# Ruminations on the Tao and Its Disputers

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When Angus Graham and I met in Kyoto toward the end of 1971, we quickly agreed that the Mohist optical canons needed a fresh look. We had a splendidly vehement argument that probably seemed dilatory to the other dinner guests, and decided on the spot to collaborate. There followed a series of meetings whenever we turned up in the same corner of the globe, mostly spent disputing what the reflections we saw in the bottoms of tea trays and the bowls of teaspoons told us about what the Mohists were getting at. We finally agreed on conceivable physical meanings for all the optical propositions save one, and for that one, in the report of our findings, recorded separate opinions.[1] One reviewer was disappointed that we had not provided definitive interpretations of the lot, which we thought reflected a very odd guess at what we were trying to do. In any case, we continued to argue whenever an opportunity came up. The last time was during a spot of tropical desert weather in Cambridge, England, in August 1990. The remarks that follow were set down in the spirit of those disputations, and in the expectation that Angus would be present to match his views with mine.

## *Disputers of the Tao*

Among the many things that make *Disputers of the Tao* a remarkable piece of work is that Angus Graham breaks the awesome Sinological taboo against reading scientific texts. This is not, of course, a traditional taboo. In Europe and the United States scientific illiteracy became a distinction of the humanist only in the last two generations. It has begun to die out as more and more students who are not afraid of science refuse to accept from their teachers the idea that ignorance is a good thing.

People who do read the relevant texts often break through to new understanding. In Graham's book, for instance, the *Mo-tzu*, with its technical canons, appears for the first time as a seminal influence in all three of the periods into which he divides his span of three centuries: the invention of philosophy, from circa 500 B.C., to cope with the breakdown of an archaic social order, the creation beginning in the late fourth century of a moral order that sets man as a moral agent apart from Nature, and the reunification of man and Nature a century later that located individual destiny in a new microcosm, the unified and eventually centralized state.

But many texts essential to understanding the evolution of philosophy in ancient China still go unread. Let me give only one of several examples that come to mind.

The reunification that only began in the third century, which one might call the first Neo-Confucianism, was shaped through such texts as the *Spring and Autumn of Master Lü* (*Lü shih ch'un ch'iu*, 241–235 B.C.)

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and the *Great Commentary to the Book of Changes* (third to second centuries B.C.), down to the *Canon of Supreme Mystery* (*T'ai hsüan ching*) of Yang Hsiung at the end of the first century. All of these made Nature an integral part of the Confucian equation. An important step in this process was taken in another treatise of enormous authority that Sinologists avoid like the plague, namely the *Inner Canon of the Yellow Lord* (*Huang ti nei ching*), which we can now be fairly sure was written in the first century B.C.[2] More fully than any precursor, this book elaborates a cosmos woven together by yin-yang and Five Phases correspondences. The *Inner Canon* relates this macrocosm point by point to two microcosms, the human body and the Han model of the imperial state. All that was left to Yang Hsiung was to incorporate this vast manifold of heaven, earth, and man once and for all into a new orthodoxy designed to glue together a political order that was obviously falling apart. Both the *Inner Canon* and the *Canon of Supreme Mystery* fall outside Graham's three centuries, but they will be essential when his last period is finally studied from beginning to end.

Looking now at what *is* in *Disputers of the Tao*, I will focus on some aspects of how people in ancient China understood Nature and their own relation with it. These are not specialized issues. They bear on every scholar's work.

1. Is Graham correct that philosophers borrowed their first cosmologies from technical specialists—he mentions diviners, astronomers, physicians, and musicians—rather than the other way around, as was clearly the case in the Greek world?

2. How did people dispute about the Tao in China between 500 and 200 B.C.? How, for instance, does the way they argued compare with the way Greeks worked out their philosophical disagreements over the same period? What does that tell us about differences in how thought about Nature evolved in the two cultures?

3. What were the "schools" that historians of philosophy, including Graham, write about with such amiable vagueness?

## Science and Natural Philosophy

Graham argues that "yin-yang system-building ... broke into the philosophical schools from the world of diviners, astronomers, physicians, and musicians late in the 3rd century B.C." (pp. 161, 313, and elsewhere). At one point he mentions more specifically "court astronomers and diviners, whom rulers must always have taken more seriously than the philosophers to whom they granted an occasional audience." That does not explain why *philosophers* took these rival functionaries seriously. Nor am I convinced that rulers spent hours in metaphysical discourse with their doctors and stargazers. One might turn this explanation inside out: technicians are more likely than philosophers to take their princes' cosmologies seriously than to make up their own.

Graham's example of such a technician is Tsou Yen, who "belongs to the world not of philosophers but of the court diviners and physicians of the *Tso Commentary*" (p. 328). This contention is most unpersuasive, dependent upon mutually exclusive but undefined categories. In one place, not surprisingly, Graham groups him with philosophers when he speaks of the merging of ideal social and cosmic patterns in "the view being newly elaborated by Tsou Yen and the Cosmologists" (p. 242). 騶衍

Despite the vagueness of all this, Graham has as usual set forth a thought-provoking idea. It is pleasant to contemplate the possibility that the Greek pattern, philosophers borrowing craft metaphors and returning cosmologies, may be culture-bound after all. This hypothesis is also appealing because Graham writes about picking up ideas from occupational groups of people rather than, as in more conventional books, disembodied interaction with science as an amorphous entity.

What we find in ancient China instead of one unified *scientia* is a number of elite literate technical traditions. This is true not only for the period covered by *Disputers of the Tao*; it remains true, as I have argued elsewhere, until the end of imperial China.[3] So far as we can tell from the oldest surviving sources of these elaborated written technical traditions, they did not begin to separate out of philosophy until about 200 B.C. These traditions, especially from the first century on, did build abstract theories, as abstract and as theoretical as anything found in Greece, using as their raw material the experience of illiterate craftsmen, healers, diviners, and others.

But Graham is writing specifically about the correlative cosmology of yin-yang, the Five Phases, numerology, and so on in the late third century B.C. Oddly enough for so precisely documented a textbook, he does not show systematically that technicians, in or out of the palace, were using these ideas first. What evidence we can find about priority suggests that cosmology entered the technical world from philosophy, not vice versa.

Although the oldest books of medicine, astronomy, and so on that have been transmitted over the ages almost certainly come from the first century, recent archaeological finds, especially the Ma-wang-tui manuscripts, may come from somewhat before 200. The medical writings among them contain nothing remotely resembling a correlative cosmology. They use yin and yang to label lines along which the doctor burns moxa, and that is all. Whether these lines are pathways of a circulation they do not say; they simply call them vessels (*mo, mai*). The Ma-wang-tui texts that go further in yin-yang associations, such as the *Ten Questions* (*Shih wen*), do not appear to have been produced by artisans or technicians, but are associated with what for the moment we seem to be calling Huang-Lao ideology. Robin Yates has discovered that even older texts recently excavated at Yin-ch'üeh-shan associate yin-yang with Confucian concepts.[4] 脈 十問

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We also have in *chüan* 105 of the *Records of the Grand Historian* (*Shih chi*) the diagnoses and prognoses of two great early physicians. Legend dates Pien Ch'üeh at circa 501 B.C., but all we can say is that this account was probably written by 200 B.C., in language typical of that time. That makes it more or less contemporary with the Ma-wang-tui texts. It may even reflect the way doctors who treated the Lady of Tai looked at illness. Pien Ch'üeh was using yin and yang not only to label the branches of what he saw as a circulation system, but also to describe the way illness develops. Ch'un-yü I flourished about 154 B.C., at least half a century later than Pien. He depends on yin and yang in diagnosis to analyze the character of the disorder, and in therapy to adjust yin and yang to each other (*t'iao yin yang*), but without explaining exactly what that last phrase means (105: 53). The term *yin-yang* appears in the titles of two of the seven books his teacher gave him, but the titles are not revealing. Neither of these physicians mentions the Five Phases. Another of Ch'un-yü I's books teaches "diagnosis by the five types of appearance," a technique that he applies in his biography, but no connection with a system of the Five Phases is even implied (105: 22). Neither of these physicians, well after the 250 B.C. when Graham begins natural philosophy, has an evolved correlative cosmology to borrow from. Nor do I find one among early fragments of astronomy, divination, and so on.

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To prove that technicians were cosmologizing first, Graham cites the famous passage in the *Tso Commentary*, dated 540 B.C., in which a doctor breaks the news to a marquess that his illness was caused by sexual excess (p. 325, from *Tso chuan*, Chao 1.8, addendum). It brings together six *ch'i*, several fivefold categories, and yin and yang used to mean shade and sunlight. This isolated instance, we have already seen, finds no echo in the records of doctors as much as four hundred years later. Considering its ethical and political context, namely the admonition of a ruler who is neglecting his responsibility, and the lack of technical detail, I would suggest that this passage originated, probably long after the sixth century, in a Confucian teaching that does not draw on specialized medical experience at all. Early works of political thought such as the *Spring and Autumn of Master Lü* also contain somatic homilies involving yin-yang, used in abstract senses, fivefold correlations, and so on. They use elaborate medical language without reflecting clinical practice.[5] My point is reinforced, I think, by Graham's other citations from the *Tso Commentary* and the *Book of Documents*. They show no more technical knowledge than most pre-Han scholars would have in their own heads, without borrowing expertise from anyone (pp. 326–327).

To sum up, all the seminal sources for correlative cosmology document the halting and shifting attempt to define a social, political, and educational orthodoxy for the evolving new model of the state. Its ideologists validated it, at the same time establishing that their ideals and their

counsel were indispensable to it. This they accomplished by creating for the first time a regular and harmonious Way of heaven and earth, an order that is certainly not the only one that experience could suggest. This Chinese cosmos is no more and no less a feat of the imagination than the Greek invention of Nature.[6] For their purpose, all that the Chinese system-builders needed from technicians was their jargon, a few of their metaphors, and a modicum of lore, for instance from music. With this new cosmology, they were prepared to prove that the state was natural or, to put it in a more Chinese way, like the human body the political order resonated with the Way of Heaven and Earth. So much granted, any opposition could bring only chaos, just as disregarding the microcosmic order of the body could bring only illness and injury.

The technical classics of the Han, by the way, are hardly less ideological than these philosophical precursors, and thus equally essential for studying political thought. The *Inner Canon of the Yellow Lord* is typical in emphasizing the cosmic design of the state, the ideal of a static social hierarchy, and submission to central and patriarchal authority.

Rationality

Rationality "develops with the controversies of the schools, and dwindles as they fade after 200 B.C." (p. 75). It is difficult to know how to take this claim. At face value, Graham implies that Chinese thought slid into irrationality at about the time that the cumulative written traditions of mathematics, computational astronomy, mathematical harmonics, and so on gained momentum. He seems to be using the word "rationality" in an extremely restricted sense rather than for what readers of English expect it to mean. On page 7 "rational demonstration" appears in a sense for which he uses the word "rationality" elsewhere in the book. This word applies to arguments of a special sort found in the Mohist canons, the Sophists, and similar sources, and not, for instance, to arguments in earlier or later moral philosophers built around Graham's implicit "quasi-syllogism" or the explicit "chain syllogism" dear to old-fashioned historians of philosophy (pp. 383–387).

But rational demonstration can be inductive or deductive or both, and can take many forms not found in the Aristotelian canon. Graham clearly does not accept all of these within the scope of rational demonstration. "Indeed there is none at all" in the *Analects*, the *Lao-tzu*, and the *Book of Changes*.[7]

An even more significant exclusion is the whole structure of correlative cosmology. The chapter on that topic describes what Graham judges to be a faded rationality indeed. His authors believe, however, that they are demonstrating that their views are the ones to have. Their arguments are faded, Graham tells us, because their concern is "the refining of a cosmos in which the thinker *already* finds himself before analysis begins"

(p. 322). The same has often been said of Euclid, the very model of Greek rational demonstration.

To oversimplify, Graham is arguing that the philosophy of the new empire successfully reunited man and nature, but at great cost. China gave up the capacity to provide unambiguous causal explanations of natural events, falsifiable concepts, and verifiable predictions. Among the long-term costs, he asserts, was a nearly fatal indisposition on the part of Chinese since the seventeenth century to take modern science seriously (pp. 318–319).

These are interesting and fruitful ideas, but the faults are not hard to see. Chinese exact scientists, whose metaphysics were indeed largely correlative, could make excellent predictions. But we are well advised to ask what the overall purpose of correlative cosmology was. Its ultimate aim was not objective, rigorous, and verifiable description of the external world, but order and control in the sphere of state and society. Its understanding of Nature was devised to further that aim. As Benjamin Schwartz puts it, the cosmologist "is able to find an appropriate 'technology' for aligning the human realm with the realm of nature. He does not 'control' nature but his knowledge of how to 'align' the human with the natural immeasurably enlarges his ability to control the human world."[8] What suited this purpose was not the most rigorous concepts but the richest ones, on which philosophers could erect complex, multivalent symbolic structures that would encompass and fit together every aspect of human experience and cosmic process.

If the multivocality of its conceptions and its lack of intent to conquer Nature make correlative cosmology bad philosophy of science from a narrowly modern point of view, a less sterile perspective is called for. It is time we understood what the cosmologists were getting at, and how, before we conclude how successful they were. Graham's arguments, always thoughtful and never reductionist, have posted the challenge. It is up to us.

## Debates and Schools

Dispute is obviously a focal topic of Graham's book, but he has little to say about its forms. The word "debate" appears, I think, only once, but significantly: "Rational debate in China starts with the first rival of Confucius, Mo Ti (Mo-tzu), and develops in sophistication with the clash of competing schools" (p. 33). Earlier he calls the same step "rational argument" (p. 23). The book, like previous histories of Chinese philosophies, is careful not to be specific.

Oral debate is only one way of doing philosophy, a way that happened to be central in the Greek tradition. Everyone is familiar with the picture of Socrates taking on all comers in the agora, and of other philosophers putting on gorgeous robes and wrestling verbally at the

Olympic games.[9] G. E. R. Lloyd describes the Greek schools as "alliances for defensive and offensive argumentative purposes."[10] Those arguments were private as well as public, between schools as well as within them. Aristotle calmly demolished his teacher Plato's realm of Ideas somewhere outside the sensible world. Speusippus, Plato's successor as head of the Academy, also diverged openly and radically from the founder's doctrines.[11]

Chinese philosophers in certain times and places openly debated their views, but victory was usually decided by their patrons, not by the lay public as in Greece. The Chi-hsia Academy is the best-known example. It is interesting that the best-known description of it, in the *Records of the Grand Historian*, characterizes it not as a theater of oral polemic, but rather says that its participants "each *wrote books* about the order and confusion of human affairs in order to bring themselves to the attention of the rulers of their time."[12]

It is difficult to tell what Sinologists mean when they speak of Chinese schools, since they are not in the habit of defining the word in any socially meaningful sense. Their meaning, when it can be deduced, tends to be very different from what we find in late Western antiquity. They often tend, when discussing early thought, to use "school" for bibliographical classifications rather than groups of people.[13]

Chinese schools were organized to preserve and transmit authoritative written texts. That, not research, not the perfection of knowledge, not the development of students' intellectual capacities, was their paramount goal. Schools were alliances built on the model of the kin lineage. In the latter, responsibility for maintaining a family line was passed from father to son. Thus among the ordinary words that correspond to "school" were *chia* (lit., "family," as in *tzu ch'eng i chia*, "he originated a scholarly lineage of his own") and *mai* (bloodline). But the family was only a model. What scholars passed down was a charismatic writing, which within the school had the force of a revelation. It was not meant to be improved, much less superseded by more up-to-date knowledge, but, like a family line, kept alive and used to mold future generations to the requirements of its endless task.

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Philosophers—more often founders than disciples—did dispute to establish their authority. The most intense disputes took place in writing, more often than not with a deceased rival. Hsün-tzu's polemical distortion of Mencius' beliefs, or Chu Hsi's demolition of Yang Hsiung in a few words, is a case in point. Generational rivalry within a lineage was another matter. Who found the prospect of a disciple confuting his own master even thinkable?

One school might respond to issues raised by another; but it might just as well ignore them. Dispute was not a pivotal activity in Chinese philosophy, as it was in Greece. Parmenides raised alarming new ques-

tions that no later Greek philosopher, so far as I can see, ignored; but the innovative systematic knowledge-ordering project of the Later Mohists vanished with hardly a trace.[14] What business was it of any other school?

If we want to understand why philosophy took such different roads in East and West, just how people disputed is a key issue. Nakayama Shigeru showed its importance for the evolution of science nearly two decades ago in his *Academic and Scientific Traditions in China, Japan, and the West*.[15] It is time for a broader analysis. Under what circumstances did oral debate take place, and why? What were the roles of private and public argument, and who was the public in each instance? What were the differences between argument within schools and argument between them? *Disputers of the Tao* points us toward these questions. It is time we began to answer them.

## NOTES

1 – "A Systematic Approach to the Mohist Optics (ca. 300 B.C.)," in *Chinese Science: Explorations of an Ancient Tradition*, ed. Shigeru Nakayama and Nathan Sivin (Cambridge, Massachusetts, 1973), pp. 105–152, two opinions on p. 123.

2 – Graham has cited the Inner Canon tellingly in *Yin-Yang and the Nature of Correlative Thinking* (Singapore, 1986); see pp. 60–63, 87.

3 – "Why the Scientific Revolution Did Not Take Place in China—Or Didn't It? The Edward H. Hume Lecture, Yale University, 1981," *Chinese Science* 5 (1982): 45–66, especially pp. 47–51. As I make clear in that essay, I do not wish to imply that a unified tradition of premodern science is superior to distinct scientific traditions, or more likely to evolve into something resembling modern science.

4 – Comment at session on "The Nature of Huang-lao and Its Influence in the Early Han Dynasty," Annual Meeting of the Association for Asian Studies, New Orleans, 13 April 1991.

5 – See, for instance, the passage translated in Sivin, *Traditional Medicine in Contemporary China: A Partial Translation of Revised Outline of Chinese Medicine (1972), with an Introductory Study on Change in Present-day and Early Medicine*, Science, Medicine and Technology in East Asia, 2 (Ann Arbor, 1988), p. 54.

6 – For the latter see a forthcoming essay by G. E. R. Lloyd, "The Invention of Nature."

7 – P. 7. Since in the archaic *I ching* there is no explicit philosophy at all, I presume that Graham means the Ten Wings. A great deal of their

content is meant to demonstrate by rational means the truth and power of the Changes.

8 – Benjamin I. Schwartz, *The World of Thought in Ancient China* (Cambridge, Massachusetts, 1985), pp. 368–369.

9 – On Greek traditions of debate consult Lloyd, *The Revolutions of Wisdom: Studies in the Claims and Practice of Ancient Greek Science* (Berkeley, 1987), pp. 83–102. On Empedocles' costume and entourage, see, p. 101.

10 – Personal communication, July 1990.

11 – See, for instance, Lloyd, *Revolutions*, p. 149, n. 161.

12 – *Shih chi* (*Shiki kaichū kōshō* ed.) 74: 10, English from Fung Yu-lan, *A History of Chinese Philosophy*, trans. Derk Bodde, vol. 1, *The Period of the Philosophers (From the Beginnings to circa 100 B.C.)* (Princeton, 1952), p. 132, my italics; cf. Schwartz, pp. 227, 290. Since Fung omits part of a sentence, I supplement his quotation. 史記會注考證

13 – The idea that the *Lao-tzu* and *Chuang-tzu* belonged to a single school of "Taoism" goes back to the grouping of four traditions of interpretation of the former with the latter, four Huang-ti books, and twenty-eight other titles in the catalogue of the imperial library at the end of the Western Han dynasty, reproduced with minor changes in its Standard History; see *Han shu pu chu* (Basic Sinological Series), 30: 3140–3149. These books were listed together because the compilers traced them all to traditions begun in the Historiographical Bureau of the early Chou dynasty by bureaucrats who, "after recording generation after generation the Way [manifested in] gains and losses, survival and destruction, prosperity and calamity, the ancient and the modern, learned how to grasp what was essential and to hold to the root; they maintained purity and emptiness to preserve themselves" (p. 3148). Early Taoist religious movements, who did not share this singular view, did not include the *Chuang-tzu* in their canons. I know of no evidence that it and the *Lao-tzu* were regularly transmitted by a single group of initiates in the Han. 漢書補注

14 – Graham has at least shown some influence of their administrative thought in Hsün-tzu (pp. 257ff).

15 – Tokyo, 1984, originally published as *Rekishi toshite no gakumon* (Tokyo 1974).

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