I would like to start this chapter with a summation of the main topics that I have attempted to cover in this book,

First off: *Is the Universe Conscious?*

As before, I must reply with two more questions: “Do you consider yourself to be conscious?” And: “Do you think of yourself as being a part of the universe?” From this point on, I guess that we can answer the original question in the affirmative.

What, then, is consciousness? This is called ‘The Hard Question.’ One definition, according to Webster’s Collegiate, is: “the quality or state of being aware, esp. of something within oneself.” Another definition, derived from that one, is: “self aware.” This latter definition describes our own situation; and therefore it describes the universe, of which we are a part. But there remains a question: “Is the universe conscious merely because we have taken up residence within it? I suspect strongly that there is much more to it, but that the final truth is so discordant with rest of our waking experience, that we can’t achieve the one necessary goal for making a successful definition: expressing something distant from our experience in terms of something more familiar, more proximate. It’s like making a road to connect an outpost in the jungle to your capital city—when you don’t have a capital city. But the experience of living in a conscious environment was so well described by Stanislav Lem in his novel (and film) *Solaris*.

*From the shamanic point of view,*

_Everything that is,_

_Is alive._

_Michael Harner_

Von Neumann felt that the wave function was collapsed by the ‘consciousness’ of the human observer. Can we extend this property: consciousness, to other members of the animal kingdom? It certainly seems so. A clever experiment has been performed, indicating that at least one dog knew when his owner was coming home, at the time when the owner was just leaving her office. Once I heard an anthropologist at U.C. Berkeley describe how the Mayas capture fresh water snails by means of chanting to them. These examples cause me to remain ‘open’ to the idea that consciousness is not localized.

How about plants? Is there any evidence that plants communicate with one another? Some experimenters claim that this may be indeed the case. For example, positive results have been obtained by praying for the growth of seedlings. But there isn’t yet, in this latter case, a sizeable body of convincing experimental data. The more data there are, the more confidence we will have. A good skeptic can withhold judgment for a long time, while he or she examines the point at issue.

But there is yet one more thing to consider. It is entirely possible that consciousness is *not* localized—that it is a kind of *field*, one that is actually the basis for the universe. Thus considered, consciousness is not a product of the universe, but rather the other way ‘round. *It is the universe that is a product of consciousness!* The universe, to this way of thinking, is actually a type of *information.* Can we say more about this? Yes!
First, there have been quantum mechanical experiments that are hard to interpret in any other way, than in terms of consciousness. The delayed choice experiment is certainly one of them. In his interesting book: ‘Biocentrism,’ Robert Lanza describes an experiment that is called the ‘quantum eraser.’ (He doesn’t use that title, but you can read about the quantum eraser in Wikipedia). For me, it is impossible for one to explain this experiment without giving consciousness a starring role.

Second, I have been extremely careful to include references to statistical data when talking about Psi experiments. Before having had my own clairvoyance experience, these references were all that I had at the times when I discussed these experiments in class. If you want to verify any of the statistical data, you need to look up the references cited in the appendices of the books that I listed at the end of Chapter Fourteen.

Third, (and last), there is Dean Radin’s ongoing experiment to see if it is possible to destroy the interference pattern produced by the two-slit experiment, using of human intention. So far, the results are promising. You can read in detail about this in Radin’s excellent book: ‘Supernormal,’ and you should do so!

In the matter of the universality of consciousness, John Archibald Wheeler, (Richard Feynman’s own professor), described the idea succinctly: “It from bit,” where the word: “bit” comes to us from Information Theory; it is the difference between a 0 and a 1, in binary notation. What Wheeler meant, is that we can arrive at a better understanding of the world if we think of phenomena in terms of information. The reasoning is straightforward: We don’t detect objects; we detect events. A registered event gets a score of +1; A non-event gets a score of zero. This is the very stuff of information.

But, is there not evidence suggesting that consciousness is merely a product of human brain metabolism, in the same way that urine is a product of kidney function? This is a question of interpretation. If we start out with the assumption that the arrows of causality all point to downward to ‘stuff,’ then we merely beg the question; the brain will be crammed into the *a priori* role of a ‘broadcasting station’ of consciousness. The alternative view is that we are more nearly like *receivers* of consciousness, because there is no evidence that any ‘consciousness’signal is being transmitted locally, (like a phone call, say). There is a way of deciding which interpretation to adopt: We simply look at the laboratory data for all the Psi experiments that have been performed. They indicate strongly that We are all ‘as one,’ as Francis Bacon put it: ‘by a secret sympathy.’ So, think of the brain as a television set, if that metaphor is of use to you.

**About Myth**

And thus the native hue of resolution is sicklied o’er
With the pale cast of thought;
And enterprises of great pith and moment,
With this regard, their currents turn awry,
And lose the name of action.

Hamlet, Act III, Scene I

It is *Myth* that forms our thoughts and directs our actions. In my view, a very large portion of the book is about *Myth*. Ever since I was a little child, I was baffled by the mental contortions that adults used to arrive at conclusions that contradicted their premises. With time I came to realize that this type of behavior is not at all an indication of ‘weakness of intellect;’ it is simply how we *behave*. (Indeed, I
caught one of the most brilliant men I ever knew, quoting Rush Limbaugh as if he were citing Holy Writ (which would have been bad enough in itself). If you look at Galileo and Newton, whose ideas evolved into Holy Writ for the likes of Laplace, Kelvin, and even Einstein, you will appreciate what I mean by *Mythology*. And as with any creation myth, it gave them the motivation to pull their shoes on in the morning.

And so here is a myth, one that has seduced the minds of untold thousands:

**Einstein:** “The belief in an external world independent of the perceiving subject, is the basis of all natural science.”

In the chapters on the quantum theory we have seen how this notion, however bravely and brilliantly set down by one of the most wonderful minds of his time, has been falsified by an ingenious experiment, one which was to bury his notion under an avalanche of other experiments. One would like to believe that every scientist would have had such a “conversion experience,” like the one some kids heard in Sunday School—the story of Paul on the way to Damascus.

But it doesn’t really work that way. It isn’t the way people behave.

The first scientist to test Bell’s inequality, (i.e, to show that Einstein’s “hidden variables” do not exist), John Clauser, had been a graduate student at Columbia University. According to Dean Radin, historian Olival Freire remarked that:

> Some of the physicists who decided not to hire Clauser were influenced by the prejudice that hidden variables were not “real physics.” His former adviser, P. Thaddeus, wrote letters warning people not to hire Clauser to do experiments on hidden variables in quantum mechanics as it was “junk science,” a view shared by other potential employers.

And in the case of Psi phenomena, it is even truer that prejudice is the rule, rather than the exception. When it comes to blind, stupid intolerance the Church does not have the market cornered.

Most of you have heard of Carl Sagan, the astronomer and TV star. In his younger days his attitude toward Psi phenomena was one of doctrinal disbelief: *cultism*. But one day he chanced to meet Daryl Bem, whom I mentioned in the previous chapter, a man who respects only experimental data. (Disclosure: I have been a subject in one of his experiments.) You will recall that Charles Honorton persuaded him to collaborate on a ganzfeld experiment. He is a true skeptic; the data convinced him. The odds against chance for that particular experiment were 45,000 to one. You may recall that a meta-analysis of all ganzfeld experiments show odds against chance of more than $10^{15}$ to one. So, as a scientist, Bem really had no choice. And, to his credit, neither did Sagan. In his last book, written in 1995, Sagan wrote:

> At the time of writing there are three claims in the ESP field which, in my opinion, deserve serious study: (1) that by thought alone humans can (barely) affect random number generators in computers; (2) that people under mild sensory deprivation can receive thoughts or images “projected” at them; and (3) that young children sometimes report the details of a previous life, which upon checking turn out to be accurate and which they could not have known about in any other way than reincarnation.
In the third matter mentioned by Sagan, I suggest that you consult books by the late Ian Stevenson, formerly Chair, Department of Psychiatry, The University of Virginia.

By the way, what is a skeptic? The word comes from the Greek: skeptikos = one who is thoughtful. Skeptesthai = to look or consider. We get words like ‘microscope’ and ‘telescope’ and we ‘scope things out.’ How about the people who publish The Skeptical Enquirer, are they skeptics? No. They are just being neurotic!

It is my hope that these, the major subjects of this book, have been treated in such a manner as to arouse your interest. I believe that they have been marginalized in western culture, which has been preoccupied with, and characterized by materialistic concerns. It is the very self-congratulatory mind-set that accompanies modernity that most requires a skeptical treatment. What are needed are first, a clinical detachment from the modernity’s conceits, and a warm compassion for those who are being broken on its wheel.

The really great question is: Who are we?

This requires a kind of exploratory expedition into pre-history, the time before we got caught up in the vortex of the three ‘abrahamic’ religions: Judaism, Christianity and Islam. In particular, what were the beliefs that people held in common before the advent of ‘civilization?’

My first reference is to “The Inner Reaches of Outer Space,” a kind of summary of the ideas of the late Joseph Campbell, who starts with the sentence:

Reviewing with unprejudiced eye the religious traditions of mankind, one becomes very soon aware of certain mythic motives that are common to all, though differently understood and developed in the differing traditions: for example, of a life beyond death, or of malevolent and protective spirits.

According to Campbell, Adolf Bastian, the leading ethnologist of the nineteenth century, had a term for these recurrent themes. He called them ‘elementary ideas,’ because he found them everywhere in his travels.

My second reference is to “Shamanism,” by the scholar Mircea Eliade, who made a comprehensive study, discovering that shamanism forms a kind of ‘bed rock’ to all world cultures. It is practiced on all inhabited continents by indigenous peoples. It’s what we were all doing before the missionaries showed up. A present-day disciple of Eliade is the scholar Michael Harner, who sums up shamanism in the following way:

Shamanism is universally characterized by an intentional change in consciousness to engage in intentional two-way interaction with spirits.

Essential to shamanism is the concept of non-ordinary reality. One reaches non-ordinary reality by many routes, principally by one of the forms of ‘sonic driving,’ the principal mode of which is shamanic drumming. According to Harner, one uses a steady, monotonous beat of 205-220 times a minute. This beat, 3.4 – 3.6 beats per second, corresponds to theta EEG frequencies: conducive to the production of altered states of consciousness. Other simple routes to non-ordinary reality include musical bows,
Tibetan bowls, gongs and strobe lights—all of them acting in a manner similar to principle of the drum. Polishing crystals with emery cloth will do it, and so will tying macramé knots.

For many shamans, non-ordinary reality consists of three zones: the upper world, the middle world, and the lower world. For the shaman, the drum is his/her ‘horse,’ the vehicle that transports him/her, either to ‘lower world’ to meet a ‘power animal,’ or to the ‘upper world’ to consult with a spirit guide, or sometimes to obtain the help of ‘middle world’ spirits. According to Harner, by this time thousands of people here in the Western Hemisphere, in Europe and in Asia have participated in his workshops. Harner and his team have even made contact with shamans in Mongolia and Tuva.

And, of course, there is always psilocybin. Harner doesn’t recommend its use, probably because its action is “out of your control.” The late, great apostle of psychedelics, Terrence McKenna, compared the effect of psilocybin to a tsunami: “…from Vancouver to Tijuana, and I’ve just crawled under the desk!” In the case of drumming, the route to non-ordinary reality often involves a lot of hard work. With psilocybin however, the matter is usually taken out of one’s hands. Recently, in a cave in Western Spain, a beautiful piece of 11,000 year-old art has been found on one of the walls: mushrooms, identified by a local mycologist as psychedelic. In warning, I need to add that there are other mushrooms, ones that bear a similarity to the various ones containing of psilocybin—except that instead, they will put you on an agonizing trip to the cemetery. A thorough familiarity with the discipline of mycology is absolutely essential for the hunter of ‘magic mushrooms.’

I confess that, whatever other spirits may exist in the world, it is shamanism that raises my own little spirit. If you ask for a simple reason, I will be glad to give you a complex answer—actually it is in the form of a story. When I was a child, the world was, for me, a magical place. But it was understood at the time, that if you wanted to be an: ‘educated person,’ you had to read the great authors, and learn how to appreciate great music. My favorite composer was Jean Sibelius (1865-1957), the National Composer of Finland. A great deal of his music was inspired by: the Kalevala: the Finnish National Epic. Part of this epic tells of the adventures of Vainamoinen, who was attempting to win the daughter of Pohjola, a woman who was too much young for him. Her method of defense was to set a number of impossible tasks for him to perform; and in the process he cut himself with his own axe. Worse yet, he couldn’t stop the bleeding. So he sought out a shaman, who recited a spell, which ‘did the trick.’ He left the shaman’s ‘office,’ a healthier, and a wiser man. The thought that you might be able to affect someone’s body by reciting a spell had a magical effect on me; and as the years went by, I never, never forgot that story. The music even plays in my mind when I write these words.

The years passed, and I had to play many roles, like we all must do, on the way to becoming adults—(some of us never stop). In the process I fell under the depressing spell of mechanistic materialism. But one day when I was a graduate student, while threading my way through Detroit traffic to my laboratory, I happened to hear a lecture by a professor at the University of Michigan, who told about meeting a woman at a bus stop in Northern Finland, (she turned out to be a former student of his). The woman told him that her father was a ‘witch doctor,’ who could control the flow of blood in any vessel in his body! What a thrill that was! When you read further in this chapter you will learn that this is also one of the recognized attainments of an accomplished yogi.

To reach Michael Harner’s Foundation For Shamanic Studies, go to his e-mail address: info@shamanism.org If you wish to read more about this subject, there are two very fine books by Michael Harner:
The Way of the Shaman: (This book is now in a second edition, and my copy is a first edition, (1982), so I can’t give you the name of the present publisher). But you can easily obtain a copy at the above e-mail address. Harner’s most recent book is:
Cave and Cosmos, Northern Atlantic Books, 2013, Berkeley, CA, 94712

The Spirit World

The belief in spirits is a very old one. From ancient England to Peru, to present-day New Guinea, this belief has been ubiquitous. You probably know that the English countryside is dotted with ‘standing stones,’ menhirs. Nearly a hundred years ago it was discovered that many of them are arranged along straight lines, (ley-lines), over a distance of many miles. Similar arrangements existed in the Netherlands and in Germany: called doodwegen in the first case, Todwegen in the second. These names appear to shed light on the mystery, for the following reason: It was believed that when someone dies violently or unexpectedly, his/her spirit is confused and loiters in the vicinity of the corpse. Thus, those who bear the corpse to the cemetery must take care not to go around sharp corners, or the spirit will get ‘lost,’ and wander back to the home it had in life, thus creating a real problem in the village. When we say: “Rest in peace,” the phrase apparently has its origin in pre-Christian times, and seems to carry a different meaning from that which you were taught in the Sunday Schools. See: The Tibetan Book of the Dead, translated by Robert Thurman, and The Tibetan Book of Living and Dying, by Sogyal Rinpoche. The Tibetan monks are masters of this subject!

There is an interesting, (and recently published) book: ‘Whisperers, The Secret History of the Spirit World,’ by James H. Brennan. His argument is that, throughout history, (including very recent times), many influential persons have been influenced by what they believed to be instructions from spirits. Throughout most of the book Brennan is careful to avoid taking a position as to the veridicality of these spirit communications; he simply states what it was that these individuals claimed to be their source of advice. In short, he is skeptical, or at least very careful. He toys initially with a theory, propounded by the late Julian Jaynes, Professor of Psychology at Princeton University, one that proposes that, until historical times, the two hemispheres of the human brain acted independently of each other. Thus the right temporal lobe would, on occasion, issue instructions to the left hemisphere in the form of commands, ones that the unwitting individual, (the owner of the brain), misinterpreted as having come from the gods. This idea is not as crazy as it looks, even if it is, on the face of it, naively reductionist. If you will only scan a copy of Homer’s Iliad, you will notice that the true protagonists are the gods of the Greek pantheon. They create the script of the story, while the humans are merely actors in the play. But toward the end of his book, Brennan edges away from Jaynes, and comes down on the side of Carl Jung, who was of the opinion that, underlying our mental experiences is an ancient non-local substrate that he called the “collective unconscious,” containing a kind of collective ‘memory’ of the human race. It is an interesting book, and Brennan writes well. But neither he nor I can define exactly what a spirit is. It is merely a word. Worse yet, I cannot produce any experimental results, fortified with gigabytes of meta-analysis. Thus a certain degree of open-minded skepticism is order—but not a great deal of it.

The True Significance of Yoga

Over the past fifty years or so, the practice of yoga has sunk a deep taproot into American culture. Most of us have practiced yoga at one time or another—usually Hatha (physical) Yoga, which is a deeply relaxing form of calisthenics), made up of an impressive repertory of poses, (asanas). There have been moments, in yoga class, when we even arrive at a slightly altered state of consciousness, but this moment of euphoria is transitory, and easy to ignore—especially since, in this country the emphasis is
more on acquiring ‘the body beautiful.’ Moreover, since we have learned to associate yoga with India, we find it easy to think of it as peculiar to that country.

First, physical yoga is really only the ‘third path’ out of eight forms of controlled activity, the purpose of which is to induce within us a state of Samadhi (ecstasy). One of the pioneers in bringing physical yoga to the West was B.K.S. Iyengar. But even he stipulated that its purpose is to strengthen the body so that it can perform pranayama, that is: conscious-breathing techniques. These techniques lead us to meditation, and eventually through an altered state of consciousness, to Samadhi.

Second, we don’t know the source of yoga: where or when it originated. It may well have been the Vedic culture, (6500 BCE) which has been uncovered in the valley of the Indus River. But at present, no one can say with confidence what the actual origin of these people could be. In Indian archaeology, due to the extreme antiquity of the culture, as well as the materialist prejudices of Western scholars, all is not what it would seem to be in this game. In ancient India they showed no interest in writing history.

**Yoga and Psi: There is a Connection…**

To my knowledge, the most influential treatise on yoga is: Yoga Sutras of Patanjali, which was written around 150 CE. It comprises four sections, called padas. The third of these: vibhuti pada, deals with what Patanjali calls siddhis: (‘attainments’). Among the siddhis we not only find gifts such as telepathy, clairvoyance, precognition and psychokinesis; we also find six siddhis dealing with mind-body control. So we should not be surprised to learn that a skilled yogi will claim to be able to control the flow of blood throughout his/her body.

You will find a very sensitive, comprehensive review of this topic in Chapter 7, of Dean Radin’s marvelous book: *Supernormal*.

One more little thing: What age can we assign to Indian civilization? The customary age given by scholars to the worldwide transition from hunting and gathering to farming has been set at 10,000 years BP. This assignment seems to agree tidily with what we see “on the ground” in Western Europe, where I have crawled around in a number of Paleolithic and Neolithic sites. But there are some exceptions. Near Madras there is a splendid temple to Shiva. But there also is a much older Shiva temple—off the coast, under water. What is clear to us today is that we live in an interglacial period. Therefore the engulfed temple must be very, very old. Lazy ‘Scholars’ have set the data of the beginning of the Vedic culture of India at 1500BCE. Good luck with that! At the far western corner of India is the province of Gujarat. Off the west end of Gujarat there is a city—one that drowned. Its name is Dwaraka, and you can access it in Google. And there is more—but for another time, perhaps. One thing seems certain: Vedic India is very, very old.