

Scientific Healing

By Dr. Laurance R. Doyle

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Today we are going to discuss scientific healing. What makes healing scientific? Is healing scientific, for example, if one uses a bunch of high tech equipment? Does the equipment itself make a given curing process scientific? Today we'll compare the exactness or perfection of spiritual ideas versus material things. Then we'll look at Christ Jesus' scientific sayings. And then we'll consider the element of time in healing—whether it is fixing or unfolding, repairing or revealing.

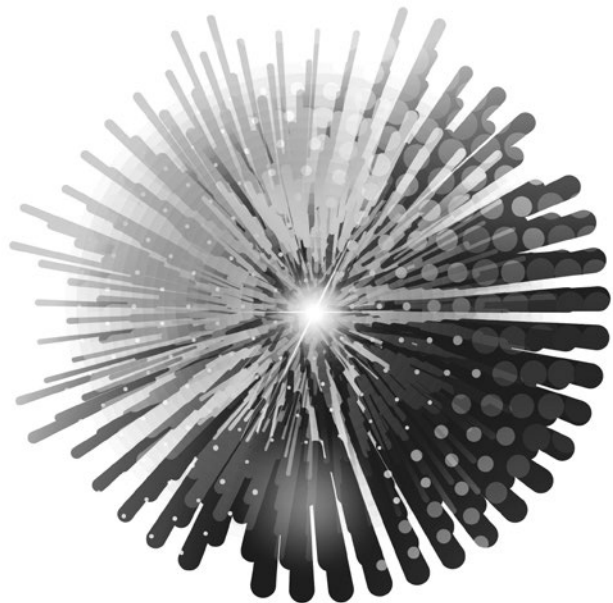
So, is Christian healing scientific? Mary Baker Eddy, who discovered Christian Science, writes in her book, *Science and Health with Key to the Scriptures*, "It has been said, and truly, that Christianity must be Science, and Science must be Christianity, else one or the other is false and useless; but neither is unimportant or untrue, and they are alike in demonstration. This proves the one to be identical with the other" (*S&H* 135:21-26). Note that if they are alike in demonstration, that is why they are identical. In other words, if they are experimentally indistinguishable, then they have to be the same.

Christianity, of course, is uncompromising Love. And Science is uncompromising Truth. And, following Christ Jesus' teaching, Mrs. Eddy discovered that Truth and Love are the same thing, and are actually synonyms for the infinite Mind, the one Creator or Source of the universe. In science, one first formulates a theory; then one logically derives a prediction that might confirm that theory; then one does an experiment to determine if one's theory is correct. Mrs. Eddy uses these terms for this process: revelation, reason, and demonstration (*S&H* 109:16-22). There it plainly is, the scientific method, in *Science and Health*, the textbook of Christian Science. But can the teachings of Christ Jesus really be scientific?

To answer that question, we will consider another one first: is the mental or is the material more precise? Let's look at the material. If you look closely enough at any two things, you will find that they are not exactly the same. At some level you will find an inaccuracy inherent in material sense observation. In modern physics, this has been found to be fundamental to the nature of matter. In quantum physics, there is something known as the "Heisenberg uncertainty principle," which states that there is a fundamental limit to what can be measured or known about any particles making up material things (Heisenberg Uncertainty Paper, 1927). But also, it seems that at a fundamental level, things react to mental observation. The discoverer of this fundamental limit on material measurement, Werner Heisenberg, writes this: "Some physicists would prefer to come back to the idea of an

objective real world whose smallest parts exist objectively in the same sense as stones or trees exist independently of whether we observe them. This however is impossible" (*Ibid*). Mary Baker Eddy would go farther in her estimate of the elementary particle makeup of matter. She wrote in the 19th century—half a century before quantum mechanics—"The material atom is an outlined falsity of consciousness, ..." (*Unity of Good*, Mary Baker Eddy, 35:26-27 to 1st ,).

So, dealing with material observations is, at the most fundamental level, inaccurate. How about ideas? Are they more exact? Are they more lasting, more durable? Are they less limited? Mrs. Eddy writes that "Ideas...are born of Spirit, and are not mere inference drawn from material premises" (*S&H* 274:9-11). Are the multiplication tables written in chalk on a black board more substantial than the actual multiplication tables? The chalk can show a mistake, whereas there is never any mistake in mathematics. The chalk can be erased, whereas no one can ever erase the real multiplication tables. The chalk can represent the principle of mathematics in a



limited way, but real numbers are unlimited — anyone can use them without having to wait for someone else to be finished with them. So, it would seem that material sense has limits that do not apply to ideas. Is this applicable to healing? Is it that mental or spiritual healing is more precise, durable, and accurate?

Mrs. Eddy writes, “If mathematics should present a thousand different examples of one rule, the proving of one example would authenticate all the others. A simple statement of Christian Science, if demonstrated by healing, contains the proof of all here said of Christian Science. If one of the statements in this book is true, every one must be true, for not one departs from the stated system and rule. You can prove for yourself, dear reader, the Science of healing, and so ascertain if the author has given you the correct interpretation of Scripture” (S&H 546:31-8).

Then Mrs. Eddy writes about the mathematical accuracy of her demonstrations: “My conclusions were reached by allowing the evidence of this revelation to multiply with mathematical certainty and the lesser demonstration to prove the greater, as the product of three multiplied by three, equaling nine, proves conclusively that three times three duodecillions must be nine duodecillions, — not a fraction more, not a unit less” (S&H 108:12-18). Here is the precision and exactness of ideas again. Three times three is exactly nine, never 9.0000001 or 8.9999999. And the same applies to duodecillions.

By the way, do you know how much a duodecillion is? In the US, it is one with 39 zeros after it, but in Europe, this number is called a “trisekillion.” When you are making fun of big numbers and say, “That’s a fillion dillion jillion,” you might just be naming an actual number! A duodecillion by what is called the long count in Europe is one with 79 zeros after it. When numbers get this big, it is difficult to give examples of how large they are. Last night I tried things like human hairs stacked up to the moon and so on, but all these numbers were way too small. Here’s the best analogy I could come up with:

There are about one sextillion grains of sand on all the beaches of the world. This is one with 21 zeros after it. This is also about how many molecules of water are in one drop of water. Are we good to go? In other words, if you gathered up all the sand grains on all the beaches of the world, and shrunk each one down to the size of a molecule of water, then all the beaches of the world gathered together would be the size of a drop of water. OK? So there are sextillion grains of sand on all the beaches of the world, and there are sextillion molecules of water in each drop of water. OK, now how about duodecillion? Well, there are about 53 duodecillion molecules of water in all the Great Lakes. Then if you divide 53 duodecillion by one sextillion you’ll have all the water drops in the Great Lakes. Anyway, a duodecillion is a big number!

The point is that three times three duodecillions is *exactly* nine duodecillions — as Mrs. Eddy says, “. . . not a fraction more, not a unit less.” The point is that ideas are intrinsically precise,

exact, and unlimited! Mrs. Eddy writes, “All we correctly know of Spirit comes from God, divine Principle, and is learned through Christ and Christian Science. If this Science has been thoroughly learned and properly digested, we can know the truth more accurately than the astronomer can read the stars or calculate an eclipse” (S&H 84:28-1).

Experimental verification is key

Mrs. Eddy writes this of Jesus: “Jesus of Nazareth was the most scientific man that ever trod the globe. He plunged beneath the material surface of things, and found the spiritual cause” (S&H 313:23-26). That’s pretty interesting. What did Christ Jesus say of his mission? He did not say that he came to start a new religion. When asked about his mission, he said, “To this end was I born, and for this cause came I into the world, that I should bear witness unto the truth” (John 10:24-25). So he said that he came to bear witness to *the* truth. It sounds like his mission was more to reveal truth, or reality. If you lived 2,000 years ago and you wanted to teach the scientific method — the idea that experimental results are more reliable than human opinion — how would you say it? Say you wanted to get this idea across to your disciples? How might you put it in Bible language?

Christ Jesus was asked who bore witness of him, and he replied that it was not human authority that bore witness to the truth of what he taught. He said, “If I bear witness of myself, my witness is not true. There is another that beareth witness of me; and I know that the witness which he witnesseth of me is true. Ye sent unto John [this is John the Baptist], and he bare witness unto the truth. But I receive not testimony from man: . . . I have greater witness than that of John: for the works which the Father hath given me to finish, the same works that I do, bear witness of me, that the Father hath sent me” (John 5:31-33, 34 to:, 36, 37). Christ Jesus said that, rather than even the highest human authority, it was his healing works that were the true test of the truth of what he taught. So we have, perhaps for the first time in history, a statement of the scientific method — that experimental verification is more important and reliable than human authority. And healing is, indeed, the ultimate verification. Christ Jesus also added — in case his disciples were not getting it — “If I do not the works of my Father, believe me not” (John 10:37). Now he was excluding human opinion altogether. Healing works are the experimental verification of the spiritual reality of God’s creation.

In modern scientific language, one might say, “You are not to blindly believe a theory without experimental verification.” This is a tenant of the natural science community. Christ Jesus stated this in other ways as well. For example, he said: “By their fruits ye shall know them” (Matt. 7:20). Mrs. Eddy writes, “Christian Science reveals incontrovertibly that Mind is All-in-all, that the only realities are the divine Mind and idea. This great fact is not, however, seen to be supported by sensible evidence, until its divine Principle is demonstrated by healing the sick and thus proved absolute and divine.

This proof once seen, no other conclusion can be reached" (S&H 109:4-10).

But if such Christian healing is really a science, then others should be able to follow Jesus' example in demonstrating healing as well. Christ Jesus taught this, too. He said, "Verily, verily I say unto you, the works that I do shall ye do also, and greater works than these shall ye do, because I go unto my Father" (John 14:12). Jesus taught that this spiritual understanding of healing could be applied by others. In other words, Jesus said it was not his personal charisma that healed. He said he was able to do these healing works because he went unto his Father, God, for the healings. He was not talking about *leaving*, he was talking about *going* to the Source, Creator, Principle of the universe, divine Love, for his healing works. In the language of modern science, Christ Jesus came to reveal the deeper science of the spiritual and perfect nature of reality. Only experimental verification — healing and other works overcoming limitation, since the truth makes one free — would be acceptable data to prove that one was understanding this reality. And these works were based upon the Source or Creator of the universe, whom Jesus called "Father," a divine and infinite Principle that anyone could turn to. Well, that sounds pretty scientific to me.

Time is not a factor

Jesus did not take *time* to heal. Every healing in Christian Science is actually instantaneous, because it is already true, although it may sometimes appear to human sense to take a while. But because perfection is already true, each healing does not have to take place in time. Christ Jesus' healings were instantaneous. However, time is a big factor in the material approach to healing. For example, it is said to take so many weeks to heal a broken bone, to take so much time to convalesce and recover. Then there is the saying, "Take two aspirin and call me in the morning," and so on. But time is not a factor in Christian Science healing because healing is a knowing, not a fixing. It is a revelation of the underlying reality of perfect God and perfect man, which is always true. I can share an illustration of this.

When I was in high school, my big sport was Judo, which actually means "gentle way" in Japanese. However, there is a lot of throwing, and so one learns to slap the mat so one can safely land without being hurt. In Judo, one looks for the opportunity for his opponent to throw himself. Well, when I was 14, I was in a contest and my folks were in attendance. When I went to throw my opponent, in the excitement, he grabbed my finger and bent it back. I finished the match, but when I showed the finger to my instructor, Sensei Nakamura, he saw a protuberance under the skin and said I should go to the hospital and have the bone set.

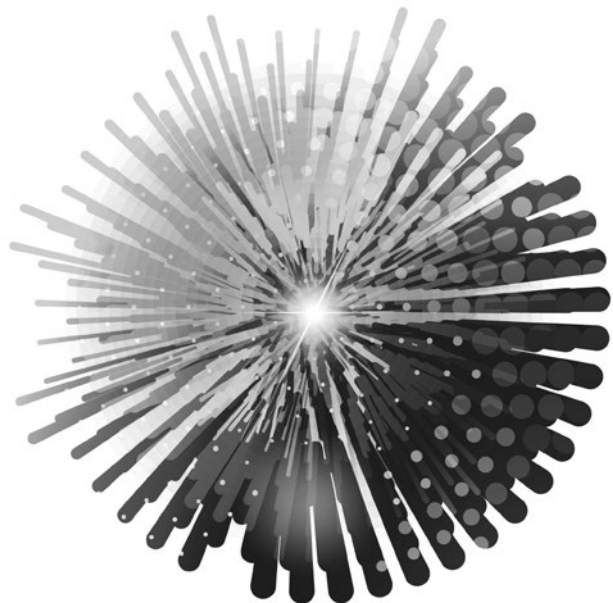
My mom and pop took me to the emergency room, which was very busy. Folks were coming in in pain, so I started to pray for them. The time flew and in about 45 minutes, a man said that I was next. I did not have any more pain in my hand. I went in to get an X-ray. After a bit, the man came out with

the X-ray and showed me where the break was — it looked a bit like a weld joint, as I remember. But the man was a little brisk. Finally he said, "You know, you should not come into the emergency room for a checkup." He was slightly miffed, so I thanked him very much and said I certainly would not come into the emergency room for a checkup. I came out and told Mom that we were not to use the emergency room for a checkup and she looked like she was going to say, "What?," but then smiled. What had happened is described in the book of Job in the Bible: "And the Lord turned the captivity of Job, when he prayed for his friends;..." (Job 42:10 to:).

The X-ray showed that the bone had not only been set, but had healed. When I showed up in Judo class the next week, Sensei was just amazed. He said I should not be playing Judo with an injured hand, but I showed him a perfectly good "Morote Seoi Nage" (a judo move). He looked at my hand, and looked at me, and then back at the hand. He made a kind of "ooohhaahhhh" sound for a bit. Then I was back in class. Sensei Nakamura is a sixth-degree black belt, and he knew about things like broken bones as part of his training. He never said, "Oh, maybe it was not broken" because he had seen the material evidence. But if he had said that, he would have been metaphysically correct, for nothing can be broken in the infinite, divine Mind. This, to me, was a good example of the fact that healing in Christian Science does not require time to work.

Healing is not fixing

Unlike other systems of medicine or even of religion, the Christian Scientist is dealing with fundamental issues of reality when healing even a single case. The Christian Science healer is practicing the absolute Truth — that the Source of all creation is perfect God, and as His image and likeness, His creation is also perfect. He may also reach a comprehension of this absolute Truth, however, by steps, including the relative truth that the ills of the body are only a manifestation of a



false notion — called “mortal mind” — the *notion* that there is some other creator besides the one, perfect Creator. This is a relative truth only — a helpful way of illustrating how to deal with an illusion — because there is no other Mind, Life, or Creator than perfect God. In his argument, he is not arguing with mortal mind, but rather seeing that there is no mortal mind to argue with. There is no mind to carry on an argument with the one and only infinite, divine Mind that is God.

I’ve heard the argument that Christian Scientists ignore problems. Explaining this to non-Christian Scientists, I’ve sometimes used the analogy of something going wrong with the picture in a movie theater. While many people may think that it is the screen-body that needs fixing, the Christian Science healer heads up the aisle toward the projector. Christian Scientists are sometimes accused of turning their back on the problem, but this does not mean that they are ignoring it — they are addressing the thought-projector, which is where the real correction needs to take place. In a like manner, Mrs. Eddy writes, “The Christlike understanding of scientific being and divine healing includes a perfect Principle and idea, — perfect God and perfect man, — as the basis of thought and demonstration” (*S&H* 259:11-14). This is, of course, the way we solve math problems — we start with the fact that the problem is not with the mathematics nor with the numbers. Without this basis, we would not have any Principle with which to solve any problems. Christian Science healing is not healing in the usual sense of the word since we are not fundamentally fixing a human mind. The word “healing” is usually defined as “to become sound or healthy again” (*The Concise Oxford Dictionary*). But in Christian Science healing, there is never a return to perfection, but a revealing of the perfection that was there already. Healing in Christian Science is a lifting of illusion, the dissipation of an incorrect and, therefore, unfounded belief. So, when we use the term “healing” in Christian Science, we don’t mean “fixing.” We mean “enlightenment.” Mrs. Eddy writes, “Christian Science presents unfoldment, not accretion; it manifests no material growth from molecule to mind, but an impartation of the divine Mind to man and the universe” (*S&H* 68:27-30). So we don’t have to gather wisdom in order to heal. Rather a Christian Science healing is a revealing of the perfection already ever-present. In this regard, we are not fixers, but knowers.

Scientific healing

But, is Christian Science healing scientific? Can one have a science without mistakes or uncertainties? Mrs. Eddy writes, “Christian Science is natural, but not physical. The Science of God and man is no more supernatural than is the science of numbers, though departing from the realm of the physical, as the Science of God, Spirit, must, some may deny its right to the name of Science. The Principle of divine metaphysics is God; the practice of divine metaphysics is the utilization of the power of Truth over error; its rules demonstrate its Science” (*S&H* 111:6-14). A Christian Science healing does not set aside the laws of the universe, but rather reveals the underlying nature of the perfection of creation as the expression of a perfect Creator. This is the Creator whom Christ Jesus called “Father,” the same Creator that is creating us right now.

Do you have to be someone special to practice Christian Science healing? Yes! You have to already be the image and likeness of God. I have to tell you that Christian Science healing does not work on anything else! In this regard, you are indeed someone special! God created you — is creating you — by thinking. God is thinking all of us and all of creation right now. Real, spiritual creation looks just like this, but without any limitations. What appears to be a material creation is nothing more than a limited way of looking at the real thing, which is God thinking ideas like Himself/Herself, because Mind cannot think ideas unlike Itself. Have you ever said, “Let me reflect on that for a moment”? Well, we are God’s reflection! What God thinks about all day is creation itself — thinking is how infinite Mind creates.

One can never get so “good” at the practice of Christian Science that one can demonstrate it without God. Actually, God does the whole thing. There is a Zen Buddhist saying, “It is never too late to do nothing.” And I always think of Jesus saying that he could “of his own self do nothing” (John 5:30). So, it is never too late to let God do everything. We have seen that spiritual healing is more precise. We have seen that Christ Jesus was a scientist and outlined the scientific method. And we have seen that scientifically spiritual healing does not take time to work because perfection is already true of God and His/Her ideas, creation.

Thank you!

Q&A

with Dr. Laurance R. Doyle

In some places, Mrs. Eddy stays away from details and terminology of illness, but she also says to get its name. Is there a resolution for this contradiction?

Well, the name is mortal mind. And it isn't the specific disease, of course, because as Jack Hubble pointed out, you're dreaming that a mouse is chasing you. And at least that's better than dreaming that an elephant is chasing you. Well, no, it's the dream you're dealing with, so that's what I think she means by saying to get its name. You will know intuitively the specific details of that, but it isn't what it appears to be. It isn't the illusion, whether it's 2 plus 2 is 97, which is much worse than 2 plus 2 is 10. The name of that is "the chalk data is not reliable, and the math is never in the chalk." That's the name you get. You get that kind of a name. That helps. Then you'll know what the answer is, what the solution is. But it is not the name of the disease necessarily.

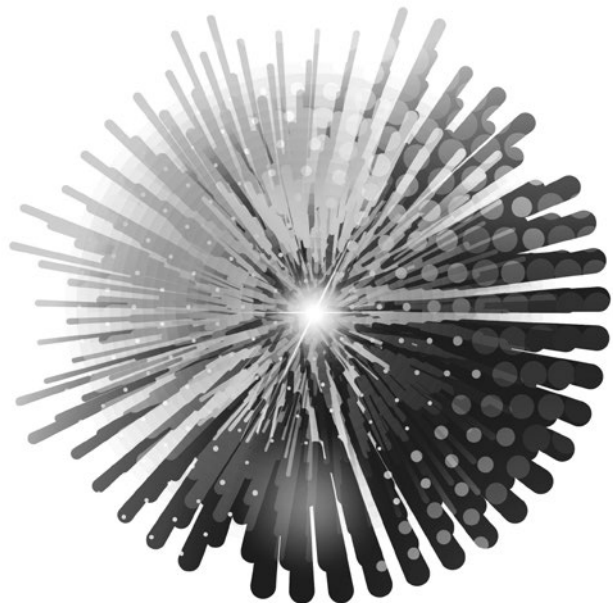
What is the Christianly scientific explanation of the atomic bomb?

Well, I have a topic for a new talk! Mrs. Eddy asks in a Lesson Sermon topic, "Is the universe including man evolved by atomic force?" Now in another Lesson Sermon topic she asks, "Are sin, disease and death real?" We can answer, "No." But Mrs. Eddy also says something about atomic force to the effect that Mind is the only power, not matter. One of the lies about the atomic bomb is that matter can destroy life and that matter can be destructive, in total opposition to the fact that all of divine Mind's ideas get along with each other and don't destroy each other. Mrs. Eddy, by the way, chose that topic in the late 19th century. The Curies — Marie Curie and Pierre Curie — discovered that there was a chemical reaction that wouldn't stop, and it kept going week after week and month after month. They wondered what kind of chemical reaction it was. They thought it must be atomic and they agreed to call it "atomic force." Within only a couple of years after this, Mrs. Eddy decided to have it as one of the topics for the Bible Lesson Sermon. That's just amazing! They didn't even know what it was when she made it a Lesson topic, much less its central importance for the 20th century. So she must have realized, presciently, that this topic would need to be addressed. I will just say this: it is a really good question. Atomic force is Mind, not matter. Real atomic force. So the question is, is the universe including man evolved by atomic force? Did you ever notice in Genesis, that God creates by letting? "Let there be light; ... let us make man in our image and likeness;" and so on. Letting is not so much a starting, as an allowing. However, in the second and third chapters of Genesis, Lord God, Jehovah, creates by forming. But, that's against the second commandment, which states that you're not supposed to make anything in the image and likeness of

God that's graven (i.e., formed). So Lord God (Jehovah) creates by forming, while God (Elohim) creates by letting. Is there a form to life? Is it in atoms? I asked my class. I taught "Life in the Universe" at UC Santa Cruz, and I said, "Okay, everybody. Do you believe that DNA and other organic molecules are sacred?" "No, molecules aren't sacred," they said. "Do you believe that life is sacred?" "Yes," they said. "Okay, so you don't believe that life is organic molecules or DNA, do you?" "I guess not!" they replied. The universe is not evolved by atomic force if by that is meant materialism. And the atom bomb, what's the spiritual significance? Well, you can read the universe; you can "[plunge] beneath the material surface of things and [find] the spiritual cause," as Mrs. Eddy writes, and that's doing science (S&H 313:24-26). Scientists do not believe what they see. Most people think that might be the case. But if that were true, the earth would be flat and the sun would go around the earth because that's what it looks like. Scientists don't believe the evidence of the material senses. Bertrand Russell, the mathematician and philosopher, once wrote, "Physics is based on the idea that things are as they appear and then it proceeds to prove that things are not as they appear." And that's mortal mind outgrowing itself.

In Christian Science, we start with infinity — no end, no limitation — as the basis of thought. What do quantum physicists think about this? Are they getting close to that as the reality?

Well, yes, there are mathematical infinities in quantum physics all the time, and they cancel each other and you get the right answer. It's been frustrating to quantum physicists for about a hundred years now that you calculate these infinities, but when you divide them all into each other, they all cancel out and you get the answer; and the electron is right there doing the things the calculations predict. The idea that all is one underlying interconnected whole is one of the greatest discoveries of Einstein, if not the greatest, and today



is called "entanglement." He called it "spooky action at a distance." He didn't acknowledge it, at least not right away, but things are in touch instantaneously, faster than light could have sent a message between them. You do something to this particle over here, and the other particle that is entangled with it could be in the Andromeda galaxy, and it would react instantaneously. This underlying connectedness, the entanglement effect in quantum physics indicates that everything is much more holistic at the foundational reality level. One could say, "Consciousness is a field not a particle." One can also do quantum experiments that show that a particle, an electron, for example, does not exist until it's observed. Most people think that consciousness has to be included in an observation somewhere, so they conclude that one can't get electrons without consciousness. Then why are we teaching that electrons in the brain synapses produce consciousness when it's verifiable with quantum physics that consciousness has to come first and is the more fundamental? You don't get electrons without conscious-measurement first. So, mortal mind is outgrowing itself in quantum physics, and we can think of that as a good step in the right direction.

What are the implications of particle entanglement?

The implications are that everything can be instantaneously in touch faster than light. Right now, no one has figured out how to communicate faster than light. The record is [instantaneous — plus or minus a nanosecond — connectedness over] 143 kilometers. Things have been talking to each other every nanosecond. Light travels about a foot in a nanosecond. These things are reacting to each other within a nanosecond from a distance of 143 kilometers back and forth. In other words, this kind of immediate in-touch-ed-ness has already been experimentally demonstrated many times. Does science have an explanation for entanglement? No. They're just saying that everything seems to be connected and consciousness is as good a field as any. "Field" in astronomy means "everywhere," like a gravity field. So to consider that consciousness is a field is a big step for natural science to take. But it's not really a big step for Christian Scientists to take as they have already heard that "all is infinite Mind and its infinite manifestation" every week (S&H 468:10-11)

Is it wiser to take care of the earth we have than to spend resources going to Mars or elsewhere? And have we drawn some conclusions from the lack of contact with extraterrestrial life or others in the universe?

Yes, we need to take care of Earth; it's a matter of gratitude. Spiritual qualities are needed, including respect and love and so on. You can't scare people into trying to take care of Earth; you can't guilt them into it. Really, the only way we're going to teach people to take care of Earth is to teach them to love it. Teach people to love it and they will naturally respect it and take care of it. And hug a tree. I hug trees all the time! The land area of Earth, since it is about three-quarters water, is about equal to that of Mars, which is about a 10th the mass of Earth. So the land areas are about equal. Population is doubling

about every 54 years, so if we're going to take 10 billion people and go to Mars, it will only buy us 54 years. For all practical consideration, I like the idea of exploring Mars for its own sake, but we're not all going to move there. So we're living on spaceship Earth, and we're riding first class, and we just need to have spiritual qualities educated into folks, like loving Earth and appreciating everything, if we are to make the journey harmonious. People say, "I don't have anything." I say, "Well, do you have enough gravity?" "Oh, okay, yeah!" From there, it's easy. Once you're grateful for gravity, you can be grateful for air, water, etc. Pretty soon you find yourself grateful for the whole Earth.

Nothing yet from extraterrestrials, but we've hardly really explored the galaxy so far, even for radio signals. There are other things. What I hope we can do at the SETI Institute is set up a center for non-human communication. I've been studying humpback whales and bottlenose dolphins and other animals for a long time, and applying what's called "information theory" to them. So we're basically developing what SETI people call an "intelligence filter." Now, instead of just listening for a radio transmitter in space, we can listen to what's on the radio and analyze it for the degree of complexity. We've done this with humpback whales, bottlenose dolphins, and squirrel monkeys and elephants, and bees, and I've even analyzed a cotton plant that's talking to some wasps. It's a plant-to-animal chemical communication system. I could tell you some stories about the fact that no one that I know who studies critters has ever said, "Well, they're stupider than I thought when I started." That never happens! You have probably heard this story before: Grandfather Simu Hawtay's (a Chumash elder's) daughter, Yellow Moon, was telling me that when she was about nine years old, her grandfather went out on the boat with her and called the dolphins, and the dolphins came around, and he put her in the water. She said, "At first I was scared, but then I liked it," swimming with the dolphins. So I asked grandfather how he called the dolphins. He said, "Well, you just get in a boat and go south of Santa Barbara." And that's all he said. So I said, "But, how do you call them?" And he looked at me kind of surprised and said, "Well, you just call them. They're not stupid!" So I was caught with a bit of preconception there, that the dolphins might not have been that smart.

Please explain quantum physics.

Zen Buddhists would say, "That's it!" Thank you for the supreme compliment in my ability to explain such things as quantum physics in a few minutes! Quantum Physics is the study of the very small, up until now. We're trying to start a new field, called Quantum Astronomy, which is what Principia College is supporting through the Institute for the Metaphysics of Physics. Quantum means little quantities, so quantum physics is the study of the nature of elementary particles on the smallest scale. Tiny particles do not move from A to B; they instead disappear from A and reappear at B. So it's fundamentally different from things we're used to

seeing. Particles don't, for example, drive from San Francisco to San Jose. They disappear from San Francisco and reappear in San Jose. A quanta of energy is the smallest energy possible; the smallest step you can make is actually the original definition of a quantum leap. However, everybody uses it in the opposite meaning. It's now switched places in the dictionary and the originally incorrect definition is now first in the dictionary definition. If your boss comes in and you say, "Well, we've made a quantum leap in our understanding today," and you haven't done anything, well, you could not be said to have lied, at least on technical grounds.

The world today seems to have a large division between science and religion. Do you think it will be the further evolution of science that will bring the world together or will it be the evolution of metaphysics or something else? And what can we do to help it without coming across as too radical?

There seems to be a kind of fundamentalism in religion that wants to take scriptural writings literally. "God is a rock" as stated in Psalm 18 is not to be taken literally. So, science also seems to have a fundamentalistic component to it, and it's called materialism. Some folks try to look scientific by acting materialistic, and that's not real science, actually. Both religion and science require inspiration and both are sacred. In science, truth is sacred. If a scientist is shown to have faked data, for example, his or her career is over. Falsification of data is not put up with in the scientific community. I'm not saying that all natural scientists are saints, but there is a high standard there. Science is unconditional truth and Christianity is unconditional love. Mrs. Eddy saw these as the same thing. Truth has to be Love. Also, Principle has to be Life, and so on. So I think it behooves us to help the unification of these really, to me, already unified fields, and to gently resist the notion of fundamentalism in either science or religion. In modern science, it is not the case that science and materialism are on one side, and the spiritual, mental or metaphysical are on the other side. Science is not about materialism — science is about taking the evidence of intelligence as more reliable than the evidence of the material senses. I want to say, first of all, that the folks I know who work in medicine are very courageous, but often they go to battle with what seem like sticks and rocks without taking into account the mental state of the patient. Feel free to share with them that Christian Science has excellent weapons against disease. The news may be that the latest natural science studies into the nature of substance put the mental nature of reality as the foundational reality. In quantum physics, materialism, objective matter, and the material sense appearance are not considered reliable or real. The whole process is known, in Christian Science, as mortal mind outgrowing itself. Science is not on the side of materialism and we know that. Science has an outgrowing component, and by sticking to the scientific method, one can navigate through the evidence of what is called the material senses. The quantum physicists were kind of like reluctant

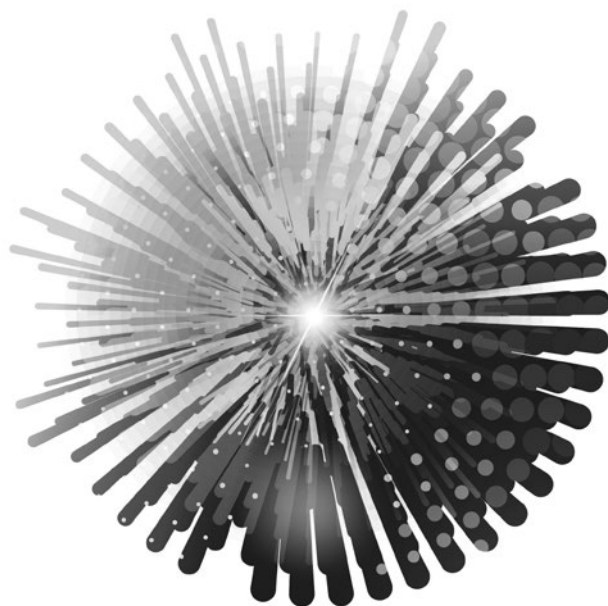
metaphysicians. But that is where quantum physics has been arriving. I thought the academic community of Principia College should be aware of this revolution, as we all should be. So that's the idea — that the quantum physicist is not your enemy; he's a good friend; and we are his friends, too. Maybe we don't know it yet, but we *are* on the basis of the metaphysical nature of reality.

Do you think artificial intelligence is a threat to me, to the divine Mind, spiritual connection?

We are about a generation or two away from making a machine that has 10 to the 15th neurons, which is equal to that of the human brain. Do we fear that? I think it's great because then we shall have to admit that the brain is artificial intelligence. We're going to outgrow this long-held notion that you can fit Mind into matter. So I think artificial intelligence is heading that way — again, mortal mind outgrowing itself.

How do we lose the sense of time in order to feel that eternal now and the sense of reality that comes with that?

There's only now. Did you ever hear the saying, "You can't get there from here?" Have you ever been there? I've never been there, myself. Every time I try to go there, by the time I get there, it's turned into here. So, I've never actually been there! One just cannot get there from here. It's also the same thing with now. There is only now. There is no future. There is no past. There is only now. Time is just matter repeating itself. I think it's important when students say, "Oh, gosh, if I had more time, I could get this report done." Well, Mrs. Eddy tells us that time is limitation, error. Hopefully, we can learn not to say, "If only I had more limitation, I could get this done." That doesn't make sense. So you don't need more time. Time is an illusion. Einstein said time is an illusion, albeit a tenacious one. How do we get rid of a sense of time? By only living in the now. There's only now because by the time you get to the future, it's not there anymore. I've never been in the future,



and I've never been in the past. We've only ever been in the now.

Can you please relate quantum physics and metaphysics?

That's another dissertation! Well, I would say that the theme of the Institute for the Metaphysics of Physics at Principia College is that mortal mind is outgrowing itself through observation, invention, study and original thought (to paraphrase Mrs. Eddy). Should it surprise us that Mrs. Eddy made that prediction and it's coming true? If you asked quantum physicists if matter is substantial, I think they would say "No," or ask you to define what one means by the word "substantial." If you asked them, "Do you believe it exists before it's observed?," the majority may say "No" (since this is the mainstream Copenhagen Interpretation of quantum physics). What if you asked, "Do you think that consciousness is involved somehow in the measurement/observing process?" Andre Linde, a Stanford Physics professor, stated, "One cannot have a complete theory of reality without an explanation of consciousness." So, a Christian Scientist will probably get "Yes" to some of these questions if they are asked in the right way. That might surprise them about quantum physics. I'm not saying that quantum physics is Christian Science or vice versa (yet!). But I think there is a convergence toward a fundamentally mental nature of reality for which Christian Science has laid the foundation. Christian Scientists should not be surprised that, in our age, thought is unfolding in the way that Mrs. Eddy discovered. Robert Peel wrote in his biography, *Mary Baker Eddy: Years of Trial* (Appendix B repeated an article published in a 1917 issue of the *Christian Science Sentinel*) that Mrs. Eddy said that general relativity and quantum physics had to occur before even the most rudimentary bridges could be thrown between quantum physicists, relativity, and Mrs. Eddy's writings about reality. It took the whole 20th century for natural science to begin to catch up with what Mrs. Eddy had written about reality. Should it surprise us to find that quantum physicists are discovering that matter is not objectively substantial, or that consciousness is involved in observation or that everything is connected at an underlying entanglement level? Should this come as a surprise to Christian Scientists? No, it is a natural unfoldment.

Would you expect other advanced intelligent life elsewhere to understand Christian Science even though they might just call it science?

Yes, I would say that's what we have in common in the sense of a long-term understanding of reality. If there's anything we have in common, it's the infinite Mind. The Indians had an old saying: "The white man's crazy; he thinks everything is dead." Life is everywhere, so shouldn't we expect it to be expressed everywhere? It's our outgrowing this notion of limited, "formed" life. We are moving in the direction of realizing that life is not as limited as we may have thought and the universe does not consist mostly of dead matter. So ideas are advancing about what life is.

Why do some healings seem to take so long when we think we are applying the same principles as those healings that come quickly?

Healing is changing thought, regardless of whether it takes a long time or a short time. My brother Eric is a practitioner and he says God never does fixes or repairs; God only takes trade-ins! You have to trade in the old man for the new man, the material concept for the spiritual idea. So, we might say that healing is as difficult or as easy as changing your mind, exchanging it for the divine Mind. But I don't want to sound too glib about this. It does not always seem like an easy thing to do; but that's what is required. People sometimes say, "When I started with Christian Science I had all these healings, but they do not seem to occur as easily as they first did." Well, your thinking was changing a lot, no doubt, when you first found Christian Science! But we must also be reminded that Mrs. Eddy states that the human mind is not a factor in the healing work (*S&H* x:7-9). Sometimes it appears to be a factor, but it isn't. It's not us thinking about God that heals; it's God thinking of us that keeps us whole. It is God that is the one and only, all-thinking, all-acting, omnipotence. Omnipotence means all power, not the most powerful. I think it's important for us all to just let God be our only Mind. That's the best thing to do, and that has to result in what we see as healing. Your body can't resist it. Let me give you an example of scientific healing versus faith healing. I injured my leg and it hurt a lot, and I called a practitioner and he said, "I'll get right to it," and the pain went away immediately. Then the pain seemed to come back a couple of days later, and it really hurt again. So I called the practitioner again and he said, "I'll get right on it." And, again, the pain went right away. This happened several times so I thought, okay, here's what I'm going to do. I looked at the pain and it seemed really real. I thought, it sure seems real because I can just feel it. So I more-or-less assured myself that the pain really seemed to be there. And then I called the practitioner again. I wouldn't exactly say I was being uncooperative, but I was kind of doing an experiment. I called the practitioner and the pain went away immediately, as before. It was gone so quickly, with or without my cooperation. It was like a mountain range of healing just pushing away every bit of pain. I remember thinking that there was nothing I could do to keep that pain in my thinking; it was gone. So, I thought, okay, this is not faith healing. This is Principle healing. I got a feel for the magnitude and omnipotence, of the healing Principle that God is, because all pain was irresistibly removed. There was nothing in the universe that could have resisted that healing Principle! That day I learned that it is divine Principle that heals, not human thought.

Please count to duodecillion.

Do you want to count to infinity? Let's all do it together. One. That's it! There's only one infinite! Mrs. Eddy says the allness of Deity is His oneness. So, if you want to count to infinity, you just did! At the time Mrs. Eddy used the term "duodecillion," it was the name of the number one followed by 72 zeros. If you

wanted to count to this number, it is about the square of the number of grains of sand on all the beaches of the world. In other words, if one took every grain of sand on Earth, and made another Earth with beaches for each grain, then counted the number of grains of sand on all these Earth-like worlds, you'd have counted up to about a duodecillion grains of sand. I'd say we have a good excuse to go to the beach and get counting!

How do you define the coincidence between the human and the divine?

I would say it's when we give up a mortal way of looking at things, when we are willing to let go—when that occurs which we call “enlightenment.” Note that we do not call it “enheaviment” because what is being revealed is something we already know, something we recognize as having always been true. It feels familiar and like we have always known it, when we hear something that is deeply wise. How should we recognize it—we often say, “Yes, that's true!”—if we did not already know it? It is one's pre-existence coming through. You knew it and recognized it as an old friend because you already knew it. And God is the all-knowing, so it is expressing that. Healing is the application of absolute Science to what seems to be a relative thing, human beings. Carl Wells, at a youth meeting in Boston, once held up a green piece of paper, and said, “This is blue,” and everybody laughed. Then he said, “Well, I know it is blue, but you have to have faith that it's blue.” He then peeled off this transparent yellow film, and sure enough, the paper, itself, was blue. Then he said, “True blue man seen through a mortal yellow sense appears as human green.” Then he said, one does not throw out the human green. What one does is to quit seeing the true blue man through the film of mortal yellow. It's a seeming thing—the human and divine coincidence. But actually the spiritual is the only man.

How is Christian Science viewed in the scientific world?

Well, the SETI Institute is certainly getting a lot of Christian Science folks since I've had five student summer interns from Principia College during the last 2 years. I think the SETI community certainly knows a lot of Christian Scientists—several research scientists who are Christian Scientists have worked there. I do science, so I have the respect of my colleagues. There was a radio astronomer at the SETI Institute named Kent Cullers. One day I came into work and I passed his office, and he called out, “Hey, Laurance. I heard you on the *Christian Science Sentinel* show. You're not trying to mix religion and science, are you?” And I said, “No, I'm trying to make religion more scientific.” And he said, “Oh, okay. Good luck with that.” So, he was basically making sure I was not deserting science. And my reply was to reassure him I was a scientist all the way.

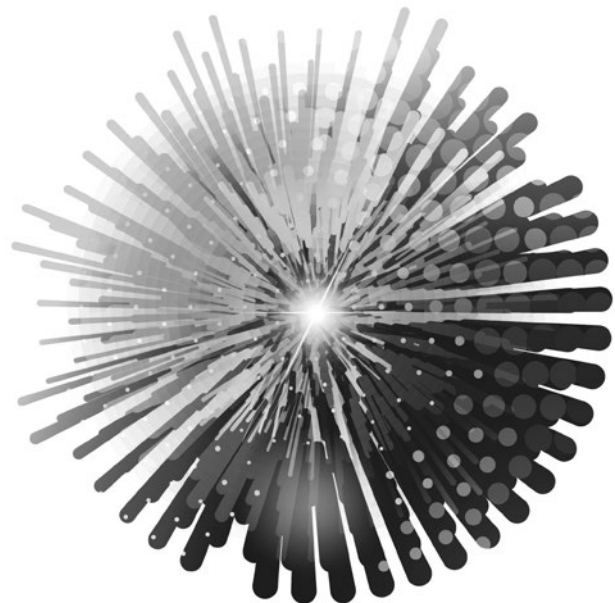
Where do you stand on your proposed experiment to determine if one of the two possible paths of light

from a distant source is observed from a distant galaxy, thus indicating the presence of an intelligent observer there?

I'm working on it—that is the farthest out quantum astronomy experiment we have proposed. It is called “quantum SETI,” and we have quite a few experiments to go before we get to that one. We're doing experiments setting up a quantum optics lab at Principia, but also doing experiments with the Allen Telescope Array, which is a 42-antennae radio telescope the SETI Institute built. In our first experiment, we want to change the path that particles have taken after they've taken it. In other words, they take this way and we can make them go another path at the last moment by doing a quantum switch that shows basically that time can be changed. We're going to change the light travel path about 45 minutes after the light has traveled to Earth. It's a quantum thing called “superposition.” The next experiment will take place about 1700 light years away and we want to change the path the photons will supposedly have taken 1700 years ago. I know that sounds really ridiculous right now, but the basic premise is that time is not an absolute at all. It's all about kind of disproving time, and it sounds like fun, and it's a new field called quantum astronomy, where we're applying quantum effects over interstellar distances. If you want to know all about it, go to the Principia website and click on the Institute for the Metaphysics of Physics link. I gave a whole lecture about it. Then, feel free to send me questions.

How do we deal with the computer technology world, which thinks that it's a god and can solve all problems? I live in Silicon Valley where this thinking dominates.

The fact is, the more intelligence involved, the less matter is involved. If computer science is leading to the notion that intelligence is everywhere, that's a good thing. We want that. I did my master's thesis on an IBM 1130. It was about the size of four chair rows here. My cell phone has about 8 million times the storage capacity of the storage of the 1130



computer. 8 million times! Can you imagine? So, what's the improvement? The material that the cell phone is made of? No, it's made of the same sand (silicon dioxide) and daubs of gold and other trace elements my Master's degree computer was made of. So what is the difference? Basically more understanding, less matter. That's a good trend. And if we build a computer that is as complex as the human brain, we'll have to admit that the human brain is also artificial intelligence. Real intelligence is, of course, the infinite Mind.

Unfoldment — could you describe it?

Unfoldment is the revealing of something that's already there, already true, already present. So, it isn't like we accrete knowledge or information or learning or wisdom. It's that we already have it and it's unfolding. Once again, enlightenment. We recognize things that we already know. When you approach learning that way, it's really a great way to let things unfold as opposed to struggling to add them to our mental library, so to speak. Also, what do I need to know? You know that the infinite Mind is your mind and it's expressing you, and that's unfoldment. It isn't a time thing. Jesus today might have said, "Before the Big Bang, I am," referring to this knowing, this unfolding.

Can you talk about Jesus' experience on the cross and the lesson it teaches? It appears that Jesus went through much suffering before he rose and demonstrated life over death.

I think that Jesus didn't have to go through that experience. He already knew what would happen. He wanted to demonstrate that life is eternal for us, and that's why he went through the death experience. How can one be thankful enough for that? Without it, there is no Christianity, no Christian Science, no discovery of Mrs. Eddy's. So Jesus was pretty much going through these experiences to say, "No matter what you're suffering, it isn't true; even death isn't true." I think of Jesus talking to Elijah and Moses. Mrs. Eddy says you cannot commune with people who have died while thinking you have not yet died. But that doesn't mean that Jesus and Moses and Elijah were doing a séance. He wasn't talking to spirits. He was talking to the real Elijah and the real Moses. How could he do that? He could do that because he didn't believe in death, and neither did Elijah and neither did Moses. For a while, neither did his disciples because they

saw Jesus and Elijah and Moses, too. They were actually non-believers in death while they saw them. As a matter of fact, it works one way: Jesus didn't believe in death so he could call Lazarus from the grave. And it works the other way, too: Paul must not have believed in death or he wouldn't have heard Jesus talking to him after Jesus' ascension. People have passed on, and you want to talk to them. Even if you have not yet overcome the belief in death, you know that nevertheless your love gets through. And isn't that what we mainly want to do? You want them to know that you can send them your love — that love gets through. And as you decrease your belief that they have gone through another experience onto another plane of separation, you will be able to broaden your community. I asked some seven-year-old Sunday school students once, "How did the disciples know that Jesus spoke to Elijah and Moses because Elijah was nine hundred years before and Moses was something like thirteen hundred years before?" A little guy answered immediately, and said, "Well, they had name tags! 'Hello, my name is Moses! Hello, my name is Elijah!'"

Is the nature of infinity that the heavenly Father can say to every son and daughter, "All that I have is thine" and it will be true quantitatively?

Yes. The reason that it can be true quantitatively is that spiritual qualities don't have any limitation. Remember Elisha going to the lady who was saying she only had a little bit of inspiration/oil? He said to pour it out! He wanted to show her that it was unlimited and the only way he could do that was if she poured it out. So we think, "I only have a little bit of inspiration." Well, pour it out, put it to work! You have to put it to work in order to find that it's unlimited. As you pour out your inspiration, you will find that it will turn into an unlimited abundance of inspiration. (This works with loaves and fishes, too!) So, quantitatively, we can't put units to spiritual qualities because they are unlimited. One might like to think that units of peace might be called "milli-Ghandis" or units of honesty measured in "mega-Lincolns," but, spiritual qualities are not limited, so they cannot really be measured in units.

That's it! We got all the questions!

For an audio replay of this talk, please visit our website: www.ardenwood.org.



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Tricia McNeil, Director
(415) 379-2105
tmcneil@ardenwood.org

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Amelia West, Manager, Events/Development
(415) 379-2104
info@ardenwood.org