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Why is there philosophy in India?

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Many Indologists are deeply concerned to show that there is such a thing as Indian philosophy. They are upset by the fact that most people in the modern Western world, including philosophers, do not expect to find such a thing in ancient India. India, common knowledge teaches, is a land of spirituality and wisdom, but not of hard-headed analysis and serious debate. This common knowledge dates to before the beginning of our era, and it is unlikely that it will disappear any time soon.

This common knowledge is wrong, as Indologists know. India has had a long tradition of rational debate, linked to systematic attempts to make sense of the world and our place in it. For a long time different systems of philosophy existed side by side, and during much of this time their adherents made major efforts to show that only their own system was right, and that the others were wrong or incoherent. The result of this ongoing debate was that many thinkers tried to improve their own systems, and in the process refined and developed them. At the same time the art of debate and of proof received ample attention, and logic underwent a long development which scholars are still engaged in unraveling.

These features combined, along with a further condition which I will specify in a minute, I will call a tradition of rational inquiry.¹ India has such a tradition of rational inquiry, but the same is, as I will argue, not true of all human cultures. The presence of a tradition of rational inquiry in India expresses itself, as I indicated already, in its tradition of rational debate and in the result thereof, the attempt

* In writing this lecture I have profited from discussions with various scholars; I would like to mention in particular Geoffrey Lloyd, Ada Neschke, Frits Staal. Others – among them Tilmann Vetter and Hans Bakker – have given useful feedback after the lecture was delivered. No need to add that I alone bear responsibility for the opinions here expressed.

¹ This use of the term 'rational' is not new, and is close to its use by W.W. Bartley III and F. Munz; cp. Munz, 1985: 50: 'We say, if we are Panrationalists, that it is rational to criticise everything and to hold on to only those statements which have so far withstood criticism. In this view "reason" does not denote a substantive faculty or a correct method of arriving at statements which are true; but a negative quality. When one is rational, one is open to criticism and an absolutely limitless invitation to criticism is the essence of rationality.' Cp. further the statement 'there is no better synonym for "rational" than "critical"' attributed to K. Popper by Piatek (1995: 171) (cp. Popper, 1998: 109); also Miller, 1994; Munz, 1993: 177.

made by many thinkers to improve their own system, and the refinements and developments that this entailed.² The further condition which I have not yet specified is that in a tradition of rational inquiry there are no areas of reality which are fundamentally beyond the realm of critical examination, no areas which should exclusively be left to tradition, revelation, or insight.³ This aspect seems to have to do with the belief that rational inquiry can be used even in realms which might encroach upon other sources of authority, such as tradition and religion, and even ordinary perception. It is perhaps no coincidence that both in ancient Greece and

² It is interesting to recall here what Richard H. Popkin, the foremost expert of the sceptical tradition in the West, says about scepticism (1996: xviii): 'For years I have been toying with the idea of writing an article describing scepticism as being like an anonymous letter. The question of who is the author may be of some interest, but it is not the main concern. The recipient has the letter. The letter raises a host of problems for the recipient in defending his or her dogmatic philosophical position. Whether the anonymous author can be found or identified, dead or alive, sane or insane, does not help in dealing with or dismissing the problems. So whether scepticism can be consistently stated is not the main point. The thrust of the sceptical attack is in the effect it has on the dogmatist, who cannot evade the thrust by denouncing the sceptical opponent whom he or she may not be able to find, identify or classify. It is the dogmatists who have to do the defending, if they can, regardless of whether the sceptic really exists as a flesh and blood member of the human race, or as a raving inmate of a mental institute, or a science fiction character. ... The sceptic, real or imaginary, has led the non-sceptics to struggle over and over again to find a coherent and consistent way of putting their intellectual house in acceptable order (acceptable to honest dogmatists), only to find that another sceptic, real or imaginary, is creating another mass of doubts that require further examination and rethinking. The sceptic, the anonymous letter writer, does not have to be part of that process, but only has to await the results, and be ready to prepare another anonymous letter.'

³ This last condition in particular distinguishes a 'tradition of rational inquiry' from 'rationality' as understood by various authors. See, e.g., Staal, 1989; Goody, 1996: ch. 1.

A contemporary debate where the parties involved do not seem willing to allow that there are no areas of reality which are fundamentally beyond the realm of critical examination is the religious dialogue between Moslems and Christians. Cp. Waardenburg, 1998: 48: 'Le débat entre les deux religions tient ainsi d'une sorte de compétition pour la "possession" de *la Révélation*', et p. 109: 'Aussi triviale que la remarque puisse paraître, la différence essentielle entre un monologue et un dialogue réside tout de même dans le fait que dans le second cas on écoute et répond à ce qu'a dit l'autre.... Dans ce sens, le dialogue interreligieux et notamment celui entre musulmans et chrétiens commence à peine.'

in ancient India, soon after traditions of rational inquiry had established themselves, thinkers appeared who put unlimited confidence in the power of reasoning. Both the Eleatics in Greece and Nāgārjuna and his followers in India did not hesitate to reject perceived reality on the basis – not of tradition, revelation, or special insight – but of mere argument.⁴ Let me add that having a tradition of rational inquiry does not imply that every thinker is rational, i.e. critical and open, in all respects and in all the areas about which they express themselves. What is more, having a tradition of rational inquiry is not the same as being able to think intelligently. People may think intelligently about a variety of things, without trespassing into areas that belong to tradition, revelation, insight or religion.⁵

The presence of a tradition of rational inquiry in India may not look very remarkable to the modern inheritors of Greek thought which we are, and yet I believe it is. It seems that apart from ancient Greece and India and their inheritors there are no other instances where an independent tradition of rational inquiry has come into being. I realize that this claim will particularly disturb those who maintain that there are *three* philosophical traditions in human history: those connected with Europe, India, and China respectively.⁶ It seems that China has never had a rational tradition in the sense proposed here. I'll argue this point, following the lead of the Sinologist A. C. Graham, who has given a great deal of thought to the question of rationality in China.⁷

⁴ This is an enduring feature of the two traditions. For Greece, cp. Lloyd, 1991: 102: 'The readiness of Greek philosophers early middle and late to countenance radical and radically counter-intuitive solutions – driven by arguments – is indeed a recurrent phenomenon distinctive of what the Greeks themselves understood by rationality.' For India, see the example of Vasubandhu to be discussed below, and other examples in Bronkhorst, forthcoming b.

⁵ Note that a tradition of rational inquiry, a social fact, is here taken to exert a decisive influence on individual thought, a psychological fact. Cp. Horton, 1993: 330: '[T]he Old Adam... is anything but spontaneously self-critical. So far as possible, he hangs on to his established framework come what may. If he starts to criticize it himself, this is usually only by way of anticipating the critical assaults of other thinkers committed to rival frameworks. In [a] consensual setting, such others are by definition absent.'

⁶ See most recently Scharfstein, 1997; 1998: chapter 1. For references to earlier literature, see Halbfass, 1997: 302. References to literature in which more than just three philosophical traditions are recognised in Halbfass, 1997: 301; Scharfstein, 1998: footnote on p. 4-5, with p. 532 note 6.

⁷ Cp. further Jullien, 1995. For a recent discussion of the issue, see Goody, 1996: 26 f. Kohn's (1995) discussion of the debates between Buddhists and Taoists is interesting in this connection.

Interestingly, Graham does think that China has known rationality.⁸ He dedicates a chapter of his book *Disputers of the Tao* (1989) to it. Here we read: 'In China rationality develops with the controversies of the schools, and dwindles as they fade after 200 B.C.' (p. 75). He draws attention to the so-called 'sophists' in China, and compares them with the Greek Eleatics: 'Nothing could be more disorientating, more disruptive, than reason first awakening to and revelling in its powers. One may well wonder how philosophy ever gets past this stage, with the most ancient paradoxes forever returning to plague it. The first discovery of uninhibited reason is that it leads inevitably to absurd conclusions. So why go farther? The Greeks did get past this initial disorientation, the Chinese never did.' (p. 75-76). It is open to question whether the Eleatics' way of questioning should be described as 'disorientation', even though the term may very well apply in the Chinese situation. The Eleatics used their reason not only to undermine the universally accepted conception of the real world, but furthermore to determine what reality is like: unborn, imperishable, whole, unique, immovable, etc.⁹ Note here that the Indian philosopher Nāgārjuna arrived at the equally concrete and daring conclusion that no thing exists, as Claus Oetke's recent analyses have shown.¹⁰ The Chinese thinkers mentioned by Graham, on the other hand, do not seem to have used their reasoning for much beyond 'hair-splitting and paradoxical talk', as they were accused of doing. Indeed, one of their most famous paradoxes concerned the 'white horse': the claim was made that a white horse is not a horse. It appears therefore that reason in India and Greece could be used to challenge tradition and other sources of authority,

⁸ Graham's reflections induce J.J. Clarke (1997: 200) to state that 'it is plausible to argue that Eastern ways of thinking have a rationality that may differ in certain respects from those characteristic of the West, but which is not the less "rational" for that'. Personally I would be more inclined to agree with Chad Hansen who – in a chapter on 'methodological reflections' which agrees in various ways with positions taken by me in connection with the interpretation of an Indian text (Bronkhorst, 1986: xiii f.) – observes (1983: 19): '... that Chinese philosophy is logical in something like a dispositional sense is not a discovery but [our] decision. It is a decision to propose, criticize, and defend interpretations in a particular way, using consistency and coherence as critical standards.' This methodological position does not, of course, tell us anything about the extent to which Chinese thinkers themselves were willing to apply such standards in areas belonging to tradition, revelation, insight or religion.

⁹ Cp. Guthrie, 1965: 26 f., 87 f.

¹⁰ E.g. Oetke, 1988.

whereas in China much less importance was attached to this new tool. Logically it may be possible to compare the situations in the three traditions. From the point of view of the importance given to rational argument, even in the hands of the so-called 'sophists', reasoning in China does not seem to have emancipated itself from the level of simple *spielerei*.

Graham sums up the situation in his article 'Rationalism and anti-rationalism in pre-Buddhist China' (1989a). He observes there (p. 142/98-99): 'About 300 B.C. the Later Mohists undertake the enterprise of grounding the whole Mohist ethic in the analysis of moral concepts. This surely is rationalism as we find it in Greece, the plainest example in the Chinese tradition. But the Sophists have already provoked the reaction of the Taoist Chuang-tzu (c. 320 B.C.), who will have a much more lasting influence in Chinese thought.... Chuang-tzu's position is 'anti-rationalism' (denial that reason is the right means to see things as they are) rather than 'irrationalism' (which allows you to see things as you like). After 200 B.C. Chinese thinking channels in the orthodox Confucian direction (ethical, practical, conventional) and the unorthodox Taoist (spontaneous, mystical, disreputable). The former is often 'rational', in that it checks its synthesizing by analysis, but not 'rationalistic' in the sense of Later Mohist or Greek thought, which tries to detach rational demonstration wholly from common-sense synthesizing; the latter remains anti-rationalist as philosophical Taoism, and its continuation as Ch'an or Zen in Chinese Buddhism.' It seems clear that a tradition of rational inquiry, in which the power of reasoning was considered, not just useful or amusing, but a vital instrument for establishing the truth at all levels, even those normally claimed by other sources of authority, has never seen the light of day in China.¹¹ It is in this context interesting to observe that Indian Buddhist logic, when introduced into China in the seventh century of our era, did not survive for long. Its fate was to be mainly handed down as a secret science in Buddhist circles, and largely ignored by everyone else.¹² And a

¹¹ Note that Graham was very much concerned with the query dealt with in this lecture, as is evident, for example, from the questions he formulated in the Preface to his *Later Mohist Logic, Ethics and Science* (1978: xi): 'Is the Greek ideal of rationality a discovery made once only in history, or does it have parallels in India and China? Are there episodes in Oriental, as in Greek and Mediaeval science, which anticipate in part the Scientific Revolution in the 17th century?' Note further Harbsmeier's (1998: 268) observation to the extent that in ancient China '[r]easoning tended to consist in an appeal to historical example and traditional authority', the very opposite of what we mean by rational inquiry.

thousand years later, when Western mathematical astronomy was introduced to China and accepted by an imperial decision, its principal Chinese proponents argued that its archaic foundations had originated in China and made their way westward, so that studying it could not be considered a rejection of tradition.¹³

The comparison with China is interesting and useful in many ways. It shows that the absence of a tradition of rational inquiry has nothing whatsoever to do with stupidity or backwardness. China, as we now know thanks to Joseph Needham's *Science and Civilisation in China*, has made a large number of important discover-

¹² See Frankenhauser, 1996, esp. pp. 19, 25. Harbsmeier (1998: 361) points out, no doubt correctly, 'that Buddhist logic in India had its social roots in the wide-spread practice of public philosophical debate, whereas this social practice never quite took root in China'. Harbsmeier further reports that he has carried out a comparative study of the Sanskrit and Chinese versions of the Nyāyapraveśa (with the help of several Sanskritists) which has led him to the following remarkable conclusion (p. 402): 'Hsüan-Tsang's Chinese translation is not only often an improvement on the Sanskrit original, it has turned out – to my great surprise – to be generally easier to read as well.' This suggests that there is no reason whatsoever to attribute the relatively minor role of logic in China to the Chinese language.

Towards the end of Harbsmeier's book we find the following reflections with regard to Chinese Buddhist logic (*yin ming*) (p. 414): 'One may speculate why this remarkable logical flourish in China remained as marginal as it did to the Chinese intellectual tradition as a whole. Obvious perennial questions re-emerge from these summary considerations: Why did Buddhist logic not catch on even among Chinese Buddhists, not to speak of Chinese thinkers within other traditions? Why, for that matter, do we not find a sustained presence of a significant intellectual sub-culture cultivating the traditions of *yin ming* and of Mohist logic for that matter? Why did no one want to read the *yin ming* literature? Why did those who did read it in later times tend to misunderstand it? Why did the practice of *yin ming* decline whereas Aristotelian logic was revived and developed into a central discipline within the European educational curriculum? These are questions that belong properly to the anthropology of logic. They concern the societal and cultural conditions that may or may not favour the cultural and sociological success of the intellectual practice of the science of logic.' Is it possible that a tradition of rational inquiry is to be counted among the societal and cultural conditions that may favour this cultural and sociological success of logic?

¹³ Sivín, 1982: 546 ff.; Engelfriet, 1996: 341-342. There was also a revival of interest in Buddhist logic (*yin ming*) in early 20th century China; the probably most important reason was 'the deep-seated desire for a distinctly Eastern logical and methodological identity. *Yin ming* provided a way of being scientific in method and deeply spiritual in purpose, while remaining Chinese – or in any case oriental – in basic outlook.' (Harbsmeier, 1998: 367).

ies in the field of technology in the course of its history, and was indeed technologically the most advanced country on earth at the dawn of the scientific revolution in Europe.¹⁴ In other words: not having a tradition of rational inquiry is not the same as not being able to think intelligently.

It seems possible, then, that there are two, and only two, independent traditions of rational debate and inquiry (in the sense indicated above) in the history of mankind. These two are, in their oldest accessible forms, linked to Greece and India respectively. Such a tradition, once properly established, attains an impetus of its own, which may ensure its continuation, also in less than ideal circumstances. Greek thinking subsequently influenced the Hellenistic world and its inheritors, primarily Western Europe and the world of Islam, and its tradition of rational inquiry came along, usually in a watered down form.¹⁵ Indian thought, especially in its Buddhist forms, spread eastward, and its tradition of rational inquiry, though not able to acquire a lasting foothold in China, left its traces in the Tibetan tradition of debate. The possibility that there are two and only two independent traditions of rational inquiry gives the question 'why is there philosophy in India?' (granted that Indian philosophy, or part of it, is an expression of a tradition of rational inquiry) an interest that extends far beyond Indology. If this kind of philosophy is such an exceptional thing, something that does not automatically come about wherever human beings have enough leisure to think of more than their daily concerns, how and why did it arise in India, and not in any other civilizations except ancient Greece? The question becomes even more interesting if we consider the probable proposition that rational debate (including criticism), and the need to develop rational and coherent systems of thought that went hand in hand with it, was (and still is) an essential element (though only one out of several) in the development of modern science, and therefore a precondition for the immense and sudden developments that have changed life on earth virtually beyond recognition within a period of barely two centuries.¹⁶ By

¹⁴ It is not without interest to recall in this connection the impressive maritime expeditions that took the Chinese to many Asian countries and even Africa eighty years before Vasco da Gama; see Levathes, 1994.

¹⁵ On the passage of Greek thought into Arabic culture, see Gutas, 1998. The Arab conquests, as Gutas points out (p. 13), united areas and peoples that for a millennium had been subjects to Hellenization ever since Alexander the Great.

¹⁶ Several authors emphasize the central role of inter-theoretic competition in the growth of science; see, e.g., Horton, 1993: 301-346 ('Tradition and modernity revisited', originally published in

raising these questions and considering these possibilities, the question which constitutes the title of this lecture reveals itself as a kind of meta-question concerning Indian philosophy. It is in fact a question about what the very existence of Indian philosophy means from the perspective of human history in general.

The question as to how and why rational philosophy arose in India has a parallel: how and why did rational philosophy arise in Greece? Unlike the previous one,

1982), esp. p. 318 f.; Lloyd, 1990: 37. For its unwillingness to accept the dictates of authority, see Cohen, 1994: 157-160 ('The vanishing role of authority in science'). It should here be emphasized that a tradition of rational inquiry, too, can lose a great deal of its critical spirit by elevating one or more of its critical thinkers, e.g. Aristotle, to the rank of an authority. (See Decorte, 1992, for a description of Medieval European philosophy as an attempt to subordinate rationality to a 'higher' aim.)

The question as to how and why Western Europe, unlike many other parts of the world, managed to largely get rid of its commentarial tradition cannot be dealt with here; on the notion of traditions of exegesis, see Henderson, 1991.

For a description of modern science in progress, of its agonistic nature and of the major efforts made to construct positions that can resist the most insistent criticism from competing 'colleagues', the observations by Bruno Latour and Steve Woolgar (1979), though made to support a relativistic view of science, are useful; see also Callon, 1989. Less relativistic, but as interesting, is Collins & Pinch, 1998.

With regard to the Scientific Revolution and the Enlightenment which emerged from it, Edward O. Wilson (1998: 22) makes the following apposite remarks: 'It has become fashionable to speak of the Enlightenment as an idiosyncratic construction by European males in a bygone era, one way of thinking among many different constructions generated across time by a legion of other minds in other cultures, each of which deserves careful and respectful attention. To which the only decent response is yes, of course – to a point. Creative thought is forever precious, and all knowledge has value. But what counts most in the long haul of history is seminality, not sentiment. If we ask whose ideas were the seeds of the dominant ethic and shared hopes of contemporary humanity, whose resulted in the most material advancement in history, whose were the first of their kind and today enjoy the most emulation, then in that sense the Enlightenment, despite the erosion of its original vision and despite the shakiness of some of its premises, has been the principal inspiration not just of Western high culture but, increasingly, of the entire world.' The originators of the Enlightenment, Wilson tells us (pp. 21-22), 'shared a passion to demystify the world and free the mind from the impersonal forces that imprison it', they 'resisted organized religion [and] despised revelation and dogma'.

It is perhaps not superfluous to add that, as Tilmann Vetter reminds me, there are many forms of (Western) philosophy which have in no way contributed to the development of modern science.

this question has received a fair amount of attention in scholarly literature. It seems clear that the sudden rise of scientific knowledge and philosophy in ancient Greece had much to do with the prevailing custom of critical discussion, and of convincing others of one's own point of view,¹⁷ which was linked to the particular political situation prevalent in ancient Greece. Geoffrey Lloyd, who is doing important work in the study of the origin and development of Greek science and philosophy, has drawn attention in his book *Magic, Reason and Experience* (1979) to the parallelism which exists between two important features. One is the way in which in Greece, from the sixth century B.C.E. onward, the questions of how society should be regulated and of the merits and demerits of different kinds of constitutions came to be a subject for open – and not merely theoretical – discussion. The other is the prominent characteristic of Greek speculative thought to be able to challenge deeply held assumptions about 'nature' and to debate such issues as the origin of the world. He then observes (p. 249): 'In some respects we appear to be dealing not just with two analogous developments, but with two aspects of the same development.' Having supported and illustrated this observation in various ways, he states (p. 255): 'Where the topic of how the state should be governed could be debated openly by the citizen body as a whole, there were, we may presume, fewer inhibitions – at least in some quarters – to challenging deep-seated assumptions and beliefs about 'natural phenomena', the gods or the origin or order of things.' It is noteworthy to what extent the features most characteristic of what I have proposed to call a tradition of rational inquiry – primarily free and uninhibited discussion of all issues even in areas which might encroach upon other sources of authority – appear to be intimately linked to the political situation of Greece at that time. It is precisely inhibitions, the fear to encroach on such other sources of authority, which would seem to prevent traditions of rational debate and inquiry from coming about in the majority of human societies.¹⁸

¹⁷ See, e.g., Vernant, 1962; Lloyd, 1979: ch. 4; 1987: 78 f. Cp. also Popper, 1959: 149 f.; Lloyd, 1991: 100–120. Jullien (1995) points out the extent to which confrontation, a common feature of ancient Greek political and military life, was conducive to the development of rationality, whereas ancient China, which avoided confrontation, did not develop this feature.

¹⁸ Joseph Needham's question ('What were the inhibiting factors in Chinese civilisation which prevented a rise of modern science in Asia analogous to that which took place in Europe since the 16th century onwards...?' cited in Wulff, 1998: 9) may therefore find an at least partial answer in the absence of a tradition of rational inquiry in China. Wulff (1998: 63) proposes another answer

Before turning to the question how philosophy arose in ancient India, I would like to give an example of the Indian tradition of rational inquiry at work. My example is a concrete illustration of how an unwillingness to accept a traditional truth at its face value, without rational understanding, brought about two major changes in doctrine in two important schools of thought. It concerns the belief in the efficacy of acts, right across the boundaries of death and rebirth into another life. Good acts bring good results to their perpetrator, bad acts bad results. This belief was shared by most of the thinkers of classical India. It also posed a problem. How exactly can acts bring about such results in a distant future, perhaps in a different part of the world, or in a different world altogether? What mechanism makes this possible?¹⁹

One school of Brahmanical philosophy that worried about these questions is the one called Vaiśeṣika. Its reflections passed through three stages. The earliest stage is represented by the Vaiśeṣika Sūtra, the oldest surviving text of this school. This text apparently had no solution to the problem. One of its sections uses the expression *adr̥ṣṭa* – which means ‘the unseen’, probably in the sense of ‘the invisible’ – which refers to the ‘invisible’ results and purposes of ritual and ethical activities, as well as the terms ‘merit’ (*dharma*) and ‘demerit’ (*adharma*).²⁰ We must assume that these names were used in connection with a process which no one as yet claimed to understand.

The second stage is represented by the Kaṭandī, a commentary on the Vaiśeṣika Sūtra that is now lost, but fragments of which have survived in citations by other

(‘Die Chinesen hatten einfach nicht die spezifischen historischen Voraussetzungen dafür, deren Verkettung die Entwicklung in Europa bewirkte’) and enumerates thirteen factors that played an important role in the development of European science; but this approach would seem to beg the question.

Lloyd makes the following observation with regard to classical Chinese philosophy (1990: 125-26): ‘clearly insofar as the ideas a philosopher produced were directed at a ruler whom he was hoping to influence, and insofar as the ruler himself was the final arbiter of the value of those ideas, those factors may well have imposed certain constraints on the ideas considered worth putting forward, constraints that may be thought to have inhibited, if not excluded, the development both of radical solutions to problems and of theoretical, abstract, impractical ones’.

¹⁹ The following examples are taken from an as yet unpublished study *Karma and teleology: a problem and its answers in Indian philosophy* (Bronkhorst, forthcoming a). Other developments of doctrine inspired by different intellectual challenges are discussed in Bronkhorst, forthcoming b.

²⁰ Halbfass, 1991: 311-312. The section concerned is VS(C) 6.2.1 ff.

authors.²¹ Activities are thought of as producing merit (*dharma*) and demerit (*adharma*). Merit and demerit are here looked upon as items in the list of existing things; the Vaiśeṣika Sūtra had not yet recognized them as such. More in particular, merit and demerit are looked upon as qualities of the soul, which is a substance. Being qualities, they inhere in their substance, the soul, and are in a way inseparable from it, just as a color is inseparable from the substance to which it belongs. This close connection continues until retribution takes place. Since each soul is believed to be an omnipresent substance, its merits and demerits can be imagined to exert an influence on things that are not at the same place as the person – more precisely: not at the same place as the body of the person – to whom they belong; the fact that the soul is immortal and that merits and demerits stick to it until retribution, explains that the effects of deeds can take place long after the deeds themselves. In this same way the deeds of living beings, through the intermediary of their merits and demerits, can and do determine each new creation of the world. The omnipresent souls are in contact (*saṃyoga*) with the atoms in which their merits and demerits induce activities at the moment of creation.²² Thus deeds determine the body, the sense organs and the amount of happiness or pain with which one will be connected, as well as the objects which one will encounter.²³

We may agree that the mechanism of karmic retribution has gained somewhat in intelligibility this way, but obviously much remains to be desired. Most importantly, how do the in themselves unconscious qualities merit and demerit arrange the material world in such a way that a good person derives pleasant experiences from it and a bad person unpleasant experiences? The further development of the school shows that the Vaiśeṣikas themselves were not altogether happy with their solution. How did they solve the situation?

²¹ For our present purposes esp. Śāṅkara's Brahmasūtrabhāṣya on sūtra 2.2.12 is of interest; cp. Bronkhorst, 1996; further 1993.

²² WI p. 10 §58: ... *sarvātmagatavṛtilabdhādrīṣṭāpekṣebhyas tatsaṃyogebhyaḥ pavanaparamāṇuṣu karmotpattau...*

²³ WI p. 65-66 §318: *aviduṣo rāgadveṣavataḥ pravartakād dharmāt prakṛṣṭāt svalpādharmasahitā brahmendraprajāpatipitṛmanuṣyalokeṣu āśayānurūpāiḥ iṣṭaśarīrendriyaviśayasukhādibhir yogo bhavati tathā prakṛṣṭād adharmāt svalpadharmasahitāt pretatiryagyonisthāneṣu anīṣṭaśarīrendriyaviśayaduḥkhādibhir yogo bhavati evaṃ pravṛttilakṣaṇād dharmād adharmasahitād devamanuṣyatiryānārakeṣu punaḥ punaḥ saṃsārabandho bhavati*. The commentators Śrīdhara and Vyomaśiva explain the expression *āśayānurūpa* as *karmānurūpa*.

The Padārthadharmaśāṅgraha of Praśastapāda, a Vaiśeṣika work belonging to the sixth century of the common era, introduces, apparently for the first time in the history of Vaiśeṣika, the notion of an omniscient and omnipotent creator God. A close inspection of the passages dealing with this God shows that his most important task by far is that of guiding the process of karmic retribution. The supreme God, or more precisely the somewhat lower god he creates and then puts in charge of the world period concerned, knows the effects of the deeds of living beings, and with the help of that creates living beings in accordance with their past deeds.

In this way the problem of the mechanism of karmic retribution is solved, but at a price. Instead of the initial problem of teleology, we now have a creator God, whose power of purposeful action is assumed as a given. The problem is in this way reduced to one concerning God's psychology. Vaiśeṣika was not indifferent to the question of the teleological dimension of human psychology, which they tried to solve along lines similar to those known from modern behaviorism. It is however hard to see how the human psychology of the school could explain God's purposeful behavior in agreement with the law of karmic retribution. But whatever else we may think of the introduction of a creator God in order to explain karmic retribution, it is not always sufficiently appreciated that this development was inspired by rational considerations, by an intellectual need, not, or not only or even primarily, by religious developments of the time. Briefly put, the thinkers of the Vaiśeṣika school had tried to solve the puzzle of explaining teleological action in terms of proximate causes, and had failed. They were almost bound to fail; the puzzle remains a central concern to philosophers and scientists even today.

Another prominent Indian thinker, somewhat earlier than Praśastapāda, is Vasubandhu. Vasubandhu belonged to an altogether different current of thought. He was a Buddhist, and his philosophy differed in numerous respects from that of Praśastapāda. Vasubandhu, too, was perplexed by the same problem, that of the mechanism of karmic retribution. He too opted for a radical solution, but one quite different from Praśastapāda's. The most bewildering side of karmic retribution is that residues of deeds, which are somehow stored in the mind, have in due course an effect on the material world. Vasubandhu avoided this difficulty by stating that they don't. Deeds, their residues, and their results are in the end mere mental events. This implies, of course, that Vasubandhu chose for idealism, on the grounds that only thus karmic retribution would become intelligible.

Some scholars hold the view that idealism entered Indian Buddhist thought inspired by certain meditative experiences.²⁴ Idealism had indeed been around for a while when Vasubandhu, too, converted to it. There is however no indication that I know of that Vasubandhu turned to it on the basis of meditative experience. Quite on the contrary, he came to accept it, as we have seen, in order to make karmic retribution intelligible, i.e. on the basis of rational considerations. The arguments that have been adduced to show that the earliest Buddhist idealists, Vasubandhu's predecessors, based their convictions on meditative experience are not water-proof. The texts concerned are not without ambiguity in this respect, but they are compatible with the view that already the earliest Buddhist idealists had arrived at their position in order to make a better understanding of karmic retribution possible. This point cannot be elaborated here, and will be reserved for a separate study.

Both Praśastapāda and Vasubandhu took radical decisions which were to be heavy of consequences for the further development of Indian thought. They did so because they saw no other way to account for a dogma which they accepted as certain: the dogma of karmic retribution. The developments they initiated, or continued, may not appear to us, at first sight, to be typical of rational thought. A close inspection of their words and intellectual surroundings however reveals that they were. That is to say, they were responses to a challenge that confronted these two thinkers.

These examples illustrate the extent to which the Indian tradition of rational inquiry had to deal with problems of its own, and arrived at solutions that deviate sometimes profoundly from what we are accustomed to in the West. It is for this reason justified to speak in India of an independent tradition, independent of the philosophies that developed in ancient Greece and in the parts of the world influenced by them.

Now I come to the central question of this lecture: how and why did philosophy – i.e. systematic philosophy – arise in India? Having noted the link between the sudden rise of a tradition of rational inquiry in ancient Greece on the one hand, and the accompanying political situation on the other, one is tempted to look for a similar political situation in ancient India as well. Unfortunately this procedure holds

²⁴ See Schmithausen, 1973; 1976.

little promise. We are not at all sure that anything like the Greek city-state ever existed in ancient India.²⁵

We are here confronted with the problem of accounting for the appearance of a tradition of rational inquiry in India. If traditions of rational inquiry are not the kind of things that appear automatically and inevitably wherever some minimum conditions are satisfied, then what was responsible for the appearance of such a tradition in India? The question is not easy to answer, not least because of the scarcity of documents for the period that seems most relevant in this connection. We enter

²⁵ Vijay Kumar Thakur (1981: 250) states: 'we are not sure whether commercial towns on Athenian pattern existed in India or not. It is possible that some towns in the Punjab, which the Greeks called 'independent towns', were similar types of commercial towns along the roads leading from India through the Punjab to Iran. This would mean that they had a completely different type of administrative machinery [from other towns in India]. Although we have no details of the administration of such towns, it can be presumed that their administrative system in a way tallied with the administration of large tribal oligarchies. The city administration, basically oligarchical in nature, might have carried the business of the town through discussion.' On the independent towns here mentioned see further Bongard-Levin, 1986: 67 f. Thakur continues (p. 250-52): 'Till the Mauryan period, the guilds were solely concerned with their economic activities while exercising some authority over their members. The situation, however, changed in the post-Mauryan times. A very important, and rather novel, development in the polity of this period was the emergence of almost autonomous governments in at least a dozen cities of northern India in the second and first centuries B.C. The administration of these cities was evidently in the hands of the guilds. Guilds of traders belonging to these cities issued copper coins, which is ordinarily done by the ruling power, for it is an important insignia of sovereignty. At least in five pre-Indo-Greek coins, the term *nigama* is clearly mentioned; four out of them bear the names of the different quarters of Taxila. Yet another coin found from Taxila records the term *pañchanigama* (sic).... A somewhat similar practice seems to have prevailed at Kauśāmbī also, for it is known as *nigama* on one of its coins. Coins of the guild of the *gandhikas*, literally meaning perfumers but really general merchants, have also been found in the region around Kauśāmbī.... Such coins representing certain cities are not to be found from the latter half of the 1st century B.C. This possibly indicates that with the establishment of the Sātavāhanas and the Kuṣāṇa kingdoms in the first two centuries of the Christian era, these towns lost their autonomous character...' Ahmad Hasan Dani (1986: 58 ff.) expresses reservations with regard to this interpretation of *nigama* (which goes back to D.R. Bhandarkar); see further Thapar, 1992: 96; Chakrabarti, 1995: 311; Ray, 1994: 20, 192. Ray (1986: 49) observes that 'numismatic evidence suggests that after the fall of the Mauryas several cities acquired power and issued their own die-struck coins'; she mentions Mahiṣmati, Tripuri, and Tagara or Ter in particular.

therefore into a realm of speculation, or at best informed guesses. The importance of the problem leaves us however no alternative but to go ahead.

What do we know about the early history of systematic philosophy in India? Not very much. Of the two main schools of early Brahmanical philosophy, Sāṃkhya and Vaiśeṣika, the first one obviously had its roots in a pre-systematic period. The classical school of Sāṃkhya preserves the traces of that earlier phase, and has the greatest difficulties to improve the system in such a way that it becomes more or less coherent and resistant against outside criticism. Its efforts are only partially successful, and the school slowly disappears from view in the second half of the first millennium.

The other early Brahmanical school, Vaiśeṣika, is quite different. Scholarly attempts to identify its pre-classical and pre-systematic roots lead nowhere, and it seems likely that it was created as a coherent system. An in-depth comparison with the Buddhist philosophy current in the early centuries of the common era shows that, in spite of numerous differences, the two share a number of fundamental positions. More precisely, they share some positions, while in some other respects they hold positions which are each other's mirror images. No such similarity exists between the Sāṃkhya philosophy and either the Buddhist or the Vaiśeṣika system. It is not possible in this lecture to elaborate these observations by providing details. The situation is however remarkable enough to justify the conclusion that, most probably, the Vaiśeṣika system was created in response to the particular system of Buddhist philosophy – called Sarvāstivāda – to which it is in some respects so close.²⁶

This conclusion, though tentative, suggests that the original impulse for the development of Indian rational philosophy came from Buddhism. This is fortunate, because a considerable number of Buddhist texts from around and before the beginning of the common era have been preserved. Many of these text do not contain anything resembling the kind of rational philosophy we are looking for, but some do. In order to properly appreciate this, let me briefly and schematically describe how Buddhism had developed after the disappearance of its founder. Attempts had been made to preserve his words, both regarding the appropriate behavior of monks and nuns (*vinaya*) and his teaching in a narrower sense (*sūtra*). Besides this, efforts were made to distill the most important ideas and concepts from his teaching; this gave rise to lists of so-called *dharma*s, which were elaborately

²⁶ See Bronkhorst, 1992.

ordered and commented upon in the texts of the Abhidharma-Piṭaka, 'the basket of things relating to the teaching'. Two collections of texts bearing this name have been preserved in their entirety, belonging to two different Buddhist schools: the Abhidharma-Piṭaka of the Theravāda school, and the one belonging to the Sarvāstivāda school.

A closer study reveals important differences between these two collections.²⁷ The most important difference for our present purposes is the presence in the Sarvāstivāda basket of a new way of ordering and classifying the *dharma*s; this is called *pañcavastuka*. Before the introduction of the *pañcavastuka*, and in the Theravāda texts all along, the *dharma*s were classified with the help of a schematization which was believed to derive from the Buddha himself, but which was unsatisfactory and even problematic in various respects. From a historical point of view the difficulties connected with this earlier schematization are easy to explain: the idea of enumerating and classifying *dharma*s had arisen well after the disappearance of the Buddha, and searching among his words for schemes to classify them was bound to fail.

The new classification, the *pañcavastuka*, brought some amount of reason and coherence into Sarvāstivāda scholasticism. Moreover, this development was accompanied by others, which together changed the initial attempt to preserve the concepts taught by the Buddha into a coherent system of philosophy. For reasons that cannot be presented at this moment the list of *dharma*s became a list of all there is. Moreover, from an original doctrine of no-self the conclusion was drawn that no composite objects exist. The Buddha's words to the extent that everything is impermanent and therefore painful, came to imply that everything is momentary and exists just one moment. New *dharma*s were introduced whose primary task it was to make the thus created ontological scheme coherent and intelligible. In brief, the Sarvāstivāda school of Buddhism underwent a process of rationalization. The Theravāda school, on the other hand, did not undergo any such development.

How do we explain this difference between Sarvāstivāda and Theravāda? This question invites an easy, almost obvious, answer, once we take into account where and when the Sarvāstivādins worked and lived. Sarvāstivāda belonged to the North-West of the Indian subcontinent, i.e., Gandhāra and the surrounding regions.²⁸ Theravāda, on the other hand, belonged before its emigration to Sri Lanka to an

²⁷ This and the following paragraphs are based on the chapter 'Die Ordnung der Lehre' in Bronkhorst, forthcoming.

²⁸ Cp. Willems et al., 1998: 36 ff. ('History and Sarvāstivāda'); 149 ff.

area more to the south; Vidiśā has been suggested.²⁹ There are reasons to believe that the first Sarvāstivāda or proto-Sarvāstivāda attempts at systematizing took place in or before the middle of the second century before our era.³⁰ During this period there was a Hellenistic kingdom in northwestern India, a leftover from the conquests of Alexander the Great. We know from elsewhere that Hellenistic kings used to cultivate philosophy and liked to be surrounded by wise men at their courts, with whom discussions took place.³¹ Archaeological excavations in Afghanistan, where the Greeks' capital has been identified, confirm that this was the case here, too. Not only has a Greek philosophical papyrus been found;³² it even appears that Clearchus of Soloi, a direct pupil of Aristotle, visited the place.³³

Was there any interaction between the Greeks and the Buddhists? This is *a priori* likely in view of the fact that the Buddhist art from Gandhāra shows strong Hellenistic influence.³⁴ Influence took also place in other areas of culture, though probably later.³⁵ Did the Greeks, then, enter into discussion with the Buddhists? It

²⁹ Frauwallner, 1956: 18.

³⁰ Bronkhorst, 1987, esp. p. 64 f.; 1995; cp. 1995a. It is not clear when exactly Sarvāstivāda as an identifiable school came into existence; cp. Willemen et al., 1998: 147 f.

³¹ Préaux, 1978: 212-238. Cp. Avi-Yonah, 1978: 50 ff. ('Hellenistic monarchy in its relations to philosophy, poetry, religion').

³² Rapin, 1992: 115-121. Karttunen (1997: 268 f.) points out that the Aśokan edicts in Greek show some knowledge of Greek philosophical terminology.

³³ Robert, 1973: 207-237; Rapin, 1992: 128, 389; Karttunen, 1997: 99, 288. If it is true that the Neo-Pythagorean Apollonios of Tyana visited Taxila in or around 44 C.E. (cp. Lamotte, 1958: 518 f.; Karttunen, 1997: 7 f., 306 n. 295; B.N. Mukherjee arrives at 46 C.E., see Dani, 1986: 69), one might be tempted to conclude that an interest in Hellenistic philosophy still existed at that time in North-West India. Dani (1986: 70) speaks about 'the preference that the ruling elite [of Taxila] had for Hellenistic models' during this period. However, 'on the spiritual side, it is Buddhism that dominated' (ibid.).

³⁴ Cp. Lamotte, 1958: 469-487, where also other forms of Greek influence on Buddhism are discussed. Cp. also Nehru, 1989, with further references. It is to be kept in mind that the surviving Buddhist art from Gandhāra is more recent than the Hellenistic kingdom mentioned above; see Fussman, 1987. At the same time, 'Gandhāran art can no longer be considered Indo-Roman, not after Surkh Kotal and other excavations in Bactria' (Karttunen, 1997: 278, with references to further literature).

³⁵ Most notably on Indian astronomy; see Pingree, 1978, esp. vol. I, p. 3 f. Equally important might be that the Indo-Greeks may have started an era in India; see Paolo Daffinà, 1988: 55 f.; Karttunen, 1997: 296. See also Thundy, 1993: 256 f.

is tempting to think that they did, and that the Greek tradition of rational debate obliged the Buddhists to rethink their positions. We have already seen that the Sarvāstivāda texts of that period and region show that their positions were indeed subjected to a thorough revision. But is there any evidence that supports the idea that the Greek tradition of debate may have played a role here?

There is. A Buddhist text has been preserved which purports to record a discussion between a Buddhist monk and the Indo-Greek king Menander. It has rightly been observed that 'there is little in the text which is Greek, aside from the name of the king'.³⁶ Yet the very existence of such a text – I am speaking of 'The Questions of King Milinda' (*Milindapañha* in Pāli), which has been preserved in Pāli and in Chinese translation – allows us to conclude that Greeks and Buddhists discussed religious and related issues, or at the very least that the Buddhists of that region remembered the Greeks as participants in debates. It is not adventurous to conclude that the Greeks may have exerted an influence on the Sarvāstivāda Buddhists, quite simply by engaging them in debates.³⁷ This conclusion seems confirmed by the fact that a number of Greeks appear to have converted to Buddhism.³⁸

Let me repeat here that no Greek ideas have ever been shown to be part of Sarvāstivāda Buddhist thought, nor indeed of any other school of Indian philosophy. But we are at present not talking about ideas, but about the way people deal with them. What I propose is that the Buddhists of North-West India adopted the

³⁶ Halbfass, 1988: 19. The original of the two preserved Chinese translations of this text presented probably Sarvāstivāda doctrines; vgl. Lamotte, 1958: 465; Demiéville, 1924: 74.

³⁷ Note that the influence was not exerted by the *Milindapañha* itself. This text can rather be looked upon as evidence that the Greeks exerted a direct influence on the Buddhists through contacts and discussions, not (or not primarily) through texts. The question as to why the Chinese, who translated the *Milindapañha* into their own language, were not influenced by this text is therefore besides the point.

³⁸ The Pāli Mahāvamsa states 'that at the Foundation Ceremony of the Mahā Thūpa [in Anurādhapura], thirty thousand monks, under Yona-Mahādhammarakkhita, came from Alasandā in the Yona country' (DPPN II p. 699 s.v. Yonā). Alasandā refers no doubt to one of the cities called Alexandria founded by Alexander the Great, this one in present-day Afghanistan (Ai Khanum? Kandahar?; cp. Karttunen, 1997: 279, 281). Karttunen (1997: 297) refers to a Nagarjunakonda cave inscription of the third century C.E. mentioning the Yavanas among peoples having converted to Buddhism; these and other inscriptions do not necessarily refer to Greeks; cp. Ray, 1994: 84; 1988.

method of rational debate and inquiry from the Greeks. They adopted this method and along with it the willingness (or obligation) to use it in areas that used to be the exclusive territory of tradition and religion, but they adopted nothing else in the domain of philosophy. This method alone, however, was able to affect their ideas profoundly. It forced them to rethink their intellectual and religious heritage, and organize it in a way so as to make it more coherent and more resistant to critical questioning by outsiders.

Once the tradition of rational inquiry had been established, it was apparently capable of continuing on its own,³⁹ and even spread all over India, independently and also after the disappearance of the Greeks from northwestern India. We know from later sources that debates were frequently organized by kings in classical India, and it is clear that these later debates followed, at least in theory, the canons of rationality.

What about the Upaniṣads? Don't they contain philosophy?⁴⁰ The old Upaniṣads, whatever their exact dates, certainly predate the second century preceding the common era, and even Alexander's invasion of India. When these Upaniṣads were composed, there was no Greek in sight. How then can it be seriously maintained that Indian philosophy owes its origin in a way to the presence of Greeks in North-West India?

³⁹ This is less surprising than it may seem. Human conformity, and the possibility of forming traditions and fashions which it entails, has been studied from a biological / game theoretical point of view by Boyd and Richerson (1990); see further Ridley, 1996: 180 f. Simon (1990) emphasizes the importance of what he calls human docility. Perhaps the fact that Indian society allowed different points of view (such as the Brahmanical and the Buddhist) to exist side by side can be interpreted in the sense that social bonding was relatively loose or to some extent cognitively neutral (cp. Munz, 1985: 75, 160 f., 280 f.; 1993: 171), which may have helped the tradition of rational inquiry to survive for some time. It seems however more probable that rational inquiry – or rather the obligation to accept and deal with criticism – itself had become a social constraint to which thought had to submit, a social bond or 'ethnic marker' characteristic of the relevant layer / sub-group of classical Indian society.

⁴⁰ Michaels (1998: 47) writes: 'Noch immer liest man, dass etwa die Brāhmaṇa-Texte ein magisches Weltbild vertreten, dass von der angeblich philosophischen Sichtweise der Upaniṣaden abgelöst worden sei, als ob nicht nach wie vor in Indien ein 'magisches' neben einem 'philosophischen' Weltbild stünde.' As pointed out above, the kind of 'philosophy' considered in this lecture does not exist always and everywhere.

Two things must be distinguished here. As I said before, the contents of classical Indian philosophy are, as far as I can see, completely Indian. The Buddhists who came in contact with the Greeks in North-West India did not borrow any elements of Greek philosophy; no such element has been identified in their thought, in spite of the frequency with which the question must have been raised by earlier Indologists with a European classical background. The same applies to Brahmanical philosophies: they originated and developed on Indian soil, some with the intent to explain the contents of the Upaniṣads. No influence from elsewhere has so far been demonstrated in any of them.

At the same time, the available evidence suggests that no tradition of rational inquiry (in the sense here intended, manifested by critical debate and attempts to create coherent views of reality) existed in India before the period we are considering. Vedic literature, and this includes the Upaniṣads, has no tendency to develop coherent systems. These texts do value knowledge, that is to say, a certain kind of knowledge.⁴¹ Rationality, on the other hand, is conspicuous by its absence. It is true that the Brāhmaṇas and Upaniṣads record a number of famous debates, but these cannot in any way be called rational. In fact, they constitute school examples of the very opposite. No one, in these debates, is ever convinced by the arguments of his opponent. The winner of a debate, as Walter Ruben pointed out long ago (1928), is not the one who knows better, but the one who knows more.⁴² Logical argumentation is completely absent. Apodictic statements are accepted without resistance. Indeed, the teacher need not present arguments in support of his teaching, because the very idea that he might by mistake teach something that is incorrect does not seem to have occurred to the thinkers of the Upaniṣads. Every thought is correct, but it may be insufficient, and may therefore have to be subordinated to the knowledge of the winner. Asking too many questions, on the other hand, can have dire results. Depending on the interpretation one puts upon the expression concerned, one's head may be shattered, or one may lose one's head in a physically less violent manner.⁴³ As to the problem why simple questioning may carry such grave consequences for the unsuccessful participant, Michael Witzel (1987: 409) reminds us that the Vedic examples all deal

⁴¹ The remainder of this paragraph also occurs, in slightly different form, in Bronkhorst, forthcoming d.

⁴² Cf. Lloyd, 1979: 60-61; 1987: 87-88; Bronkhorst, forthcoming c.

⁴³ See Witzel, 1987, and Insler, 1990.

with knowledge which is 'secret' in one way or another: it may be known only to an eminent person, a teacher who will not pass it on readily even when he is questioned, or it is known to a class of ritual specialists who will not share their esoteric knowledge with rival groups. All this is not of course conducive to the creation of coherent systems of thought.

Witzel has also drawn attention to the many similarities that exist between the Upaniṣadic debates and those recorded in the early Buddhist texts. There are differences, too, to be sure.⁴⁴ But, as in the case of the late-Vedic texts, there is no question here of elaborating coherent systems of thought,⁴⁵ which suggests that these early Buddhist debates were primarily meant for internal consumption, and that no need was felt to immunize the own position against criticism. We have seen that the elaboration of coherent systems of thought belongs to a later phase of development of Buddhism.

I am aware that delicate questions remain unanswered for the moment. Critics will no doubt ask whether I am serious in placing the grammarian Pāṇini – whose grammar has been described as 'the greatest monument of human intelligence' – in a pre-rational period of India's intellectual history. Pāṇini, who appears to have lived in the second half of the fourth century B.C.E. or later,⁴⁶ may have predated

⁴⁴ Cf. Manné, 1992. In the discussion between the Buddha and the Jaina Saccaka (Cūḷasaccakasutta, Majjhima Nikāya no. 35), to take an example, there is an undeniable confrontation of ideas, and the Buddha does not hesitate to point out a contradiction in the speech of his adversary: 'Pay attention, Aggivessana. When you have paid attention, Aggivessana, answer. For your last speech does not agree with your first, nor your first with your last' (MN I.232: *manasikaroḥi Aggivessana, manasikaritvā kho Aggivessana byākarohi, na kho te sandhīyati purimena vā pacchimaṃ pacchimena vā purimaṃ*; tr. Horner, 1954: 285).

⁴⁵ Richard F. Gombrich (1996: 18) points out that 'the Buddha was continually arguing *ad hominem* and adapting what he said to the language of his interlocutor' and concludes that 'this must have had enormous implications for the consistency, or rather the inconsistency, of his mode of expression'. Whether or not this conclusion is correct, it seems clear that the method of arguing recorded in the early Buddhist texts is hardly conducive to the elaboration of coherent systems of thought.

⁴⁶ Hinüber, 1990: 34; Falk, 1993: 304. Various scholars prefer to stick to earlier estimations of Pāṇini's date, but without evidence; see Werba, 1997: 137 with note 64, with references to earlier scholars whose opinions are equally unsupported. On the tendency to assign early dates to Vedic, including late-Vedic, literature, see Bronkhorst, 1989.

Alexander's invasion, but this is not certain.⁴⁷ Greek influence in his case is not impossible, but less likely.⁴⁸

We should not be led astray by such terms as 'rational', 'pre-rational', and the like. The former is no compliment, the latter no criticism. I have already pointed out that the absence of a tradition of rational inquiry as meant here has nothing to do with stupidity or backwardness. People do not become more intelligent by being part of such a tradition. What changes is first of all their attitude. In a tradition of rational inquiry as here envisaged thinkers accept – have to accept – the legitimacy of questions and criticism directed even at convictions endorsed by tradition, revelation or insight. For wide-ranging philosophical systems to develop, such an attitude may be essential. We have seen how the Vaiśeṣika philosophy introduced the notion of a creator God to solve a systemic problem. Other texts of the same school do not hesitate to reduce this God to an element that fits into its ontology. In the case of Pāṇini there was, as far as we can tell, no need to be questioning and critical with regard to his tradition. Quite on the contrary, his grammar may have to be looked upon as an elaboration and systematization of the traditional understanding of language. It testifies to the intelligence of its creator, not to the tradition of rational inquiry to which he may or may not have belonged. I could say more about this issue, but will leave it at this for the moment.⁴⁹

I wish to return to the meta-level of our discussion. The preceding reflections suggest that both Indian and Western systematic philosophy derive one vital element from a common source. This vital element – viz., rational inquiry and analysis – would, moreover, seem to be absent everywhere else in the history of mankind except, of course, in developments that derive from the Greek and the Indian traditions. This suggests that a tradition of rational debate and inquiry has been able to establish itself independently only once in the history of mankind. If we add to this that, as I pointed out earlier, the modern world might never have become what it is without the presence of a tradition of rational inquiry which is so essential to modern science, we are confronted with a troubling question. Is it a historical accident that humanity has arrived at its present state, characterized on the one hand

⁴⁷ Karttunen, 1989: 142-146; 1997: 12 with note 49.

⁴⁸ In the case of Patañjali, on the other hand, there is evidence that he had undergone the influence of post-*pañcavastuka* Buddhism, and therefore, if the hypothesis presented in this lecture is accepted, at least indirectly that of the Greeks; cp. Bronkhorst, 1987; 1995.

⁴⁹ See further Bronkhorst, 1982: 280-281.

by hitherto unsuspected powers, and at the same time threatened by their consequences?⁵⁰

The days in which the history of life on earth was looked upon as an unstoppable march forward to ever more advanced degrees of complexity and intelligence have come to an end. Scientists point out that the appearance of human beings was no more than a historical accident, that the development of a high degree of intelligence, whether in human or other living beings, was by no means the inevitable consequence of biological evolution.⁵¹ They also point out that once intelligent human beings had appeared only a number of coincidences allowed them to make the next steps toward our present state by developing agriculture and domesticating animals, and that only in some parts of the world.⁵² The evolutionary biologist Jared Diamond, in his fascinating and thought-provoking recent book *Guns, Germs and Steel*, enumerates a number of geographical factors which might have stopped human progress. I mention only two very important ones: some continents had no domesticable animals, or no plants that would have made agriculture possible. Is it conceivable that our reflections have brought to light one other factor – the presence of a tradition of rational inquiry – which for all we know might never have come into being, but without which human progress up to our present state might never have taken place?⁵³

⁵⁰ Cp. Lloyd, 1979: 258: 'Ancient Greece is marked not just by exceptional intellectual developments, but also by what is in certain respects an exceptional political situation: and the two appear to be connected.'

⁵¹ Gould, 1996; Diamond, 1991: 184-195.

⁵² Wilson (1998: 48) enumerates '[t]hree preconditions, three strokes of luck in the evolutionary arena' which he believes led to the scientific revolution: 1. the boundless curiosity and creative drive of the best minds; 2. the inborn power to abstract the essential qualities of the universe; 3. the 'unreasonable effectiveness' of mathematics in the natural sciences. This enumeration leaves little space for the, perhaps numerous, factors that might have prevented the scientific revolution from happening.

⁵³ The 'unnatural nature' of modern science is emphasized in several recent publications; see e.g. Cromer, 1993; Wolpert, 1992. It is nonetheless often taken for granted that science is the necessary and predictable product of societies that have reached a certain level of complexity. The following Indological book titles and subtitles are interesting and suggestive in this regard: *Vrwissenschaftliche Wissenschaft*, which is the subtitle of *Die Weltanschauung der Brähmana-Texte* by Hermann Oldenberg (1919), *Ein Beitrag zur Entstehungsgeschichte von Wissenschaft*, subtitle of *Beweisverfahren in der vedischen Sakralgeometrie* by Axel Michaels (1978), *The Fidelity of Oral Tradition and the Origins of Science* by Frits Staal (1986).

By asking this question, I try to give back to the academic study of Indian philosophy a dimension which belongs to it, but which does not attract sufficient attention. This is not simply a field meant to amuse some few specialists, without much relevance for outsiders. Nor can its only justification be that it may, from time to time, dig up an idea that could be of interest to modern philosophers. The study of Indian philosophy has to take its place among the other disciplines and sciences concerned with the study of human history, i.e. of *our* heritage,⁵⁴ from animal origins to an uncertain future.⁵⁵ In this history what and how people thought is crucially important, for it has had a colossal impact. Once given its proper place, the study of Indian philosophy, as I have tried to demonstrate, will give rise to interesting but also disturbing questions.

⁵⁴ Jean François Billeter (1998: 77) argues, similarly, in favour of a change in perspective which will make Chinese history part of *our* heritage, i.e. of all mankind.

⁵⁵ This uncertainty also covers the future of science which, it has been argued, may be close to its limits; see Horgan, 1996.

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ABBREVIATIONS

DPPN	G.P. Malalasekera, Dictionary of Pali Proper Names, 2 vols., London 1937-1938
HdO	Handbuch der Orientalistik, Leiden 1952 ff.
ISMEO	Istituto Italiano per il Medio ed Estremo Oriente, Roma
MN	Majjhima-Nikāya, ed. V. Trenckner, R. Chalmers, 3 vols., London 1888-1899 (PTS)
ÖAW	Österreichische Akademie der Wissenschaften, Wien
PTS	Pali Text Society, London
VS(C)	Vaiśeṣika Sūtra with the commentary of Candrānanda, ed. Jambuvijaya, Oriental Institute, Baroda, 2nd ed. 1982 (1st ed. 1961)
WI	Word Index to the Praśastapādabhāṣya, by Johannes Bronkhorst and Yves Ramseier, Motilal Banarsidass, Delhi, 1994

