

TRADITIONAL THAI WISDOM AS BASED ON THE PALI TIPITAKA: A CHALLENGE TO SCIENCE AND TECHNOLOGY

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Abstract

The Pali Tipitaka as used in Theravada Buddhist countries is considered to play various important roles. In Thailand, the Pali Tipitaka is not only a religious text but also a main source of Thai wisdom. The recent call for a greater role for Thai wisdom mainly comes from the awareness that the Western way of thought that dominates the modern Thai way of life is something that should be seriously examined. This paper will examine one important Western mode of thought which is generally called science and the attempt by Thai traditional thinkers to create Thai wisdom as a tool for examining that Western mode of thought through the reading and interpretation of the Pali Tipitaka.

The Pali Tipitaka and Buddhism in Thailand

Like other countries in Asia, Thailand has tended to follow the development paradigm based on Western science and technology. As science is not merely a tool for changing the world, but also is an ideology stating a number of ethical principles, whether intentional or not; science in the latter aspect is

considered by Thai traditional wisdom —Buddhism— as something to be examined. In this paper, science will be examined as a kind of knowledge that carries a set of ethical principles. The author is fully aware that the problem concerning the status of science can be debated in various ways. The question as to whether science should be considered as something free from ethical dimensions or not has remained unsolved. Philosophically, it is possible to claim that science can be viewed as pure knowledge that is completely free from ethical dimensions. However, the philosophical argument stating that science can never be free from ethical values is one that has rather strong supporting arguments. This paper is based on that philosophical assumption. So, when we talk about science in this paper we are talking about it as knowledge carrying a set of ethical claims.

During the last two decades, there has been a great awakening among the Thai people to re-examine the national development paradigm that has followed Western science and technology. It should be noted that Buddhism has direct influence on this national awakening through the works of some Buddhist gurus and scholars. The confrontation of Buddhist and Western science is something worth considering. The main theme of this paper is to study the so-called ideological dialogue between Buddhism and Western science that is taking place in Thai society today.

Generally, Buddhism is considered a religion, not a system of knowledge. However, Buddhism has been studied through various dimensions and it is found that in some dimension Buddhism could be considered as a system of

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knowledge. What is knowledge? Epistemologically, knowledge is something expressed through a statement (or a set of statements) and such a statement can be justified. Sense-experience is usually utilized to justify knowledge as found in Western science. However, besides sense-experience there could be other sources of knowledge. Indian philosophy presents various kinds of sources of knowledge, including sense-experience. As a religion grounded in Indian tradition, Buddhism shares that epistemological assumption. That is, according to Buddhism, there can be other sources of knowledge besides sense-experience. Other things that are usually raised regarding this matter are intuition, rationality, faith, and so on.

The first Thai Buddhist scholar to analyze the Buddha's teachings as a system of knowledge is the late Buddhadasa Bhikkhu. He holds a place as a national *guru* who played a most important role in presenting Buddhism in the Thai context through his unique way. According to Buddhadasa, the *dhmma*--the teachings of the Buddha--has four meanings. First, it means natural things; second, it means natural laws; third, it means moral obligations to follow the natural laws; and fourth, it means results gained from following the natural laws.(Buddhadasa,1985) The second Thai Buddhist scholar to present the view that Buddhism could be considered as a system of knowledge is the well-known scholar-monk, Phra Dhammapitaka. By analyzing sources from the commentaries, Phra Dhammapitaka teaches that the *dhmma* includes five aspects. First, it means the physical laws; second, it means the biological laws; third, it means the psychic laws; fourth, it means the laws of action; and fifth, it means the moral

laws.(Phra Dhammapitaka,1985) Both Buddhadasa and Phra Dhammapitaka agree that the teaching of the Buddha is a system of knowledge that can be justified, and this system of knowledge contains two main aspects: *moral* and *epistemological*.

The way Buddhadasa presents Buddhism could be called an empiricist way as he says that the entire teaching of the Buddha can be justified by sense-experience. Statements that refer to something that is considered to be beyond human sense-experience, such as statements about hell and heaven, are interpreted by him as statements that refer to human mental conditions. Hell means a psychological state in which people feel oppressed and heaven is nothing but a psychological state in which people feel happy. Phra Dhammapitaka differs from Buddhadasa in that he understands that there is something taught by the Buddha that is beyond normal empirical justification. However, according to Phra Dhammapitaka, as a system of knowledge, Buddhism is less mystical than traditional Buddhists' interpretation of it. The influence of both Buddhadasa and Phra Dhammapitaka, it could be said, makes Thais modern understand Buddhism as a system of knowledge like science. Religion and science are usually understood as two opposite things. Religion requires faith, while science requires reason. Religion has something unexplained, while everything in science is explained. This concept plays a small role among Thai Buddhists today as they view Buddhism as a system of knowledge that describes the world through the statements that can be all justified.

Even though Buddhism is understood as

a system of knowledge concerning the world, there is a major distinction between Buddhism and science in the views of Buddhadasa and Phra Dhammapitaka. First of all, the truths taught by the Buddha are not the same truths explored by scientists. The truths explored in Buddhism are closely related to the process of reducing human suffering. The Buddha said: I have taught only suffering and the cessation of suffering. The truths explored by science are objective, empirical, and material; while the truths explored by Buddhism are subjective, empirical, and spiritual. It should be remarked that both truths, as understood by Buddhadasa and Phra Dhammapitaka, are all empirical in a sense that one can verify their meaning by empirical methods. To practice the teaching of the Buddha requires action and if such action is proper results must occur and one can know by himself when they occur.

Some classical scientists like Newton and Einstein seem to accept that mystical experience can inspire scientific activities, and this is viewed as something that makes science close to religion. However, the truths understood by scientists are something not related directly to human spiritual happiness, even though some of them, for example Newton, speak of God in their works, as God cares very much about human spiritual happiness. But there is no statement in scientific research, even in the works of great scientists like Einstein or Newton, claiming that human spiritual happiness is the objective of scientific activities.

The fact that science does not care about human spiritual happiness should make science free from any values, if we judge it from the standards accepted within the society of scientists. The world explored

by science is the *material* world, and the major obligation of scientific research understood by the members of scientific society is to search for the natural laws that enable us to materially benefit from that knowledge. Scientific knowledge is concerned with the material world only. This material world is objective truth not depending on our emotions. The sole aim of scientific research is to gain objective truth. Whether this truth is useful or not is the secondary question while the primary one is how to gain the truth. Unlike scientists, the Buddha said there are very many truths in this world, and the one chosen by him to teach is the one that is concerned with human suffering and the way leading to its cessation. Truth in Buddhism is equivalent to usefulness, and usefulness, in turn, is equivalent to truth too. Pure knowledge which is not concerned with usefulness is disregarded by the Buddha.

The neutrality of scientific activities as described above gives rise to ethical debate. Scientists try to run activities outside the realm of morality, thinking that science is beyond ethical questions. Unfortunately, it seems there are two choices concerning ethical obligations: first, to stay inside the moral realm and express what is our thought about ethics; second, to stay outside as done by science and say nothing about ethics. Both ways, ultimately, are involved in morality. To say one not involved in morality is an ethical assumption. Accordingly, it does not matter that science tries to stay outside the realm of morality; indeed, it carries an ethical assumption the one which states that it is not necessary for scientists to be morally responsible for their research.

Furthermore, science as practiced in the actual scientific community seems to

adopt an epistemological theory the empiricist theory. Theoretically, science can be based on any philosophical assumption. That is, a scientist could be an empiricist, a rationalist, a materialist, or an idealist. But, actually, scientists from past to present have been mostly empiricists and materialists. So, sense-experience is taken by the society of scientists to be the only source of knowledge. There is no space for intuition, faith, and so on in scientific research. To exclude other sources of knowledge from scientific activities leads to the exclusion of other truths (that require intuition, faith, and so on) from scientific knowledge. Morality is one among many things that require intuition and faith. At this point, it seems that even though science can be considered as knowledge that carries a set of ethical rules, it has a rather narrow ethical principle, as it accepts only things that can be perceived by sense-experience and adopts moral reasoning grounded in sense-experience only.

The Eastern way of exploring things, according to some Thai Buddhist scholars, differs from the Western in that the former carries a passive and subjective approach, while the latter carries a positive and objective one. In the Tao Te Ching, the Great Way (the Tao) is compared to water which represents a passive way of dealing with things. Water does not fight but overcomes everything. Buddhism, even though grounded in Indian tradition, shares this inclination. The Buddha taught it is better for one to be victorious over oneself themselves than to conquer others. Knowledge taught by the Buddha is the enlighten wisdom that occurs after the process of self-purification. The truth taught in Buddhism leads to the elimination of one's ego or self. Western

science is criticized by contemporary Thai Buddhist thinkers, such as Buddhadasa and Phra Dhammapitaka, as it is grounded in self culture. The term self culture means a tradition in which the self of the person is highly accepted. As self is the core of man, scientific activities are considered to be man-centered. That is, scientific programs are run with the hope that one day the entire universe must be conquered completely by human beings. According to Eastern wisdom, on the other hand, there is no core of the universe. The doctrine of Dependent Origination in Buddhism states that everything in the world depends on other things, implying that there is nothing playing the role of the core of the world. Human beings, according to this Buddhist doctrine, are just part of the universe. Knowledge taught by the Buddha concerning the world can be achieved by playing a role as part of things. There is nothing to be conquered in this universe.

In conclusion, if Buddhism is understood as knowledge, this kind of knowledge has a specific purpose for which the contents of the Buddha's teaching are formed. This purpose as declared by the Buddha himself is the destruction of suffering in human life. Happiness, both physical and spiritual, is considered to be the most important thing in this system of knowledge. When Western science and technology is criticized by Buddhists, this understanding has usually played the major role. Like the ancient Greek epistemology which states that knowledge is virtue, knowledge in Buddhism cannot be viewed separately from morality. Wisdom taught in Buddhism is the highest form of knowledge and it is nothing but the enlightenment, or "bodhi" in Pali, in which insight and moral awareness are

merged into oneness.

Science and technology as examined by Buddhist thinkers in Thailand

First of all, it should not be concluded that science and technology have only bad aspects in the eyes of Buddhists. Some Thai Buddhist thinkers, such as Buddhadasa, believe that there are many things in science and technology that could be viewed as good. Buddhadasa said that science is based on rationality and self-evident observation. This understanding made him come to believe that scientific knowledge can be referred to as the example of the most firmly established intellectual activity produced by human beings. This positive understanding toward science of Buddhadasa is sometimes criticized by other Buddhist thinkers, especially those who are well trained both in science and in Buddhism. For them, science as understood by Buddhadasa does not represent the real nature of science. Buddhadasa's concept of science is very simple. According to him, a scientist is one who observes the world and tells us what happens. The process prepared to obtain knowledge in science contains the most direct and simple way, to open the eyes and see. Things explored in science, Buddhadasa said, are real, as opposed to imaginary ones. It should be noted that Buddhadasa's concept of science seems to represent classical science rather than modern. Greek philosophy explores the world through reasoning, and Galileo tried to argue that the world explored by the Greek philosophers is an imaginary world. He wanted to explore the real world. And this gives rise to a new science which is based on empirical observation and experiment, not on reasoning alone as

before.

The problem concerning the definition of science is one among many that are seriously explored in the philosophy of science. Classical science was based on empirical observation only. However, there are some dimensions of nature that cannot be directly observed and scientists think that to solve these problems requires other ways than empirical observation. Newton, though viewed as a classical scientist, seems to be the first scientist not to use empirical observation when he proposed an idea of gravitational force that could not be directly observed. Today, hypothesis, a statement or set of statements that cannot be justified by sense-experience, plays an equally important role in science as empirical observation. Knowledge in science is thus divided into two categories: theory and law. The former is accepted to have some propositions, usually called *theoretical terms*, that cannot be proven by sense-experience, while the latter is concerned only with propositions that can be justified by empirical observation, normally called *observational terms*.

Buddhadasa always said that Buddhism and science share one very important element. That is, knowledge both in Buddhism and science can be justified by empirical practice. They deal with the real things and the process from which knowledge is gained can be explained step by step. There are no mysteries in Buddhism and science. All can be tested and explained, Buddhadasa said. The purpose behind Buddhadasa's view is not just to say Buddhism is science, a claim some Buddhists in Thailand today like to endorse but to point out that knowledge in Buddhism differs from other religions

as it exists in nature and the Buddha simply observed it and brought it to the world. There is one statement used by the Buddha himself to characterize the Dhamma (the teaching) in Buddhism. That is, the Dhamma is "ehipassika", meaning the Dhamma is something one can come to and observe by himself or herself. (M.I.37) The dhamma thus exists in nature and the process to practice the teaching in Buddhism is a individual observation of nature. By this explanation of the dhamma, Buddhadasa believed that Buddhism comes closer to science, and sometimes he characterized Buddhism as a spiritual science aiming at the cessation of suffering.

Even though Buddhadasa's thought concerning the similarity between Buddhism and science could be criticized, as actually has been the case in Thailand during the past two decades, the way he explored the Buddha's teaching and compared it with science is worth considering. First of all, it points out that all the contents of the Buddha's teaching should be understood as empirical knowledge, a status different from the ways to understanding the teachings in other religions, especially in Theistic religions. Christianity has been confronted with science as it differs on the most basic grounds of knowledge, that is belief. Knowledge in Christianity is grounded in the Holy Bible, and the Holy Bible is grounded in a belief in God. Knowledge in Buddhism is grounded in the Tipitaka, and the Tipitaka is not grounded in God, but in Nature. Buddhism is a naturalist religion in a sense that it is grounded in a belief that the universe contains natural things and natural laws. The moral law is considered as one of the five categories of natural laws. So practicing the dhamma in Buddhism is nothing but

following the natural laws concerning morality. The good leads to happiness, and the bad leads to suffering. The fact that this leads to happiness and that to suffering already exists in nature. The Buddha did not invent these facts, he just discovered them. The tone of presenting Buddhism sounds like the tone in which science is presented. And this is why Buddhadasa pointed out the similarity between Buddhism and science.

A second trend in examining science by Thai Buddhist thinkers differs from Buddhadasa. This trend is represented by two Buddhist scholars: Phra Dhammapitaka and Professor Ravi Bhavilai. Professor Ravi is a professional scientist, specializing in physics and astrology. For Professor Ravi, scientific knowledge is illusion compared with Buddhism, which he believes to present the real truth. The term illusion means the shadow of reality, not reality itself. Ravi accepts that observation plays an important role in science, but it is not at the heart of science. That is, mere observation cannot create scientific knowledge. The thing that makes it scientific knowledge is human thought. Ravi believes that the human mind is an illusion as long as it is not developed or purified by religious practice. A scientist is ignorant in this sense, even though he could be viewed as an intellectual. It seems that the ground of belief on which Ravi stands in criticizing science is religious. Compared with science, Buddhist knowledge is direct contact with the truth, and not through any medium. Knowledge in Buddhism is true knowledge because it is direct contact with reality, while scientific knowledge is not because it is indirect contact with reality, or it is merely a shadow of reality to use the words of Plato.

Phra Dhammapitaka stresses another point. Generally, he accepts all things said by Professor Ravi above. However, the major interest of Phra Dhammapitaka mainly centers around the scope of scientific knowledge. His criticism is that science deals with matter as the whole of truth and this makes the scientific path toward the truth of the universe narrow. If one thinks that the most important task in human life is to liberate one from suffering itself, it must be accepted that scientific knowledge is not enough for this purpose because science is too narrow. (Phra Dhammapitaka, 1993:43-50) Besides this narrowness, there is another argument against science and technology proposed by Phra Dhammapitaka: the argument from the viewpoint of ethical responsibility. For Phra Dhammapitaka, science and technology are not neutral. There is a moral dimension hidden in science and technology. This is a hedonistic tendency which makes the path of science and technology lead to consumer behavior in today's world. (Phra Dhammapitaka, 1993:30-37) Happiness presented by science and technology is all worldly and material. In ancient India, there was a hedonist philosophy called Carvaka which stated that the highest goal in human life was to consume material pleasure. This tendency is considered by Buddhists to be close to what is offered by science and technology today. Theoretically, science and technology has no connection with that stated above, but actually science and technology in the world today have played an important role in producing material pleasure for human beings. This fact is undeniable.

The argument against science and technology by Phra Dhammapitaka is essen-

tially against hedonism. There are two philosophical outlooks denied by the Buddha in his famous sermon, the Dhammacakkappavattana Sutta. These are hedonism, mentioned as "kamasukhallikanuyoga"; and asceticism, mentioned as "attakilamathanuyoga". Hedonism is criticized by the Buddha as the way of worldly people. This way is opposed to a Buddhist way, as the former is mainly concerned with ignorance, while the latter with wisdom. Science and technology are so much used for the purpose of material pleasure. It is said that when television was first invented, many people believe that this new technology would give rise to a new hope in education. But actually television, as we see, is not used enough in educational affairs. The contents presented through television are mostly for entertainment and increasing the consumerist behavior of the watchers. And the same thing is now happening to computer technology, as found in the case of the Internet. In Thailand, nearly all of the users of the Internet accept that it is mainly used for entertainment purposes.

Some may argue that the problem is man, not science and technology itself. Science and technology can be viewed merely as a tool that can be used to serve any purpose. Man is the master of the tool, and only man is responsible for any result. Thus is not fair to blame science and technology. A well-known British scientist, Robert Winston, says that even though it is true that at one time fire had destroyed London, this is not the reason for us to avoid using fire. For Winston, science and technology can be used to serve any purpose: moral, immoral; creative, destructive and so on. If there is something to be blamed, it is

man, not science and technology. It seems that we have two things to do. First, to search for the new scientific knowledge that is safer and more efficient; second, to set up a moral discipline for consultation in scientific research. The second will enable us to deal with science and technology in a way that a balance between wisdom and physical pleasure will be found.

However, to separate science and technology from hedonist tendency will not be easy. It should be remarked that the relation between science and technology and hedonist behavior has been very strong from the past to the present. This should not be viewed as merely accidental. There must be some mystery in this matter. Phra Dhammapitaka notices that science and technology in their essence are nothing but the most effective tool that helps man conquer nature. Science and technology make difficult tasks easy. And this produces problems. Tolstoy said that if you want to know what is the value of a chair you must make it yourself. Thus is the work of ethics. Chuang Tzu refused to use a tool for drawing water from the well, a simple technology generally used in ancient China. But this simple tool was seen by this great sage as a sensitive issue that must be dealt with carefully. The tools we use in daily life, for Chuang Tzu, have a mysterious power. That is, the more we use them, the more we lose ourselves. In brief, using technology makes man machine-minded.

Sustainable developments and proper science and technology

Even though science and technology are seriously examined through traditional wisdom of Thailand, which is drawn from Buddhism, there is space left for

science and technology, as Buddhism is a religion that teaches the middle way, meaning science and technology can be accepted by Buddhists if it meets moral requirements. Buddhist ethics is known as the ethics of the middle way, “majjhimapatipada” in Pali. As mentioned above, two philosophical views—hedonism and asceticism—are denied by Buddhism. They are rejected on the grounds that they both present extreme ethical practices. Hedonism is too much concerned with worldly pleasure, while asceticism is too much concerned with unworldly practices. The former accepts only the body, while the latter accepts only the mind. Buddhism differs from these moral outlooks as it accepts that happiness in human life can never be found if the harmony between body and mind is overlooked. To put too much stress only on either body or mind is an extreme practice. Body and mind must be treated equally. This attitude of Buddhism, as understood by Buddhists themselves, has the important implication that reasonable pleasure and spiritual happiness are both accepted by Buddhism.

Science and technology are considered the most effective tools for producing bodily pleasure, but they lack a second property—the capacity to produce spiritual happiness. Some may argue that to require this capacity from science and technology might be unfair, because science and technology have not been designed to offer it. Science and technology deal with matter, not mind.

However, if we understand that life is more important than anything, including religion and knowledge, it should be accepted that life needs more than one thing. That is, life cannot depend on either Buddhism or science, but both.

The same argument can be proposed to Buddhism, as it is proposed to science and technology. Buddhism is designed for spiritual happiness, not bodily pleasure. So both Buddhism and science should be viewed as incomplete in themselves. But life needs completeness. So, we need both Buddhism and science.

At this point, bodily pleasure and spiritual happiness are merged into one. There are at least two ways leading to the harmony between Buddhism and science. First is to use Buddhist ethics as the moral foundation of science. This way is presented by Phra Dhammapitaka in his famous lecture entitled "Buddhism as the Foundation of Science". Second is to use scientific knowledge as a tool for understanding Buddhist teachings. This way is suggested by myself in my recent research, *Suffering in Buddhism: A Darwinian Perspective*, in which Darwinism is used as an empirical tool to illuminate the concept of suffering in Buddhist teachings. This is not the first time for me to use scientific findings for the purpose of understanding Buddhist teachings as I had used Einstein's Special Theory of Relativity to explore the concept of emptiness in Buddhism in my Ph.D. dissertation entitled *Being and Non-being in Theravada Buddhism*. The first way presented by Phra Dhammapitaka is more familiar to Buddhists in Thailand than the second one. The major theme of this kind of argument is that science has moral limitations, as it deals only with matter, making it inadequate to produce true happiness in human life. Buddhism is brought in to fill that gap. That is, science must be guided by morality, a way that scientific knowledge is expected to harmoniously go along with

nature, people, and the world as a friend, not as an alien or a stranger. Being the foundation of science means that the spiritual dimension of Buddhism is transferred into science as the moral grounds for scientific research and development.

There is at least one thing required in the attempt to make science and technology suitable for sustainable development. That is, science and technology must accept the rule of balance between knowledge and morality. In practice, this rule can be interpreted as follows. First, scientists should be aware that knowledge is not the sole aim in scientific research. There can be another aim holding the same status. We are talking about virtue or morality. As understood by Buddhists, happiness is the ultimate aim. The Buddha teaches nirvana as the complete cessation of suffering, or absolute happiness. Other things are interpreted by Buddhists as the means leading to that aim. By this understanding knowledge and morality are both the means for attaining happiness.

Even though Buddhadasa viewed science positively, he criticized science as like a blind giant if it is not guided by wisdom. Today scientific research gives rise to moral questions, such as whether it tries to act like God. Biology has advanced and biologists have done many things that make people feel it is time to discuss moral safety for mankind. Even though some scientists, such as Robert Winston, try to say that scientists should be viewed as members of this world, implying that they also love this world not less than other members, the question about their work remains unsolved. Scientists seem to be aware of physical safety, as mentioned in

Winston's writing, but are not concerned enough with moral safety. To act like God is not against the will of God in physical meaning only, but also in moral meaning. So, it may be possible that some scientific research, human cloning for example, is free from physical danger, but in the moral dimension we need more justification.

The Buddha speaks of relationship between knowledge and usefulness. That is, knowledge permitted by the Buddha is not merely knowledge, but knowledge that holds one important property: usefulness. Usefulness in Buddhist teaching encompasses both a physical and moral meaning. This rule can be applied to scientific activities. Not being led so much by the instinct to know could be viewed as morality. Human beings came into existence in this world only recently, compared with the sky, stars, the sun, the moon, and the earth. This fact is enough to warn us that we are children of the universe. Many things are unknown to us, and unknowable maybe. Scientists try to penetrate into the darkness of nature. They do not know what will be found in the darkness. It can be anything useful or dangerous. It is very lucky for mankind that things we have found in the darkness through scientific research are mostly useful things. But we cannot assume that we will be lucky all the time. This reminds us of the importance of patience to remain silent (unquestioning) in the case that there is some indication that silence is preferred. We are not born to know everything, and knowledge should not be considered an end in itself. It is a means to happiness, and sometimes to be happy requires being silent. At this point, we have learned that the art of living happily in this world is the art of balancing our instinct to know

with silence. There are two assumptions in scientific societies: that we should know everything; and that only some things are worth knowing. It seems that it is traditional among scientists to accept the first option; while Buddhists prefer the second. The instinct to know is one that is very strong. Knowledge is considered good in itself. This has been seriously challenged by Buddhism. It is argued by Buddhists that the Western tradition of thought is based on the instinct to know. Science and philosophy of the West are explicit examples of this claim. Eastern religions are mostly based on different grounds. Taoism is well known as a philosophy that rebels against knowledge. Zen masters are those who act foolishly and talk like fools. Intelligence is something considered useless compared with peacefulness in mind. To criticize Western science and technology radically we should ask why intelligence is more preferable than peacefulness.

Concluding remarks

Even though science and technology have been criticized so much these days, one thing that should be accepted is that it seems that science and technology have remained the most powerful forces that push the whole world ahead along its path. To examine science and technology one must examine why science and technology enjoy a great power like that. It may be possible that human beings are naturally hedonists; we love pleasure and hate pain, a philosophical idea stated by Bentham and Mill. Science and technology have been widely embraced by human beings because they serve that natural tendency toward physical pleasure. There are two ways: one leads to the supermarket and

one leads to the forest. People in the world are those who are naturally inclined to choose the first way. There are few people who prefer the second. This is because to choose the first way we have nothing to sacrifice. Science and technology have strong power because they present a choice in which nothing is sacrificed. The only thing you must do is consume. The way to the forest as presented by religion requires devotion.

Moreover, intellectual games are funny in themselves. Science and technology in some sense can be viewed as an intellectual game. Playing a game requires little responsibility for except winning. Scientists are those who play a game with nature, or with God. The more they feel nature is the greatest enemy, the more the value of winning is considered so great, implying that the triumph over nature is sweetest. This reason behind scientific activities could be viewed as one aspect of hedonism. So, we arrive at the final conclusion, that science and technology enjoy the highest power because they present the way that harmoniously goes along with the hedonist nature already in human beings at the moment of birth. To struggle against what is naturally built-in is the hardest task. Accordingly, it may be absurdity to hope that religion will soon replace science and technology in the future, even though the products of science and technology will oppress the soul of mankind more than is seen now. It seems that ultimately the difference between science and religion, especially Buddhism, is that the former looks at this world through a hedonist view, while the latter looks at it from the opposite viewpoint. Philosophically, any argument can no longer be debated if it arrives at the most fundamental

assumptions. Hedonism has its reason, which holds the same status with others.

However, there is a way to argue further, even though we are arriving at the ultimate assumption. That is, to argue from the heart, not mind or reason. Life consists of two main parts. One is worldly instinct, and one is something beyond. We should accept that science and technology provide so many things useful for the first part of our life. When we are sick we benefit greatly from medical science. The standard of living of the people in ancient times can not be compared with that today. As Darwin points out, we as animals have tried extremely hard to struggle for our own existence. This biological fact is something that cannot be denied. Science and technology, viewed from a Darwinian perspective, were invented on the basis of the instinct to preserve our own existence. The eternal task of man and other living organisms is to adapt themselves to changing world, implying that science and technology, as the most effective tools for physically adapting, must exist forever.

Like other activities in life, science and technology can be adjusted by wisdom. Wisdom is a property functioning mainly as spiritual advice to lift human life above animals. Religion is directly concerned with wisdom, and the major role of religion is to deal with the second part of human life. Being merged into oneness with morality, science and technology that are guided by wisdom are no longer the tools for living only but must be the tools for living as man. Science and technology ultimately must serve the exalted living.

The first step to that destination is to be aware of the fact that we are children of the universe. Intelligence sometimes makes us unaware of this simple fact. Religion differs from science in that the former teaches that happiness can never be gained from conquering others. Happiness will occur when we share with others our own happiness. It should be noted that liberal democracy and science share one important thing a hedonist tendency. Hedonism is a kind of individualism. In liberal democratic societies individual freedom is highly protected. Freedom in this context is criticized as nothing but freedom consume one's own physical pleasure without interference from others, including the State.

The morality required in making science and technology proper tools for sustainable development is a simple one: do not think of oneself much more than society. Scientists are members of society. They have a moral obligation required by being members of the society like other persons. If they had not thought of themselves more than society, science and technology would have produced less oppression to human beings than is happening now. Capra may be right when he turns to the East and finds a parallel between modern science and Eastern mysticism. Eastern mysticism looks at the whole universe as a web of beings. Harmony is the spirit of the universe. At this point, religion and science seem to come together.

References

- Buddhadasa Bhikkhu. *The Manual for Mankind*. Chaitya:
Dhammadana Foundation,
1985.
Buddhadasa Bhikkhu. *Me and Mine*:

- Selected Writings of Bhikkhu-Buddhadasa*. Edited by D. K. Swearer. New York: The State University of New York Press, 1989.
Capra, Fitjof. *The Tao of Physics*. New York: Bantam Books, 1988.
Capra, Fitjof. *The Web of Life*. London: Harper Collins, 1997.
Dawkins, Richard. *The Selfish Gene*. Oxford: Oxford University Press, 1972.
Dawkins, Richard. *The Blind Watchmaker*. New York: W. W. Norton, 1997.
Dawkins, Richard. *The Extended Phenotype*. Oxford: Oxford University Press, 1999.
Kuhn, Thomas S. *The Structure of Scientific Revolution*. Chicago: The University of Chicago Press, 1962.
Phra Dhammapitaka. *Buddhadhamma*. Translated by Grant A. Olson. New York: The State University of New York Press, 1995.
Phra Dhammapitaka. *Buddhism as the Foundation of Science*. Bangkok: Buddhadhamma Foundation, 1993.
Ravi Bhavilai. *Science and Buddhism*. Bangkok: Buddhadhamma Foundation, 2000.
Somporn Promta. *Buddhism and Science*. Bangkok: Chulalongkorn University Press, 1998.
Somporn Promta. "Buddhism and Science in Thai Society." *Manusya*. Vol. II, No. 2, 1999.
Somporn Promta. "Knowledge and Happiness." *The Journal of Saengtham College*. Vol. XXIII, 1999.
Winston, Robert. *The Future of Genetic Manipulation*. London: Phoenix Books, 1997.