

God Talk – Re-uniting Science and Religion

Common Dreams on the Road Seminar - Lecture 2 by Rev Dr Robin Meyers
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I teach at a small private liberal arts college in Oklahoma and this happens to me all the time.

One of my students will come up to me at the end of class and say, “*Can I speak with you for a moment?*” And sometimes I see their eyes filling up with tears. I say “*What’s the matter?*” “*Well, my brother has just announced to the family, one young woman said recently, that he is an atheist. Now my mother is terrified that I will be next. She is worried that college is putting strange ideas into my head—that the more you learn the less you believe, especially if you are forced to take that one required religion course at OCU called, “The Bible as Literature.”*”

As a professor teaching in a small private liberal arts college, I see this all the time. 18 and 19 year old freshmen, away from home for the first time, and suddenly confronted with the truth about how we really got the Bible, aware that there really are two irreconcilably different accounts of creation in Genesis, and that there were lots of other gospels that didn’t make it into the Bible, they decide to throw the baby out with the bathwater. They announce to their parents, usually around Christmas, that they no longer believe in God, or Jesus, or the Bible. Believe me, in Oklahoma, this has the intended effect.

When distraught parents call me, wondering who put these strange ideas into their children’s heads, and hoping that as an ordained minister I might put in a good word for God, they always say, “*What happened?*”

And I respond, “*What is always happening. Your daughter has begun to think for herself. You may not like what she is thinking, but the only thing worse than this day coming - is that this day should never come. So hold your daughter with open arms.*” Besides, a lot of people have decided that they no longer believe in the Sky God of their childhood—the Supernatural Daddy, the Lawgiver and Judge who is alternately a Cosmic Comforter and a Divine Assassin.

That God who is enlisted as a partisan in every battle, and who conveniently loves all the people you love and hates all the people you hate. That God is dead for millions and they have walked away from churches large and small because they cannot sit in their pews and pretend to believe things they know are not true in order to get rewards they doubt are available.

In 1966, the cover of TIME magazine featured the shocking question: “Is God Dead?” and it created a cultural firestorm. In those days, the most hated woman in America was the infamous atheist, Madalyn Murry O’Hare. Not only because she dared to say she did not believe in God, but also she had filed the suit that end up in the Supreme Court to stop compulsory prayer in American public schools. That was only 50 years ago, but a lot has changed.

Organized religion today has such a bad reputation that, now, atheists write best-selling books and on average, nine U.S. churches close their doors for good every single day. I used to think this was mostly a cultural and theological backlash, but now I believe that it is also a kind of God-crisis. When I am out on the road lecturing these days, I get more questions about God, and what I mean when I use the word God, than I get about Jesus. The reason might just be that lots of church people these days are closet atheists.

By this I mean that they are non-theists – which is what an a-theist is - because they do not believe there is something—out there that “exists” as other entities exist, with whom human beings can interact—having a subject/object relationship. They no longer believe in an autonomous deity, watching over the world, processing prayer requests, handing down laws, rewarding those who comply and punishing those who do not. They also refuse to believe that a tornado (of which we have many in Oklahoma) a tornado that sucks a tiny baby out of it mother’s arms as she huddles in the bathtub because she has no storm shelter – that that acts is some kind of punishment by God, or, that God wanted, as pastors will sometimes say, to have that little one come to heaven early to be with the angels. When I hear such things, I think it would be better if there was no religion at all.

People may not be ready to give up on the Mystery, or the presence of a transcendent reality—I am certainly not—but I have had it with the Patriarch of Heaven. I’m done with Blake’s Noboddady, with the Broker of Pascal’s wager, or the local storm god of Abraham who hides in the clouds and orders the slaughter of Israel’s enemies. We seem to know what we no longer believe about God, but very little about what might take the place of what’s referred to in the United States as “the Man upstairs.”

Many of you have heard of the Jesus Seminar, a group of historical Jesus researchers who shocked the public in the mid 1980’s by voting on the relative likelihood that Jesus of Nazareth said, or did not say certain things attributed to him in the gospels. Now the Westar Institute has formed something called the God Seminar, on which I sit, to bring together philosophers and theologians, and in my case, one working pastor, to give people some non-theistic options on God—and perhaps some new language to describe what language can never describe, and no human thought can contain. We are also very interested to reintroduce new generation the radical theology of Paul Tillich.

First of all, however, we need to get over, in the church, the idea that science and religion are natural enemies, when in fact they are natural partners. We are living at a moment in human history where our understanding of reality itself is undergoing convulsive change. In particular, quantum physics is prompting some of the most exciting discussions going on out there between science and religion, and for some reason there are scientists now who talk more like theologians than theologians do.

The Higgs Boson particle was not called the God-particle by a preacher, but by a scientist. Granted, when I say quantum physics, or chaos theory, or as we will talk about in a moment, something called “quantum entanglement”— people’s eyes tend to glaze over. For one thing, in this hyper-polemical world of ours, there are only supposed to be two kinds of people in the world: religious people who hate science and critical thinking as the enemy of faith, and really smart scientists who hate people who are religious and think they are all shallow, simple-minded fanatics. Perhaps the time has come when all our teaching needs to be interdisciplinary, and all our university departments need to be interdepartmental. At the very least we should audit one another’s classes.

Take for example a couple of paragraphs written by somebody who recently visited with students at my alma mater, The University of Oklahoma. I'm gonna show you this and then not tell you who wrote it - and then ask you to guess at the end.

Dear Friends,

If you live in America, the chances are good that your next door neighbors believe the following: the Inventor of the laws of physics and Programmer of the DNA code decided to enter the uterus of a Jewish virgin, got himself born, then deliberately had himself tortured and executed because he couldn't think of a better way to forgive the theft of an apple, committed at the instigation of a talking snake. As creator of the majestically expanding universe, he not only understands relativistic gravity and quantum mechanics but actually designed them. Yet what he really cares about is "sin," abortion, how often you go to church, and whether gay people should marry. Statistically, the chances are that your neighbors believe all that—and they can vote.

In other parts of the world, there is a good chance that your neighbors believe you should be beheaded if you draw a cartoon of a desert warlord who copulated with a child and flew into the sky on a winged horse. In other places, there's a good chance that your neighbors think their wishes will be granted if they pray to a human figure with an elephant's trunk.

Even if your neighbors don't hold any of those mutually contradictory beliefs, they probably take it for granted that we should unquestioningly respect those who do. And the huge majority of American and British newspapers and periodicals go along with this abject kowtowing to what their educated editorial staff must know, in their heart of hearts, is nonsense.-----

Can you guess who wrote this? Not me! No, I did not write this! Yes – Richard Dawkins – very good. Richard Dawkins wrote this to promote a magazine called “Free Enquiry” in 2009.

Now, we could spend the whole afternoon unpacking that, but that's not what I want to do. I share it as a reminder, really, of how clumsy, how cartoonish, how simple-minded are the stereotypes that haunt the minds of many non-religious folk about all religious folk. So the American comedian, Bill Mahr has this peculiar blind spot about religion, and lumps all of us into one big stew of abysmal ignorance.

Of course there is a LOT of things that happen out there to give religion a bad name (I live in Oklahoma and I grew up in Kansas. I knew the late Fred Phelps from the Westboro Baptist Church and his band of anti-gay protestors, the ones who show up at any production of The Laramie Project, or even at soldiers' funerals who, Fred said before he died, were being punished by God for America's tolerance of homosexuality.

Even so, surely Richard Dawkins does not think this describes every person of faith in the world? I mean, he went to Oxford, so he must have studied non-literal, symbolic speech—like myth and metaphor (I think they teach these at Oxford). So my short answer to this approach is that it is intellectually juvenile—and it might surprise Mr. Dawkins to know that I don't believe in the God that he doesn't believe in either!

The Bible is, in my opinion, a conversation about God. We would all be well served to remember that not a single word of the Bible was written to any one of us, not did any person writing anything that ended up in the Bible realize at the time that they were writing part of the Bible! When we open the Scripture we are all in the posture of “overhearing” ancient conversations not intended for us—so that reading one of the epistles, for example, is akin to reading someone else’s mail. These conversations are so removed in time and distance and ancient cosmology as to be nearly incomprehensible. So in my opinion we are foolish in the church to keep saying, “*The Bible says, the Bible says*”, when in fact the Bible does not say anything—as if we can pretend that it is present tense and addressed to us. No, the Bible said, and as modern readers we are on our knees (to put it metaphorically), listening through a keyhole to an ancient conversation - and wondering is any part of this still subject to interpretation and translation - and can it be made relevant in our time? That’s the challenge of preaching.

What I am saying is that the church would be well served, as would the temple and the mosque, if there were more poets and fewer theologians. Or, so as not to offend theologians, to ask that they at least read some poetry, and preachers too—preachers need to read fiction and poetry, not just Bible commentaries. Because for one thing if preachers were more like poets, sermons would be only half as long and they would be twice as good.

So, if that quote by Richard Dawkins represents the ridiculous, how do we get to the sublime? How do we stop thinking about science as an enemy and see it instead as a sibling? Why do some people think science is a threat to faith while others see it as a partner? My wife Shawn is a woman of faith, but her favorite section of the New York Times is the science section. Every Tuesday, I had better bring home the New York Times Science Section or I am in trouble! I say to her sometimes: “*Why must you read that every week?*” She says: “*That is where all the amazing things are. That’s where the insatiably curious keep opening door after door after door—and all of them lead into a room called wonder*”.

Theologians seem preoccupied with defending truth claims, scientists seem preoccupied with investigating truth claims—to see if they hold up to the scrutiny of actual evidence. Science is not the enemy of faith. Science is the enemy of ignorance.

But as you all know, we keep talking about these two ways of thinking as if they are natural enemies, and this divide is as fresh as the morning newspaper, filled with the on-going debates over evolution and the denial of global climate change. Perhaps we need to step back first and remember how we got here, and we need most of all to clarify the deeper reasons why science and religion have so often ended up in divorce court.

To begin with, we know that as human beings we base our worldviews on the prevailing physics of the day. We organize governments, schools, economies, and yes, even our churches on our understanding of how the world works. So when that understanding changes, as it is changing dramatically right now, all those institutions are up for grabs.

So let’s just look back at how we got here. This will be a real fast survey, but I think it’ll make sense. In the beginning, the Bible provided a worldview based on the physics of Aristotle and Ptolemy. In it the round earth sits at the center of the universe (and presumably at the center of God’s attention as well). As Barbara Brown Taylor wrote: “*During the Dark Ages, the earth was hammered flat. Conservative clerics insisted that the planets were pushed around by angels, and that no other explanations were necessary. So, having little else do, science went to sleep.*”

When it woke up a thousand years later, there was a renaissance of learning across Europe. The printing press brought intellectual classics back to life that had lain dormant for centuries and were now both available and affordable. One particular man, a Pole named Mikolaj Kopernik could not get enough of them. He read his way from Krakow to Bologna and back again, feasting on the words of Aristotle, Euclid, Archimedes, and Ptolemy. Then he also came home with the name most of us know him by—Nicolaus Copernicus, the man who changed our place in the universe forever.”

By doing what scientists do, which is to observe with great care and see where the evidence leads, he came to believe that the sun, not the earth, belonged at the center of things. He also knew how dangerous this idea was, delaying the publication of his work until his death was imminent.

Of course, the church was consumed by a significant conflict of its own at the time (the Protestant Reformation), but ironically, about one thing both Protestants and Catholics agreed—they hated Copernicus! Copernicus wasn't just wrong, he was a menace. “*Who will venture to place the authority of Copernicus above that of the Holy Spirit?*” John Calvin howled, while Martin Luther simply called the man a fool.

In 1611, the King James translation of the Bible was published with note to readers informing them that creation had occurred on the evening before the 23rd of October in the year 4004 BC. In 1616 the Catholic Church banned all books that suggested the earth moved at all. (That'll take care of it!)

Meanwhile, an Italian astronomer named Galileo, who believed that Copernicus was right, did what scientists are notoriously known to do—he went right on with his research despite the church's ban on such research, and when he published his results he was, of course, ordered to appear before the Inquisition.

In his defense, Galileo argued that the Bible was never intended to be a scientific document. He said this: “*The Bible tells us how to go to heaven, not how the heavens go.*” (has a nice mnemonic effect). But his inquisitors were not impressed.

In 1633, when he was 70 years old, Galileo got down on his knees in the great hall of a Dominican convent in Rome and read the renunciation that the church had written for him:

“Wishing to remove from the minds of your Eminences and of every true Christian this vehement suspicion justly cast upon me, with sincere heart and unfeigned faith I do abjure, damn, and detest the said errors and heresies, and generally each and every other error, heresy, and sect contrary to the Holy Church; and I do swear for the future that I shall never again speak or assert, orally or in writing, such things as might bring me under similar suspicion.”

This is sad, because this was not the first time, nor would it be the last time that the church has made someone apologize for being right. Galileo spent the last eight years of his life under house arrest in his villa outside Florence. His daughter would read to him the seven daily psalms of penitence that were a part of his sentence, while he sat by the window, where he could watch the planets through his telescope—a sad and conflicted old man.

Needless to say the scientific revolution could not be stopped. Along came a British mathematician and natural philosopher named Isaac Newton who planted the seeds of a new worldview by laying down what he believed were the laws of celestial dynamics, reduced to four simple algebraic formulas. The universe, Newton said, works like a vast machine made of parts, some as small as atoms and others as huge as the sun, but they all obeyed the same four laws.

But Newton was careful not to usurp God, however, in his clockwork universe. At the end of his book *Principia*, released in 1687, Newton wrote: *“This most beautiful system of the sun, planets, and comets could only proceed from the counsel and dominion of an intelligent and powerful Being”*.

Obviously Newton had learned from his predecessors. The universe may be like a giant clock, but there must have been a clockmaker. Strangely, however, this left very little for a deity to do. God got credit for everything, for designing the machine and thumping it into being, but once it got moving it seemed to do fine all by itself. God’s job was more like that of a night watchman, dozing in a cosmic lawn chair while the stars spun in their courses overhead.

What is really interesting, however, is how human beings reacted to this notion that the universe is machine-like. We started modeling our self-understanding and our institutional life on the same principles—that is, atomistic principles (the principle of separate, individual autonomous units) *“You are you and I am I. If each of us will do our individual parts, then the big machine should keep on humming. If a part breaks down, it can be removed, cleaned, fixed and replaced. There is no mystery to a machine after all. It’s just a bunch of parts doing their part”*.

Over time, guess what, the church found this illusion of control hard to resist. So our religious thinking began to mimic Newtonian physics. Our theology become specialized and systematized (I took Systematic Theology in Seminary) - our God view, if you will, came to resemble our worldview. Again, as Barbara Brown Taylor put it:

Walk into many churches and you will hear God described as a being who behaves almost as predictably as Newton’s universe. Say you believe in God and you will be saved. Sin against God and you will be condemned. Say you are sorry and you will be forgiven. Obey the law and you will be blessed. These are simple and appealing formulae, which make God easy to understand. Pull this lever and a reward will drop down. Do not touch that red button, however, or all hell will break loose. In this clockwork universe, the spiritual quest is reduced to learning the rules in order to minimize personal loss (avoid hell) and maximize personal gain (achieve salvation).

So, in Newton’s universe, where the atom is the basic building block of the cosmos, all big things can be broken down into small things—the single units of indivisible matter. Thus no whole creation is more than the sum of its parts. Just hold that idea.

The individual human being becomes like the atom—the single unit of social matter that is the basic building block for all social groupings. Nations, communities, churches and families are all reducible to the individuals who make them up. But this has implications for how we try to build healthy societies. So for example: If a child acts out, take the child to a counselor. Remove the child from the whole and fix the child, without ever inquiring into the health of the family system. If a poor woman sells crack, send the woman to jail. Punish the woman, without ever asking about the society in which she lives. There is nothing wrong with

the whole that cannot be fixed by tinkering with the parts. In essence, there is no such thing as a whole. The individual is the fundamental unit of reality.

One of the ways we can measure this idea in terms of our religious thinking is to observe carefully the way in which people pray. Our prayers are often atomistic in that they are prayers of individuals who need to confess individual sins, give thanks for particular and personal blessings, or ask God to address their specific concerns. So this is God on retainer if you will. Sometimes it sounds as if he is like a life coach or a personal trainer (but that's another lecture).

There is, in fact, another way to conceive of our life together, but it requires a different worldview—not a clockwork universe in which individuals function as discrete springs and gears, but one that looks more like a “luminous web,” in which the whole is far more than the just the parts.

This surpassingly beautiful name for God: a “luminous web”. A luminous web in which the whole is far more than just the sum of the parts. This surpassingly beautiful name for God – the luminous web – which, by the way, we use in my church at Mayflower probably more often than any other name for God. We talk about the luminous web – we say L W for short. It is the name given to us in a book by the same title written by Barbara Brown Taylor. The luminous web. In it she describes a universe in which the whole is far more than a collection of parts. “*In this universe,*” she writes, “*there is no such thing as an individual apart from his or her relationships. Every interaction—between people and people, between people and things, between things and things—changes the face of history.*”

Life on earth cannot be reduced to four sure-fire rules. It is an ever-unfolding mystery that defies precise prediction. Meanwhile, in this universe, there is really no such thing as “parts.” The whole is the fundamental unit of reality.

This is the opposite of Newtonian-ism. So that while religious leaders are still busy trying to patch the sinking ship of a church built on Newtonian models, where the parish is a machine that mechanic ministers are supposed to keep “running “smoothly, full of individual believer parts that are constantly breaking down, complaining that they cannot reconcile all the apparent contradictions in their lives, the math part, the physical part, the spiritual part—scientists have come along now and almost displaced theologians when it comes to opening the doors onto a non-Newtonian world.

While this seems threatening to some, it might actually rescue the whole religious enterprise from its fixation on what needs “fixing,” and bend it instead toward the liberating idea that we are not all suffering from multiple personality disorders—but that we are instead, each of us, a personal universe of complexity.

What's more, we know that our lives are not going to move in a straight line, in fact you know, we make these plans – this is my one year plan, my five-year plan, my ten-year plan, you know those plans people make! They are mocked by life itself. The American filmmaker Woody Allen said once, “*If you want to make God laugh, tell God about your plans.*”

What ends up happening, of course, is that life appears chaotic (which is where chaos theory gets its paradoxical name), but will in fact be ordered by the fantastic consequentiality of the luminous web—where everything is connected to everything else. Where every action is consequential, whether physical or spiritual and where consequences matter whenever we make a choice to do something and not to do something else.

Now let's take a deep breath now, because the implications of this, I think, are not insignificant. I think they are mind-boggling and we're on the edge of a new theology. I am not a scientist, and some of you may know more about quantum physics than I do. But I beg you to listen for just a moment with some sympathy as I try to explain as simply as I can what others have tried to explain to me.

What I have learned about quantum physics is that Albert Einstein did not like it at all, and ironically, his objection to it was similar to the objection some Christians have to the theory of evolution, namely that there is too much chance in it, too little design.

So Einstein and two of his colleagues at Princeton, Boris Podolski and Nathan Rosen did an experiment to try to undermine quantum theory—to disprove it. That's what scientists do—they actively try to disprove their own theories. Theologians should try this, but I digress. It was called the EPR experiment (for Einstein, Podolsky and Rosen), based on the quantum theory that a subatomic particle that decays into two particles – they split, if you will, into a set of “twins”—a single system with two parts, with each particle spinning in opposite directions.

No one knows which one is spinning up and which one is spinning down until a measurement is made, but according to the laws of physics they must always balance each other. So far so good. Now imagine those two twin particles flying apart—one of them heads around to the dark side of the moon, while the other lingers in the laboratory just above that unruly nimbus of Einstein's hair.

If Einstein could reach up and nab that one and reverse its spin, he theorized, then the other particle (the twin, now on the dark side of the moon), would have to reverse itself also—even if was light years away.

As if there was some previously unimagined form of communication, faster than the speed of light, which would allow each particle to “know “and respond to what the other was doing. Its twin.

Well, the problem for Einstein was fairly obvious - this violated his own theory of special relativity, which holds that things cannot happen faster than the speed of light, and so he rejected the idea, and said quantum theory is wrong. Unfortunately, for him at least, subsequent experiments proved that there is indeed some kind of instantaneous, superluminal communication between quantum particles. Once they have interacted with each another, they have the power to influence each other, no matter how far apart they go. According to quantum physics, this mysterious relatedness goes beyond quantum particles to include the whole creation. In other words, listen carefully: *“Physical reality refuses to be compartmentalized.”* Einstein had a great name for this. He called it *“spooky action at a distance.”*

Or think of it using another metaphor. As hard as we try to turn it into a machine, the universe keeps insisting on acting like a body—animated by some intelligence that exceeds the speed of light. Scientists think this has something to do with what is called field theory—fields being those invisible, nonmaterial structures that may turn out to be the basic substance of the cosmos.

We all know about fields – even non-scientists – you know fields. So there’s gravitational fields, electromagnetic fields. So – if you take a light bulb and go out and hold it up over your head under a power line, it will light up because you are standing under a power field. So what if there is another kind of “field” that knits the whole creation together so that, in the words of a poet, a shiver somewhere in the Milky Way gives us a shiver right here in Sydney at Pitt St Church? Right here, and faster than the speed of light. What if everything we do changes something in the field, which changes something else in the field which changes something else in the field —the good the bad and the ugly? What if there is no separation?

I found a very brief video that I hope might help us to visualize this, because quantum entanglement is complicated, but it is unbelievably compelling.

VIDEO

There is no separation! This is the most astonishing discovery in physics, said one scientist.

Now, if you are beginning to wonder what all this has to do with church and the spiritual life, and the work that we are all involved with as Progressive Christians – and remember that the distinction the church may have been making all these years between the sacred and profane may be simply be bogus. Religion has its roots in awe and wonder, and creation itself inspires awe and compels wonder. Like why are we even here? Why is there something instead of nothing? In other words, why is there matter and does it matter?

Then I would invite you to just start paying attention, to your own life and see if you think all the coincidences may not be coincidences. Try to practice what the Buddhists call “mindfulness.” Think of the ways in which the luminous web seems to break into human experience. Think of the mother who sits bolt upright in her bed in the middle of the night, “knowing” something has happened to one of her children. Consider identical twins (the human kind, not the particle kind) who end up making similar choices in their lives even though they have been separated at birth. What we often chalk up to the idea of being psychic, or possessing ESP could really something else - not ESP, but EPR, the Einstein Podolski, Rosen paradox – which suggests that the two are not really two but one. What each “knows” is the result of belonging to the unbroken wholeness of the universe.

Perhaps that unbroken wholeness, that which connects everything to everything else – is God!

Now, remember where we began, with the idea that Richard Dawkins gave us – that kind of religious cartoon. It is made possible, brought to you by (as the adman would say) the idea that there is not only separation, but that there are really only two kinds of people in the world, the logical positivist elites who have been to Oxford, and the bottom-dwelling fundamentalist/literalist fanatics who should not be allowed to vote.

But may I suggest something a little more nuanced? Namely that both really smart people, and really simple people (who could not afford to go to Oxford, or maybe even to community college) may all be wandering around dumb-struck, our mouths hanging wide open, wondering why—why do things happen as they do, and what does it all mean?

Sure, you can put down religious thinking as a relic of superstition and ignorance, but who is to say that someone like the apostle Paul (as backward as some of his writing seems to be, or the writing done in his name, especially about women), was not actually way ahead of his time when he talked about the church as the body of Christ. Far more than a collection of parts, the Beloved Community seemed to know at some intuitive level that the right hand had better know what the left hand was doing, and that what was happening to one person in the beloved community, was happening to everyone in the beloved community. How do we know this?

Because, to stay with Paul's language, the head of this body is Love itself. It may not be "with us" anymore; it may not be "with us" anymore; but in an inseparable universe, it remains our spiritual twin, even across the intergalactic distance known as death.

I don't tell you this because you have probably already thought of it yourself. While we continue to argue in the church over the resurrection of the body of Jesus, just try to get your head around what quantum entanglement might mean for understanding Easter in terms of this idea of spooky action-at-a-distance or what quantum physicists call "non-locality." The idea that the universe is made up of non-local stuff.

So perhaps the Romans who executed Jesus as a political revolutionary just thought they could get rid of a local problem by getting rid of a local body? Apply a local solution, like crucifixion, to a local problem, like insurrection--and then put the local body in a big local tomb, put a big local rock in front of the tomb, post a few local soldiers out front or sure enough some local yokels will steal the body and we'll have a cult of the risen body on our hands.

Maybe this failed because Love is the spiritual equivalent of quantum entanglement. If there is no final separation, then you can sever the head from the body, divide the two as if they could not now communicate, but damned if the body and the head don't go right on communicating with each other. And what did the early church call this?

They called it the "holy spirit"? It was anywhere and it was everywhere.

So, I know this is a lot to take in, but if you are weary, as I am, of the trench warfare between science and religion, and by the continuing and frightening anti-intellectualism in American politics, this is very exciting. Perhaps we even could organize some kind of an international peace summit between science and religion. We could hold it right here in Sydney and invite Richard Dawkins to come and have a debate with yours truly. Scientists could bring their data, and people of faith could bring their stories, and we might just discover that we are all walking around a mountain too high to climb.

Are we particles or are we waves? Quick now, which are we? Or are we both depending upon the moment at which the interpretation is made? I read about a strange experiment called the double-slit experiment, in which it appeared that particles of light seemed eager to please the experimenter. If you asked them a particle like question, they responded like particles. If you asked them a wave-like question, they responded like waves.

“One is left, said a scientist with the weird impression that quantum particles are practical jokers--like teenage campers short-sheeting their counselor’s bed.”

If you find all this a bit disorienting, you are in good company. If you are a person of faith, you may actually be comforted by the fact that all reorientation must be preceded by disorientation (things fall apart before they are put back together, that’s why Jesus told parables). The Christianity that is emerging is only made possible by the Christianity that is being submerged by a God who is still speaking (or as my mom says, out with the old, in with the new).

The story is told of a quantum physicist named Werner Heisenberg, the originator of something called the “uncertainty principle,” who remembers late night discussions with his fellow scientist Niels Bartha ended almost in despair. Recalling one of them, Heisenberg wrote, *“When at the end of the discussion I went alone for a walk in the neighboring park, I repeated to myself again and again the question, “Can nature possibly be so absurd as it seemed to us in these atomic experiments? . . . Anyone who is not shocked by quantum theory he said, “has not understood it.”*

Another scientist was even more blunt, claiming that the bliss of ignorance would be better than this. *“I don’t like it,”* he wrote, *“and I’m sorry that I had anything to do with it.”*

Now, again you may be thinking, but nature seems very well-ordered to me. I look out there and there’s the table, there’s the pews, there are you and outside is the street and the cars. Everything is separate. There is separation. That’s true at the macro level. But at the micro level of quantum particles these rules don’t apply. You and me and the table and the cars out in the street are all in the same field. A photon may be said to be both particle and wave. If you know where an electron is, you cannot, by definition, know where it is going. If you know where it is going, you cannot know exactly where it is.

Furthermore, you cannot know any of these things without interacting with them, which means that you will never know how they behave when you are not watching.

This paradox, that big, visible objects in our world obey different rules from those of the tiny invisible stuff they are made of means we have to change radically the way we conceive of the world—and our religious thinking. The universe may indeed be an undivided whole in which the observer is not separable from what is observed. This requires that we rethink centuries of common divisions of the world into subject and object, inner world and outer world, body and soul.

So, the question for us is this: Am I talking about physics now or am I talking about theology? Science or Religion? Perhaps, although this distinction seems lost on Mr. Dawkins, I am talking about poetry.

Because as far back as the 13th century, the Sufi poet Rumi wrote: *You think because you understand one you must also understand two, because one and one make two. But you must also understand “and”.*

If you want to go deeper at the risk of having your head explode, consider what David Bohm, an expert at something called relativistic quantum field theory, said about the universe. *"It neither occupies space and time nor contains many different things. Rather, it is one interwoven thing that takes time and space seriously but not too seriously—perhaps by treating them all as idioms that the universe finds necessary in order to communicate itself to observers."*

I can only grasp about half of that, but I confess that it makes me think of something else that is the quintessential religious idea: Namely that the universe has a kind of "memory" if you will that pre-dates the Big Bang.

Theologians call it the Primal Memory. Back when there was just the egg of a universe, to use a metaphor, when all places were one place and all things were one thing, that is before mind and matter and times seemed like different things, perhaps they all floated in the same yolk (to stay with the egg analogy) and then kaboom! They became planets, galaxies, clusters, super clusters, atoms became blue-green algae, toads, palm trees and pelicans. Kangaroos. Space became here or there, as time became then or now.

But deep down in the essence of these things there remains this "memory," if you will, of their having being one, and that's why they behave in ways that baffle us all. Why? Because we insist on conceiving reality as many when it is truly and deeply One. And who came up with this idea of oneness a long time ago? People of faith, the mystics, the visionaries. *"When you have done it unto the least of these, my brethren, you have done it to me"*; that only makes sense if there is no separation.

The writer of the Ephesians letter puts it a little differently, but not so differently as to confuse the message: *"There is one body and one Spirit . . . one Lord, one faith, one baptism, one God and Father of all, who is above all and through all and in all."*

Granted, this is a very different picture than most of us were raised with. The Western Christian cosmology is like a pyramid, with God on a throne at the top, humans just underneath, other animals beneath us, and then the material world forming the broad base of the pyramid at the bottom. This model, where humans assume that they are sovereign over other animals and the material world, is proving to be a disaster for the environment.

But what if Ephesians has drawn a more accurate portrait? Where God is not above us, but also through all and in all? What if the universe is not a giant machine whose whole is the sums of its parts, but a whole whose parts are mysteriously inseparable? What if the universe really is a luminous web, and we are stardust in a cosmic field? Kind of gives new meaning to those lyrics in the Joni Mitchell song, Woodstock--*"We are stardust, we are golden, and we've got to get ourselves back to the garden."*

"What if, when we look to the heavens in wonder, and feel that ancient stirring in our souls, that commotion that we feel is really the ashes of dead stars that house the marrow in our bones, rising up like metal filings toward the magnet of their living kin?" What if, to put this in the vernacular of popular culture, we are not extra-terrestrials, but are in fact, intra-terrestrials, and we are all trying to "phone home"?

The problem with all this, of course, is a very human problem, and one that underlies the debate on evolution--namely humans want to be "special" in some way, created instantly in our present form by a doting parent of a God--not as having crawled up out of the primal ooze.

So that even when we discuss the cosmic oneness of creation, the response I often hear is: “*So where am I in this picture?*”

And the real answer is: all over the place. Up there. Down here. Inside my skin, outside my skin. OK, groovy, but here is a follow-up question, often a religious one: “*Am I alone?*” And the quantum physics answer is obvious: How could any one of us ever think we are alone?

We are part of the whole web, which is pure relationship, and the energy available to us has been around since the universe was born.

This means, I guess, that if people want to pray to God, the proper posture for prayer is to pray in all directions at once, for God is not somewhere up there, but everywhere. This concept of God that is directionless and timeless, it’s gonna still be here when the universe either dissipates into dust or swallows itself up and then explodes again. Paul Tillich had a name for it: *the ground of being*. But then so did the poet of Hebrew Scripture, who gave God’s name to Moses as, “*I Am Who I Am.*” Or better yet, *I am who I will be*.

That hardly sounds like the self-identification of a deity who hovers above reality and sometimes stirs it with a stick. It sounds more like the singular utterance of the only One who ever was, or is, or shall be, in whom everything else abides. Or as Paul put it, for the moment we see through a glass darkly, living in the illusion that we are all separate “*I ams.*” When the fog finally clears, we shall know there is only One.

So to wrap this up, I want to return to that opening salvo by Mr. Dawkins, and tell you that I did a kind of juvenile thing, in that I wanted to respond to Mr Dawkins with my own letter. I wrote a note back to him, a note from the high plains of red-neck America. I am still waiting his response, but I am a patience man. Here is what I wrote – just for fun:

I received your short blurb advertising “Free Inquiry” magazine, and must report to you (from Oklahoma of all places) that you may have placed all of us in a box that is just a tad too small. Like you, I also believe in evolution and science, and what you refer to as the Creator of the “majestically expanding universe,” and “relativistic gravity.” We also share a particular interest in “quantum mechanics.”

You might be surprised to learn that I am also an ordained minister who came to hear you speak when you visited the campus of the University of Oklahoma, and that I loved the way you fired up our students! I am a great believer in firing up students, but I also believe in intellectual honesty, and would like to invite you back to discuss some possible misconceptions that you may have about my American neighbors.

For example, not all of us take our religious myths literally, even though we take them seriously. Not all of us think of God as Blake’s Nobodaddy, a jealous, vengeful, violent trickster who, as you put it, “decided to enter the uterus of a Jewish virgin, get himself born, then deliberately had himself tortured and executed because he couldn’t think of a better way to forgive the theft of an apple, committed at the instigation of a talking snake.” By the way, some of my students asked me to remind you that it wasn’t an apple per se, nor was it stolen. Sorry, but you know how these students are, always correcting their professors, even if they haven’t been to Oxford.

As for me, I am the pastor of a church right in the middle of the reddest of the red states (the state name means red man), aka the ones who dared to get in way of Manifest Destiny. Yet you would be pleased to know that in my church we love science, especially quantum physics, and that we are as grateful to scientists as we are to theologians for having opened the door on a truly mysterious creation—one in which the religious stereotypes you have so successfully lampooned are giving way to a cosmic unity so fantastic as to make you and me (yes, you and a Minister from Oklahoma) members of the same subatomic tribe.

So, just to be clear, I am not obsessed with sin, abortion, or how often people go to church. But I am kind of tickled by the idea that you and I may in fact be quantum twins!

Do come back, and let's talk. We can even be civilized and have tea. You seemed rather frightened by the idea that so many religious people are actually allowed to vote. But so far we have managed not to destroy ourselves. Granted, we are no longer one of your colonies, and so we struggle without the obvious rational benefits of a monarchy, but I think we are going to be OK, as we say in Oklahoma.

I eagerly await your response and your possible return to America, where we are dreaming of an international peace summit between science and religion.

Believe me, no such summit would be successful without you.

Yours in quantum entanglement,

The Rev. Dr. Robin "Okie from Muskogee" Meyers

Quotations are from "*The Luminous Web*" by Barbara Brown Taylor. (Cowley, 2000), as are many of the ideas here about quantum entanglement.