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The Buddha Mind, Universe, and Awakening

A Dialogue between Master Sheng Yen and Astronaut
Dr. Edgar Mitchell

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Venue: First Floor Auditorium, National Chiang Kai-
shek Memorial Hall, Taipei

Moderator: Prof. Raymond Yeh, professor of Asia
University

Dialogue parties: Master Sheng Yen, founder of
Dharma Drum Mountain; Dr. Edgar D. Mitchell,
American astronaut

A Shocking Experience in the Universe

Prof. Yeh:

Among Dr. Edgar Mitchell's many accomplishments, the most important one is that he was the sixth person to land on the moon. Why do we say it is his most important accomplishment? On his way back to the earth, when he saw that the earth was so small, while the whole universe was so vast, he suddenly underwent a special experience. After he returned to the earth, he couldn't understand this kind of experience for a long time. As a scientist, because he couldn't explain such an experience in a scientific way, he set up a research institute to focus on researches on the relationship between science and spirituality.

Master Sheng Yen is the first person to advocate the concept of Protecting the Spiritual Environment in the world. Over the decades, he has been promoting the vision of "uplifting the character of humanity and building a pure land on earth." He was selected by Common Wealth Magazine as one of the 50 most influential persons in Taiwan in the past 400 years.

Dr. Mitchell, I think one of the epiphanies you have experienced is when you came back from the moon.

You experienced some earth-shattering, mind-boggling experience. Can you share that in brief, so that maybe Master Sheng Yen can respond from a Buddhist point of view?

Dr. Mitchell:

I'd be delighted. Yes. It was after the successful completion of the work on the lunar surface we started heading home. And the orientation of the spacecraft coming home was such that we were perpendicular to the flight path and we were rotating. That was to keep thermal balance on the spacecraft from the sun, to make sure that the spacecraft was equally heated all around. But what that allowed to happen was, every two minutes as we rotated, this picture of the earth, of the moon, of the sun, and 360 degrees of the heaven was visible in the spacecraft窗 window. And we must point out that in space, because of the lack of atmosphere, there is nothing to obstruct the vision of the stars. On earth the stars we look at are twinkling. But in space, without the atmosphere that causes the twinkling, you see the stars just as bright as they are, and they are ten times brighter and ten times more than you can possibly see from the highest mountain on earth at the clearest night. And what it does as I

watched this, it was utterly magnificent.

Some of you may have seen some of the recent pictures from the Hubble space telescope. What we can see in space with naked eyes is almost what we can see with eyes using a smaller telescope from earth. And the universe is so magnificent and so beautiful that it just defies description. You have to see it to understand it. With a doctorate in astronomy and training at Harvard and MIT in the United States, I realized that the molecules of my body, and the molecules of the spacecraft, and the molecules of my partners' bodies were created in star systems. That's how the matter in our universe is created. Matter is made in star systems. And instead of being an intellectual idea for me at that point, it was an ethereal idea. It was at the feeling level; it was the emotional level that those were my molecules created in the ancient star system, and I was akin to the stars. And it was a feeling of ecstasy and joy to recognize this connection to the whole universe and to feel it in that way.

This experience continued when I wasn't working. I still had work to do, of course, flying the spacecraft. But when I got a chance to look out the window as we rotated and saw this magnificent panorama of the heaven, the earth, the moon, and the sun, it was just

overwhelming, and I felt this joy, the ecstasy of being a part of this. And I realized that we humans on earth, throughout our whole history, have always asked questions as we looked into the heavens, such as "who am I?" "what is it all about?" What is my relationship to all of these??

And I thought, as this was happening, that maybe we, the first generation of space-faring people to go out from our planet and see earth and heavens from this different perspective of the space, are to re-ask those ancient questions all over again. And from the point of view of being a space-faring civilization I realized that science is a fairly modern development in human understanding, as modern form began in the West only about 400 years ago, with Sir Isaac Newton and the great thinkers of that period about 400 years ago.

A great distinction was made in the seventeenth century by the great thinker and philosopher, Rene Descartes, who came to the conclusion that body and mind, physicality and spirituality, belong to different realms of reality. Now that serves a very noble purpose in the West. But at that point in Western history, the church was persecuting those who disagreed, to the point of burning them at the stake for disagreeing with the church. And the Cartesian conclusion that body-

mind, physicality and spirituality were two different things and didn't interact caused the inquisition, which was the police agency of the early church, to quit burning people at the stake who disagreed with their theory, as long as they stayed away from mind, consciousness, and spirituality.

Thus, science in the Western world, for the last 400 years, grew up as a strictly materialistic concept without any understanding, whatsoever, of mind, spirituality, or of that side of human existence until the 20th century when quantum mechanics(see note) came along. But that's enough for that story for the moment.

As I came back and landed on earth, I could not understand this ecstasy, this magnificent experience I had in space. So I started asking questions about it, read but found nothing in the science literature that explains this type of ecstasy. I looked into the religious literature of the West. Nothing I could find. And then I got some help from other scholars, and started looking in the ancient mystical literature, and found in the Sanskrit of ancient India the concept of samadhi. And it was the experience of seeing things separate as they are, but experiencing them internally, at the level of emotion, as a connected one, as a unity, and therefore a blissful, ecstatic feeling responded to that, and that

was the experience. I said yes, that was exactly what happened in space.

Prof. Yeh:

So in other words, you know you are one with everything else.

Dr. Mitchell:

Yes. That is exactly what came out of it, the feeling of total unity and oneness with everything that exists.

Prof. Yeh:

Shifu, from the perspective of the Buddhadharma, does Dr. Edgar Mitchell's experience of becoming one with the universe constitute the attainment of enlightenment? Or is it a process of attaining enlightenment? Could you explain for us?

Master Sheng Yen:

Firstly, I want to congratulate Dr. Mitchell on having such a unique experience. Among a thousand people, it is difficult to find a person with this kind of experience. So, is such an experience the attainment of enlightenment? The answer may be "yes" or "no". To say "yes" means that if, in the

process of one's life, a new experience occurs and produces a new introspection, then we can call it attaining enlightenment. As I just said, hardly one person among a thousand has attained this kind of enlightenment. But the problem is that some people treat it as an unexpected encounter and never look into it afterwards. If so, then it is useless to them and it is not an attainment of enlightenment. As for some other people, this kind of experience causes them to generate a lot of new ideas, or to make new researches and new explorations. Then, we can call it attaining enlightenment. And we call this kind of people those with good karmic root or wisdom.

Dr. Mitchell is a scientist, but he could not resolve the issues related to such an experience from a scientific perspective. So, he thought that it is a frontier of knowledge, and started to pay attention and look into it. And now, I want to give feedback to Dr. Mitchell. It is a kind of mystical experience, which is in the realm of religion. Science cannot explain it. Nor can philosophy infer it in theory. It is a kind of actual psychological experience. This kind of psychological experience is generated through one's eyes and body. After it occurs, it also causes a bodily reaction. Seeing the whole environment, he feels it is unified with him,

rather than separated from him.

Such a kind of experience can be said to go beyond science. Because some people have experienced it, we can't say there are no such things. But having experienced it doesn't mean that everybody can see it. So, it is a personal experience. Take Dr. Mitchell's case as an example. At that time, there were six persons on the mission. But why only he out of the six persons had this vision? From the perspective of scientific theory, if one person has seen it, then the others should have seen it too. However, it is not science. Instead, it is his own experience, his personal experience.

One of my disciples who practiced meditation with me. After a seven-day retreat, he saw, on his way home, that the trees, grass, people, and even little insects all welcomed him and smiled to him. He felt the whole world was so beautiful and thought that he had attained enlightenment. So, he came back swiftly to tell me what has happened to him. I told him, "What you have experienced is wonderful. Congratulations! But it will disappear in a little while. If you don't believe me, just go out again to see those flowers, grass, trees, little animals and people. You'll find their smile is not as big as before." He said: "If so, how can I preserve it?" I said, "If you want to preserve it, you must keep

practicing."

But gaining mystical experience is not the purpose of our spiritual practice. The purpose of spiritual practice is to empty ourselves of self-identity. After we have emptied our self-identity, does this world still exist? To all of us, this world does exist. To the people with religious experience, such psychological experience also exists. But in the highest level of Buddhist practice, we must treat it as non-existent. We are not saying it doesn't exist. There is the experience, but we must treat it as non-existent. Then there won't be any worry or attachment in our mind. It is a kind of liberation.

Prof. Yeh:

So, in terms of the Buddhadharma, even if we apparently have an unique experience, do we need to let it go too?

Master Sheng Yen:

Though the experience is real, don't treat it as truly existent. Even though everything in the world is real, but they are all temporary and fleeting. They will change both in quality and in quantity. Since they will change and are constantly changing, they are not real.

So, they are existent rather than non-existent, but they are not real.

Prof. Yeh:

Dr. Mitchell, has your experience been repeated? And have you re-experienced what you experienced before? And how often?

Dr. Mitchell:

Yes. I am able to re-experience that. But as Master Sheng Yen said, I am a meditator, I practice my meditation, and I have learned to repeat the experience by going to deep meditation, and I do know the practice of emptiness, and getting to that place where not only you can have the experience but it is meaningful to you. And using the tool on my thought after this was to use the tool of science because science has produced in a short period of time the greatest explosion of knowledge of how nature works. So I want to use the tool of science to help understand and deepen these experiences. And fortunately I have come in contact with many great Buddhist thinkers and practitioners, and they have taught me along the way, too, much of what we are talking about here.

✱ Notes

Quantum Mechanics: Branch of mathematical physics that deals with atomic and subatomic systems. It is concerned with phenomena that are so small-scale that they cannot be described in classical terms, and it is formulated entirely in terms of statistical probabilities. Considered one of the great ideas of the 20th century, quantum mechanics was developed mainly by Niels Bohr, Erwin Schrodinger, Werner Heisenberg, and Max Born and led to a drastic reappraisal of the concept of objective reality. It explained the structure of atoms, atomic nuclei, and molecules; the behaviour of subatomic particles; the nature of chemical bonds; the properties of crystalline solids; nuclear energy; and the forces that stabilize collapsed stars. It also led directly to the development of the laser, the electron microscope, and the transistor. (From: Britannica Online Encyclopedia; <http://www.britannica.com/EBchecked/topic/486231/quantum-mechanics>)

The Origin of the Universe and the Universe as Seen in the Avatamsaka Sutra

Prof. Yeh:

As an explorer of all science and human consciousness frontier, you have demonstrated or have discovered that many of the fundamental assumptions of modern physics are not quite as what they are stated; for example, the Big Bang hypothesis(see note). Could you explain more about it?

Dr. Mitchell:

Well, I think that science is based upon evidences and validating theory with evidence, and I am under the opinion that the Big Bang, while it's been the primary theory for almost a hundred years now, is on its way out since the evidence that is coming out of this new rework we have been doing will show us that it 掇 not the final answer to how the universe arose, and that likely the universe is continuously creating matter, and continuously arising and going out of existence just like everything else.

Prof. Yeh:

So as a consequence, by eliminating the Big Bang assumption, time no longer starts from zero at the Big Bang; in fact, time has no beginning and no end. Is that true?

Dr. Mitchell:

Well, to me, time is a local measure. We create the measure of time right here on earth in our own presence. Nature itself only knows process and sequence—it doesn't measure. It's our measurement; it's our desire to know and to understand a finite process that caused us to create time as a measure. So for example, the process that our time is based upon is our earth moving around our sun and our earth spinning on its axis. So we created the measure of that. We call one rotation of the earth around its axis a day. And we broke that down, now into other measures of time. And the measure of the earth going around the sun is a year. So our measure of time is perfectly arbitrary. If we would go to Mars or some place else, we would have different time measure.

Prof. Yeh:

Dr. Mitchell thinks that the Big Bang doesn't exist.

And from the most profound scientific perspective, the universe keeps being created ceaselessly, and, basically, time has neither beginning nor end. From such a point of view, is it the so-called 淨uayan world?of Buddhism?

Master Sheng Yen:

Up to now, most people think that the universe came into being through the Big Bang. I admire that Dr. Mitchell was able to break away from this assumption. His concept is that the universe keeps going through the process of formation, abiding, destruction, and annihilation, and that it keeps changing perpetually. This accords with the Buddhist concept.

What I want to share with Dr. Mitchell is this: the universe that Buddhism talks about is time plus space. If space doesn't exist, then time doesn't exist, either. Time refers to past, present, and future. Space refers to the four sides plus the top and the bottom. But does time exist? No! How about space? Neither does it exist. Time is created because the location of objects in space changes and there's the need to measure it. So, does time really exist? If we perceive space, feeling that space is moving, then time exists. If we don't feel that space is moving, then time doesn't exist. And why

doesn't space exist either? If we don't perceive time, then the motion of space doesn't exist either. Then it is emptiness. So this is the universe: the combination of time and space, which work in coordination.

Dr. Mitchell just said that he believes the universe is not created by the Big Bang, but keeps going perpetually and ceaselessly through the four states of formation, abiding, destruction, and annihilation. And who can perceive the universe? Sentient beings can, especially human beings. Other sentient beings don't have intellectual understanding and thus don't know the universe, whereas human beings can perceive time and space. When time and space exist, they constitute the universe, which can be big or small.

Does this have anything to do with the Huayan (Sanskrit: Avatamsaka) world? Yes. According to the Huayan point of view, the universe is "the smallest without anything inside, and the biggest without anything outside of it." It can be big; it can be small. It can be so small that there is nothing inside; that is to say, it has nothing. It can be so big that there is nothing outside; that is, it is boundless. Therefore, both the Avatamsaka Sutra and Surangama Sutra say that all the Buddhas in the ten directions and of the three periods of time turn the great Dharma wheel on the tip of a hair.

In the realm as stated in the Avatamsaka Sutra, "The Sumeru Mountain contains a mustard seed, and a mustard seed contains the Sumeru Mountain." A mustard seed is a very small object. Everybody understands that the Sumeru Mountain can contain a mustard seed. But it is not easy to figure out how a mustard seed can contain the Sumeru Mountain. It means that the big can contain the small and the small can contain the big. Something small can be separately established as a universe, which is so big that it can contain innumerable universes. Are those innumerable universes real or unreal? They are unreal. They don't really exist because they are constantly undergoing the process of formation, abiding, destruction and annihilation; they are always changing.

Prof. Yeh:

What Master Sheng Yen talked about is the reality of the universe from the Buddhist sutras. How would you explain it from the frontier of science?

Dr. Mitchell:

Well, certainly. The various interpretations that he speaks exist in science also. However, from the scientific point of view, it can be nothing; everything

can be nothing. But when I do this (Dr. Mitchell taps his head with the microphone), it hurts. So there is something because it does hurt. So let's start with the premise that there is something because it hurts when it hits you on the head. Now, absolutely, science is about the relationship of all these things, and it's also about finding ways to describe all of these movements and motions. And when we look through our telescope and look out beyond earth, we see all of these heavenly bodies. And we can start particularly with the century we have just been through—the 20th century, which has been the century of the greatest discovery of these. Let's call it visions because we haven't bumped our heads on the stars yet, although we have already landed on the moon. So trying to find a system of thought that results in measure is what science is about. And finding a way to make these measures consistent with each other so that we can create an experiment to validate what our thought is is what modern science is about.

And so one of the things that helped bring an end to the partition duality that body-mind, physicality-spirituality, are two separate things was the realm of quantum physics discovered in the 20th century. And it showed that mind-matter does interact, and was starting to understand how it interacts. And what my

area has been for the last thirty years is learning to use the tools of science, and particularly the tools of quantum physics to explore the mental and spiritual realms within the framework that science has used. And I will say we have been quite successful as far as we've gone. Have we got all the answers? No. We can't really prove that the Big Bang is wrong yet, but we are getting there. But the whole new theory that is arising from this new work and from going off the earth and looking back, and plus some of the new discoveries in physics, all need to be taken into account. Now that's where we are. Our only difference is how we account for these observations.

* Notes

Big Bang : The Big Bang Model is a broadly accepted theory for the origin and evolution of our universe. It postulates that 12 to 14 billion years ago, the portion of the universe we can see today was only a few millimeters across. It has since expanded from this hot dense state into the vast and much cooler cosmos we currently inhabit. We can see remnants of this hot dense matter as the now very cold cosmic microwave background radiation which still pervades the universe and is visible to microwave detectors as a uniform glow across the entire sky. (From: WMAP of NASA; http://map.gsfc.nasa.gov/universe/bb_theory.html)

Science and the Mystery of Consciousness

Prof. Yeh:

In science, when we don't know about something, what we do is we try to create a model of it. Can Master Sheng Yen's talk about the universe according to the Avatamsaka Sutra be modeled with quantum holograph?

Dr. Mitchell:

That is what we are trying to do, absolutely. Modern thought added to previous knowledge is the power of information. Now, I am sure you also talk about energy in Buddhism. And we say that existence is based upon energy and that matter is just dense energy. So matter is energy, but compressed. This is the wood that if we (Dr. Mitchell knocks on the table) bump our head against it, our head will hurt. Information is how we know anything at all. The ability to utilize information is intelligence; that's the definition. We define intelligence as an ability to utilize information.

Now, information is just patterns of energy. We look in the heavens and we see the star system called the Big Dipper. Well, that's a pattern of energy; we give it

a name, Big Dipper, but it's just a pattern of energy. So that's information. The model that we are building up in science at this point is based on the idea that matter is just compressed energy, that information is patterns of energy, and that the ability to use it is consciousness. Being aware of it, that's consciousness. And building up from that very basis, from modeling science, it shows and it touches upon almost everything that has been talked about here; we just have a few different words that we use to refer to it.

Master Sheng Yen:

First, I want to give a response: Science and Buddhism are two quite different terms. Part of their contents may overlap, but I believe science can never understand the highest level of Buddhism. Why is it so? Because the highest level of Buddhism is "beyond language"; it is "where mental activity terminates, and beyond verbal expression." To be beyond language means to be inconceivable. Thought and language cannot be applied. In other words, you "do not rely on words." Since there is no language or word to express it, how can you use science to tackle or resolve it?

But, to some extent, science can help Buddhism in such a way that it facilitates ordinary people to use

it. Therefore, I acknowledge the value of science. The more science develops, the more helpful it is to Buddhism.

Prof. Yeh:

Do you agree?

Dr. Mitchell:

Yes, I do agree. We touch on so many of the same things. And of course in science, for example, we know things are beautiful, but I don't have a way to write an equation for what is beautiful. But nevertheless I can agree, as a human being with consciousness, I do sense things as beautiful, warm or lovely. As for warmth, the temperature of an object can be measured. But we don't yet have a way to say I am happy and put a number to it, or I am peaceful and put a number to it. That is where we have to go. And to me, the ultimate challenge in science at this moment is we really don't know what happens to this awareness at the end of life. I know the concept of consciousness existing after death and reincarnation, and those are important concepts that are right on the frontier that science has not yet been able to get a hold on, but we are getting close.

I think it's a very productive dialogue. Although we

have these slightly different words and interpretations as we deal with a phenomenon. As a scientist, I am more interested in the nature of matter, and in traditional idealist thought as consciousness. That is fundamental. So my point is to attempt to put matter and consciousness into the same relationship so that we can see how they fit in a better way. But of course that's what the scientists' and materialists' concept has been for 400 years. We are now trying to integrate the more ephemeral spiritual ideas, so they all fit together. That's difficult. But I think we are doing a pretty good job.

The Quantum World and Karmic Consciousness

Prof. Yeh:

It seems we can establish at this point that you can't yet validate it from the scientific point of view. Like you said, you can't really write an equation for beauty. But you'll know beauty when you see it. In the second half, we are going to begin to explore the human consciousness, which is something that your great research institute has been looking into for the last thirty years.

Dr. Mitchell:

Yes, that is right. There are a lot of new ideas we haven't explored until now, and we're pleased to share with the audience and Master Sheng Yen. It has to do with the quantum world. We'll be bringing the quantum world into the dialogue. We are getting attention and intention into it. It is pretty fundamental, because there has been experimental evidence for it.

Prof. Yeh:

You made a major statement in the early half, in

saying that the Big Bang is on its way out.

Dr. Mitchell:

Well, I hope that's more than a personal opinion, but there seems to be quite a few scientists now who are starting and willing to challenge that the Big Bang is a right idea. I have been one bringing in challenge for some time, and others are also following suit upon seeing the evidence. It will probably be another decade or two before all of academia turns loose, and I think they will, of course.

Prof. Yeh:

I think it's hard for a lot of physicists who have always based their work on the theory of the Big Bang to suddenly abandon it, right?

Dr. Mitchell:

Most of the evidence used to establish or to validate the Big Bang can be validated from the alternative just as well. And that's background radiation, that sort of thing. It's the same; that's valid. But you don't have to have the Big Bang to create that.

Prof. Yeh:

What we haven't talked about, but we will probably talk about in the second half, is Einstein's assumption that the speed of light is the absolute limit. Do you have any comment on that?

Dr. Mitchell:

Yes, that turns out not to be true. Sorry, Dr. Einstein. This whole process of quantum nonlocality indicates its signals do go faster than the speed of light. It's still a murky area, but quantum nonlocality has been demonstrated in the laboratory over and over again. So it's a valid concept, and that means these quantum relationships are instantaneous. Now we don't know. Although the theoretical work shows nonlocality is instantaneous for an infinite space, we can't really say it. I have personally done the ESP experiment to the moon, so we know it's at least 240,000 miles per second. But the theory will say it's infinite. Well, infinite is big, really big, but that hasn't been demonstrated. Nevertheless it's what the theoretical structure shows.

Prof. Yeh:

I want to discuss the notion of quantum entanglement because it comes from nonlocality. You

mentioned about quantum nonlocality and discarded Einstein's assumption about the speed of light being the limit. Nonlocality contains the notion of quantum entanglement which means that when two objects entangle, if one object, whether a particle or a person, say, makes a change, the other part will know the moment it happens. How do you relate this scientific and fundamental shift to the Buddhist notion of karma?

Dr. Mitchell:

To me karma is a fundamental cause-effect relationship. Whatever we do, there is a consequence to that. And to me it's really in the same way nature is put together. I don't know very much about the laws of karma. Science hasn't quantified that, but there is a cause-effect relationship that our actions do have consequences. To me that's the definition of karma.

Prof. Yeh:

Shifu, based on Dr. Mitchell's response, we know there is a new notion of quantum entanglement. When two objects, whether it is a quantum, a person or something very big, are mutually influencing, when one thing moves, the other will instantly know about it. In this situation, Einstein's assumption about the speed

of light being the absolute limit does not apply. Here the speed of light as the absolute limit of speed is not true. This is somewhat related to the karmic power in Buddhism. He also said this is a kind of cause-effect relationship. So Shifu, could you explain the power of karma or the cause-effect relationship in response to his talk?

Master Sheng Yen:

The Sanskrit word "karma" refers to a kind of action. Whatever action, whether mental, physiological, or physical, may be called karma. But if an action does not correspond with, or is not related to, our thought or consciousness, it does not constitute a karmic act. Therefore, karma and consciousness are always connected. As a result, whenever there is a karmic act, there is a change in our consciousness. When there is no karmic act, our consciousness will remain unaffected. This is similar to the law of quantum entanglement.

Consciousness is our spiritual entity. The various schools of Buddhism have different interpretations of it, but the principal, fundamental interpretation is "karmic consciousness." According to the detailed analysis of the Consciousness-only School

(Vijnanamatra), it can be divided into 75 or 100 elements, including the first five consciousnesses of eye, ear, nose, tongue, and body, the sixth consciousness, the seventh (mana) consciousness, and the eighth (alaya) consciousness.

The creation of karma is always related to the sixth consciousness. The sixth consciousness is also called the discriminating consciousness; that is, it is aware of your own action, and discriminates or knows things to be virtuous or evil, good or bad, what you like or what you dislike. The first five consciousnesses of eye, ear, nose, tongue, and body do not have such a function. They are sensory faculties from which we derive our perceptions of the world. For example, the body feels pain or itching, the eye sees things, but they do not discriminate anything as good or bad, or as something you like or dislike. Under this circumstance, no power of karma is created. For karmic power to be created, the sixth consciousness must be involved.

After a karmic act has been formed, you may get the karmic result in this lifetime; this is a present-life reward or retribution. You reap what you have sown. A criminal is often given a legal punishment and put into jail. One who has done good deeds may receive a public citation and be praised by many people.

This is the cause-effect relationship in the present lifetime. How about the next life and the future? The karma created in this life is carried into the eighth consciousness. So, the present-life karmic effect is created and then received by the sixth consciousness. But the karmic effect for future lifetimes goes to the eighth consciousness.

Therefore, from this life to the next life, only one thing is carried on, which is the eighth consciousness, i.e., the alaya consciousness. Does the alaya consciousness exist in our present life? Of course it does. So, we say life is made up of three elements: life potential, warmth, and consciousness. Life potential is an individual's potential for staying alive for a certain period of time. Warmth indicates that there is on-going thermal energy in the body, which is a sign of life. When a person is dying, the first thing to go is bodily warmth; the next is life potential; the last thing to go is the eighth consciousness. The departure of the eighth consciousness means the individual is ready to receive the next round of karmic rewards or retribution.

The eighth consciousness is also called "the store-consciousness." What does it store? It stores the karmic power. The power of this lifetime's karma is kept in the eighth consciousness. Therefore, a dying person

is to pass into the next life to receive other karmic consequences. This is said of an ordinary person. In the case of a sage, there is no eighth consciousness. To become sages, we have to engage in spiritual cultivation to cease the continuance of the eighth consciousness into future lives.

Prof. Yeh:

For us ordinary people who are not sages, how do we dissolve the karmic power?

Master Sheng Yen:

When we have transformed the eighth consciousness into wisdom, we are not ordinary people anymore, but become sages or Buddhas. To attain arhatship or Buddhahood, we must engage in spiritual practice. Without spiritual practice, it is probably impossible to become sages. However, some need to practice through sitting meditation, while others may practice without doing it.

Prof. Yeh:

How does science explain karma, Dr. Mitchell?

Dr. Mitchell:

Well, from the scientific point of view, we don't have an encompassing description of karma as Master Sheng Yen stated, because we cannot use the tool of science to demonstrate the ongoingness of the consciousness. That is the next major hurdle to try to demonstrate that. Now, we use all the same words, and we are familiar with all of the ideas that he presented, but we can't use the tool of science to demonstrate all of those yet. Maybe we never will. It may have to remain in the area of love and beauty and everything else that we can't really put a number to, but we are close in some of these areas. But certainly the subtlety that Master Sheng Yen is talking about at the level of subtle karma, subtle karmic effects, and the issue of transition between life and death are still elusive as far as science is concerned. So I can't really speak with any authority in those areas; I have to defer to the belief of the traditions now.

My own experience is that in each and every tradition that I have studied, in each and every culture, whether it be with shamans, medicine men, monks, or Buddhists, whatever the tradition is, the very basis is the concept of transcendence of ego, of finding

the peace within, the happiness within, and finding a transcendent state to get to. However, these are all explained culturally, within the cultural tradition. And so I accept that each culture has its tradition and its explanation of some of these subtle effects. We cannot yet use the tools of science to validate all of that. However, what is talked about here comes right to the area as you mentioned, quantum entanglement and nonlocality.

The speed of light can't exceed the speed of light; however, we know the influence (of) information can, and that's what we were talking about. I introduced the concept of quantum information earlier. Let me use it for the audience and see how Master Sheng Yen responds to this. Certainly in the English language, we use the word, "intuition", and we say that our intuition is our sixth sense. It's ruled by the quantum effects of nature. It should be called our first sense, and that's what you were talking about.

I know, in your dialogue you were talking at a deeper level of knowing than the centri-mechanisms. And in the quantum world, the world of the intuition, or the quantum information, is at that deeper level. Now we're just starting to understand and we are beginning to see that Dr. Einstein was wrong. These

influences at that level are much faster than the speed of light, and they are coherent. And what has been discovered most recently in that area is called quantum holography; it's the coherent signal.

Many of the listeners in this room know what lasers are and what laser hologram is all about. Well, the quantum hologram is very much like the laser hologram except nature was doing that long before we discovered and invented lasers. The quantum holographic structure, that information structure, is the very basis of our psyche and our intuition—these things you are talking about. So as we approach them from the viewpoint of science, we are using this concept of the quantum world, quantum nonlocality, and quantum holography, which start to touch upon the mystical nature that is a part of your laws and has been, forever. We are just now being able to get hold of it with the tools of science.

Prof. Yeh:

Shifu, Dr. Mitchell just mentioned that from the perspective of quantum holograph, "intuition" is something very profound, and now science is just beginning to explore it. Now, in Buddhism the Buddha is said to know things intuitively. Can we say that this

ability is a kind of intuition? That is to say, he simply knows everything, without having to comprehend them through consciousness, which is something different.

Master Sheng Yen:

I don't know what the English word "intuition" actually means. But as far as I know, in Chinese "intuition" (Ch. zhi jue) means immediate responses upon seeing, noticing, or hearing something. You directly know what it is without having to ponder in your mind or investigate it. But if you say that this is enlightenment, then it is questionable. For example, those with mental disorders see unusual things through their intuition. Also, ignorant people see the world in an ignorant manner, thinking that the world is the way they see it. This is a kind of ignorant intuition. It is problematic. So intuition doesn't amount to enlightenment.

I believe that the intuition and related issues as discussed in quantum mechanics don't refer to that kind of things. As I have said earlier, enlightenment is attained through letting go of self-centeredness. The less subjective consciousness we have, the better. The less subjective consciousness we have, the more we can see things objectively. In the end, there will

be pure, absolute objectivity. But is it really so? No! Where there is objectivity, there is also subjectivity. When we see things intuitively, we think that things are just as we see them. So the self is involved in such an experience. We are seeing things from our own standpoint. Whether we see correctly or not depends on our educational background, our outlook on and knowledge about life, and our understanding of the universe. The better understanding we have, the more correct our intuition will be. Otherwise, such direct contemplation or intuition is questionable.

I don't know whether the idea of intuition in quantum mechanics is about knowing things with absolute objectivity, or in a way that simply goes beyond both subjectivity and objectivity. If it transcends subjectivity and objectivity, such cognition can qualify as direct contemplation or intuition. If so, I believe that it is a right insight.

Dr. Mitchell:

I completely and totally agree with what he just said. The definition of intuition I used is just information. It's a different level of information than normal centrimechanism, but it's still just information, as you said, that is interpreted in giving meaning in light of

background, prior learning, etc. It's not enlightenment. Although, let's hope that as we humans evolve and learn to utilize our mechanism more, we are able to integrate our intuition and our centri-information better and better. But to me, enlightenment—I am sure it's similar to yours, —is when we reach the state beyond that ego-state when we're able to see things from different ways. And you are right. We will always have our egos, but hopefully most of the time, in the enlightened state, we can put the ego behind, at least for a little while, in order to function in a better and more enlightened way.

The Future of Humanity

Prof. Yeh:

So from this point of view, from this deepest connection we all have, whatever you call it, quantum resonance on that. How do you see the future for humankind?

Dr. Mitchell:

I believe that, with luck, we humans will continue to evolve more and more toward the enlightened state that we all like to think we can get to, but we don't seem to do so. But when I start to look at some of the depravity, I see a nature with violence continuing to be perpetuating. And in my thinking, violence only creates more violence. So we have to learn to get beyond the violence, and to treat each other with love, respect, and caring. And if we can get past that state quickly enough and move to where our significant portion of humanity is operating with love and caring and respect for other human beings, we will start to become a more enlightened civilization. But right now we are not there. And we have been decreasing on that. And unfortunately my country has been helping go the

wrong way here by continuing increasing the violence and wars and those social activities that to me are not exactly the epitome of an enlightened civilization. And we are not doing that.

Prof. Yeh:

Shifu, you mentioned earlier that although we have very limited time in this life, we can still be full of hope if we move in the direction of a bright future during this limited time. What do you think about the future of humankind?

Master Sheng Yen:

I've always been optimistic about the future of humankind and of the earth. I am not a pessimist. Why so? There are now more than six billion people on this earth. I believe that as long as there is one person to call on all humanity to love, help, and tolerate each other, as well as to advocate that we love and cherish our earth and our environment, then people around us will be positively affected. Then we won't have to lose hope. If human beings have no hope for themselves or for the future of the earth and humanity, then it'd be hard for this spirit of endeavor be generated in the first place.

Well, what I can do as an individual is very limited.

But I know that it is like the analogy of the "butterfly effect", because the fluttering of a butterfly's wings on the bank of the Brazil may bring about a hurricane in Texas. It is the same for us humankind. As long as there is one individual who gives of himself to work for the good of the earth and humanity, the world will move in the positive direction. We do have this kind of people, such as Dr. Mitchell here.

Most of us are ordinary people; nonetheless, there are quite a few foresighted people who have the sense of crisis about the future of humanity. Some people advocate this noble cause tirelessly. Actually, I have a lot of friends like that. People like that will influence the people around them. The audience here today will certainly be affected by us two. Although there are only the two of us, many attendees in the audience will be influenced by us, and they will in turn impact more and more people. Even if we both pass away one day, but it won't matter. There will be more successors after us. So I am very hopeful about the future of the earth and humanity. I am optimistic, not pessimistic.

Dr. Mitchell:

I agree. I want to be with him on that. I am sometimes a pessimist, but I prefer not to be.

Questions from the Audience

Prof. Yeh:

We have had a very impressive dialogue today, but we don't have much time left. I think many in the audience still have questions for Dr. Mitchell and Master Sheng Yen, but we can only choose some for the masters to answer.

This is a question for Master Sheng Yen: If we have experienced the state of a unified mind before as Dr. Mitchell did, is it possible to avoid wanting to re-experience that state in our meditation practice?

Master Sheng Yen:

When practicing, we don't set out to pursue any goals. If after you have achieved a unified mind and you still find yourself eagerly seeking to attain enlightenment, to see your nature, and to realize no-self, then you will never become enlightened or experience no-self. That's because you want so badly to achieve a result for yourself. This won't help. It's like pulling up a seedling in mistaken hope of helping it grow.

So, my advice is: whether you have achieved

a unified mind or not, just practice for the sake of practice. We practice in order to pacify our mind, keep our emotions in balance, strengthen our compassion, and enhance our self-confidence. That is the most important point. It is wrong to think that since you have achieved a unified mind, you can now expect to attain enlightenment. You will never reach enlightenment that way.

Prof. Yeh:

There is a question for Dr. Mitchell: This was a wonderful dialogue, I would like to ask Dr. Mitchell how to leverage intention or prayer to perform medical healing, and whether there is a scientific support for that?

Dr. Mitchell:

One of the frontier areas that I work on everyday is learning to utilize all of these techniques you talked about, including quieting and getting the mind under control and learning to relax and breathe into ourselves the energies that we want. The idea of being able to heal is hopefully related to our intention. So creating a positive intention and optimism about it is pretty vital. You have to be able to believe in it. And some of you

may know, and I know Dr. Yeh knows, I have healed, with a little help from my friends, two instances of cancer in my body. And I'm convinced this is like a proof, as a scientist, that I can get past them, and we have done that. We tested with all the modern medical techniques, and yes it has worked. And so, we have healed a prostate cancer and a kidney cancer with intentionality and with the techniques—that I am sure I have talked about—in your Buddhist tradition as well, because those are the ones I have practiced just like you do. And learning to accept that, learning to utilize that, learning to love life and to experience life to its fullest is what I try to do with my life. Now, as opposed to going back and recreating the experience of space, I am living life and living it fully, expectantly, and happily, and learning to live healthily and to love nature. Those are the intentions I keep within myself. And it turns out that, even though I can't write an equation for intentionality at this point, we are getting close. But I know that focus, intention, and attention go together.

Prof. Yeh:

Shifu, I'd like to ask you a question: Dr. Mitchell has just talked about "intention, attention, and focus". Do

they have anything in common with the "great vows" in Buddhism? Does a great vow mean a very strong intention and focus?

Master Sheng Yen:

There are many different schools in Buddhism. From the perspective of Theravada Buddhism, the priority is to attain liberation and to get away from this dusty world. When we leave this world behind, we won't 拈 have any more vexations. There won't be cancers, illness, or sufferings anymore. However, from the perspective of Chinese Buddhism, which belongs to the Mahayana tradition, Buddhist practitioners should strive to deliver other people before delivering themselves. In other words, before achieving liberation for themselves, they should be eager to help liberate other sentient beings from their suffering. To liberate all sentient beings, they have to throw themselves into the Path first, keep learning, practicing, and contributing. They give of themselves to help our society as well as to relieve all people and all beings from suffering. So they need to focus and keep exploring. This is the bodhisattva spirit.

Dr. Mitchell:

And certainly. May I respond and say that my own practice, using slightly different words, is about doing good and helping other people to "liberate", which is the word you used—I find that word fine—to help people, to use my life to offer service for the greater good, and whatever the greater good turns out to be at that moment.

Prof. Yeh:

OK, we have only time for two more questions, one for you and one for Shifu. For you, on your trip to the moon, as you lifted off, or when you were coming back, what was your first thought when you looked at the earth? Did you think of a beautiful home, beautiful earth, unlimited universe, or simply emptiness?

Dr. Mitchell:

Well, it was quite different. Lifting off and going to the moon, our thoughts were more on the job ahead and what we had to do. So, there wasn't much time to appreciate the beauty of the earth and the heavens because we were too busy getting prepared for the hard task, going down and landing, and doing the

research work, and the geology on the moon. That is our task. Coming back was different. Once the hard work on the surface was done and we had the chance to relax, then, as I described in my earlier experience, it was just enjoying the beauty of being able to see the earth and the heavens in a new way that I have never experienced, and to find that new experience that has been a life-changing experience for me, and to come back and start to utilize those ideas in that vision and those insights that I gained from that vision coming home. It was a totally life-changing experience. I see life and my mission on earth quite differently having now gained that experience in the space.

Prof Yeh:

One last question from the audience for Shifu: Is the gathering today a result of causes and conditions? Or is it related to the state of the Heaven of Boundless Emptiness and showing compassionate concern for all? Amitufo!

Master Sheng Yen:

The fact that people can meet is because they have karmic ties with one another. What is subjective is called causes, and what is objective is called

conditions—that's causes and conditions. At the symposium today, we two have a dialogue with each other, which is facilitated by Prof. Yeh and hosted by Asia University. These are the main causes, while the audience is the condition. Also, you're the cause because you wanted to come, and we're the condition because we meet your wishes by providing you with the opportunity to hear today's dialogue. So, both parties serve as the causes and conditions for each other.

The "Heaven of Boundless Emptiness" is a state of concentration in the four dhyanas and eight concentrations, and belongs to the Formless Realm, so we should have nothing to do with it. We are now in the realm of existence, rather than of non-existence. Are we empty now? No, we all exist, so we can't be empty. Since we haven't reached the level of emptiness, there's no need to discuss about the "Heaven of Boundless Emptiness" at this point if we can't even take steady steps in this realm of existence. For example, when I hear something I find to be helpful, I will practice it or make use of it accordingly. If I find it useless, then it's probably because I don't understand it, or I am not up to par yet. So I just ignore it. So, leave alone the "Heaven of Boundless Emptiness".

In fact, to come and listen to the dialogue is already an achievement, and it will make a difference for you. This symposium serves a purpose and will leave an impression on you. The influence is very much existent. What kind of influence? It's the reactions that occur in your mind, whether you agree or disagree to the things that you hear today.

Prof. Yeh:

We would like to thank Master Sheng Yen and Dr. Mitchell for giving us such a wonderful spiritual dialogue. Through the earth-shattering experience that Dr. Mitchell gained on his way back to earth from the moon and the Dharma talk given by Master Sheng Yen, we have gained a better understanding of the universe and human nature. From now on, maybe we can focus more on our inner world, instead of being always preoccupied with making a living and going about our daily work and chores. If, inspired by today's dialogue, we can begin to put down the things that we once thought were important to us, then we may become more free. Furthermore, if we can use the inspiring teachings of the two masters to influence the people around us, then we can change our world into a better and nicer place, just as Master Sheng Yen has said.

This way, we may really be able to uplift the character of every individual, and at the same time build a pure land on earth.