈別論
jingwei 經緯
ju 矩
Lie Yukou 列禦寇
liu du 六度
liu jing 六經
mingde 明德
ming ming de 明明德
Peng Men 蓬門
quan 權
ren 仁
sheng 繩
shu 恕
si 思
si fang 四方
Ti Ying 緹縈
Tiandao 天道
tianwen 天文
Wen 問
wu xing xiang sheng 五行相生
Xiao cheng 小稱
xin 信
xue 學
Yang Bojun 楊伯峻
Yi 羿 (archer)
yong 勇
You Guo'en 游國恩
zhi 智
zhi zhe 智者
zhun 準
ziran 自然