

THE AXIAL MILLENNIUM IN CHINA: A BRIEF SURVEY

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When one considers the historical development of mankind an indisputable proliferation of agricultural, technological, social, political, artistic and intellectual breakthroughs during the last four millennia BC are apparent. Agriculture enabled many people and peoples to rise above the level of hunting and subsistence economy throughout the world. A comprehensive historical narrative of these developments would necessarily involve a detailed picture of the entire interactive gamut of environmental, social, political, technological, artistic, and intellectual factors which contributed to this development. Critical historical analysis should differentiate from this infinite “manifold” events that can be examined in sufficient analytic detail to be of interest.

Surviving writing systems are so useful in this connection because written sources and writing practices often remain accessible to us on a large scale, and for detailed analysis. Writing systems were developed from the fourth millennium BCE onwards as instruments of governmental and ritual/religious record-keeping in polities of increasing size and complexity in Mesopotamia.

Sustained writing practices arrived in China so much later than in the Middle East that it is natural to look for evidence of a Middle Eastern impetus of some kind motivating the remarkably sudden development of an advanced writing system around 1240 BCE.¹ In any case there is no question of contemporaneous development of writing among the ancient civilisations of the ancient world.

Mesopotamian influence on Jewish and Greek civilisations went far beyond writing systems: it was religious, literary, as well as intellectual. Hellenistic influence on Jewish developments turned out

¹ See Keightley (1985), 203.

to be in many ways intellectually overwhelming. It would eventually transform the Christian Jewish sect into an integral part of the Hellenised intellectual universe.

The divinisation of King Gilgamesh of Uruk around 2650 BCE led to the gradual written fixation of an epic of remarkable religious, emotional and intellectual subtlety. Even the Ninivite extensively rewritten new version of this large epic dates to 1000 BCE, well before the written versions of the Homeric epics.

The Gilgamesh epic implied and developed a fluctuating cosmography beautifully illustrated and described in Bottéro (1992), 13.

The wisdom literature associated with the name Imhotep (2700 BCE) may be lost, but there seems to be no doubt that it existed and was historically important. It antedated the Axial Age by 2000 years.

The Old Testament is firmly embedded in, and profoundly shaped by, the complex pattern of Middle Eastern religious and secular traditions of wisdom literature. We may perhaps be dealing with an account of creation *ex nihilo* in the Old Testament, but it is not as if we have an explosive development of high civilisation *ex nihilo* in the Axial Age.

Given the manifest and growing evidence for the continuous interdependence of historical development in these civilisations of the world, the hypothesis of an heroic Axial Age of contemporaneous radical change in the first millennium BCE requires strong and well-defined empirical evidence to become substantial and interesting for discussion.

The doxography concerning the Axial Age from Karl Jaspers onwards, even the pre-history of this concept, have been discussed by others. In this paper I shall neither interpret nor revise Jaspers. Instead I want to specify a series of intellectual areas in which one might suspect that radical breakthroughs were contemporary in the first millennium BCE, and neither before nor after. The test case I want to discuss in a comparative spirit is that of China.

As far as I know there is little direct evidence of Mesopotamian or other Middle Eastern substantial intellectual inspiration or direct influence on pre-Buddhist Chinese intellectual developments. The case of possible early Indian influences is more complicated.²

² Conrady (1906) argues for interaction. Victor Mair has suggested such early Indian influences in many publications. (See e.g. Mair (1990, 1990a, 1994). Com-

Strong linguistic Indo-European links with ancient China have long attracted attention and continue to be discussed.³

China offers itself as a useful testing ground for any theory of an Axial Age.

I believe the concrete agenda for such a discussion is best based on categories that emerge from a detailed study of the early primary sources and not from a generalist perspective.

I find it helpful to construct an Enlightenment style scheme of dimensions of radical intellectual innovation to organise a discussion of developments in the Axial Age. This scheme is not a scheme of historical development, but a list of dimensions on different levels of abstraction under which one might want to measure breakthroughs. One might have chosen many other dimensions.

Firstly, there is the sustained attempt at focussed *elaboration* of certain areas of knowledge. For example, it is one thing to have a diffuse notion of the cosmos, of cosmography. It is quite another thing to systematically collect what is known about the topography of the known universe. The question arises only when and where systematic descriptive cosmography developed. In China, this was notably developed from around the third century BCE. The Shanhaijing, "The Classic of Mountains and Seas" (see Birrell 1999) collects much early descriptive material.

Secondly, there is the attempt at a sustained *explanation* of why something that has been elaborated, actually is the way it is. For example, in China, this explanatory attempt to account for the reasons why the world is the way it is, the focus on aetiology, is as old as the twelfth century BCE: the oracle bone inscriptions of that age ask persistently for the underlying causes of all sorts of events.

Third, there is the sustained attempt at *problematization* of explanations offered. For example, given an explanation of rain in terms of ancestral malign influence, one might argue about the justification of this account and its reliability. Sustained problematization of this kind occurred in China only during the first century CE, notably in the work of Wang Chong.

Fourth, there is the sustained attempt at *systematization* of an area

pare also Vasil'ev (1976), Vasil'ev (1982) for an extreme view. Sivin and Lloyd (2002), 294, note 34 mention a relevant archeological controversy.

³ See Wang (1995) and the International Journal of Chinese Linguistics vol. 1, no. 1 from Hong Kong 1996.

of knowledge that has been elaborated, explained and problematised. This is a rare configuration which is crucial for the history of science. The earliest marked case of this is in the Mohist Canons of the third century BCE.

Fifth, there is the sustained attempt at *relativisation* so as to recognise as merely subjective one's systematisations, problematisations and systematisations. The earliest case of this is again in the fourth century BCE, in the philosophy of Zhuangzi.

Leaving aside what was meant by or should be meant by an expression like "Axial Age", it is quite striking that when measured along all these parameters of analysis—however vaguely perceived and defined—the first millennium BCE turns out to have marked decisive breakthroughs that were unprecedented in Chinese intellectual history. Significantly, Chinese intellectuals in later centuries and later millennia have continued to pay disproportionate attention to developments in China during the first millennium BCE, as a common cultural reference point and a "classical age".

The invention and secularisation of writing lead to an explosive bout of intellectual breakthroughs in China. This is so striking that it has misled many scholars traditionally to underestimate the creativity of later ages. Here it must be emphasised, for example, that the great age of individualism and argumentative abstract metaphysics is not the Axial Age, but the third and fourth century CE. The efflorescence of popular religion took place during the Late Han and after, not during the Axial Age. The striking development of sophisticated lyrical poetry occurred during the Tang and preceding centuries, not the Axial Age. The golden age of the development of drama in China was characteristic of the Yuan dynasty and following centuries, certainly not the Axial Age. The creative age of the novel accompanied the Ming and the Qing, not the Axial Age.

Thus the traditional picture of a creative classical age down to the Han, followed by a scholastic age of basically regurgitative elaboration, supplemented by foreign impacts like that of Buddhism down to the Qing, and then the age of westernising globalisation in the twentieth century is deeply misleading.

And yet, it remains true that all breakthroughs and innovations in China have tended to be articulated by linking them hermeneutically or otherwise to the classical age of that first millennium BCE, the Axial Age.

In what follows I shall briefly outline the Chinese breakthroughs,

during the Axial Age, in areas including cosmology, medicine, historiography, political theory, lexicography, and finally of rhetoric, as I see them at this stage and as limited space allows. Within each of these areas I shall look for relevant evidence of

- A. Elaboration
- B. Explanation
- C. Problematisation
- D. Systematisation
- E. Relativisation

in the senses roughly indicated above.

Cosmology

The case of cosmology is of special privileged interest, and it raises a number of generally important theoretical issues.

Many peoples of the world have a folklore of cosmological myths of various kinds, anthropomorphic and otherwise. Some have developed these myths into more or less coherent and more or less sizeable pieces of folk literature or narrative tradition. Only few cultures have elaborated the story of the origin of the universe into elaborated detailed written accounts of the processes by which the world came to be as it is.

In fifteenth century BCE China, for example, I know of no written records, and no other records provide any explicit evidence concerning beginnings of cosmology. The earliest substantial inscriptions I know of are from the thirteenth century. By the first century BCE, systems of cosmology had become elaborated in considerable detail.

Michael Loewe writes, understandably: “in neither mythology nor philosophy can there be found the idea of *creatio ex nihilo*”.⁴ To what extent there is *creatio ex nihilo* in the Old Testament, remains of course a moot point. For example in *Guanzi* 41, which probably dates to the early third century BCE, the initial creation of the Five Agents/Phases is emphatically attributed to the mythical Yellow Emperor, after his creation of the Five Sounds.⁵ Zhuangzi certainly plays with the idea of a potter-creator, but the image of a creator manifestly in possession of pre-existing material to work with. It turns

⁴ See Loewe (1982), 63.

⁵ See Puett (2001), 131ff.

out that the ancient Chinese must be said to be able to think, in principle, in terms of creation, for the simple reason that they commonly did think and write that way!

The profound question addresses the type of discourse in which the ancient Chinese speak of matters cosmological. For example, when Zhuangzi refers to the “Creator of things”, he is being playful. He is not seriously proposing a theory of creation, but he is playing with an idea of creation in which a transcendent being fashions the things of the world as a potter might fashion a pot. But this is a narrative accident: Zhuangzi found the vision of the potter with his clay more vivid than that of a creator in nihilo, who brings it about that instead of there being nothing (except Himself) there is something.

Guo Xiang (ca. CE 252-312) asks as follows, towards the end of Chapter 2 of the Zhuangzi: “Some people in the world consider that Penumbra depends on the Shadow, that Shadow depends on shapes, and that shapes depend on the Creator (*zao wu zhe*).” He continues to *reject* creation. He finds it worth rejecting because it is entirely conceivable to the Chinese at that late stage.

At an earlier stage, in the Questions to Heaven, an early part of the Songs of the South, the puzzling question is raised: “who first/ in the beginning created these (scil. the Heavens)?”⁶ And still earlier, in the Book of Changes, in the first hexagram, the word *yuan* was traditionally interpreted as the beginning of all things, an ancient gloss being “beginning”, and this “beginning” being plausibly seen as the beginning of the world. And that beginning perhaps being due to “Heaven”. The question here, as in the Questions to Heaven may be something like this: “Yes! But who created the Heavens themselves?”

This is not the place to argue the above tentative and experimental interpretations in any detail. What matters is that on the one hand the notion of a beginning of the world was not unthinkable, but rejected, and, similarly, the notion of creation was conceivable, but not very prominent in ancient Chinese thought.

In ancient China we find no culturally important or central detailed and elaborated aetiological account of the universe to paral-

⁶ See also Hawkes (1985), 127. For bibliography on most of the ancient texts quoted below see Loewe (1993).

lel Genesis, or to put it more fashionably: there was no obligatory foundational myth. No one felt culturally obliged to believe in one account or other of the origins of the universe. There is no elaborated and authoritative genetic narrative explanation of why exactly the world is the way it is in pre-Buddhist times. Instead there are a plethora of conflicting cosmological speculations in terms of Yin and Yang, the Five Agents/Phases, and the mysteries of the Book of Changes.

Underlying this situation is a deeper problem about the nature of some of the pre-Han and early Han cosmological discourse in ancient China. Given the dearth of sources we have tended to take all cosmology-related talk at face value, as seriously held and upheld views on the nature of the world. But there is the very serious question of the rhetoric of these sources. There is the problem to what extent our oldest Chinese sources on the origin and the overall structure of the universe had a rhetorical light touch. The exacerbating contradictions in the records we have of correlative thinking may be exacerbating only when their sources are being misread by being taken a trifle too literally, too seriously.

However this may be, the *Huainanzi* (compiled 139 BCE), for example, turns out to contain a remarkably serious and systematic work in the history of Chinese cosmology. On the one hand it makes a sustained attempt to explain how and why the universe developed the way it did. On the other, it provides an extensively elaborated and remarkably quantified system of astronomic cosmography.⁷ This quantificatory elaboration of cosmography was certainly a breakthrough in the intellectual history of the first millennium. One source of this elaboration was the bureaucratic organisation of the pursuit and publication of knowledge.⁸

The systematisation of cosmologies was achieved by Cai Yong (CE 133-192), who distinguished three traditional cosmologies: the domed universe school, the celestial circles school and the infinite empty space school.⁹

The playful problematisation of cosmogonies and cosmographies seems to be in literary evidence in the book that bears the name of the philosopher Zhuangzi (fourth century BCE).

⁷ See ch. 3 in Major (1993).

⁸ See Needham (1975) and Sivin and Lloyd (2002), 253-71.

⁹ See Needham (1975), 87ff.

At the same time we find a most remarkable streak of relativism in the book *Zhuangzi*, a relativism that has its intellectual foundations in the very playful problematisation of cosmological discourse which is such a distinctive feature of the book.

The unparalleled cosmological breakthrough in China consisted in the quantification of cosmology in the first millennium BCE, and the attempt at a systematic taxonomy of cosmologies very early in the first millennium CE.

History

Tales of the past are a natural and integral part of the folklore of most peoples. It is when these are organised into chronologically consistent annals and elaborated into comprehensive accounts of extended periods of history that the first breakthrough appears. In particular, the systematisation establishing synchrony between different annalistic series is an intellectual and historical breakthrough.

Extensive bureaucratic record-keeping of important politico-religious and ritual events began late in the second millennium BCE. Over 50,000 inscriptions that have come down to us from this time bear elaborate witness to a sustained, vivid and detailed concern for the recording of the past. At many points, we can follow the politico-religious history of the important events during these times from day to day.

Historical annalistic record-keeping became radically more systematic during what is known as the Spring and Autumn period (ca. 770-464 BCE) which takes its name from the famous court chronicle for that time called simply *Springs and Autumns* in classical Chinese. Thus, systematic attention was paid to standardised historical record-keeping early in the first millennium BCE.

Towards the middle of the first millennium, the striking narrative elaboration of these early chronicles into animated and psychologically as well as historically subtle discourses was achieved in the largest book we have from ancient China, the *Zuozhuan* (fourth century BCE).¹⁰ In the *Zuozhuan* historical explanations are offered

¹⁰ See Legge (1961) and Schaberg (2001). It is significant that the title of this work translates, awkwardly, as “Zuo Tradition” and involves no reference to any “Master” Zuo.

en passant. There is nothing in the first millennium like the preface to Thucydides with its methodological focus on historical explanation versus narrative. Even in the great age of systematic historiography, the first century BCE, any discussion of reasons, motivations, and causes was regarded (and mostly disregarded) as “empty language” because it was not straightforwardly factual.¹¹

A striking breakthrough in systematicity of historical description was achieved when Sima Tan and his son Sima Qian undertook their project which came to be known as the *Records of the Historian*: here the Han empire was given a comprehensive historical pedigree in terms of three preceding dynasties, of which the Han was presented as the legitimate successor. And what these comprehensive *Records of the Historian* describe are not just the succession of events. Also important historical personalities are given their biographies, and special areas like that of economics, music/dance, and the calendar have monographs devoted to them. Thus we have, in the *Records of the Historian* a comprehensive book that aims to be something of a historical encyclopaedia.

Sima Qian occasionally focused on historical explanations, but problematisation, the reasoned discussion of competing explanations, never flourished in China during the first millennium BCE. It was the bureaucratic systematisation of historiography that was carried a great deal further in the *Records of the Historian* than it was in any work that survives from ancient Greece or Rome. (But note Jia Yi's unique work on the fall of the Qin.)

The historical perspective tended very much to remain sinocentric, and the question what kind of history of China the barbarians would have written was never focussed in any detail. Thus the cultural subjectivity of the Chinese view of history never became a main focus of attention, although here again there are many places in Zhuangzi, where the spirit of such historical relativism is felt to be very much present.

An interesting partial systematisation of biography is available in the *Array of Accounts of Women* and the *Array of Accounts of Immortals* (see O'Hara 1945 and Kaltenmark 1987), and the thematic systematisation of biographic attention is significant.

Reflexive biographic attention is not elaborated in China before

¹¹ See two recent controversial books on the *Zuozhuan*: Pines (2002) and Schaberg (2001).

the first century CE, and in the last chapter of the remarkably rich *Weighing Discourses in the Balance*. (See Forke (1962). Note that Sima Qian's autobiographic private letter to his friend Ren An was not included in his *Records of the Historian*.)

Politics

Many peoples, ancient and modern, have ways of talking about the authority of their leadership and what we would call the political state of their society. Advice on how to govern properly one's state, and states in general, is common in wisdom literature throughout the world. The mythological, religious, or even moral justification of current structures of political dominance is a pervasive feature of a large number of cultures, traditional and modern.

In China, the elaborated historical derivation of these structures of dominance of the House of Zhou is marked in such texts as the *Documents*¹² and the *Odes*.¹³ These may be regarded as plain cases of political/ideological written discourse. Also the bronze inscriptions do contain much legitimising discourse, although, perhaps, one would not find it natural to speak of "elaboration" in this context.

The moral rationalisation and the moral justification of the authority of the House of Zhou continued to be elaborated and to an increasing extent even problematised in a range of early Confucian texts like the *Analects*, the *Mencius*, and the *Xunzi* of the fifth to third centuries BCE.

The non-specific and apolitically abstract problematisation of such justifications was evident in anarchistic writings later subsumed under the Taoist school, especially the *Zhuangzi*, although there never seems to have been any confrontational literary problematising revolt against the authority of the ruling dynasty, not even when it was about to fall. Negative comment on the rule of a dynasty comes, as a rule, after the regime change, as it were *post festum*.

A further step in the systematisation of political theory was notably attempted by such writers as Han Fei (third century BCE). Indeed, what came to be construed as the Legalist school in later times can be analysed as a highly diverse group of systematisers of a detradi-

¹² See Legge (1960).

¹³ See Karlgren (1941).

tionalised and thus, as it were, historically secularised, social technology of political control.

The encyclopaedic systematisation of possible or real alternative political systems, on the other hand, as we know it in the Greek interest in comparing different constitutions and in Greek political theory organised by Aristotle, was unknown in China, if only because until modern times the reflective “loop” of regarding the forms of government as a product of human decisions and social actions, did not apparently occur in China until it was triggered by contact with the West. Since no alternative to monarchy was ever contemplated even to be rejected in the first millennium BCE, monarchy was not an intellectual issue. The problematisation of the constitutional organisation of a polity was not achieved in pre-modern China. A limited case of problematisation does, on the other hand, occur in the extraordinary work of Huang Zongxi (1610-1695).

Ritual

Ritual prescriptions were a common subject for written discourse in many civilisations, and this was the case well before the first millennium BCE.

The detailed elaboration of the social rules of propriety that provide the glue of society as well as the elaboration of the economic techniques necessary to provide the socio-economic base for any polity developed markedly later than the elaborations in the field of more specifically political/religious authority.

The Confucian Analects concentrate less on the detailed elaboration of ritual proprieties, and certainly not on the detailed specification of what is involved in social duties/rectitude (although the late Book 10 of the Analects is indeed descriptively very concrete). Instead, the Confucian Analects tend to focus on the argumentative justification of the fundamental or basic character of these notions in any moral system. Xunzi forcefully continues this tradition.

Thus, in the Analects we find a recognition of the socially crucial role of ritual propriety and social duty/rectitude (*li/yi*) for any socially meaningful scheme of moral philosophy. Ritual is placed in an explanatory context, and not just preached as moral exhortation.

Around the second century BCE, the ritual compendium *Yili* provides the sort of exhaustive and exhausting elaborative specification of the general ritual court rules which contrast interestingly with the

more private, anecdotally and personally specified, rules described in the Analects Book 10.

Perhaps around the same time, the third and second centuries BCE, the Zhou Rituals¹⁴ draw an exhaustive idealised picture of court organisation and court procedure that formally bureaucratises the social rules and integrates them into a system, where the bureaucracy becomes something of a ritual *templum mundi*. Through systematised ritual, human life is integrated into an overall cosmic scheme in much of later Chinese writing towards the end of the first millennium BCE.

The Records of Ritual (fourth to second century BCE),¹⁵ on the other hand, greatly elaborates the explanatory and philosophical context of ritual rules from a variety of philosophical and practical perspectives.

Ritual rules are explained in the first millennium BC, but they are not justified against any anti-ritual scepticism.

Logic

Drawing logical conclusions from premises is common in primates, it would certainly seem to be universal among humans. Making such logical reasoning explicit in writing is very irregularly prevalent in various civilisations, and at differing stages of civilisations.

The Shang dynasty oracle bones of the late second millennium BCE have no occasion to elaborate reasoning, and they certainly are very far from any elaboration of complex logical patterns of thought.

In the latter half of the first millennium, Chinese thinkers increasingly addressed this problematic with conventional questions like “How do we know that this is so?” They increasingly felt that their statements needed the support of demonstrations, logically structured reasoning, though argumentation from historical example remained a preferred method. An appeal to the authority of the sagely opinion as such would certainly be excluded in most of these contexts. This persistent question marks a crucial breakthrough in scientific method. It is not as if the current ritual appeal to distant sages replaced argumentation and demonstration in ancient China. Objec-

¹⁴ See Biot (1851).

¹⁵ See Courvreur (1951) and Wilhelm (1930).

tions, customarily introduced by “someone might say (i.e. object)” did not generally come up with alternative references to archaic sages, and were met by further explanation and argumentation, and not typically by further ritual appeal to the authority of sages.¹⁶ All of this, for all I know, may be present in many early civilisations. And significantly, from the last centuries of the first millennium onwards, rhetorical appeal to sages became much more persistent. And, of course, the polite rhetoric of insisting that one’s knowledge was only a recovery of what the ancient sages already knew has a very long tradition in China. It is the task of the intellectual historian to differentiate that (socially explicable) rhetoric from the (intellectually crucial) argumentative practice. *Façons de parler* must not be taken at face value.

The explanation of logical forms themselves, however, requires a reflexive intellectual loop that is exceedingly rare in human history, and it is attested to have arisen independently only in three civilisations, Indian, Chinese, and Greek. There is no question that Gongsun Long (late fourth century BCE) engaged in elaborate explanation of logical subjects, and in the best of his dialogues he certainly problematises his own explanations in the sense that he explicates serious and threatening objections against them in detail, in order then to refute them.

Gongsun Long remains concerned with individual issues that captured his logical imagination and which he hoped would capture the imagination of his audience. Hui Shi (also late fourth century BCE)¹⁷ began to systematise such issues that were of logical and scientific interest by collecting relevant logical paradoxes quite systematically.¹⁸

New levels of systematisation within the field of logical and conceptual analysis were achieved by the Later Mohists, who interdefined systems of concepts and began to construct basic rules for discourse logic. (See Graham (1978)). It is often said that their well-defined tendencies towards a systemic rationalism were not much appreciated in their time, or at any time afterwards, so that their texts have manifestly been transmitted by scribes who understood nothing of

¹⁶ See Harbsmeier (1998), 261-85.

¹⁷ See Kou (1953).

¹⁸ See Harbsmeier (1998), 286-97.

what they were transmitting.¹⁹ However, the profound impact of this logical rationalism on the old historical commentaries noted below, and also on systematisation in lexicography, is manifest. This analytic rationalism became formative of later Chinese encyclopaedic thinking.

Astronomy and Mathematics

Counting is common everywhere and at all times. Simple arithmetic operations like addition are common at many times and in many places. Evidence of elaborated, advanced calculations is not common in very many cultures, but extensive elaborated calculations are documented in extremely early Mesopotamian sources and have been the subject of an extensive literature.

Such calculations play an important part, for example, in the *Huainanzi* (139 BCE)²⁰ and also in the economic parts of the *Guanzi*²¹ but the focus in these important sources is not on mathematics as such but on such subjects as astronomy. And it is in the field of quantified astronomy (with its important calendrical implications) that the most striking breakthroughs were achieved, with extensive, sustained and quantified elaboration being most strikingly in evidence in ch. 3 of the *Huainanzi*. However, it is plausible to assume that the needs for government accountancy and economic administration were a powerful impetus to the development of calculation skills in ancient China.

Among the texts from a grave closed around 170 BCE we find the *Book on the Procedures of Arithmetic*, by far the earliest elaborated text concentrating on calculation as such, but still concentrating on examples, rather than theory. Thus in this crucial source the focus has shifted from the application of mathematics, to the techniques of calculation. Mathematical problems are illustrated through paradigmatic example problems rather than through direct abstract discussion of any mathematical theory. And it is worth noting in this

¹⁹ Chapter 2 of the *Zhuangzi* could possibly be construed to contain a distinct move in the direction of the relativisation of logical analysis. (See Graham (1981)).

²⁰ See Major (1993).

²¹ See Rickett (1985-1998).

connection that there is no such abstract discussion of theory in Euclid either.²²

More systematised, but still example-orientated treatments of arithmetic problems may be found in *Gnomon of the Zhou Dynasty* (late first century CE, see Cullen (1996)) and the *Nine Chapters on Arithmetic Procedures* (perhaps around first century CE, see Christopher Cullen in Loewe (1993), 19ff).

Thus mathematics, certainly not itself a physical science of any kind whatever, nonetheless, like logic, can be shown to play a seminal part in intellectual history, and in particular in the history of a variety of the social and the physical sciences. This is why no serious history of science is possible without close attention to the logical underpinnings of scientific arguments and scientific inquiry, as well as the mathematical underpinnings of measurement and quantification.

Economics

There is perhaps not very much mythological economic lore from which economic reflection could grow by any process of narrative secularisation which could then invite elaboration. Indeed, there are many cultures and even advanced civilisations which never seem to have focussed very much on economics. To the Greeks, significantly, their word *oikonomia* meant “household economics”, and the economics of city state administration was not a notable focus in ancient Greek intellectual history.

Now the extensive elaboration of written prudence rules of economic planning for a state is a main focus in the book *Guanzi* (fourth-second century) which for this very reason was much celebrated by Russian Marxist intellectual historians. These rules tended to be dogmatic in the sense that they invited acceptance without reference to any body of reasoning.

However, there are occasions where the variously dated chapters of the *Guanzi* not only instruct in detail how things should be done, but where they actually go into reasons why things are, economically, the way they are and not otherwise.

The problematisation of these explanations, on the other hand,

²² For a Chinese text see *Wenwu* 9 (2000), 85-90.

the recognition of alternative reasoned views and the reasoned acceptance of one rather than another was not part of the style that predominates in the *Guanzi*. One suspects there might be examples of this, but I am not afraid to admit that I have seen no such cases in this extensive book. However, one would not want to exclude this possibility without a very careful study of the very difficult last chapters of the *Guanzi*.

On the other hand, there is a great deal of systematicity of approach in economic theory. There is a feeling that whoever compiled this book wanted to cover the main areas of social economy comprehensively. For one thing, the technical matter on economics is collected as a block of fairly coherently economic chapters at the back of the book. Some chapter headings will give an impression of the subjects covered: “On Extravagance in Spending”, “The Art of Fiscal Management”, “Discourse on Economic Matters”, “The State’s Store of Grain”, “Using Statistics to Control State Finances”, “Methods for Coping with Change”, “The Best Methods for Insuring Fiscal Control”, “Methods for Exploiting the Earth”, “Maintaining Stability in State Finances”, and finally the massive “Economic Policies”. The fairly comprehensive character of the treatment of the problems of the national economy does not amount to anything remotely like an encyclopaedic arrangement of the overall book, but there is a clear attempt at systematic comprehensiveness in the treatment of a subject that is not commonly elaborated in such detail in the other early civilisations before the first millennium BCE.

Economics, politics and philosophy were, of course, inextricably intertwined. Thus, the face-to-face adversarial confrontations of sharply contrasting views on the salt and iron monopolies arranged, with 60 participants, in 81 BCE, was not only an economic discussion, but very much a discussion suffused by all manner of philosophical disagreements.²³ This face-to-face confrontational mode is most widely illustrated in political contexts, from *Zuozhuan* onwards. In its more intellectual variants, it is abundantly evident, in the many passages of the *Analects*, where Confucius’ friend *Zilu* is notorious for his confrontational remarks, much focussed in the book *Mencius*, particularly in the confrontation between *Mencius* and *Gaozi*, and richly dramatised in often fictitious ways in the *Zhuangzi*. Although

²³ See Krol’ (1997) and (2001) for a masterful philological and philosophical interpretation of this public debate.

this is so, polemics in ancient China tends to be in writing rather than face-to-face, and it is interesting to note that the public of face-to-face intellectual confrontations seems not to have been the general public of the market-place. The public addressed was at most an invited public, never a general public, as it often was in Greece.

Philosophy

Many if not most cultures throughout the ages recognise special roles for wise men in their societies. These wise men are felt to be important because the focus on what is felt to be important and basic to an orientation in this world, and in life. The wisdom of old age is commonly acknowledged as a source of such authority. In many literate cultures wisdom literature naturally developed as a record of memorabilia in the form of wise sayings by wise old men. Certainly, in Egypt these were remarkably elaborated, and organised into series, perhaps even composed as series, and historians of pre-Socratic philosophy in Greece, when they disregard this older wisdom literature miss a precious opportunity to appreciate the specificity of the intellectual splendour that was in ancient Greece. Paradoxically, it is through such contrastive study that the specific contours of any one culture gain their proper place in the intellectual landscape. And likewise, the proper strengths of any philosophy are only properly appreciated when viewed against the background of those intellectual civilisations that are most closely comparable.

In many civilisations, as in China, philosophy moved from court advice to court philosophy (analogous with court poetry), and then only gradually, philosophy became more independent of court interests and the needs of the ruler's courts. Nowhere is the effect of this social context on Chinese philosophy described more graphically, and more vividly, than in Sivin and Lloyd (2002), 77: "Addressing the ground beneath the emperor's feet rather than his august person was not a mode nicely adapted to philosophizing." And yet, while it is true that Chinese writers may talk as if the study of what we today might want to call philosophy, of heaven and earth, was the result of a ruler's intention, it would be singularly naive to imagine that this is how they looked at their efforts in the direction of what we call the human and the natural sciences. Ancient Chinese prefatory material must be read with the same sophisticated sense of his-

torical source criticism as the adulatory prefaces of seventeenth century Europe pretending that writing in this age was for the sake of powerful and infinitely virtuous patrons. Prefaces are important, of course, but very often they merely establish an obligatory and conventional intellectual facade that would not be taken too seriously as self-expression by any experienced historian.

One need not be squeamish about the cross-cultural validity of a concept like that of philosophy. All one has to do is to define what one understands to be philosophy in the context of one's inquiry—and in what hopefully will turn out to be reasonably cross-cultural general terms. This definition will be inevitably stipulative. Philosophy begins, I want to stipulate, where wisdom literature gains three elements that are not self-evident but constitutive of what I want to discuss:

- A. a sustained and explicit intention to give reasons for one's conclusions, a willingness to argue why one is right.
- B. a sustained and explicit intention to explain what exactly is meant by one's conclusions, a willingness to specify what exactly one means.
- C. a sustained and explicit intention to argue for the relevance and overall basic importance of one's conclusions, a willingness to explain why exactly one's conclusions should matter.

I refuse to think it is Eurocentric to say that philosophy crucially involves persistent, sustained attention to the following reflexive question: "Do I make good sense to myself when critically questioning myself in an intellectually 'hostile' manner?" It is this playful hostility to one's own conclusions and arguments that I believe to be one crucial element in the development of any philosophy with "scientific" ambitions.

I refuse to think that giving reasons, saying what one means, and explaining why things matter are in any way communicative practices limited to so-called "high civilisations". Any language which has ways of asking "why?", "what do I/you mean?", "So what?" has all that is needed to do philosophy in the sense that concerns me in this paper. Any developed language will allow the speakers to question their own conclusions and arguments.

On the other hand, being able, in principle, to ask these questions is not the same as asking them in any sustained way. We need to look carefully at the Egyptian wisdom literature, for example, to see to what extent the wise men argued their cases, tried properly

to explain exactly what they meant, and made it clear what was so important in what they were saying.

Pre-Confucian Chinese thinkers produced wisdom literature in that they were dogmatic rather than argumentative, they sound throughout as if they were semantically naive in the sense that they did not expect to be asked about exactly what they mean, and above all they quietly assumed that the importance of what they said was self-evident. In short, they were very much like Solon and his fellow wise men of ancient Greece. They spoke not academically *ex cathedra* but their arguments, if any, tended to be *ex auctoritate*.

We do not find Solon being challenged, defending a point of view. We hear him pontificating. And as a poetic pontiff of political wisdom he possibly had a greater historical influence than his more loquacious and argumentative successors.

Pre-Socratic philosophers, then, were not necessarily philosophers in our sense. The point needs careful discussion.

In China, Confucius was undoubtedly a philosopher in our sense because he habitually responded to questions of why, and to hostile objections. And while he was still wont to speak *ex cathedra*, as it were, his friends (all of whom later ages insisted on calling disciples) habitually put him on the spot and insisted on asking what exactly he meant by what he was saying.

And it is striking how often Confucius derives the importance of such things as ritual or benevolence by showing how nothing will work for men without these virtues.

What we find little of in Confucius is intellectual elaboration, the microscopic focussing on intellectual issues. Within this area he was greatly surpassed by his follower Mencius (ca. 372-289 BCE). For in the book that bears his name we find many sustained elaborated arguments addressing well-defined intellectual issues such as the question of the intrinsic basic goodness of human nature.

The book Mozi manifestly does problematise in the sense that it frequently argues *e contrario*, by *reductio ad absurdum*, that is by assuming the opposite of one's thesis to be true and showing that this leads to contradiction or utterly unacceptable logical consequences.

The systematisation of ethical concepts has been brilliantly exhibited in Graham 1978.²⁴ The tendency towards systematisation of the

²⁴ See also Harbsmeier (1998), 326ff.

whole field of basic wisdom is most clearly in evidence in books like the *Xunzi* (third century BCE). A much less systemic attention to the overall organisation of knowledge is in evidence in the *Spring and Autumn Annals* of Mr Lü.²⁵ But this belongs perhaps more properly to the realm of epistemology to which we shall turn presently.

Systematisation in the case of philosophy included an interest in the history of the discipline itself, which is evident in the last chapter of the *Zhuangzi*, the chapter *Against the Twelve Masters* in the *Xunzi*, and Sima Tan's all-important treatise on the Six Schools in the *Hanshu*.²⁶ Note that the history of the discipline of historiography itself was made the special subject of the *Comprehensive Discussion of Histories* by Liu Zhiji (661-721)—a very long time before anything of the sort was systematised in the West.

One may argue about the precise nature of the sustained forms of philosophical relativism advocated in the various parts of the book *Zhuangzi*, but the general comparatist conclusion must be that relativist positions of various kinds play an important part in that book. All general philosophical perspectives are regarded as irretrievably subjective and arbitrary. In particular they are considered to be of indifferent value because they share this character of contingently conditioned subjectivity.

Deliberate public deviance from a general public consensus was common, notable already in *Analects* 18.6, and notably celebrated throughout the ages in the book bearing the name of one of the deviators, *Zhuangzi*. Openly favouring one's private interests, in ancient China, was not only thinkable, it was said to be defiantly advocated by Yang Zhu, and even kinship ties, the crucial glue that held the state and its leading clans together, was defiantly devalued on rational grounds by the Mohists. Both these cases of public deviance, and the assertion of the crucial importance of the private sphere, were decried as disastrously common by Mencius (3B9): "Their words fill all under heaven!". The fact that official sources found in the later imperial archives do not stress such deviance, tells much about imperial book collection and little about dissent in writing.

However, whereas many Greeks from Herodotus onwards came to place themselves in the context of surrounding cultures as sources

²⁵ See Knoblock and Riegel (2001).

²⁶ See Watson (1958), 43ff.

of inspiration, there is no such perception in China during the first millennium BCE. The case of Pythagoras is both entertaining and instructive: his “Bildungsreisen” are variously reported to have taken him to the Phoenicians, the Chaldaeans, the Persian magicians, the Indian “naked sophists”, the Arabs, the Jews, the Gallic druids, and above all the Egyptians.²⁷ Indeed, among many other things, his philosophical vegetarianism does have striking parallels in many civilisations of the first millennium BCE. Diogenes Laertius, the biographer of Greek philosophers, opens the Prooimion to his great work as follows: “There are some who say that the study of philosophy had its beginning among the barbarians. They urge that the Persians have had their Magi, the Babylonians or Assyrians their Chaldaeans, the Indians their Gymnosophists; and among the Celts and Gauls there are the people called Druids or Holy Ones, for which they cite as authorities the Magicus of Aristotle... ..”²⁸ The Chinese never nourished any suspicion that their culture was fundamentally derivative from others. Even in modern times, Chinese archaeologists have sometimes found it hard to accept the evidence that what we have come to regard as Chinese culture is the result of an early syncretism of pre-existing cultures.

Epistemology and Encyclopedias

Whereas I take philosophy to be concerned with what is considered and construed as basic in human wisdom, I take epistemology to be concerned in general with what is known and/or knowable. The question what is known is much more commonly asked than the question what is knowable.

All societies have specialists who are known for their knowledge in certain areas, and the division of intellectual labour becomes increasingly important as the field of what is known in any society expands and is diversified. Thus immense specialisation of knowledge as well as skills was needed not only for the building of the pyramids of Egypt, but also for any of the advanced artefacts of a

²⁷ See Zeller(1963), vol. 1.1, 384ff, and also Burkert (1972). I wish to acknowledge the profound inspiration I continue to receive from Zeller’s work, wherever I consult it, hence the reference to this in some ways outdated nineteenth century work.

²⁸ Hicks (1958) vol. 1, p. 3.

wide variety of societies. For example, in order to achieve the temperature control needed for the production of Shang dynasty bronzes in the late second millennium BCE there was a comprehensive need for advanced specialised knowledge and skills. There was a need for an advanced bureaucratically organised division of labour.

Regarding China, diversification of intellectual specialisations is evident from Shang times, but none of our sources for the Shang period suggest the sustained elaboration of this knowledge in texts designed to record and further develop such knowledge. The scribal act was primarily an act of recording what was ritually/politically important.

On the other hand, the written elaboration of what is knowable in specialised areas was much in evidence in excavated texts of the third century BCE.²⁹ The military chapters of the *Mozi* (third century BCE) as well as the agricultural chapters of the *Guanzi* (fourth to first century BCE).³⁰

Reasoning explanation for the truth of what these sources summarise appear sporadically throughout this literature, but problematisation in the form of a sustained and elaborated consideration of alternative explanation is rare. The default style remains the dogmatic mode, even when explanations are given. However, the systematic problematisation of whatever seems to be believed did occur in the first century BCE in the work of Wang Chong (see Forke (1961)).

The encyclopaedic systematisation of the whole field of what is known and important was notably attempted in the *Springs and Autumns of Mr Lü* (249 BCE).³¹ The *Master from Huainan* is another such ambitious encyclopaedia organised by a competitor for the imperial position.³² Both these large works were compiled by bu-

²⁹ See Harper (1998) 19.

³⁰ It is important to emphasise that this book appeared hundreds of years after the death of the statesman whose name it bears, and the book is not a good historical source on the views of the statesman. For the books of the military tradition, see Sawyer, R.D. and Mei-Chun Sawyer (1993) and Lau and Ames (1996).

³¹ See Knoblock and Riegel (2001). It is significant that Mr Lü is not referred to as “Master Lü” (contrast the *Springs and Autumns of Mr Yan*). The book does not pose as the intellectual work of the rich and influential politician who organised this enterprise, and who does seem to have given it a definite political direction, Lü Buwei.

³² The book dates 139 BCE. See Vankeerberghen (2001). It is significant that the title of this book, and none of its variants, refers to the “King of Huainan”.

reaucratically organised, more or less politicised intellectuals working for the court of a ruler. In particular, these encyclopaedic systematic works included introductions which reflected on that very systematicity which is our concern. The case is different for the Springs and Autumns Abundant Dew (second to first century BCE).³³ This book does pose as the synthesising work of one author, Dong Zhongshu (195-115 BCE), who was an important intellectual of his time, but the book has a large number of later additions.

Finally, the Records of the Historian (first century BCE).³⁴ Based on a private family initiative, but compiled in the imperial library, this is an historically organised encyclopaedia of important information about the known world, which encompasses even non-Chinese subjects of all kinds.

The relativisation of all such knowledge, the systematic doubt concerning the reliability of human knowledge is again extensively discussed in the Zhuangzi, and it is not a coincidence that in so many areas this book is our best early source for a high level of reflexivity on any subject. It is as if the Zhuangzi provides a counterpoint. In the matter of knowledge it is clear that Zhuangzi, consciously striving to separate objective and incontrovertible knowledge from other kinds, decided that there was no such thing as incontrovertibly and objectively certain knowledge. The kind of skepticism one finds in the Zhuangzi logically depends on this focus and philosophical emphasis on the separation between incontrovertible and objective knowledge and other less absolutely reliable kinds.

Psychology

The psychological terminological repertoire of human languages may vary widely among different cultures. Some form of distinction between what is inner and outer, however, seems universal in human language. Opinions about the inner life of man must have been current in all civilisations at all times. Psychological discourse was

Moreover, the King of Huainan nowhere claims authorship of the main treatises in the book the compilation of which he organised.

³³ See Arbuckle (1991), Queen (1996), and also Gassmann (1988).

³⁴ See Watson (1958). It is significant that whereas the author of this work held the title of a Grand Scribe/Archivist, the conventional and traditional title Shiji simply refers to this simply as "Records of the Scribe".

presumably common in many old civilisations.

The elaboration of the analytic description of the complexities of this inner life raises especially fascinating problems because quite arguably there is a sense in which the creation of a repertoire of psychological concepts partially creates what it purports to describe.

Moreover, the reticence of a culture to record in writing discourse which is concerned with the inner life of man, or with psychology, the absence of a psychological range of vocabulary in any set of ancient sources, says little about the psychological concepts that were operative and important among those people, and in those lives and those societies. It proves nothing about what psychological complexities informed the production of these texts.

For example, the scarcity of psychological vocabulary on the Shang dynasty bones of the late second millennium BCE in China does not entitle us to any far-reaching conclusions on the psychological vocabulary of the times. No more than the absence of words for breaking wind should be used to argue against Shang dynasty flatulence.

However, in the context of the present discussion it remains significant that the psychological vocabulary in Shang dynasty oracle bones is extraordinarily limited, that characters written with the heart radical are exceedingly rare in all these oracle bone texts. Already the bronze inscriptions of the early first millennium BCE the repertoire of psychological terms increases markedly.

However, the written and decontextualised elaboration of the psychological area of knowledge did not occur in the second millennium BCE, but in the middle to late first millennium. The most focussed example of this is in the *Xinshu* and *Neiye* chapters of the book *Guanzi*.³⁵ There is a certain amount of explanatory reasoning, but I find no traces of sustained problematisation in the form of a detailed consideration of alternative accounts of psychological reality. However, when the philosopher Mencius (fourth century BCE)³⁶ raises the question of the psychological basis of human morality, his issue is not just argued for and reasoned about: alternative conceptions are taken up in detail.

Within the area of psychology I have found little trace of comprehensive systematisation, and none at all of relativisation of psy-

³⁵ See Roth (1999).

³⁶ See Lau (1984), and note that this is the thoroughly revised edition which supersedes and should be used instead of the earlier Penguin version of 1970.

chological theories. Indeed, the focus in psychology remains generally practical and directed towards the use of the mind in moral philosophy, as in the Mencius or in techniques of meditation as in the two Guanzi texts.

The problematisation of the notion of the soul which we find in the work of Aristotle has no parallel in China.

Ethics

Any civilisation will naturally develop notions of what one should and should not do, and the wisdom literature of the ancient world is replete with moral advice of all sorts.

The decontextualised sustained elaboration of what exactly is good or bad, as opposed to contextual moral advice, certainly did not occur in China before the first millennium BCE. Even in a book like the Springs and Autumns of Master Yan (third century BCE)³⁷ the moral stance of the philosopher is always strictly embedded in historical context. Abstract discourse is always directly occasioned by the embedding historical/narrative context. Confucius may not have liked to talk about goodness and benevolence, but the record shows that he was often asked about this topic and quite ready to discuss and provide general definitions. However, these definitions, it turns out, tended to be intended for a particular audience in a particular situation. The question was not normally what one should do in a particular situation; the question was how a given audience should best understand a moral concept. Decontextualisation was only beginning.

Not so in Mencius, where there is sustained argumentation about moral concepts, and these are reasoned about in an increasingly decontextualised way (Nivison). Alternative ethical systems, like that of Mozi or of the so-called egoist Yang Zhu³⁸ are explicitly taken up for refutation, and occasionally, opposing ethical views are given elaborated attention. This is something which is notably cultivated in the book Mencius and makes this book philosophical in a very specific western sense.

³⁷ See Holzer (1983).

³⁸ See Graham (1989), 53ff.

In the *Xunzi* this process of decontextualisation is complete and there is a systematised attention to ethical values, their explanation and precise meaning. There is not, however, much problematisation of ethical values in the sense that there is rarely any doubt of alternative construals of values, alternative ethical orientations, or open-minded problematising ethical agnosticism.

Throughout the first millennium BCE there is a clear movement from ethical conventionalism as pontificating or analytic discourse about what is traditionally regarded as morally good, and towards an ethical discourse in which this tradition is problematised and the philosopher views himself as someone who has to make independent decisions between competing ethical positions.³⁹

Ethical relativism was fully developed in *Zhuangzi* ch. 29, in particular in *Zhuangzi*'s account of the moral principles of the Robber *Zhi*.⁴⁰

Medicine

Medical practices of some sort or another are current in all societies with which I am familiar, and I assume them to have been present in all early civilisations. The elaboration of medical knowledge in writing, on the other hand, is not something that may be simply assumed to have occurred except where it is observed.

The professionalisation of medical practice is also common in many civilisations, and it is much in evidence by the title *yi* which in pre-Han Chinese can precede a name exactly as in "Dr" in English. Thus *Yi He* is literally translatable as Physician *He*. The characteristic association is that of physicians with shamans (*wuyi*), and there is every reason to believe in the continuing close association between shamanism, folk religion and medical practice, and in fact the term *wuyi* would seem to refer not to shamans on the one hand and physicians on the other, but to one group only: the shaman-physicians. (See now Strickmann (2002)).

In Shang times in China, discourse on the aetiology of sickness was common, but the specific vocabulary for diseases was small, and the increase in terminology during the first millennium BCE was striking indeed. The Shang oracle bone inscriptions have one word for

³⁹ See Roetz (1983).

⁴⁰ See Graham (1981), 234ff.

“sickness, disease” and by Late Warring States times there are dozens of (more or less well-defined) distinct terms for diseases of various kinds.

Liang yi, “competent doctors”, were in high demand in Warring States Chinese, but the general social status of doctors would appear to have been low, and close to that of a craftsman.⁴¹ Indeed, the association of doctors and craftsmen was idiomatic in the language. But medical practitioners were definitely expected to have *fang shu*, “professional methods”.⁴²

Early evidence on doctors is anecdotal and does not therefore permit a principled account of medical practice, and even less of the social background of medical practitioners in general. The situation changes with the extraordinarily important recent discovery of fairly extensive medical texts copied around 200 BCE. These testify to an elaborate tradition of written, practically orientated, medical discourse in China at least during the third century BCE, although, significantly, these texts have not entered the mainstream of transmitted literature and were thus unknown to the Chinese until their rediscovery in recent times. Thus in a crucial sense, these texts are not an integral part of the transmitted medical literature of China.⁴³ Some version of the Yellow Emperor Inner Classic (see—until further notice—the notoriously unreliable Veith (1949) but also Nathan Sivin’s article in Loewe (1983)) was clearly present in the Imperial Library shortly after 26 BCE, and was probably compiled during the last two centuries of the first millennium BCE.⁴⁴ It is thus clear that during the first millennium BC the elaboration in writing of medical knowledge was considerable, and historically unprecedented in its generalist theoretical orientation.

Moreover, medical discourse definitely involved aetiology, the dogmatic explanation of effects in terms of underlying causes. In this case, it is clear that underlying realities were taken to account for tangible manifest results.

The problematisation of medical explanations, the sustained consideration of alternative medical explanations, is not a preferred mode of medical discourse, which tends to elaborate and explain rather than to argue.

⁴¹ See Han Fei Zi ch. 43.

⁴² See Weighing Discourses in the Balance ch. 43, translated in Forke (1962).

⁴³ See Harper (1998).

⁴⁴ Harper (1998), 4, note 2.

On the other hand, there is a manifest attempt in the Yellow Emperor Inner Classic to systematise and to give as comprehensive an account of matters medical as current medical knowledge permitted. Thus the Yellow Emperor Inner Classic does not just in an incidental fashion, provide a great deal of medical observation, explanation, and advice: it is designed and compiled to give comprehensive advice. At this stage, unfortunately, it is not easy to be sure at which stage of the compilation of the Yellow Emperor Inner Classic this ambition towards systematicity became dominant. But a probable date is the first century BCE.⁴⁵

The relativisation of the medical explanations and practices recommended in the Yellow Emperor Inner Classic is not part of the purpose of that book.⁴⁶

Divination

Various forms of divination are endemic in many early civilisations. The vast number of divination records that have come down to us from the Shang dynasty bear very detailed witness to divinatory practice from the twelfth century onwards. The proliferation of these records is indeed remarkable, and there is a fairly coherent and constant format which gives these divination records a highly predictable and almost professional appearance.

Occasionally, these divination records do get narratively elaborate, and they can be quite long.

Explanations, on the other hand, are rare on the Shang oracle bones, and problematisation in the sense of comparison between competing explanations seems absent.

The Book of Changes⁴⁷ presents a very much more complicated and richer picture. Here we find remarkably disciplined elaboration of the contents of divination, persistent explanation of problematic

⁴⁵ Systematic medical botany, with its The Divine Husbandman's Classic of Materia Medica which describes 365 drugs, probably came together a hundred years later. See Sivin and Lloyd (2002), 232 for a fascinating excerpt of this work.

⁴⁶ For a singularly ambitious social survey of ancient Chinese and Greek medicine in a comparative perspective see Sivin and Lloyd (2002). Much of this paper is a reaction to this comparative work by two eminent masters of the field.

⁴⁷ See Lynn (1994) and Shaughnessy (1996) the latter dealing with newly discovered documents.

points, constant problematisation of what has been said, in the appendices to the book a metaphysical systematisation of the significance of divinatory practices. And in the commentarial tradition to the early parts of book we find a great deal of problematisation of all kinds.

In the tradition of the Book of Changes, Yang Xiong's Canon of Supreme Mystery (ca. 4 BCE)⁴⁸ deserves mention because in fact it breaks out of the scheme I have laid out: written in the style of the Book of Changes it problematises and comments on the whole tradition by writing creatively in this deliberately mystifying style. In its own way this is an unparalleled literary cum intellectual breakthrough in the late first millennium BCE, a kind of meta-literature which avoids parody.

Philology

Among all literate people I assume that questions concerning the meanings of words and passages in inscriptions and texts, and the nature of documents themselves are commonly considered. Written texts have often been the focus of some attention wherever they were used.

The written elaboration of such discourse about words and texts, on the other hand, is not something that is necessarily universal. Thus, as far as I know, the Shang oracle bone texts of the late second millennium contain no metalinguistic comments. No bone speculates about another bone, and no bone speculates about its own text.

During the first millennium this reflexive loop, this mode of written discourse where the subject of discourse is again discourse, came to play an important part in Chinese intellectual history.

For Confucius, for example the ancient songs were not only a source for useful elegant quotations. They were also a subject of speculation and playful allusion with regard to their meaning. The meanings of words were currently discussed from the time of Confucius onwards. And there certainly are clear signs of elaboration of the contents of such Chinese keywords as those for "ritual" or for "kind-heartedness/goodness".

The explanation why something means what it appears to mean

⁴⁸ See Nylan (1993).

is consummately cultivated, with pervasive and often incisive attention to logic and argumentation, in the Gongyang and Guliang commentaries to the Spring and Autumn Annals which probably date to the third and second centuries.⁴⁹

Problematisation of an explanation given, on the other hand, was rare: by and large the Gongyang and Guliang commentaries present their interpretations and do not discuss in detail any dissent.

Several chapters in the *Han Fei Zi* (second century BCE⁵⁰—the author Han Fei is never referred to as Master Han Fei in ancient sources) are highly philosophical commentaries, and the Explaining Lao chapter of this book is full of subtle conceptual analysis as well as profound philosophical reflection on text. Thus Han Fei raises philology to the level of a philosophical discipline.

Systematisation of the discourse about words, particularly the glosses, on the other hand, was elaborately present in the *Erya* dictionary which lists synonym groups on a large, even comprehensive scale. In this work we find an overall systemic metalinguistic interest defining a major scholarly effort. Monolingual dictionaries have varied and cultivated this interest ever since.

Now writing dictionaries of one's own language is not a self-evident practice, and word-lists were made in Mesopotamia long before the Axial Age. But in China, lexicography started out in the third century BCE, and reached an extraordinary peak of systematicity in the *Shuowenjiezi* submitted to the emperor of the Han in CE 100.⁵¹

Bureaucratic systematicity also found other objects of comprehensive listing and intelligent subclassification: this was in the area of comprehensive bibliography from the first century BCE onwards. Thus in the years after 26 BCE, an annotated detailed subclassified catalogue of books in the imperial library was compiled and chapter 23 of the official *Book of the Han* contains a successor to this catalogue which remains a precious source and the starting point of all ancient bibliography to this day.⁵²

It is one thing to have many books, to establish libraries, and to consult books in libraries. It is another to reflect on the fact that there

⁴⁹ See Malmqvist (1971ff). It is significant that, like the *Zuozhuan*, neither of these texts refer, in their title, to any "Master" as their author.

⁵⁰ See Harbsmeier (in print).

⁵¹ See Bottéro (1996).

⁵² See Tsien (1962).

are all these books and to arrange them systematically into natural and informative groups or categories. And it was this latter reflective mode that developed to a considerable degree of perfection in the first millennium BCE. In Shang times, late in the second millennium, masses of documents were indeed collected, which is why so many of them were found together. But there is no evidence that these oracle bones were classified in a way to categorise them.

Grammar

I assume that all adults would notice when their children made grammatical mistakes. It is not self-evident that all peoples would correct their children's grammar, but an awareness of the fact that some sentences are acceptable and others are not I take to be probably universal. This is not to say that the enforcement of correct grammar through some kind of schooling was common. It only means that a distinction between acceptable and unacceptable sentences was probably commonly felt in many cultures and may have been focussed, occasionally.

Elaborating, in writing, rules of one's own grammar, on the other hand, is not a self-evident thing to do. The Indian tradition is quite unique in its explosively sophisticated attention to Sanskrit grammar from the fifth century BCE onwards.

Chinese interest in grammar was largely limited to the lexicography of grammatical particles. The first grammar one might put alongside the early Indian grammars for comparison was produced in 1898 by a student of Latin, Ma Jianzhong.⁵³

In this area, there was nothing remotely reminiscent of a grammatical breakthrough in the first millennium. The commentarial philological literature, though, has been shown to have paid consistent attention, en passant, to grammatical questions. This has been particularly brought out in the little-noticed detailed work of Sun Liangming of Shandong University.

⁵³ See Stammerjohann (1996).

Poetics

The folklore of most peoples includes folk poetry. Many cultures cultivate various forms of court poetry which is more or less distantly related to folklore. The systematic subclassified collection of folk song texts as well as court poetry scripts is not a self-evident undertaking, and the creation of systematic anthologies is a significant act in the literary development of any country, and this occurred around the middle of the first millennium BCE.⁵⁴ The elaboration of such poetry, and the use of the poetic medium for a rhetorical pose of personal expression of feelings by a named individual is arguably present in the opening poem of the Songs of the South which may date about the third century BCE. The Songs of the South are in any case another systematised anthology which compiled in Han times and contains much earlier material. (See Hawkes (1985)). The systematisation reached new systematic heights in the Selection from Literature of the sixth century CE. (See Knechtges (1982ff)).

The problematisation of literature, the reflexive discourse on literature is clearly evident from the middle of the first millennium. Zhuangzi ch. 27 (see Watson 1968) is largely devoted to discourse about literature. And as a crucial early example of poetic-theory discourse one must mention the famous Mao Introduction to the Book of Odes.⁵⁵

Rhetoric

Anyone who speaks conforms to rules of grammar, whether he knows these or not. Yet, very few peoples have wanted to know very much at all about these rules of grammar. Similarly, anyone who speaks follows patterns of rhetoric, employs rhetorical devices. Very few peoples have wanted to know very much about these rhetorical devices.

However, whereas complex grammar has nothing to do with the complexity of a culture using this grammar, I would like to argue that a whole range of features of rhetoric are in complicated ways linked to advanced cultures. One can be tempted to regard the

⁵⁴ See Karlgren (1941).

⁵⁵ See the remarkably rich Owen (1992), 37ff.

development of such rhetorical forms as breakthroughs in the context of the present paper.

Consider now for a moment the Greek and Roman rhetorical tradition in the first millennium BCE. Aristotle's *Rhetoric*, Cicero's rhetorical writings, and the *Rhetoric ad Herennium* show a type of well-defined reflexivity which one might look for in any culture.

In China, during the first millennium BCE one looks in vain for the elaboration of any reflexive rhetorical analysis of the rhetorical devices used in texts.

However, when one considers not rhetorical reflection, but rhetorical practice, the first millennium was rich in decisive breakthroughs which defined the articulatory course of Chinese literary and intellectual history. The first extensive discussion of rhetoric in ancient China dates from the first century CE.⁵⁶

Concluding Remarks

As Leibniz knew, everything is ultimately connected with everything else. I should have told an infinitely more complex story than I have. But I have chosen an analytic rather than a narrative approach to the striking breakthroughs in China during the axial millennium. And I have focussed on selected features that I consider important in intellectual history.

As I have long argued, the limitation to the first millennium BCE is arbitrary: the decisive break occurred in China, and with remarkable simultaneity in the West, during the first millennium CE, when Buddhism in China and Christianity in the West profoundly changed the intellectual and cultural landscape. Thus, the relevant period in China is the pre-Buddhist period, and what I have surveyed are pre-Buddhist developments of which more occurred in the first two centuries CE.

A few final general remarks on the nature of breakthroughs are in order. In all areas of intellectual history as well as art history, progress remarkably often turns out to be eruptive rather than gradual. Thus bronze technology reached astonishing heights in the

⁵⁶ See Forke (1962) vol. 1, p. 64ff. Unger 1994 exemplifies rhetorical devices, and for a survey of the relevant literature on Chinese rhetoric see Harbsmeier (1999 and 2001).

late second millennium BCE, and it is hard to find more advanced bronzes during the succeeding 3,000 years of bronze technology. Similarly, intellectual developments in Greece during the brief period from Socrates to Theophrast, arguably, showed greater and more radical methodological and logical progress than the succeeding 1,000 years, perhaps even 2,000 years. So striking has been this impact of Socrates and the first few generations of his admirers, that intellectual historians have long tended to overlook the remarkable richness and significance and creativity of the later Hellenistic and medieval periods which did have their specific strengths.⁵⁷ To Thomas Aquinas, the word “Philosophus” referred to Aristotle, and never to Marcus Aurelius, in spite of the fact that Marcus Aurelius and Epictetus were much closer to Christian philosophical concerns.⁵⁸

I believe there is a good reason for the traditional intellectual obsession with Socrates, Plato and Aristotle of the Axial Age: this has to do with the very foundations of the history of the non-technological sciences:

1. The logic of conceptual analysis in Socrates.
2. The practical and dramatised logic of critical reasoned argumentation in Plato.
3. The logic of general scientific inquiry, and the reflexive focus on logic as a discipline in Aristotle.

Stoic logicians, roughly contemporary with Aristotle—and incidentally much more advanced in most ways than Aristotle himself—were largely neglected until the seminal work by Benson Mates.⁵⁹

Discussing classicism in Europe and in the West, as in China, I believe, must involve a proper understanding of the logical and conceptual underpinnings of this preoccupation of the later tradition with that short classical period during the Axial Age. And without arguing this point here in any detail I want to suggest that in the case of the West, these underpinnings have a great deal to do with the logic of scientific enquiry. Logic is crucial not only for the history of philosophy, but also for the history of science more generally.

It is one thing to register the fact that the later Chinese tradition

⁵⁷ A striking example of this is Zeller (1961).

⁵⁸ See Dacier (1691), 1-24.

⁵⁹ Mates (1953) quietly and magisterially demonstrated the status of the Stoics in the history of logic.

remained extraordinarily preoccupied with the latter half of the axial millennium, so much so that for a long time the study of classical Chinese was defined as the study of the Axial Age. The matter is usefully illustrated by an anecdote the truth of which is confirmed. When Denis Twitchett announced to Gustav Haloun, then professor of Chinese in Cambridge, in his characteristic London accent: "I'm thinking of doing the Taeng!", Haloun replied in his even stronger Bohemian-Teutonic English: "Tang iss journalisssm!" Studying the latter half of the first millennium CE, in mid-twentieth century, could still be derided as "journalism".

Times have changed. The vitality of the third century CE, the extraordinary technical and intellectual prowess of the specialists in the foundational science of logic of the seventh century CE, not to speak of those a little more practically orientated astronomers and technologists of all kinds whose contributions were first explored in the path-breaking volumes of *Science and Civilisation in China*, are now being explored in so much greater detail in a huge number of monographs all over the world. Axial Age studies have in turn become quite marginalised, and the question whether the Axial Age might have a privileged claim to the attention of sinologists has turned out to be politically incorrect.

To answer this question, defiantly, one needs to ask what it was in the literary products of this Axial Age that seemed to justify such a disproportionate emphasis.

Thus there is this second question. This does not concern Chinese perceptions of the importance of the Axial Age. It concerns our own historical and critical analysis of this importance, which is a very different matter. The question, then, is no longer the narrative one: why and how did the Chinese feel the developments and the texts of the Axial Age were so important? The analytic question becomes: why did these developments and these texts receive such extraordinary sustained attention throughout pre-modern and post-axial Chinese history in the first place,—and did they deserve it? It is to *this* unfashionable question, which aims at (perhaps impossible) objective historical and critical analysis rather than narrative description of the sociology of Chinese intellectual history, that I have addressed these untimely considerations from a bird's eye perspective. By philological methods we need to ascertain how the ancient Chinese understood their own intellectual and scientific practices, but then I insist we must go on to ask the old-fashioned analytic

question how these practices should be properly analysed and understood in their historical comparative context. After all, we are prone to misunderstand and even more to misconstrue what we are doing.

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