

# BUDDHISM, THE ONLY REAL SCIENCE

**I used to be a scientist.** I did **Theoretical Physics at Cambridge University,** hanging out in the same building as the later-to-be-famous Professor Stephen Hawking. I became disillusioned with such science when, as an insider, I saw how dogmatic some scientists could be. A dogma, according to the dictionary, is an arrogant declaration of an opinion. This was a fitting description of the science that I saw in the labs of Cambridge. Science had lost its sense of humility. Egotistical opinion prevailed over the impartial search for Truth. My favourite aphorism from that time was:

"The eminence of a great scientist, is measured by the length of time that they **OBSTRUCT PROGRESS** in their field!"

To understand real science, one can go back to one of its founding fathers, the English philosopher Francis Bacon (1561 - 1628). He established the framework on which science was to progress, namely "the greater force of the negative instance". This meant that, having proposed a **theory to explain some natural phenomenon,** then one should try one's best to disprove it! One should test the theory with challenging experiments. One must put it on trial with rigorous argument. When a flaw appears in the theory, only then does science advance. A new discovery has been made enabling the theory to be adjusted and refined. This fundamental and original methodology of science understood that **it is impossible to prove anything with absolute certainty.** One can only disprove with absolute certainty.

For example, how can one prove the **basic law of gravity** that "what goes up comes down, eventually"? One may throw objects up one million times and see them fall one million times. But that still does not prove "what goes up

comes down". For NASA might then 'throw' a Saturn rocket up into space to explore Mars, and that never comes down to earth again. **One negative instance is enough to disprove the theory with absolute certainty.**

**Some misguided scientists** maintain the theory that there is no rebirth, that this stream of consciousness is incapable of returning to a successive human existence. All one needs to disprove this theory, according to science, is to find one instance of rebirth, just one! Professor **Ian Stevenson**, as some of you would know, has already demonstrated many instances of rebirth. The theory of no rebirth has been disproved. **Rebirth is now a scientific fact!** Modern science gives a low priority to any efforts to disprove its pet theories. There is too much vested interest in power, prestige and research grants. A courageous commitment to truth takes too many scientists out of their comfort zone. Scientists are, for the most part, brainwashed by their education and their in-group conferences to see the world in a very narrow, microscopic, way. The very worst scientists are those who behave like eccentric evangelists, claiming that they alone have the whole truth, and then demanding the right to impose their views on everyone else.

Ordinary people know so little about science that they can hardly even understand the jargon. Yet, if they read in a newspaper or magazine "a scientist says that?", then they automatically take it to be true. Compare this to our reaction when we read in the same journal "a politician says that?!" **Why do scientists have such unchallenged credibility?** Perhaps it is because the language and ritual of science has become so far removed from the common people, that scientists have become today's revered and mystical priesthood. Dressed in their ceremonial white lab coats, chanting incomprehensible mumbo jumbo about multi-dimensional fractal parallel universes, and performing magical rituals that transubstantiate metal and plastic into TV's and computers, these modern day alchemists are so awesome we'll believe anything they say. Elitist science, as once was the Pope, is now infallible.

Some know better. Much of what I **learnt 30 years ago has now been proved wrong**. There are, fortunately, many scientists with integrity and humility who affirm that science is, at best, a work still in progress. They know that **science can only suggest a truth**, but **can never claim a truth**. I was once told by a Buddhist G.P. that, on his first day at a medical school in Sydney, the famous Professor, head of the Medical School, began his welcoming address by stating **"Half of what we are going to teach you in the next few years is wrong. Our problem is that we do not know which half it is!"** Those were the **words of a real scientist**.

Some evangelical scientists would do well to reflect on the (amended) old saying "Scientists rush in where angels fear to tread" and stop pontificating about the nature of the mind, happiness and even Nirvana. Neurologists are especially prone to such **neuroses (Neurosis: an undue adherence to unrealistic ideas of things)**. They are claiming that the mind, awareness and will, is now adequately explained by activity in the brain. This theory was disproved over 20 years ago by **Prof. Lorber's discovery** of the student at Sheffield University with an IQ of 126, a First Class degree in mathematics, but with virtually no brain (Science, Vol. 210, 12 Dec 1980)! More recently, it was disproved by Prof. Pim Van Lommel, who demonstrated the existence of consciousness activity after clinical death, i.e. when all brain activity has ceased (Lancet, Vol. 358, 15 December 2001, p 2039).

Although there may be correlation between a measurable activity in part of the brain and a mental impression, such co-occurrence doesn't always imply that one is the cause of the other. For instance, some years ago, research showed a clear correlation between cigarette smoking and the non-occurrence of Alzheimer's disease. It was not that smoking cigarettes somehow caused immunity from Alzheimer's, **as much as the tobacco companies might have wished, it was only that many smokers** did not live long enough to get Alzheimer's disease! Thus a co-incidence of two phenomena, even when repeated, does not mean that one phenomenon is the cause of the other. To claim that activity in the **brain causes awareness, or mind, is plainly unscientific**.

**Buddhism is more scientific than modern science**. Like science,

Buddhism is based on verifiable cause-and-effect relationships. But unlike science, Buddhism challenges with thoroughness every belief. The famous **Kalama Sutta** of Buddhism states that one cannot believe fully in "what one is taught, tradition, hearsay, scripture, logic, inference, appearance, agreement with established opinion, the seeming competence of a teacher, or even in one's own teacher". How many scientists are as rigorous in their thinking as this? **Buddhism challenges everything, including logic.**

It is worth noting that **Quantum Theory** appeared quite illogical, even to such great scientists as **Einstein**, when it was first proposed. It is yet to be disproved. Logic is only as reliable as the assumptions on which it is based. Buddhism trusts only clear and objective experience.

Clear experience occurs when one's measuring instruments, one's senses, are bright and undisturbed. In Buddhism, this happens when the hindrances of sloth-and-torpor and restlessness-and-remorse are both overcome. Objective experience is that which is free from all bias. In Buddhism, the three types of bias are desire, **ill will and sceptical doubt**. **Desire makes one see only** what one wants to see, it bends the truth to fit one's preferences. Ill will makes one blind to whatever is disturbing or disconcerting to one's views and it distorts the truth by denial. Sceptical doubt stubbornly refuses to accept those truths, like rebirth, that are plainly valid but which fall outside of one's comforting worldview. In summary, clear and objective experience only happens when the Buddhist 'Five Hindrances' have been overcome. Only then can one trust the **data arriving through one's senses.**

**Because scientists are not free of these five hindrances**, they are rarely clear and objective. It is common, for example, for scientists to ignore annoying data, which do not fit their cherished theories, or else confine such evidence to oblivion by filing it away as an 'anomaly'. Even most Buddhists aren't clear and objective. One has to have recent experience of Jhana to effectively put aside these five hindrances (according to the **Nalakapana Sutta , Majjhima** No. 68). So only **accomplished meditators can claim to be real scientists**, that is, clear and objective.

Science claims to rely not only on clear and objective observation, but also on measurement. But what is measurement in science? To measure something, according to the pure science of Quantum Theory, is to collapse the Schroedinger Wave Equation through an act of observation. Moreover, the "un-collapsed" form of the Schroedinger Wave Equation, that is before any measurement is made, is, perhaps, science's most perfect description of the world. That description is weird! Reality, according to pure science, does not consist of well ordered matter with precise masses, energies and positions in space, all just waiting to be measured. Reality is the broadest of smudges of all possibilities, only some being more probable than others. Even basic 'measurable' qualities as 'alive' or 'dead' have been demonstrated by science to be invalid sometimes. In the notorious 'Schroedinger's Cat' thought experiment, Prof. Schroedinger's cat was ingeniously placed in a real situation where it was neither dead nor alive, where such measurements became meaningless. Reality, according to is Quantum Theory, beyond measurements. Measuring disturbs reality, it never describes it perfectly. It was Heisenberg's famous 'Uncertainty Principle' that showed the inevitable error between the real Quantum world and the measured world of pseudo-science.

Anyway, how can anyone measure the measurer, the mind? At a recent seminar on Science and Religion, at which I was a speaker, a Catholic in the audience bravely announced that whenever she looks through a telescope at the stars, she feels uncomfortable because her religion is threatened. I commented that whenever a scientist looks the other way round through a telescope, to observe the one who is watching, then they feel uncomfortable because their science is threatened by what is doing the seeing! So what is doing the seeing, what is this mind that eludes modern science?

A Grade-One teacher once asked her class "What is the biggest thing in the world?" One little girl answered "My daddy". A little boy said "An elephant", since he'd recently been to the zoo. Another girl suggested "A mountain". The six-year-old daughter of a close friend of mine replied, "My eye is the biggest thing in the world"! The class stopped. Even the teacher

didn't understand her answer. So the little philosopher explained "Well, my eye can see her daddy, an elephant, and a mountain too. It can also see so much else. If all of that can fit into my eye, then my eye must be the biggest thing in the world"! Brilliant.

**However, she was not quite right.** The mind can see everything that one's eye can see, and it can also imagine so much more. It can also hear, smell, taste and touch, as well as think. In fact, everything that can be known can fit into the mind. **Therefore, the mind must be the biggest thing in the world.** Science's mistake is obvious now. The mind is not in the brain, nor in the body. **The brain, the body and the rest of the world, are in the mind!**

## The Mind and the Brain

As soon as you start to include the mind, this 'ghost in the machine', in the equations, scientists tend to become discomfited. They take refuge in dogma, and say, "No, that cannot exist". I really took the Sate Astronomer to task over such dogmatism in science.

As far as Buddhism is concerned there are six senses. Not just the five senses of science, namely sight, sound, smell, taste and touch - but in addition the mind. From the very beginning in Buddhism, mind has been the sixth sense. Twenty-five centuries ago, the sixth sense was well recognised. So this is not changing things to keep up with modern times; this was so from the very beginning. The sixth sense, the mind, is independent of the other five senses. In particular the mind is independent of the brain. ***If you volunteer to have a brain transplant with me - you take my brain and I take your brain - I will still be Ajahn Brahm and you will still be you. Want to try it?*** If it was possible and it happened, you would still be yourself. The mind and the brain are two different things. *The mind can make use of the brain but it doesn't have to.*

Some of you may have had out of the body experiences. These out of the body experiences have recently been the subject of mainstream scientific research. Out of the body experiences are now a scientific fact! I like to

stir people up by saying things like that. Recently I saw that Dr. Sam Parnia, a researcher from the University of Southampton Medical School, has given a paper, stating that consciousness survives death.[ii] He said that he did not know how it happens, or why it happens, but, he says, it does happen. His evidence was gathered from people who have had out of the body experiences in his hospital. Dr Parnia, investigated and interviewed many, many patients. The information which they gave him, as a cool headed scientist, said yes, those people were conscious during the time they were dead. What was especially very convincing was that often they could actually describe to the doctor the medical procedures that were done during the time when they were clinically dead. They could describe it as if they were looking at their body from a position above the table. But how that happens Dr. Parnia can't explain. Why it happens he can't explain. But other medical findings also support the above. Finally, their findings replicated the work done earlier by Dr. Raymond A. Moody in the United States.[iii]

The evidence proved to those hard nosed doctors that out of body experiences do happen. But how could they happen? If we agree that the mind can be independent of the body, then we have a plausible explanation. The brain doesn't need to be functioning for a mind to exist. The scientific facts are there, the evidence is there, but a lot of scientists don't like to admit those facts. They prefer to close their eyes - because of dogmatism.

### **Come and See for Yourself**

If you had just one person who had been confirmed as medically dead who could describe to the doctors, as soon as they were revived, what had been said, and done during that period of death, wouldn't that be pretty convincing? When I was doing elementary particle physics there was a theory that required for its proof the existence of what was called the 'W' particle. At the cyclotron in Geneva, CERN funded a huge research project, smashing atoms together with an enormous particle accelerator, to try and find one of these 'W' particles. They spent literally hundreds of millions of pounds on this project. They found one, just one 'W' particle. I don't think they have found another since. But once they found one 'W' particle, the researchers involved in that project were given Nobel prizes for physics. They had proved the theory by just finding the one 'W' particle. That's good science. Just one is enough to prove the theory.

When it comes to things we don't like to believe, they call just one experience, one clear factual undeniable experience, an anomaly. Anomaly is a word in science for disconcerting evidence that we can put in the back of a filing cabinet and not look at again, because it's threatens our worldview. It undermines what we want to believe. It is threatening to our dogma. However, an essential part of the scientific method is that theories have to be abandoned in favour of the evidence, in respect of the facts. The point is that the evidence for a mind independent of the brain is there. But once we admit that evidence, and follow the scientific method, then many cherished theories, what we call 'sacred cows' will have to be abandoned.

When we see something that challenges any theory, in science or in religion, we should not ignore the evidence. We have to change the theory to fit the facts. That is what we do in Buddhism. All the *Dhamma* of the Buddha, everything that he taught, if it does not fit the experience, then we should not accept it. We should not accept the Buddha's words in contradiction of experience. That is clearly stated in the Kālāma Sutta. (AN III, 65) The Buddha said do not believe because it is written in the books, or even if I say it. Don't just believe because it is tradition, or because it sounds right, or because it's comforting to you. Make sure it fits your experience. The existence of mind, independent of the brain, fits experience. The facts are there.

Sometimes, however, we cannot trust the experts. You cannot trust Ajahn Brahm. You cannot trust the scientific journals. Because people are often biased. Buddhism gives you a scientific method for your practice. Buddhism says, do the experiment and find out for your self if what the Buddha said is true or not. Check out your experience. For example, develop the method to test the truth of past lives, rebirth and reincarnation. Don't just believe it with faith, find out for yourself. The Buddha has given a scientific experiment that you can repeat.

Until you understand the law of *kamma*, which is part of Buddhism, *kamma* is just a theory. Do you believe that there is a God 'up there' who decides when you can be happy or unhappy? Or is everything that happens to you just chance? Your happiness and your suffering in life,



your joy, your pain and disappointments, are they deserved? Are you responsible or is it someone else's fault? Is it mere chance that we are rich or poor? Is it bad luck when we are sick and die at a young age? Why? You can find the true answer for yourself. You can experience the law of *kamma* through deep meditation. When the Buddha sat under the Bodhi tree at Bodhgaya, the two knowledge's he realized just before his Enlightenment were the knowledge from experience of the truth of rebirth, and the knowledge from experience of the Law of *kamma*. This was not theory, not just more thinking, not something worked out from discussions around the coffee table - this was realization from deep experience of the nature of mind. You too can have that same experience.

All religions in the world except Buddhism maintain the existence of a soul. They affirm a real 'self', an 'essence of all being', a 'person', a 'me'. Buddhism says there is no self! Who is right? What is this 'ghost in the machine'? Is it a soul, is it a being, or is it a process? What is it? When the Buddha said that there is no one in here, he never meant that to be just believed, he meant that to be experienced. The Buddha said, as a scientific fact, that there is no 'self'. But like any scientific fact, it has to be experienced each one for themselves, *paccattam veditabbo viññūhī*. Many of you chant those Pāli words every day. It is basic scientific Buddhism. You have to keep an open mind. You don't believe there is 'no self', you don't believe there is a 'self' - *both* beliefs are dogmatism. Keep an open mind until you complete the experiment. The experiment is the practice of *sila*, *samādhi* and *pañña*, (virtue, meditation and insight). The experiment is Buddhist practice. Do the same experimental procedures that the Buddha did under the Bodhi tree. Repeat it and see if you get the same results. The result is called Enlightenment.

Men and women have repeated that experiment many times over the centuries. It is in the laboratory of Buddhist practice that the Enlightened Ones, the *Arahants*, arise. The *Arahants* are the ones who have done the experiment and found the result. That's why Buddhism always has been the scientific way. It is the way of finding out for your self the truth of Enlightenment.

Buddhism is also the scientific way of discovering the truth about happiness, what most people are interested in.

What is happiness? Some students from our local Islamic school came to visit our monastery a short while ago. I performed a little party trick for them, which was also an illuminating way to demonstrate the existence of the mind. I was trying to explain Buddhism, so I asked them:

"Are you happy? Put your hands up if you are happy now".

At first there was no response. Then one person responded and raised their hand.

"Oh! You're all miserable?" I said "Only one person, come on! Are you happy or not?"

More students put their hands up.

"Okay, all those people who put their hands up saying they are happy, with your index finger can you now point to that happiness? Can you give it coordinates in space?" They couldn't locate that happiness.

It's hard to locate happiness, isn't it? Have you ever been depressed? Next time you are depressed, try to point to that feeling with your index finger! You will find that you cannot locate depression, or happiness, in space. You cannot give it coordinates, because these things reside in the mind, not in the body, not in space. The mind is not located in space. That's why after a person dies, if they become a ghost they can appear all over the world immediately. People sometimes ask me, "How can that happen?" How can a person who dies, say in New York, appear immediately in Perth? It is because the mind is not located in space, that's why. This is why you cannot point to happiness, you cannot point to depression, but they are real. Are you imagining the happiness? Do you imagine the depression? It's real. You all know that. But you cannot locate it in three dimensional space. Happiness, depression, and many other real things, all live in mind-space.

The mind is not in the brain, it's not in the heart. We have seen that you could have no brain but still have a mind. You could take out your heart, and have a bionic heart, or a heart transplant, and you would still be you. This understanding of the mind is why Buddhists have no objection at all to cloning. You want to clone me, go for it! But don't think that if you clone Ajahn Brahm that you'll be able to have one Ajahn Brahm who goes to Singapore this evening, another one who stays in Perth for next Friday night's talk, plus one who can stay in Bodhinyana monastery,

one who can go to Sydney, and one who can go to Melbourne. If you clone me, the person who looks like me will be completely different in personality, knowledge, inclination, and everything else. People clone Toyota cars in the same way. They look exactly the same but the performance really depends on the driver inside the car. That's all cloning is, it's just a replicating a body. Sure it looks the same, but is the body all that a person is? Haven't you seen identical twins? Are identical twins the same personality? Have they got the same intelligence? Have they got the identical inclinations? Do they even like the same food? The answer is usually no.

Why do people have this problem about cloning? Clone as much as you want. You are just creating more bodies for streams of consciousness to come into. Those streams of consciousness come from past lives. What's the problem? You would never be able to predict the result. Suppose you took Einstein's brain, extracted some of his DNA, and cloned a new Einstein. He might look the same, but I guarantee he won't be half as clever.

If people want to proceed with stem cell research, which is going to help humanity, then why not? In stem cell research there is no 'being' involved. The 'being' hasn't come in yet. In Buddhism, it is understood that the 'being' descends into the mother's womb at any time from conception until birth. Sometimes it doesn't even go into the womb at all and the foetus is stillborn. The objections to stem cell research are dogmatic, unscientific, and uncompassionate. They're foolish as far as I'm concerned. I think sometimes that I would tear my hair out if I weren't a monk.

If you want to look at the scientific evidence for rebirth, check out Professor Ian Stevenson. He spent his whole life researching rebirth on a solid scientific basis at the University of Virginia.[iv] Chester Carlson, the inventor of xerography, (encouraged by his wife) offered funds for an endowed chair at the University to enable Professor Stevenson to devote himself full-time to such research. If it weren't for the fact that people do not want to believe in rebirth, Dr. Ian Stevenson would be a world famous scientist now. He even spent a couple of years as a visiting fellow of Magdalene College in Oxford, so you can see that this is not just some weird professor; he has all of the credentials of a respected Western academic.

Dr. Stevenson has over 3000 cases on his files. One interesting example was the very clear case of a man who remembered many details from his past life, with no way of gaining that information from any other source. That person died only a few weeks before he was reborn! Which raises the question, for all those months that the foetus was in the womb, who was it? As far as Buddhism is concerned, the mother kept that foetus going with her own stream of consciousness. But when another stream of consciousness entered, then the foetus became the new person. That is one case where the stream of consciousness entered the mother's womb when the foetus was almost fully developed. That can happen. That was understood by Buddhism twenty five centuries ago. If the stream of consciousness doesn't enter the mother's womb, the child is a stillborn. There is a heap of evidence supporting that.

### **Science and Buddhism**

When a Buddhist looks through a telescope, they are not scared by what they might find. They are not scared of science. Science is an essential part of Buddhism. If science can disprove rebirth, then Buddhists should give up the idea of rebirth. If science disproves non-self, and shows there is a self, then all Buddhists should abandon non-self. If science proves there is no such thing as *kamma*, but instead there is a big God up in the sky, then all Buddhists should believe in God. *That is, if it's provable science.* Buddhism has no sacred cows. However, I encourage you to do those experiments for yourselves. I'll bet you will find out that there is no one 'in there'. You will find out about *kamma*. You will find out you've been here before, that this is not your first life. If you don't behave yourselves in this life, you'll have another life to come yet. Do you think you are finished with nappies, with school? Do you really want to go through all that again? If not *be careful.*

So, here is my thinking about science and Buddhism. I think that Buddhism is pure science, a science that doesn't stop 'out there', but also investigates the mind, the 'being', the 'ghost in the machine'. And it doesn't disregard any anomalies. Buddhism takes everything as its data, especially experience, and looks at it scientifically. It is incredibly successful.

One of the reasons why people celebrate science is because of all of its achievements in technology. One of the reasons why Buddhism is growing these days is because of all of its achievements in the 'technology of the mind'. It solves problems. It explains mental difficulties. Buddhism succeeds in solving those inner problems because it has all these strategies, these ancient 'gizmos', which actually work. If you try some of these Buddhist gizmos, you will find out for yourself that they produce the goods, they solve your inner suffering and pain. That is why Buddhism is growing. I think that Buddhism will supplant science!

**Mind is the sixth sense in Buddhism**, it is that which encompasses the five senses of sight, hearing, smell, taste and touch, and transcends them with its own domain. It corresponds loosely to Aristotle's "common sense" that is distinct from the five senses. Indeed, ancient Greek philosophy, from where science is said to have its origins, taught six senses just like Buddhism. Somewhere along the historical journey of European thinking, they lost their mind! Or, as Aristotle would put it, they somehow discarded their "common sense"! And thus we got science. We got materialism without any heart. **One can accurately say that Buddhism is science that has kept its heart, and which hasn't lost its mind!**

Thus **Buddhism is not a belief system**. It is a science founded on objective observation, i.e. meditation, ever careful not to disturb the reality through imposing artificial measurements, and it is evidently repeatable. People have been re-creating the experimental conditions, known as establishing the factors of the **Noble Eightfold Path**, for over twenty-six centuries now, much longer than science. And those renowned Professors of Meditation, the male and female Arahants, have all arrived at the same conclusion as the Buddha. They verified the **timeless Law of Dhamma**, otherwise **known as Buddhism**. So Buddhism is the only real science, and **I'm happy to say that I'm still a scientist at heart, only a much better scientist than I ever could have been at Cambridge.**

**Ajahn Brahmavamso - 8th February 2004**