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BUDDHISM, SCIENCE AND OTHER WORLD-VIEWS

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Abstract

Although the similarity between Buddhism and the scientific world-view has been exaggerated in recent years, the coincidental and analogical similarity in terminology between the two has enabled practising Buddhists to live in a science-dominated society with a minimum of cognitive dissonance. Within the context of an academic encounter between scientists and religionists, Buddhism can assist in the creation of a common language by mediating between science and theistic religion - its particular contribution lying in the fact that it has affinities to both of these modes of discourse, yet falls wholly within neither camp. It was with some reticence that I agreed to take part in these proceedings. From a Buddhist point of view, it seems that the whole question of the relationship (for which we should read the clash of ideologies) between religion and science is a peculiarly Judaeo-Christian problem. As I shall try to make clear, to the Buddhist it is as senseless to say that religion and science are in conflict as it is to say that mathematics conflicts with English grammar. Both are symbolic languages that attempt to describe reality from a specific perspective. But those initial perspectives are so different that one cannot really talk of a relation between the two unless one posits a higher-order meta-language of which both are subsets. I must assume that my audience, composed as it is mainly of scientists and those whose religious convictions lie firmly in the Judaeo-Christian tradition,[2] is unfamiliar with the Buddhist religio-philosophical tradition. I shall therefore have to diverge from a strict discussion of the relation between Buddhism and science into aspects of central Buddhist teachings and how these relate to Hinduism, its closest living relative, and Christianity, the dominant religious tradition in the context of this conference.

1. Why Buddhism?

We may ask why we should include Buddhism in the points of view that we are exploring in this meeting. There are not many Buddhists in South Africa. On a wider scale, however, we can see that the Buddhist world-view is slowly diffusing into the western world, not only in the form of western 'converts' to Buddhism, but, even more pertinently, in the fact that Buddhist philosophical concepts and logical structures are slowly starting to permeate the 'western world', or as I prefer to think of it, the formerly western part of the emerging global cultural mosaic. I have argued this at length elsewhere (Clasquin 1992). Here I shall just summarise the main points of my argument.

While it is true that there are but a few committed Buddhists in South Africa, western society, of which South Africa is at least partly a member, is slowly being permeated with oriental influences. Youngsters who thirty years ago would have taken up boxing now do karate. Even small towns have ikebana displays in the annual show of the local flower

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2 A term which I shall use consistently throughout this essay to denote not only Judaism and Christianity, but also Islam and the Baha'i Faith.

arranging club, not to mention the popularity of bonsai trees. Certain trends in art, fashion and architecture show an affinity with Japanese ideals of simplicity and spontaneity or, conversely, with a riotous display of colours and patterns that may be seen as a manifestation of Sino-Tibetan influences. The inspiration behind all these new oriental influences, the argument continues, is Buddhist philosophy and the Buddhist view of reality and the ideal life. Thus, if we wish to understand what is happening to our society and possibly take steps to either prevent or facilitate this paradigm shift, we should understand Buddhism. This slow 'orientalising' of western society is nowhere shown more clearly than in Standen's (1987) book *The changing face of the hero*. Simultaneously, of course, the eastern world is being occidentalised, and then we have not yet considered the influences of the Third World on these two cultural power blocs and vice versa.

It is true that traditional oriental society did not draw the rigid distinctions between the 'sacred' and the 'secular' spheres of existence that westerners are accustomed to. Stated in Buddhist jargon, martial arts can serve as a way of losing the concept of selfhood and attuning to the totality of existence, and ikebana can be an expression of one's understanding of the emptiness of conditioned reality.

They *need* not be this, of course. Most occidental practitioners of karate see their pursuit of this art purely as a form of physical exercise and self-defence. But, the argument goes, something of the original inspiration behind these activities remains. If we prefer not to understand this on a too esoteric level, then perhaps we can express it as follows: the possibility exists that the practitioner of karate or ikebana might decide to read books about their respective arts, and there encounter descriptions of the origins of their pursuits and how these are related to Buddhist philosophy. This might then lead, if not to an outright adoption of Buddhist principles, to an appreciation of and behaviour commensurate with Buddhist practices. If this were to occur on a sufficiently large scale, the result would be a drift towards the gradual Buddhification of society. Naturally, whether one approves of such a process or not depends on one's own prior commitments and one's opinion of Buddhism. But then at least it should be an informed opinion; and for this we need to study Buddhism.

On a more strictly academic level, one could mention that Buddhist philosophy has addressed many of the same questions as other religious and philosophical traditions, but often from radically different starting-points. This provides us with a unique vantage point from which to examine our own beliefs and arguments, and discover the often well-hidden presuppositions, prejudices and apparently self-evident 'facts' on which our arguments are so often based. Let us take one fundamental issue by way of example: Buddhists do not posit the existence and relevance of a personal, all-powerful deity, the very life-blood of western, theistic religion. There are even instances where the possibility that such a being might exist is flatly denied. Yet Buddhists, by general consensus, have managed to be religious people. Does this then imply that the category 'religion' transcends theism, or is there something fundamentally wrong with our understanding of what religion is, when we can lump such philosophically incompatible phenomena as traditional Christian monotheism and near-nihilistic Buddhist causal interdependency within this category? In other words, when we start to define religion, do we not already have a mental impression of what religion is, to which we then adapt our definition? The Indian non-theistic religions have been gadflies to those who sought an easy definition of religion ever since the founding of Religious Studies as an academic discipline towards the end of the nineteenth century. By raising such questions, the study of Buddhism can clarify matters in sometimes surprisingly remote corners of academia. And that might well include theology: Krüger (1989:98) makes

the point that '... a Christian theology conceived of in terms of the philosophy of Gotama rather than that of Plato, Aristotle or Plotinus is not unthinkable'.

In 1920, H G Wells co-authored a series of essays on the 'six greatest men of all time' (described in Wells 1970:209). They were, in no particular order, Jesus, Aristotle, Aśoka, Roger Bacon, Abraham Lincoln and the Buddha. If we see Aristotle and Lincoln as standing at the very beginning of the western philosophical and scientific tradition (of which Marxism too is an offshoot), the Buddha and Aśoka (a Buddhist monarch famous for his clemency and wise administration) as representing Buddhism and Christ and Bacon (Roger, not Francis) as the Christian, and thus theistic, representatives, then this leaves us with three great paradigms or systems of thought; Buddhism, theism and science. And this is yet another reason to study Buddhism: being a religious tradition that takes all truth-claims with a generous pinch of salt, it may yet serve as a mediating factor between the conflicting claims of the other two traditions. If Buddhism, and the study of Buddhism, can serve as an honest broker, if it can allay the fruitless war between faith and reason that has so severely split western society for well over a century, then perhaps the study of Buddhism is the best possible investment we can make in our own future.

In this essay I intend to look at the interaction between Buddhism and science from both perspectives; How does Buddhism view the scientific endeavour, and how does the scientific adventure affect Buddhist thinking? Let us look first at how Buddhism would approach science.

2. Buddhism looks at science

Naturally, 'science' is a vague generic term: with the increasing specialisation in scientific circles, we are rapidly approaching a situation in which even scientists find it difficult to find a common language among themselves. Gone are the days of the old eighteenth and early nineteenth-century paradigm of the 'naturalist' who could dabble in all the branches of physical science and who probably had some opinions on the human sciences as well. Today, the research scientist who investigates inorganic chemistry and the applied scientist who works in the research and development department of a paint factory often have surprisingly little to say to one another. So, if we are to talk about 'science', we had better restrict ourselves to samples of strains of thought from particular scientific disciplines.

The first scientific discipline which we shall examine is physics. There has in recent decades been a good deal of literature relating the relation between recent developments in physics on the one hand, and Buddhism and other forms of Asian philosophy on the other. This literary genre dates mainly from the first publication in 1975 of Fritjof Capra's *The Tao of physics* (1983) and from later works in the same vein by Capra and related thinkers such as Gary Zukav, though some earlier efforts in this direction may be found.[3] But efforts from the scientific side to see Buddhism as a kind of proto-physics are, in my opinion, somewhat forced. From the Buddhist point of view, the enterprise of physics may well be interesting in a theoretical way, but the origin and composition of the universe has *nothing whatever to do with* the goal of religious practice. The existence of the universe is, of course, a prerequisite for our existence and hence for the possibility of religious practice, but Buddhism takes this existence as a given and proceeds with no further consideration of the matter to its real concern, the state of the human mind.

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[3] Among the very earliest is Niels Bohr's *Atomic physics and human knowledge* (New York: John Wiley and sons, 1958), as quoted by Balasubramaniam (1992:205).

Let me explain. Like all religious traditions that have come down to us from antiquity, Buddhism has inherited a myth of origin. I do not say one of 'creation', for Buddhism believes neither in a Creator nor in a *creatio ex nihilo*. But there is a myth of the repeated dissolutions and reconstitutions of reality.[4] In fact, there are a number of such myths to choose from.

However, these myths never lived at the core of Buddhist thinking in quite the same way that Genesis 1 was present at the core of Christian thinking, for example. The Genesis creation story is set at the beginning of the Bible not merely because it is the beginning of the biblical story; it also establishes the existence of God, his act of creating reality, and his resultant status as the Lord of creation, including the human inhabitants of creation. The entire drama of the Jewish and Christian religious history and thinking is predicated on this chapter. It is *required* to be there for the Judaeo-Christian religious message to make any sense, to be internally consistent. Its position at the beginning of the Bible is symbolic of its foundational role in the Judaeo-Christian mythos.[5] By way of contrast, the Buddhist myths of origin are buried deep in the Buddhist scriptures. The Pāli canon starts, not with myths of origin, but with the rules to be followed by Buddhist monks and nuns in their quest for enlightenment. There is more to this than just a matter of arrangements of texts in terms of their relative importance: it also reflects on the difference between a 'linear' and a 'cyclical' understanding of time.

The central message of Buddhism is contained in the Four Noble Truths. To paraphrase: life is inherently unstable and unsatisfactory, and our deep-rooted desire for stability and satisfactoriness causes our lives to be an unending striving after that which can, by its very nature, never be attained. If we can learn to stop this desire, we will no longer attempt the impossible and will know inner peace. The way to do this has been explained by the Buddha in terms of eight ethical and meditative lifestyle recommendations.

Note that there is no explanation in this teaching of *why*, for instance, we have this desire that causes life to be 'inherently unstable and unsatisfactory'. This is a question that may be asked, of course, but in the Buddhist view, knowing the ultimate cause of instability and unsatisfactoriness on an intellectual level does not help us to remove our response to this situation in our personal lives. This is expressed in many places in the Buddhist scriptures, most famously in the *Cūla-Māluṅkyasutta*, often called the 'Parable of the arrow' in the western world (*Majjhima Nikāya*, sutta 63). In this story, a young follower of the Buddha named Māluṅkya announces that he will leave the Buddhist fold unless the Buddha supplies the answer to ten metaphysical questions. Among these are questions that may still interest physicists today, for instance, 'Is the world (I e the universe) eternal or not?' The Buddha supplies an analogy to show that, interesting though these matters may be on an intellectual level, they do not touch on the existential crisis of human existence. Again, I paraphrase: 'Assume you have been wounded by an arrow. I am a doctor. Will you refuse to let me take out the arrow unless you are first informed who made the arrow, which bird supplied the fletching, if the arrowhead is made from iron or bronze, and who shot the arrow? Or would you want me to take it out right away?' Naturally, Māluṅkya prefers to

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4 Cosmologists reading this may be less than surprised to note that those Buddhists who do follow the scientific debates on these matters are generally somewhat emotionally attached to the `oscillating universe' model and are likely to cheer every time more matter in interstellar space is discovered!

5 A similar approach may be found in the Muslim holy book. The Qur'an consists of 114 chapters, which are generally arranged in order of length, from the longest to the shortest. The exception is chapter 1, which is a prayer, an exclamation that establishes the supremacy of Allah.

live in comparative ignorance rather than to die with this rather irrelevant knowledge. The message of this sutta is that Enlightenment is a practical achievement, not a philosophical game.

The questions put by Māluńkya were well known in the India of the Buddha's time. Philosophers attempted to answer these questions with reference to a number of different paradigms. In Buddhism, however, these matters were eventually named the *avyākata*, or undeclared problems. There were also other speculative views, known as *diṭṭhi*, to which the Buddha refused to supply answers.

> The Buddha had a knack of punching holes in all types of grand statements that made definitive speculative statements about things. In particular, he had a keen philosophical nose for problems that were in fact pseudo-problems, arising from the misuse of language. Some problems simply cannot be answered, because they are phrased in conventional language. In this respect the Buddha's thinking reminds us strongly of the analytical philosophy of the modern philosopher Ludwig Wittgenstein, who put great effort into the cleansing of language.
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> (Krüger 1991:138)

> There is nothing stranger in the history of religion than the sight of Buddha founding a worldwide religion, and yet refusing to be drawn into any discussion about eternity, immortality, or God. The infinite is a myth, he says, a fiction of philosophers who have not the modesty to confess that an atom can never understand the cosmos. He smiles at the debate over the finity or infinity of the universe quite as if he foresaw the futile-stromythology of physicists and mathematicians who debate the same question today. He refuses to express any opinion as to whether the world had a beginning or will have an end; whether the soul is the same as the body, or distinct from it; whether, even for the greatest saint, there is to be any reward in any heaven. He calls such questions 'the jungle, the desert, the puppet-show, the writhing, the entanglement, of speculation', and will have nothing to do with them; they lead only to feverish disputation, personal resentments, and sorrow; they never lead to wisdom and peace. Saintliness and content lie not in knowledge of the universe and God, but simply in selfless and beneficient living. And then, with scandalous humor, he suggests that the gods themselves, if they existed, could not answer these questions.
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> (Durand 1994 screen 815:2179)

For another example of how Buddhism not only disdained cosmological theorising, but actively transformed it into existential insight, the following quotation from the Buddhist philosopher Nishitani Keiji is apposite:

> The eschatological myth of older ages that the cosmos must someday necessarily be burned up in a cosmic fire also entered into Buddhism. Buddhists, however, in their interpretation of this myth have always accepted it on the dimension of religious existence and transformed the idea of the end of the world into an existential problem. Viewed from this standpoint, this world as it is, with the sun, the moon and the numerous stars, with mountains, rivers, trees and flowers, is, as such, the world ablaze in the all-consuming cosmic conflagration. The end of the world is an actuality here and now, is a fact and a fate directly underneath our feet.
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> (Nishitani 1965:88)

When we apply these principles to the relation between Buddhism and modern physics, we see that the same relationship still holds. To the Buddhist, the theories of modern cosmology and quantum physics are interesting, as they are to other people. No doubt there are Buddhists who are professional physicists. But there is no direct connection at this stage between physics and religion as Buddhism understands the latter term. Buddhism is interested in our existential response to the situation in which we find ourselves, not in how that situation came to be.

It would be fair to say that new theories in physics, to the extent that they have been expressed in terms simple enough for non-physicists to comprehend, have been acknowledged by Buddhists with a somewhat greater ease than by many non-Buddhists. This is due to the superficial similarity in terminology, in some cases, between ancient Buddhist teachings and modern physics. When told that an electron has only a probability of existing, the Buddhist can nod sagely and say 'Ah yes, the Buddha taught that all is insubstantial'. When informed that radioactive material decays and slowly changes into something else, losing mass in the process, he can smile and say 'And did the Buddha not pronounce on his death-bed that all compounded things are impermanent?' Moreover, Buddhists are enjoined not to believe anything simply because it has been explained by another, but to verify the claims for themselves. But such superficial similarities in the use of language should not fool us into thinking that Buddhism was conceived as a kind of proto-science. The verification referred to above is intensely personal. The existential knowledge thus obtained cannot be transferred to another by means of ordinary language, nor even by a specialised jargon. It is verification to further personal spiritual growth, not verification to advance the growth of an external base of objective knowledge. It remains true, however, that this coincidental similarity of symbolic languages has enabled Buddhists to live in our technocratic society with a minimum of cognitive dissonance. As Balasubramaniam suggests, 'the parallels discovered (between Buddhism and quantum physics) are not parallels of identity but parallels of analogy' (1992:205).

Much the same situation exists in the relation between Buddhism and biology. The same myths of origin to which I referred above also contain stories of living creatures changing in shape over successive generations. However, a closer look shows that this change in shape and abilities is closely connected to the advance and decline of those beings' *moral* qualities. In other words, this is 'evolution' in a quasi-Lamarckian rather than in the strict Darwinian sense of the term.

But once again, these myths, beautiful as they are, and no doubt containing valuable ethical and spiritual truths, have never been regarded as a core teaching of Buddhism. In contemporary Buddhist circles, evolution is a non-issue. I suspect that the majority of Buddhists who are aware of evolutionary theory accept it as the most plausible explanation of why we look the way we do. Certainly I do accept it on that basis. But there is, to my knowledge, no research data to confirm or refute my suspicion, for the simple reason that the entire matter is so tangential to the central concerns of Buddhism that the subject simply never comes up for discussion.

Things get more interesting, however, in that grey area where biochemistry shades into psychology. For it is with the science of psychology (and the other human sciences) that Buddhism has the greatest deal of common ground. This is especially true of Jungian psychology and its more recent offshoot, transpersonal psychology.[6] There is a degree of

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[6] While a comprehensive bibliography on Jungian/Transpersonal psychology and Buddhism would be out of place here, the following sources may act as useful starting points for an investigation into this relationship: Abe (1985),

circularity present here, though, for it is known that Carl Jung took great interest in Buddhist thought. Yet even here we should be careful to distinguish between the psychologist as a research scientist and the psychologist as therapist. The central concern that Buddhism has with the human psyche is not that of a 'disinterested' observer, a pure seeker after an abstract truth, but with the process of healing the psyche on both the individual and transpersonal levels. It is with the psychologist as healer of the psyche that Buddhism finds its greatest affinity, not so much with the psychologist as researcher.

However, Buddhism does not have such an affinity with all the human or social sciences. For instance, Buddhism has very little regard for the study of history. Unlike the Judaeo-Christian faiths, Buddhism is not a 'historical' religion. In Christian history, for instance, every claim that something described in the Bible didn't happen in quite that way in exactly that place or time seems to have triggered a crisis in its ranks. Christianity has survived, of course. Indeed, it has become quite adept at reinterpreting its scriptures as and when required. But Christianity remains rooted in history. If Jesus did not die on the cross and rise from the dead afterwards, how can it still present its scheme of salvation? By way of contrast, if someone were to prove conclusively that there never was such a person as the historical Buddha, the Buddhist world would by and large shrug its collective shoulders and continue as before. The truth of Buddhist teachings lie in their inner consistency and in the way they are manifested in the life of the Buddhist community - they are not tied up with the personality of the particular person who first pronounced them.

3. Science looks at Buddhism

Thus far the Buddhist view of science. How does science view Buddhism? Here I find myself at a disadvantage, since I stand on one side of a divide similar to that described by C P Snow in his famous *Two cultures*, trying to view myself from the other side. But let me point out, however speculatively, a few areas where I believe that scientists and Buddhists might find common ground, and some others we would have to agree to disagree. Here we find the same problem that we started out with: like 'science', 'Buddhism' is a broad term that encompasses a variety of thoughts and traditions. Buddhist thought has ranged from the verge of nihilism to something nearly indistinguishable from theism. There are scholars who maintain that it is possible to extract from twenty-five centuries of development an 'original Buddhism'. I am not one of them. Yet there are certain motifs that are common to all forms of Buddhism, and we shall have to range across them, painting with a broad brush.

Perhaps the most obvious difference between scientific thinking and Buddhism is the fact that Buddhism teaches, and accepts the reality of reincarnation.[7] There has been some scientific research on reincarnation.[8] By strict standards of verifiability, the results of this can at best be said to be inconclusive. But reincarnation itself is a complicated symbolic structure, susceptible to more than just the literal interpretation. Joseph Campbell has

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Bishop (1989), Hopkins (1985) and Kalff (1983). More general discussions on the relation between Buddhism and western psychology may be found in Austin (1991), Cheng (1986), Kahn (1985), Rasco (1991) and Roccasalvo (1982). Balasubramaniam (1992), reacting to an earlier article by Mansfield (1989), explores the way in which insights from Gestalt psychology can explain the *apparent* similarities between M_dhyamika Buddhist teachings and those of quantum mechanics as being analogical in nature rather than pointing to a true identity of objects scrutinised by these two traditions.

7 On a technical note, Buddhists prefer to speak of `rebirth' rather than `reincarnation'. In this essay, however, I shall use the latter, better-known, term.

8 For examples of such research see Almeder (1992, particularly chapter one), Berger (1988), Cranston & Williams (1984) and especially Stevenson (1987).

suggested that the rebirth theory, apart from its philosophical implications, is itself a powerful mythical motif, suggesting as it does that

> ... there are dimensions of your being and a potential for realization and consciousness that are not included in your concept of yourself. Your life is much deeper and broader than you can conceive it to be here ... you can live in terms of that depth.
>
> (Campbell 1988:58)

Within Buddhist circles, for example, there has been a long-running debate on whether the description of desire leading through a twelvefold process, to rebirth and hence to old age and death, refers to a physical rebirth or to the coming into existence and subsequent waning of a moment of consciousness.[9] More recently, I have argued that the reincarnation motif may also be reinterpreted as denoting the continuing influence of our existence on a societal level (Clasquin 1993).

The conclusive evidence for reincarnation, to the Buddhist, is the insight into the reality of this process which the individual develops during meditation. I have arrived at some such insights myself, if only in a minor way. Yet such insights are not transmissible by language - they are real on an individual existential level. By way of analogy: we can teach a person blind from birth all about the refraction of light through droplets of water. What we cannot teach him is the experience of seeing a rainbow. We can compare it to other experiences we know this person to have had, say, listening to a symphony. But there can be no question of making him experience the rainbow directly - unless we give him eyes to see it with. This, to continue the metaphor, is the function of meditation - it gives us the equipment to experience aspects of reality which have thus far remained hidden.

There are other potential areas of disagreement. Many of the Buddhist traditions adhere to an idealist ontology. In other words, it maintains that the primary building block of reality is not Matter, but Mind. One may here be reminded of contemporary Quantum Mechanics's insistence that the researcher is not so much an *observer* as a *participant* in the experimentation process. But once again, the methods used to arrive at this conclusion differ. Buddhist idealist philosophers arrived at their conclusion both through introspection and through philosophical speculations that can be compared directly to those of western idealist philosophers such as Bishop Berkeley. They did not reach it by the modern scientific method of analysis, at least not in any strict definition of the latter. Thus the similarity between these claims can at best be said to be coincidental. Naturally, for one who accepts an idealist ontology, reincarnation is far less of a philosophical problem than for the materialist.

Moreover, such an idealist ontology is by no means universal within Buddhism. The now extinct Sarvāstivāda school, for instance, while not exactly materialist, tended towards that viewpoint with the slogan from which it gained it's name: *sarva asti* ('everything exists'). Whether Mind is the raw material from which reality is constructed or whether it is an epiphenomenon of material reality, the Buddha's teachings of impermanence, insubstantiality and unsatisfactoriness remain an *existential* truth. This, by the way, is one reason why religious wars have been exceedingly rare in Buddhist history. The points of disagreement between the various schools of Buddhism have invariably been over issues that are peripheral to the central Buddhist message. Such conflicts between Buddhist communities as may be found in history have consistently been about concrete issues such as

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[9] See Bucknell & Stuart-Fox (1983) for a description of one of the more influential recent attempts within Buddhist circles to strip reincarnation theory from any mythical overlays.

land and royal favour of one school over another. Deplorable as these situations have been, they were not specifically *religious* wars.

And the three central Buddhist themes of impermanence, insubstantiality and unsatisfactoriness are, if not directly applicable as scientific concepts, at least congenial to them. In a later development, these three were conflated into a single concept: 'emptiness'. When Buddhists say that 'everything is empty', this does not imply that nothing exists. It means that while everything in reality is real enough, no part of it could survive without the simultaneous presence of all other parts. It points to the radical interdependence of all that exists. It denies the existence of any form of reality that occupies a unique place, that exists solely by its own power. It applies this understanding of reality strictly to *everything*. There is no privileged place in this scheme for *homo sapiens*. There is no 'ghost in the machine' - to classify ourselves as part ghost, part machine is to show an inadequate concept of the complicated nature of existence. We too are part of this unbelievably intricate web of causality, within and without, in which a myriad of causes, known or unknown, shapes what we are and what we become. This does not lead, in Buddhism, to a strict determinism, for volition (*samkhāra)* is recognised as one of the empirically discernible factors that go into making a sentient being. But there is no soul or self in Buddhist thinking, no irreducible core of humanness that transcends the vagaries of empirical existence. In fact, what I have called 'insubstantiality' above, when read more literally, is 'not-self' (*anatta*).

In a system that does not allow for the existence of a soul, as the more traditional thinkers of the Buddha's time were quick to recognise, there cannot be an oversoul, in other words, there cannot be a supreme deity as it is presented to us in so much of the Judaeo-Christian tradition. One should be careful not to stretch words beyond their customary boundaries without good reason. The concept of the supreme god that was developing in India at the time was and remains different in many crucial respects to the image of god that most of us have absorbed from our western environment. Yet the Buddhist arguments against the existence of a supreme being are much the same as those used by western atheists and agnostics.

This is the point where Hinduism and Buddhism parted ways, peacefully for the most part. There had been Hindu thinkers, largely in the Samkhya tradition, who had said many of the same things as the Buddha. There were later Hindu teachers, notably the great Śaṅkara, whose teachings at times came so close to Buddhist thinking that there were those who accused him of being a Buddhist in disguise. But Hinduism always retained the concept of an ultimate being, an ultimate reality, a supreme god. In however abstract a form this may be presented, there lies the difference between the two religions. Buddhism sees *all* reality as radically interdependent, with no exceptions. And it is also here where the difference between Buddhism and the Judaeo-Christian tradition lies today. If there is a God as presented in classical Judaeo-Christian thinking, then *Buddhism cannot be true*, for this would mean that there was at least one self-existent entity (at least partly) within reality, and that there may therefore be others. Conversely, if Buddhism is correct in its assessment of reality as being a radically interdependent 'web' of causality, then *God*, as presented in classical Judaeo-Christian thinking, *cannot exist*. In the Buddhist viewpoint, this does not imply that there are no beings that are longer-lived and more powerful than human beings. Such godlings may exist, and if so they may exist in ways that are all but inconceivable to us, but if so, they too are subject to decay, extinction, and eventual rebirth. It should, however, be pointed out that this argument deliberately ignores more recent Judaeo-Christian concepts of God, such as that presented by the process theology based on

Whiteheadian philosophy. In this case, the differences between Buddhism and Judaeo-Christian thinking are far smaller.

4. Science and Buddhism seeing each other (through a glass, darkly)

Where does this leave Buddhism and science? As I have tried to point out throughout this essay, there are similarities in outlook. Even the language sounds similar. For 'impermanence', we could substitute 'entropy', for 'insubstantiality' perhaps 'operant conditioning', and instead of 'emptiness', we might in some contexts say 'indeterminacy'. But this is too easy - it is in fact a piece of philosophical sleight-of-hand that ignores the respective underlying impulses and methodologies of both Buddhism and science. Science is an effort to *understand* reality - it is (or attempts to be) value-neutral regarding what should be done with that understanding. Buddhism also employs a terminology of understanding or insight, but its underlying motivation is value-laden. It is therapeutic in nature. To paraphrase Karl Marx: 'The scientists have only explained the world; the Buddhist point is how to react to our experience of it'.

Both science and Buddhism make use of a specific methodology. In science it is that of a series of conjecture and experiments, on which follows either refutation or confirmation of the conjecture. It is essentially a *public* process even if the results are suppressed for reasons such as national security, for it is essential that the conjecture, the conditions for the experiment and the result must all be expressible in language. Not necessarily English, but some form of symbolic language that is immediately accessible to anyone trained in the use of that language. To extend this methodology metaphorically into the Buddhist arena, the conjecture and rules of experimentation of Buddhism are expressible and widely available in language. These are the problems of the human condition, as Buddhism understands them, and the instructions for meditation and general lifestyle. They are public. But the *result* is *private*. It is not expressible in a common or shared form of discourse (cf. Balasubramaniam 1992:207). Nishitani maintains that this intense self-investigation is the unique preserve, not just of Buddhism, but of religion generally:

> There remains one basic question: what on earth is this man himself who is endowed with, among other abilities, the very capacity of inquiring in so scientific a way into the mechanisms of nature, society and human consciousness? To this question the sciences are unable to answer ... there would be no other way for them but to answer by way of again inquiring into the mechanism of nature, the mechanism of society, or the mechanism of consciousness. This means that the very dimension on which that question emerges is closed to those sciences, that they are even denied the access to the possibility of putting such a question.
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> (Nishitani 1965:106)

We seem to have reached an impasse. It appears as if Buddhism and science are distinct world-views with precious little in common, with the Judaeo-Christian tradition as yet a third, largely incompatible with either of the other two. 'East is East and West is West, and ne'er the twain shall meet' (Rudyard Kipling, *The ballad of East and West*).Yet this answer is unsatisfactory. Regardless of the prophecies of doom of the more radical among the 'postmodern' philosophers, there remains our overpowering intuition that all these philosophical systems, and many others, must refer to a common human experience of reality, that somehow they all refer to the *same* world. Indeed, Nishitani follows his description of the gap between science and mystical introspection quoted above with the

observation that '... What is required is the unification of two contradictory moments: the scientific view of the universe and the investigation of man himself' (Nishitani 1965:106).

At the beginning of this essay, I suggested that a relation between Buddhism and science would only be possible if it could be expressed in a higher-order meta-language of which both these modes of discourse were subsets. This may well be true of the relation between science and religion in a more general sense. Unless and until we develop such a language, even if we all speak English, we are simply not speaking the same language. If such a 'language' could be found, it would certainly be one of the human race's greatest achievements, for until there is a mode of discourse that incorporates not only science and religion(s), but also art, feeling and all other modes of human existence, there cannot truly be the much-to-be-desired 'theory of everything'. Such a language will therefore have to be developed, by a slow process of coming together that is typified or perhaps even epitomised by meetings such as this. A common language of science and religion would only be a first tentative step in this process. In such a process, we would neither search for a religious justification for the scientific endeavour and its conclusions, nor to reduce mystical experience to 'nothing but' a set of biochemical, electrical and behaviourally conditioned states. Instead, it would attempt to develop a vocabulary that would encompass both aspects of human existence, taking both equally seriously.

To return to an earlier suggestion, if we are to develop such a language, it seems that Buddhist involvement is crucial. Buddhism is neither Christianity[10] nor science. Its unique approach to reality combines aspects of both - Christianity's insistence that the world is not empty of values and science's determination not to let values cloud its vision of what is really there - Christianity's understanding of the human being as having purpose and direction and science's observation that much of what we perceive as our purpose has causal precedents in the world outside our bodies and minds. This is not to say that it has 'the best of both worlds', for one could argue as easily that it has both Christianity's devotion to something that may not exist at all and science's arrogant appraisal of other belief systems as primitive and superseded developments. However, its positioning between these two large philosophical blocs may allow it to mediate the ideas flowing from the one to the other, to soften their impact by translating them into something closer to what the receiver is accustomed to hearing. Buddhism has the tools to do this: whether science and Christianity are willing to let it play this role will have to be left to them to decide.

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[10] Or, more broadly, the entire Judaeo-Christian tradition.

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