

Quantum Mechanics and the Global Consciousness Project

BY DEAN RADIN, Ph.D.

The following is adapted from What the Bleep Do We Know?! Quantum Edition.

If what your senses tell you about the world is the way the world is actually constructed, then things like psychic and mystical experience do not make sense at all because there seems to be some kind of connection between what is going on inside my head and things elsewhere in space and time. Quantum mechanics provides a way of reframing these experiences.



OUR SENSE OF WHAT IS PHYSICAL or material has changed significantly over the past three to four hundred years. How we think about matter has become more and more subtle and the direction of the subtlety is headed toward what we call spiritual. Most scientists still work under the assumption that we live in a mechanistic, clockwork universe of gears and knobs linking together; that is going to change because we know from physics that it is not true. One of the areas where this change is going to make a big impact is in how we understand the nature of human experience. Human experience does not fit in a clockwork universe and that is why in mainstream psychology for many years the very idea of an internal experience was considered laughable. There was no internal experience. It was explained away because of living in a clockwork world.

ENTANGLEMENT: THE INTERCONNECTION OF EVERYTHING The major impact that quantum mechanics will have is the recognition that the connectivity of all things is a basic constituent of the fabric of reality. It is very difficult to wrap your mind around that. Irwin Schrodinger, one of the founders of quantum mechanics, said that *entanglement*, which is the interconnection of everything, is not just a property of quantum mechanics, it is *the* property. That makes quantum mechanics very strange because it does not seem to fit in with our ordinary world experience, but in fact it actually does.

Einstein did not believe that quantum mechanics could be true because, as he put it, it required *spooky action at a distance*. What he meant is that in our ordinary sense of the fabric of reality, two separate objects that are not in close proximity cannot influence each other (there is a more precise description but this is close enough for our purposes here). But in fact, that's not true. At some deeper level that we can't see



with our eyes, two places in space (or time) are the same; they are co-located, co-existing. If what your senses tell you about the world is the way the world is actually constructed, then things like psychic and mystical experience do not make sense at all because there seems to be some kind of connection between what is going on inside my head and things elsewhere in space and time. Quantum mechanics provides a way of reframing these experiences. Rather than information magically getting inside my head, there is a different view: when I am able to get a telepathic impression from someone at a distance, it is not because I somehow jumped out there and got it, but because at some deep level my head and the other person's head are co-located; they are made of the same stuff and I don't need to go anywhere because I am already there.

If the fabric of universe is indeed entangled and everything is connected, then our brain is also part of that fabric. In this way of thinking, at a very deep physical level my brain-mind is spread out throughout the entire universe. If there is a connection with another mind, we call it telepathy; if there is a connection to somewhere else, we call it clairvoyance; if there is a connection that transcends time, we call it precognition; if there is a connection in which my intention is expressed out in the world we might call it psychokinesis or distant healing. This is really just the tip of the iceberg in the sense that this quantum information flow is occurring all the time. To give you an example, often I will ask an audience how many people have ever had a telepathic experience. Maybe thirty percent will admit to it. Then sometime later I ask how many people have ever had a gut feeling that turned out to be true. Eighty or ninety percent will say yes. The reason is that they may not have had a *conscious* experience of connectedness whereas *unconscious* experiences of that type are very common. Our experiments show that some gut feelings are the unconscious, visceral sense in the body that is reflecting information coming from somewhere else. I believe that we are actually saturated with this information all the time.

DOES QUANTUM MECHANICS MATTER? When people ask, "Why does quantum mechanics matter for me?" there are three possible answers. From a practical point of view, it doesn't make any difference at all. You still have to go to work, drive your car and all the rest of daily life. From a second point of view,

it infiltrates everything in the world, especially the world of electronics. For example, the supermarket laser scanner at the checkout line relies on quantum mechanical effects. But the important part is the third point of view; it is essentially a philosophical issue that goes to the essence of who and what we think we are. If we think we are living in a certain kind of world, we behave in a certain way.

In the classical view, we are machines; there is no room for conscious experience. It doesn't matter if a machine dies; you just throw it in the dumpster. If that is the way the world actually is constructed, as a clockwork machine, then people will tend to behave in that way. But quantum mechanics suggests that the world is not a clockwork; it is more like an organism, a highly interconnected organism that extends throughout space and time. Then what I think and the way that I act have a much greater impact—not only on myself but on the rest of the world—than it would if it were a classical, mechanistic world. From a very basic point of view having to do with morals and ethics, the quantum view implies that what I *think* affects the world. That is really the key to why the worldview change is important.

If the world consists of a lot of angry people, that anger is going to affect me whether I know about it or not. If the world consists of a lot of people thinking happy thoughts, we will all likely be a little happier because those thoughts and intentions affect everything. So there are pragmatic reasons why an expanded view of quantum mechanics is important and why its philosophical implications are also important. It provides a broader sense of who and what we think we are.

Quantum mechanics came about mainly by attempting to understand the nature of light. After following that track for many years, many of the physicists who developed quantum mechanics and thought about it became philosophers because they were forced to look very carefully at the assumptions we make about the kind of world we live in. What is really interesting is that almost all of these physicist-philosophers moved in the direction of holism because that is what the physics said! Living in a holistic environment is very different than living in a robot or machine world. The consequences of all this are still not fully worked out but it will have a very strong impact in the next couple of decades in terms of how we think about ourselves. When we think about holism, sometimes we say it is like ecology. Thirty

years ago "ecology" was not a common word for denoting interdependence within the world. But now we are talking about something that goes way beyond ecology. It is not simply interdependence but an inter-penetration, a co-existence of things on a very deep scale, not just among living things but among everything. Ecology has changed how we think about sustainability in the world; that's new. What will the world be like when we have a notion of sustainability of thought, or a sustainability of

ourselves in the future and in the past? We do not know yet what that is going to be like but it will be very interesting to watch it develop!

THE RELATIONSHIP BETWEEN MIND AND MATTER
How do you go about studying the mind/matter interface? Back in the 1600s, when Francis Bacon was developing the concept of empiricism, he actually wrote in one of his books about ways of studying mind/matter interaction and mentioned tossing dice as one possibility; back in the 1930s, researchers started using dice to see if mind could somehow get into the quantum uncertainty of what was happening in the die as it was randomly bouncing around. Around the 1960s, physicist Helmut Schmidt got the idea of simulating the die in electronic circuits. Modern versions of this are random number generators; they were created as a refinement of techniques that had been used in the laboratory for many years. A random number generator is like an electronic coin flipper. It only produces zeros and ones and it does so randomly. It is not a computer program that produces a sequence that looks random but a truly random device.

One type of random number experiment that has been conducted hundreds of times since the 1960s has been to simply ask somebody to press a button that produces two hundred bits of information and to try



to make the machine produce more one bits than zero bits, or vice versa. When you take the entire body of literature, all the hundreds of experiments that have been done, you can ask a single question: did it matter that people were trying to push it toward ones or toward zeros? The overall answer is yes, it does matter. Somehow, intention is correlated with the output of the random number generators. If you wish for more ones, the generators produce more ones. If you wish for more zeros, they produce more zeros. When you're not wishing for anything you get about the same number of zeros and ones. In the most recent analysis that I did, which looked at all these experiments, the odds against chance are fifty thousand to one that the random number generators were consistent with what intention was wishing them to do.

If you are not a fan of mathematics or you don't trust statistics, maybe think about baseball and why statistics are so important in sports: it is purely because of the uncertainty of human behavior. Here we are dealing with something that is much more subtle, a direct mind/matter interaction, and we are not going to see it one hundred percent of the time. As soon as that is the case, you have to deal with statistics.

When my mind is thinking about a random number generator, how does that cause the random numbers to change? Subjectively, let's imagine that mind and

matter are actually the same thing. When I wish in a certain way, that wish is expressed in matter because the matter is actually made out of mind stuff. We don't see any mind stuff in a random number generator, but these experiments suggest that it's there nevertheless. People might think: if my wishes really can push the world around, then how come I can't win the lottery? How come my wishes don't stop war? Part of the answer is that each individual's wishes are a really small drop in the ocean. In the laboratory we are typically working with an individual and one device. By the design of the experiment, we exclude the rest of the world as much as we can. When you are dealing with the universe at large, my intention goes out and affects the entire universe, but most of the universe doesn't care about my intentions. It is off doing its own thing. Everything, whether it is an electron or a human, creates some kind of intentional push out into the world; it is all happening at once, mixing together. You need an enormously strong push in order for that ripple to be felt by the universe at large, or unless something or someone happens to be sensitively predisposed towards detecting that particular intention.

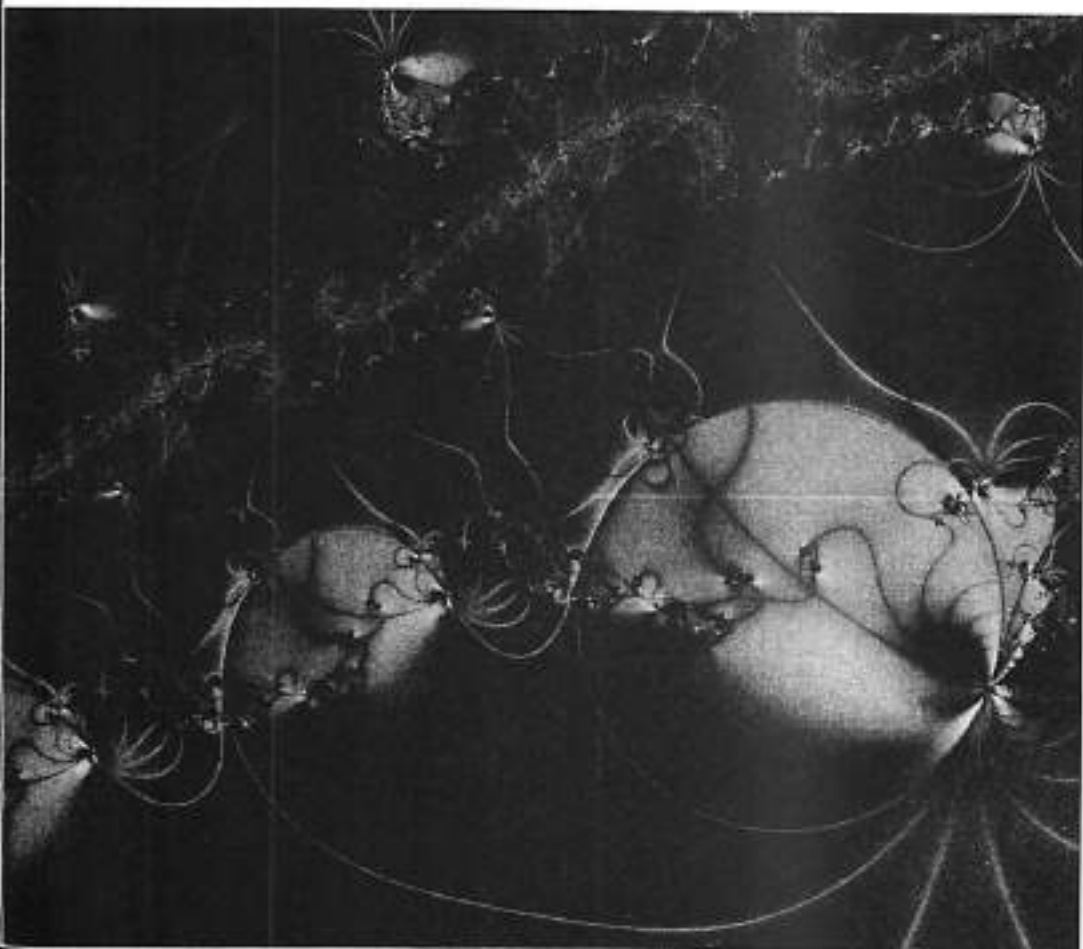
What would happen if we had a billion people all doing the same task, all focusing on something? Would you get a larger effect? The answer is probably yes, but the form of the intention would have to be extremely coherent in order for it to have an impact.

The reason is this: if you imagine intention as a wave-like structure and you have more than one of those waves, then the waves can interfere with one another. Many investigators around the world have taken random number generators within groups that are doing coherent things such as meditating, and sure enough, the random number generators produce numbers that are more coherent than expected by chance. So we can ask, what if you had a *billion* people thinking the same way at the same time in the same manner? Would you end up with a very large effect even in random number generators?

As it turns out, about a month from the time I had that thought, there was going to be the reading of the OJ Simpson verdict. This was an unusual point in recent history in that people knew far in advance that within a fraction of a second they would be hearing the words *guilty* or *not guilty*. This was something of very high interest that would attract hundreds of millions of people to the same moment in time. I had three random number generators running in my lab and asked two colleagues to each run a generator in Amsterdam and at Princeton University. We ran the generators and sure enough, we saw a spike with odds of a thousand to one in two places; one was when the camera switched from outside the courthouse to inside the judge's chambers, which got a huge rise of

attention; and the other was at the moment that the verdict was read. There was a large spike of coherence in all five generators at once. This was taking an idea that we had in the laboratory and scaling it up to the world at large and it had amazing results.

As a number of years went by, more of us were getting interested in the idea of taking random number generators and seeing whether we could detect the world reacting. An unhappy event occurred when Princess Diana died in an accident and everyone knew a week in advance that there was going to be a live broadcast of the funeral. This was such a shock around the world that we knew it would probably attract

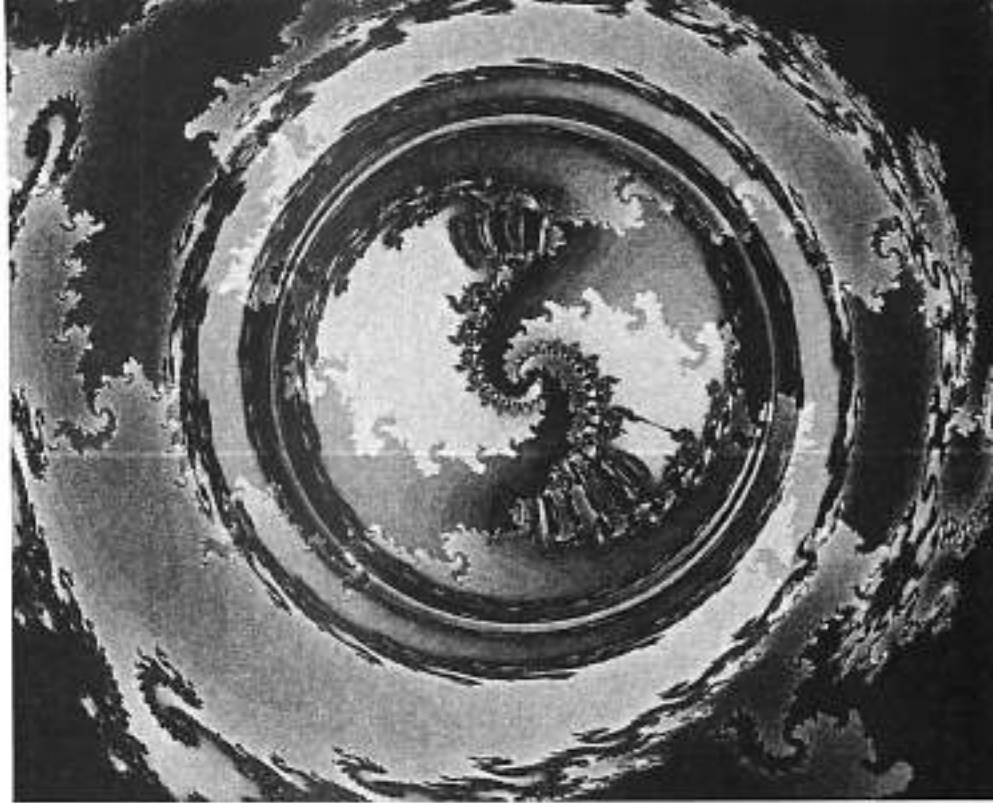


something like a billion live viewers. This time we had twelve colleagues around the world, each with a similar kind of random number generator. We all recorded data before, during and after the funeral. As it turned out, there was a significant deviation among all these generators around the world.

THE GLOBAL CONSCIOUSNESS PROJECT
Another year or so went by and we started thinking that these one-shot experiments were interesting but we were going to miss things that happened spontaneously. From this came the idea of the Global Consciousness Project, which was headed by Roger Nelson at Princeton. The idea was to locate random number generators around the world, run them twenty-four hours a day, and every five minutes send all the data up to a single web server in order to have a continuous record. We've had it going for eight years and now have data for two basic types of events: we have planned events, like Y2K, a stroke of midnight where people are going to be paying attention in each time zone, and we have unexpected events, like 9/11. We have hundreds of events now, both planned and unplanned, and are able to look at all of them in terms of what happened to global randomness. It is very clear that overall randomness is not as random as it ought to be by theory when these events are occurring. Large-scale world events that attract a lot of attention create a certain mental coherence that seems to be reflected in what is going on in random generators around the world.

When 9/11 occurred, we noticed another thing of interest. There were thirty-seven random generators running that day. Over the course of the day we found a very unusual statistical structure in the data: a six standard deviation change!¹ The other thing that was interesting was that the change started before 8:30 in the morning, Eastern time. It noticeably began a few hours *before* the events of that day unfolded! This suggested something was beginning to build statistically that basically exploded when the events unraveled, something that looked like a premonition. People ask: how do you explain this precursor? The answer is, I don't know how to explain it, but empirically that is what happened.

¹ This means that the deviation from normal was enormous.



This gave us the idea that there may be some kind of collective mind awareness that something is about to happen, similar to what an individual might feel when you get a gut feeling about something—except on a global scale. We are just at the beginning of looking at this now. It is still exploratory but it is also very interesting because it means there may be a way of anticipating when large-scale events will occur.

As to the precise mechanism for how my mind will affect a random number generator, we don't know. We do not have a mechanistic explanation and my guess is that some events simply occur as correlations. They are tightly coupled and when one thing happens, it is not that the other thing detects it and decides to move, but rather they are dancing together. They dance together and as quantum entanglement suggests, they appear to be separate but at some level they are not actually completely separate things. Mind and matter, as seen with the random number generators, are reflecting each other. At some level, my guess is that they are the same. ✨

© 2004 and 2007 by Captured Light and Lord of the Wind Films LLC. © 2006 Twentieth Century Fox Home Entertainment LLC. Dean Radin is a senior scientist at The Institute of Noetic Sciences in Petaluma, California. He is the author of *The Conscious Universe* and a new book called *Entangled Minds* published by Simon and Schuster. This article was excerpted from an interview with Dean Radin in June 2005 that appears in the DVD: *What the Bleep: Down the Rabbit Hole Quantum Edition*, published by Captured Light/Lord of the Wind Films, www.whatthebleep.com.