

Science, Spirit, and the Wisdom of Not-Knowing

by Brian Hines

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Lady Bracknell: *...I have always been of opinion that a man who desires to get married should know either everything or nothing. Which do you know?*

Jack: *I know nothing, Lady Bracknell.*

Lady Bracknell: *...I am pleased to hear it. I do not approve of anything that tampers with natural ignorance. Ignorance is like a delicate exotic fruit; touch it and the bloom is gone. The whole theory of modern education is radically unsound. Fortunately in England, at any rate, education produces no effect whatsoever.*

Oscar Wilde, "The Importance of Being Earnest"

To know everything or to know nothing. These indeed are the choices which lie at the heart of the human condition. And herein lies the key to understanding the relation of science and spirit. One wishes to know everything, the other nothing. Surprisingly, wisdom lies in the direction of *not-knowing*. This is the theme which will run throughout my paper, which is an attempt at a sort of epistemological "marriage-counseling."

"Science" is one of the spouses. He (I can't resist the obvious temptation to make the know-it-all in this marriage masculine) has an intimate relationship with "Spirit," who also is known as Religion or Tradition, as Science could reasonably be given the *nom de plume* of Reason or Modernity.

Science and Spirit fight a lot, but this reflects how close they are, not how distant. After all, it is a commonplace that love and hate share the common denominator of "connection." To hate, or simply bicker, we have to care enough about the other person to be affected by them. Otherwise they are ignored.

Out of all the intellectual and artistic activity taking place in the early 1600s, the Catholic Church took a special interest in Galileo and his confirmations of the Copernican cosmological system. While metallurgists and mathematicians and musicians peacefully practiced their Renaissance pursuits, Galileo was hauled before the Inquisition, somewhat as a woman at a party will tolerate the roving eyes of other men but gives her own husband an earful when they get home: "you couldn't stop looking at that blonde in the tight red dress!"

Science and Spirit, after all, have a deep connection, a common bond that will never be broken: the love of truth. They each love truth so much that when one of these partners believes the other is betraying their sacred trust, they get *furiosus*.

Perhaps I'm Pollyannaish, but I enjoy the company of both Science and Spirit and am convinced that each is as sincerely committed to knowing truth as the other. Yes, the practitioners of what I like to call "material science" and "spiritual science" have their human failings, and it would be foolish not to recognize that many of the conflicts between Science and Spirit seem to involve matters of power, prestige, and pelf—not merely disagreements concerning the nature of reality.

Still, I think Huston Smith puts it nicely when he says that “our objection to regarding the physical world as a closed system is not that the view is unfortunate but that it is untrue.”¹ That is, even if the methods and advances of science are responsible in large part for the familiar “crisis of modernity,” such is not really the problem.

The problem is that, from the perspective of the perennial philosophy, science is ignoring the biggest chunk of reality—that which lies beyond the physical—in its noble, if misguided, quest to know the complete truth about all of existence. Otherwise, says Huston about science, “when it’s discoveries are freed of interpretations the facts themselves do not require, they slip into the folds of tradition without a ripple.”²

So Spirit would sum up her exasperation with Science thusly: “You can be an annoying *know-it-all!*” And in my role as marriage counselor for this couple, I have to admit that this is an understandable reaction. Some scientists, though by no means all, stretch the actual (and anticipated) accomplishments of material science beyond their genuine limits. Biologist and philosopher of science Edward O. Wilson, for example, starts with a bit of seeming humility, but ends with some unabashed intellectual arrogance: “I admit that the confidence of natural scientists often seems overweening. Science offers the boldest metaphysics of the age...notwithstanding the emotional satisfaction it gives, mysticism, the strongest prescientific probe into the unknown, has yielded zero.”³

Well, those are fighting words for an admirer of mysticism like myself, and later in this paper I will take pleasure in pointing out why Wilson is so mistaken. But as someone who “swings both ways” in regard to material and spiritual science—I am apt to leave a bookstore clutching a tome by Stephen Hawking in one hand and Meister Eckhart in the other—it must be admitted that Spirit can appear empty-headed to a scientist.

“How can we have an intimate relationship,” complains Science, “when you *don’t know anything!*” Indeed, it isn’t difficult to sympathize with Spirit’s hard-working spouse. He comes home from a hard day at the laboratory, exhausted yet exhilarated, eager to share with Spirit what he has discovered. And there she is, sitting on her meditation cushion, dinner not even started yet, eyes closed, contemplating heaven knows what. When Science tries to talk about his accomplishments she lets loose with a big yawn and: “Oh, that’s nice. I’m just not all that interested in what you do. I’ve got more important things on my mind.”

“Well, what are they?” Science asks encouragingly, though with a touch of irritation. “I can’t really say,” Spirit answers. “They’re very private. Plus, you wouldn’t understand me anyway.” Science has heard all this before. He stomps off into his study, curls up with a good physics book, and tries to remember why he ever got involved with such an airhead. Scientists, you see, often feel that *they* are the ones who are misunderstood in modern society, not believers in spiritual tradition.

Astronomer and science popularizer Carl Sagan writes in his book *The Demon-Haunted World*: “All over the world there are enormous numbers of smart, even gifted, people who harbor a passion for science. But that passion is unrequited. Surveys suggest that some 95 percent of Americans are ‘scientifically illiterate.’...Of course there’s a

¹ Huston Smith, *Forgotten Truth* (New York: HarperSanFrancisco, 1992), p. 96.

² Huston Smith, *Beyond the Post-Modern Mind* (Wheaton, Illinois: The Theosophical Publishing House), p. 92.

³ Edward O. Wilson, *Consilience* (New York: Alfred A. Knopf, 1998), pp. 12, 46.

degree of arbitrariness about any determination of illiteracy, whether it applies to language or to science. But anything like 95 percent illiteracy is extremely serious.”⁴

Sagan also observes, correctly, that “By making pronouncements that are, even if only in principle, testable, religions, however unwillingly, enter the arena of science.”⁵ This is a dangerous proposition. A lion may be king of the jungle, but will become a tasty meal if it ventures into a river full of hungry alligators. Such is the case with Spirit when she tries to challenge Science in his own domain, that of publicly verifiable propositions about the nature of physical reality.

When Wilson said that mysticism has “yielded zero,” he was referring to scientific knowledge of materiality. Now, I don’t think this is an entirely fair conclusion, having argued elsewhere that mystical tenets provide an intellectually satisfying explanation of certain enigmatic findings of the new physics, particularly in the areas of quantum theory and Big Bang cosmology.⁶ But it is best to look upon these findings as *reflections* of ultimate reality, rather than direct evidence of spiritual truths. The Copernican Revolution illustrates why metaphysics, or theology, shouldn’t be based on physics, or material science. The ageless wisdom of primordial tradition is incommensurate with ever-changing scientific theories.

This is why debates between traditionalists and scientists about the validity of the theory of evolution, which seems to stick in the craw of “believers” more than any other conclusion of modern science, appear to me to be unnecessary and counterproductive. Spirituality is all about spirit, not matter. Metaphysical truth is not affected in any way by the present state of affairs in the materialistic sciences. And it is important to remember that *maya* rules the roost in the physical domain of existence. Plotinus, a Neoplatonist philosopher and mystic, says that matter is “all seeming”:

Whatever announcement it [matter] makes, therefore, is a lie, and if it appears great, it is small, if more, it is less; its apparent being is not real, but a sort of fleeting frivolity; hence the things which seem to come to be in it are frivolities, nothing but phantoms in a phantom, like something in a mirror which really exists in one place but is reflected in another; it seems to be filled, and holds nothing; it is all seeming.⁷

So it is impossible that the purity of soul, or spirit, is going to explicitly reveal its presence in the crudity of matter. Yet this is what many spiritually-minded people seem to expect. When scientists find no evidence of any metaphysical forces influencing evolution, they are accused of fostering a Godless, one-dimensional view of reality. This is, however, exactly what mystics tell us to expect of materiality. In two words: not much. “Lay not up for yourselves treasures upon earth, where moth and rust doth corrupt, and where thieves break through and steal: But lay up for yourselves treasures in heaven.” (Matthew 6:19-20)

In a similar vein, Vivekananda says that “We are walking in the midst of a dream, half sleeping, half waking, passing all our lives in a haze. This is the fate of all sense knowledge. It is the fate of all philosophy, of all our boasted science, of all our boasted

⁴ Carl Sagan, *The Demon-Haunted World* (New York: Random House, 1995), p. 6.

⁵ *Ibid.*, p. 277.

⁶ Brian Hines, *God’s Whisper, Creation’s Thunder* (Brattleboro, Vermont: Threshold Books, 1996)

⁷ Ennead III.6.7, translation by A.H. Armstrong

human knowledge. This is the universe....Stretch your ideas as far as you can, take them higher and higher, call them infinite or by any other name you please—even these ideas are within maya. It cannot be otherwise.”⁸

Isn't it interesting that none of the great religious teachers—neither Moses, nor Jesus, nor Buddha, nor Muhammad, nor Nanak, nor Lao Tzu, nor Rumi—left behind any unequivocal facts about a hitherto unknown law of nature? Doesn't this tell us something about the stark difference between knowledge of the earth, and knowledge of heaven? If any mystic had wanted to bring about a mass conversion of 20th century scientists, all he or she would have had to do is dictate some equation, such as $E=MC^2$, to be mysteriously entered in a holy writing, and wait for this miraculous revelation to be confirmed by modern science.

That this has never happened, notwithstanding veiled hints in various teachings, should tell us one of two things: either these spiritual giants were *unaware* of the underlying nature of physical reality, or they simply *didn't care* about including such details in their message to humanity. No matter which hypothesis is true, it is clear that very little, if any, content of the perennial philosophy involves knowledge of nature's physical laws. This is why Spirit can appear so empty-headed to Science; aside from what is clearly evident to the mind and senses, she really doesn't know much about materiality.

Titus Burckhardt observes that insofar as the root of man's soul, or intellect (distinguished, of course, from “reason”), reaches up to the highest spiritual realities, we are capable of knowing the supreme essence. But knowledge of lower realities is not, it seems, usually an aspect of principial wisdom concerning the cosmos:

He [man] can ‘measure’ its whole ‘vertical’ dimension, and in this respect his knowledge of the world can be adequate in spite of the fact that he will necessarily be ignorant of much, or even nearly all, of its ‘horizontal’ extension. It is thus perfectly possible for traditional cosmology to convey, as it does, a knowledge that is real and incomparably vaster and more profound than that offered by the modern empirical sciences, even while entertaining childish, or more precisely ‘human,’ opinions about realities of the physical order.⁹

The fixed concentric spheres of classic Greek cosmology thus are to be viewed metaphorically, not literally. They are “true” in the sense of pointing toward the reality of eternal realms of higher consciousness, but “false” in regard to our actual universe. So if one could see the entire majestic truth of existence with the eye of the soul, what appear to be simple-minded religious myths would take on a completely different meaning. A typical scientist, however, is inclined to agree with the words of the Sufi mystic Jalaluddin Rumi: “But dear soul, one cannot live in ‘if.’”¹⁰ Science wants the hard coin of demonstrable proof, not the intangible currency of metaphors and similes.

Well, so does Spirit. However, the non-symbolic nature of the metaphysical knowledge she is seeking means that her proof will be private, not public, as it is for Science. And herein lies the key to fostering mutual understanding between Science and

⁸ Swami Nikhilananda, ed., *Vivekananda: The Yogas and Other Works* (New York: Ramakrishna-Vivekananda Center, 1953) p. 233.

⁹ Jacob Needleman, ed., *The Sword of Gnosis* (London: Arkana, 1986), p. 124.

¹⁰ A.J. Arberry, trans., *Tales from the Masnavi* (Richmond, England: Curzon Press, 1993), p. 107.

Spirit. This relationship, it must be stressed, is both macrocosmic and microcosmic. That is, science and spirituality exist *out there*, in the external world of organized religions, professional associations, churches, temples, and laboratories, and also *in here*, within the mind and consciousness of every person.

Each of us possesses the dual faculties of reason and intuition, of centrifugal spreading-out and centripetal turning-in, of sensual passion and spiritual longing. Everyone possesses a unique mixture of what might, with excessive simplification, be called “left-brainness” and “right-brainness,” or “yangness” and “yinness.” This is what produces the fascinating profusion of personality types. (As an aside, a wise spiritual teacher was once asked a question that began: “It seems that there are two types of people... “ He cut the questioner off, saying “No, there are as many types of people as there are people.”)

It thus becomes difficult to understand each other, especially when the other is so seemingly different from me. It also is as difficult, if not more so, to understand *myself*, because I am not one person, but several. And it is reasonable to call the two halves of myself which beg for union, Science and Spirit.

I enjoy the world outside of me, and I also enjoy the world inside of me. If only the two were continually in harmony, so that one always supported the other. I enjoy reasoning with discursive thought, and I also enjoy meditating (or, more accurately, trying to meditate) with intuitive perception. If only the two never interfered with each other, so that thinking and not-thinking could be turned on and off like a light switch. I enjoy the delights of the senses, and I also enjoy the bliss of spirit. If only each could take its rightful place in the “pleasure palace” of my psyche, such that enjoyment of one did not detract from enjoyment of the other.

Ken Wilber begins his book, *The Marriage of Sense and Soul*, by saying that “There is arguably no more important and pressing topic than the relation of science and religion in the modern world.”¹¹ Amen. And also inside each human being. Given that Science and Spirit both agree that a hidden unity underlies the seeming separateness of existence, it is senseless to tolerate unproductive and painful divisions, whether they be within or without ourselves.

There are, though, right and wrong ways to heal a splintered relationship. One can paper over differences, creating a fragile illusion of togetherness where none actually exists. This is what psychologist David Schnarch calls “fusion.”¹² It is connection without individuality. Essentially one or both of the partners in the relationship enter into a fantasy that “two have become one.” Now, this would be wonderful if it was really true. Union is the goal of both romantics and mystics. The problem, though, is that an artificial joining results in less genuine connection than would an authentic recognition of differences.

An intimate relationship requires each partner to be who he or she truly is. Putting on a false face is common—many marriages are born, live, and die in lies and falsehoods—but how can someone know me if I do not let them see me as I am, rather than how I think (usually falsely) they want me to be? Thus, says Schnarch, *differentiation* lies at the heart of a passionate and happy marriage. Both people first are true to themselves; only in this way can they truly reveal themselves to the other.

¹¹ Ken Wilber, *The Marriage of Sense and Soul* (New York: Random House, 1998), p. 3.

¹² David Schnarch, *Passionate Marriage* (New York: W.W. Norton & Co., 1997), p. 57.

This also is Wilber's conclusion as regards the relation of science and religion, and I agree with him. Wilber writes:

Various scholars, from Max Weber to Jürgen Habermas, have suggested that what specifically defines modernity is something called 'the differentiation of the cultural value spheres,' which especially means the differentiation of art, morals, and science. Where previously these spheres tended to be fused, modernity differentiated them and let each proceed at its own pace, with its own dignity, using its own tools, following its own discoveries, unencumbered by intrusions from the other spheres.¹³

Science and religion, in other words, went their separate merry ways, pleased when they could relate to each other, and not particularly disturbed (especially in the case of Science) when they couldn't. No more major conflicts like the trial of Galileo; just a few minor skirmishes like the Scopes trial (which concerned the teaching of evolution), almost all handily won by the increasingly dominant force of science.

The rise of modernity is generally viewed with distaste by "traditionalist" thinkers such as Guenon, Coomaraswamy, and Schuon, whose writings, I readily admit, I am not greatly familiar with. So it is with more than a little trepidation that I venture this opinion: modernity does not seem to be as villainous and destructive as it often is made out to be, and even if it is, we now have to live with the situation in which we find ourselves. It is difficult to imagine the modern world, or even any substantial part of it, transforming into a genuine traditional culture. And this isn't a bad thing.

William Quinn, in his book *The Only Tradition*, discusses what he considers to be the last truly "traditional" culture, medieval Christendom. Maybe I'm missing something, but this description of the times doesn't strike me as particularly appealing, or even genuinely spiritual:

The cultural norm was to imbue and perceive in the most trivial and seemingly insignificant task a link to the sacred whole, "God's plan," thus transforming that task into something significant of the great (hieratic) chain of being (and becoming). Barbara Tuchman writes that "Christianity was the matrix of medieval life: even cooking instructions called for boiling an egg 'during the time you can say a Miserere.' It governed birth, marriage, and death, sex, and eating, made rules for law and medicine, gave philosophy and scholarship their subject matter."¹⁴

This bears an uncomfortably close resemblance to the vision of Christian fundamentalists in the United States, who write frequent letters to my local newspaper calling for a return to the "values on which this country was founded" (translation: they want everyone to believe just the way they do, and government should make sure that those beliefs become the law of the land). I agree, with Wilber, that while modernity has created many problems, it also has brought many benefits: democracy, scientific advances, the end of slavery, freedom of artistic expression. How many readers truly would prefer to live in 12th century France (as a serf, not a noble) rather than 20th century America, Canada, England, or any other modern culture?

¹³ Wilber, *Marriage of Sense and Soul*, *op.cit.*, p. 11.

¹⁴ William Quinn, *The Only Tradition* (Albany, New York: SUNY Press, 1997), p. 220.

If the clock whose hands now point squarely at the differentiations of modernity isn't going to be turned back to the fusions of tradition, then we need to make do with what we find in the present moment. Science and Spirit are not going to become one again, assuming they ever truly were. As the counselor of this couple, I say to them: *Be yourselves. Don't worry so much about what your partner thinks. Pursue your own dreams. Share what you can. Appreciate and respect your spouse while remaining true to yourself. Enjoy your differences as much as your similarities.*

Philosopher Paul Feyerabend speaks of "guided exchanges" and "open exchanges" between those who observe contrasting traditions, as is the case with Science and Spirit. A guided exchange is one-sided, favoring the point of view of one or the other of the participants. When a response corresponds to the standard of that perspective, such as "rational discourse" (a favorite of Science), then it is accepted. If the offending party declines to participate on those terms, says Feyerabend, he "will be badgered, persuaded, 'educated' until he does—and then the exchange begins."¹⁵

An open exchange has a much more attractive and egalitarian flavor to it: "The participants get immersed into each other's ways of thinking, feeling, perceiving to such an extent that their ideas, perceptions, world-views may be entirely changed....An open exchange respects the partner whether he is an individual or an entire culture, while a rational exchange promises respect only within the framework of a rational debate."¹⁶

Various centers have been formed to promote communication and understanding between science and religion. Two of these are the Institute of Noetic Sciences and The Center for Theology and the Natural Sciences. As a member of these organizations, I regularly receive bulletins which contain learned papers, notices of upcoming conferences, book reviews, and synopses of research projects. The general tone of this material is quite scholarly and scientific.

A recent article in the *Noetic Sciences Review* even contained impressive-looking charts and statistical analyses purporting to demonstrate (among other things) that the half-billion people worldwide who watched or listened to the O.J. Simpson trial verdict managed to affect several random number generators through their concentrated attention, and in my case, outrage.¹⁷

Fascinating stuff, but I seriously question whether this sort of activity is bringing Science and Spirit closer to real understanding. It reminds me of a man who tells his wife that he wants them to be more intimate, then takes her to a football game. There's nothing wrong with this, but she would be well within her rights to also demand a post-game candlelight dinner at a romantic restaurant.

I am wary of too much forced intimacy between science and spirituality, especially when this seems to be occurring largely on Science's terms. When as many physicists are practicing daily meditation as clergy are reading articles on "the relation of theology and natural law," then I'll be less skeptical that most of the interplay taking place between Science and Spirit nowadays falls in the category of a "guided exchange," and it isn't Spirit who is doing the guiding.

¹⁵ Paul Feyerabend, *Against Method* (London: Verso, 1997), p. 269.

¹⁶ *Ibid.*

¹⁷ Dean Radin, "Moving Mind, Moving Matter", *Noetic Sciences Review*, Institute of Noetic Sciences, Summer 1998.

The best communication between two people occurs when one partner reveals himself or herself openly, honestly, and self-critically not out of a motivation to change the other person to his or her way of seeing things, but simply because it is the truth (or, at least, perceived truth). This is what Schnarch calls “self-validated intimacy.” We disclose ourselves with no expectation of acceptance or reciprocity from our partner.¹⁸

In this spirit, I’d like to share some examples of such revealing, focusing mostly on Science because he generally is taken, by Tradition at least, to be the problem in this relationship. When scientists speak frankly about what they know, what they don’t know, and what they will never know, does Science come across as the over-confident know-it-all he often is made out to be? In other words, how ingrained is the annoying personality defect of “scientism” in his psyche?

The symptoms of scientism are clearly delineated in the literature of Tradition. Huston Smith says that it “goes beyond the actual findings of science to deny that other approaches are valid and other truths true.”¹⁹ Frithjof Schuon writes that criticism of modern science “is made on the grounds that it claims to be in a position to attain to total knowledge, and that it ventures conclusions in fields accessible only to a supra-sensible and truly intellectual wisdom, the existence of which it refuses on principle to admit.”²⁰ And taking a positive approach, Seyyed Hossein Nasr holds that one way modern science could be integrated into a higher form of knowledge would be for it “to accept the limitations inherent in its premises and assumptions.”²¹

So essentially scientism is considered to be an over-reaching of Science, an excessive and unwarranted confidence in the capability of the “scientific method” such that the validity of any other approach to knowledge is dismissed out-of-hand. This assumes, of course, that such a method actually exists and can be defined. Otherwise, scientism doesn’t have much of a leg to stand, with false pride, on.

A strong argument could indeed be made that the scientific method is a chimera, and Feyerabend does this in his book, *Against Method*.²² Even though physicist Roger Newton thinks that Feyerabend overstates the case that “anything goes” in science, Newton says that Percy Bridgman (“a great physicist with a philosophical bent”) defined the essence of the scientific method in a similar vein: “to use your noodle, and no holds barred.”²³ Nevertheless, it seems reasonable to agree with Newton that no matter what methods are used by scientists in their investigations, “The one general theme that runs through all the sciences is that they rely on *evidence accessible to others*.... Ultimately the test of an idea is empirical and *public*.”²⁴

Publicly-accessible empirical evidence thus separates scientific truth from other forms of knowledge. To put the matter simply: if I can prove to you that I know something, then

¹⁸ Schnarch, *Passionate Marriage*, *op.cit.*, p. 106.

¹⁹ Smith, *Forgotten Truth*, *op.cit.*, p. 16.

²⁰ Seyyed Hossein Nasr, ed., *The Essential Writings of Frithjof Schuon* (Rockport, Mass.: Element, 1986), p. 498.

²¹ Seyyed Hossein Nasr, *Knowledge and the Sacred* (Albany, New York: SUNY Press, 1989), p. 115.

²² Feyerabend, *Against Method*, *op.cit.*

²³ Roger G. Newton, *The Truth of Science* (Cambridge, Mass.: Harvard University Press, 1997), p. 119.

²⁴ *Ibid*, p. 120.

I am using the scientific method. The question then becomes: are there limits on what can be proven?

The unequivocal answer, and this comes from Science himself, is “yes.” Thus falls in an instant half of the support for a diagnosis of scientism. The other half (that even if science is limited, no one else can go beyond those limits) still must be addressed. For now I’ll let Science, who increasingly is coming to seem like a fairly humble guy, share some revealing doubts about his own capabilities.

Astronomer John Barrow has explored what he calls “the limits of science and the science of limits.” In his book, *Impossibility*, he stresses that if some things were not impossible, the universe as we know it could not exist. For example, if there was no limit to the speed of light, “then radiation of all sorts would be received simultaneously after it was emitted, no matter how far away its source. The result would be a reverberating cacophony...The impossibility of transferring information faster than the speed of light makes it possible to discriminate and organize any form of information.”²⁵

However, knowing something makes it impossible to know everything. For example, since the Big Bang expanded the boundaries of our universe more rapidly than the speed of light (space is not restricted to light’s speed limit), this means that we can never know what lies outside of our visible horizon. Barrow concludes that “this prevents us from making any testable statements about the initial structure, or the origin, of the whole Universe”²⁶ since what is beyond our horizon might be quite different from what is within.

Further, the most popular (for the moment) explanation of the Big Bang is founded on “inflation.” Not monetary, but cosmic. This theory holds that when the universe was very young and very small, it supposedly inflated at an extremely rapid rate from the size of a sub-atomic particle to that of a grapefruit (modern cosmology, it must be admitted, manages to create some wonderful mental pictures), and thence continued expanding at a more sedate pace.

Inflation answers some puzzling questions about the universe, such as why its shape seems to be so “flat,” but introduces a huge limit to scientific knowledge. For if inflationary theory is true, the cosmos began in sort of a frothy quantum foam, then expanded suddenly and enormously—somewhat like blowing on a tiny film of soap produces many larger bubbles. We exist in one of these Big Bang “bubbles,” which we fondly consider to be The Universe (or Reality). However, inflationary theory predicts that forever outside of our ken are countless other universes, which may well contain conscious beings who ponder the possibility of *our* existence. Each universe, physicists theorize, probably would have different constants of nature, and hence different natural laws.

So not only are scientists unable to know about the whole of our own universe, they are doomed to ignorance about other domains of material reality that are hypothesized to exist. Well, if Science can’t know about everything in physical existence, at least it can know everything about something, right? Wrong.

Gödel’s Theorem and the Uncertainty Principle are two of the barriers to complete knowledge that are painfully evident to modern science. While these are just difficult-to-

²⁵ John D. Barrow, *Impossibility* (Oxford: Oxford University Press, 1998), p. 25.

²⁶ *Ibid*, p. 160.

understand ideas for laypeople like myself, professional scientists with a philosophical bent agonize deeply over their implications for scientific progress.

Mathematician Kurt Gödel's ironclad demonstration that (as physicist Paul Davies puts it) "there will always exist true statements that cannot be proved to be true"²⁷ struck a blow to the heart of the scientific method, insofar as it claims to be capable of fully knowing the truth about existence. Barrow says that science now realizes that "All that can be known is all that can be known, not all that is true."²⁸

However, this depressing conclusion really only applies to self-contained systems of knowledge—which implies that Gödel's Theorem opens up the windows of the house of Science to the fresh air of other methodological approaches. In the words of science writer John Boslough: "The proof for the validation of a system could not be established from within the system. There must be something outside the theoretical framework—whether the framework was mathematical, verbal, or visual—against which a confirming or disconfirming test could be made."²⁹

Somewhat similarly, Heisenberg's Uncertainty Principle forbids exact knowledge in the quantum realm of complementary pairs of concepts (like position and velocity, or energy and time). This is not so much a consequence of measurement affecting what is being measured, such as shining a light on an electron to find out its location and thereby causing its velocity to change, but is a fundamental restriction on man's ability to know with unbridled accuracy what sort of reality holds true at the atomic and sub-atomic level.

I look on both Gödel's Theorem and the Uncertainty Principle as part of an unambiguous message Nature is delivering to Science: an impenetrable barrier stretches all the way across science's road to complete understanding of physical reality, and a sign on top says "Stop! No self-consistent logic and no senses allowed past this point!"

No self-consistent logic? No senses? Why, what is Science to do at the limits of material knowledge without the tools of his trade? This realization has led many scientists to an appropriate humility, which occasionally sounds like downright dejection. Chemist Brian Silver says, "My feeling is that the attempt to understand the basic nature of reality may well be a losing game. It could be that we have reached, or are fast approaching, the limits of human comprehension. Dare I suggest that we may never be capable of forming a 'commonsense,' easily visualized picture of what we choose to call reality? Perhaps because we are part of the system or because we haven't got the right [conceptual] hardware."³⁰

It is difficult to find a trace of "scientism" in these words, nor in Carl Sagan's admission that "There is much that science doesn't understand, many mysteries still to be resolved...Scientists may reject mystic revelations for which there is no evidence except somebody's say-so, but they hardly believe their knowledge of Nature to be complete."³¹ Sagan certainly is open to the possibility that Spirit can know things about reality that Science does not (in fact, he finds some dubious experimental support for reincarnation and ESP.) He just wants some real proof.

²⁷ Paul Davies, *The Mind of God* (New York: Simon & Schuster, 1992), p. 103.

²⁸ Barrow, *Impossibility, op.cit.*, p. 11.

²⁹ John Boslough, *Masters of Time* (New York: Addison-Wesley Publishing Co., 1992), p. 224.

³⁰ Brian L. Silver, *The Ascent of Science* (New York: Oxford University Press, 1998), p. 505.

³¹ Sagan, *The Demon-Haunted World, op.cit.*, p. 27.

Other scientists go considerably further in their embrace of “non-scientific” ways of knowing.³² Physicist Paul Davies writes:

Is there a route to knowledge—even “ultimate knowledge”—that lies outside the road of rational scientific inquiry and logical reasoning? Many people claim there is. It is called mysticism....Many of the world’s finest thinkers, including some notable scientists such as Einstein, Pauli, Schrödinger, Heisenberg, Eddington, and Jeans, have also espoused mysticism....I have never had a mystical experience myself, but I keep an open mind about the value of such experiences. Maybe they provide the only route beyond the limits to which science and philosophy can take us, the only possible path to the Ultimate.³³

The other half of the evidence for scientism, that Science believes he alone is capable of gaining objective knowledge about existence, thus seems to me to be lacking. As an avid reader of popular science books, I am continually impressed by the openness, sincerity, and evident love of truth exhibited by the authors (who while not representing all scientists, do, I believe, reflect the highest ideals of science). Yes, Science can at times fall prey to scientism. And Spirit is equally prone to dogmatism. But both are fundamentally “good people.”

So the question remains: why do Science and Spirit have so much trouble understanding each other? If it isn’t because Science has a know-it-all attitude, maybe the answer is simply that they look at the world in completely different ways. They always have; they always will. And this is the way it should be. *Vive le difference*. One wishes to know everything, one nothing. Both are wise in their own fashion.

Paul Erdos was a crazed and highly talented mathematician who has been called perhaps the world’s worst houseguest. An associate, Michael Jacobson, describes how Erdos came to visit him, and they did mathematics until early in the morning. Then Jacobson stumbled off to bed, only to hear pots banging in the kitchen at 4:30 am. It was Erdos telling him to get up. When he came downstairs about 6:00, “What were the first words out of his mouth? Not ‘good morning’ or ‘How’d you sleep?’ but ‘Let n be an integer. Suppose k is...’ I was half-naked, with just a bathrobe on and my eyes blurry and partially shut. I drew the line there. I told him I couldn’t do mathematics before I took a shower.”³⁴

Erdos spent most of his waking life doing mathematics, and he slept only a few hours a night. His intense longing to know mathematical truth reminds me of the anonymous nineteenth-century Eastern Orthodox Russian who wrote *The Way of a Pilgrim*. Instructed in the practice of prayer without ceasing, he constantly repeated “Lord Jesus Christ, have mercy on me” throughout his travels. He writes, “I did this at first for an hour at a time, then for two hours, then for as long as I could, and in the end almost all day long.”³⁵

³² See pp. 87-89 in Hines, *God’s Whisper, Creation’s Thunder*, *op.cit.*

³³ Davies, *The Mind of God*, *op.cit.*, pp. 226,231.

³⁴ Paul Hoffman, “Man of Numbers,” *Discover* magazine, July 1998, p. 122.

³⁵ R.M. French, trans., *The Way of a Pilgrim and The Pilgrim Continues His Way* (New York: Ballantine Books, 1977), p. 30.

The difference, of course, is that the mathematician would wake up thinking, and then think all day long—about mathematics. The pilgrim would wake up *not-thinking*, other than to repeat the Jesus prayer, and then continue to refrain from thinking insofar as he was able. Here we reach the core of what distinguishes Science and Spirit: one wants to know more and more about the world; the other less and less.

There are various ways to explain the reason for these contrasting ways of being. I will attempt several, beginning with a conceptual cornerstone of modern physics, *symmetry*. Symmetry, to a physicist, doesn't have only the usual commonsense connotation of "balanced," as when we say the two sides of a person's face are symmetrical. It really means "invariant," constant, unchanging. Symmetry, says science writer K.C. Cole, "lends a satisfying concreteness to the vague sense that there is beauty in truth, and truth to beauty....Beauty in the mathematical sense is a lot more than a pretty face. It is a way of distilling the essence of things out of the messy mix that nature presents us."³⁶

Something is highly symmetrical if, no matter how much you try to change it, it remains constant. Truth, after all, is eternal. The laws of nature are symmetrical because they never change. Yesterday, today, tomorrow: gravity and electromagnetism are the same, acting the same way, so far as is known, in every corner of the universe.

At the moment of creation, which Science calls the Big Bang, physical existence was virtually completely symmetrical, a formless void of unbelievably potent energy. The known laws of nature, and all the forms of matter and energy on which those laws act, are considered to have resulted from *broken symmetry*. This is an abstruse subject. Yet the basic message of Science is clear: what was one became many. Some fundamental "stuff" of existence, primordial matter, became differentiated into all that now surrounds us. Cole writes, "Everything from tiger tails to rose petals result from a breaking of perfect symmetry—just enough breaking so that we see a pattern, but not so much to destroy it completely."³⁷

One is reminded of Tradition's basic dichotomy of form and matter, a truth that has remained invariant itself from ancient Greek times to the present. What is most real is form; much less real is matter, because it is constantly changing under the impress of forms, as a piece of wax accepts the imprint of a king's seal. All the advances of modern science have only served to confirm this timeless wisdom: there is a stark distinction between the unchanging laws of nature, which flow from "Platonic" forms evident only on an elevated domain of existence, and the ephemeral shapes assumed by matter and energy on our material plane.

Regardless of his or her expressed philosophy of life, almost every scientist is a Platonist at heart. How could it be otherwise? Wherever Science probes into physical reality—discrete atoms, clusters of galaxies, the human mind—regularities are observed. Once confirmed by repeated experiment and connection to already-recognized theories, such regularities are christened a "law of nature." And where, pray tell, do these laws reside? Strangely, I rarely find any mention of this all-important question in the science books which I so eagerly peruse.

Where are the laws of nature? I often feel like screaming this question from my rooftop (which I would, if any scientists lived nearby), and I suppose I'm doing just that

³⁶ K.C. Cole, *The Universe and the Teacup* (New York: Harcourt Brace & Company, 1998), pp. 173,174.

³⁷ *Ibid.*, p. 188.

(metaphorically) in this paper. I desperately want to know the answer, or at least the best guess, of Science. This question isn't at all theoretical. It is, literally, a matter of life and death for me, as for you. Since everything in the universe changes except for the laws that cause everything to change, when I die I want to fall into the lap of what is eternal, not ephemeral.

Some people believe that the atoms which make up our physical body are our only stake in eternity (they are continually being recycled; we are, Science tells us, made of supernova residue, stardust). This, however, is little comfort for me. Was it Woody Allen who said, "I don't want my art to live on after I die. I want *me* to live on after I die"? While this may sound egotistical, I, along with most other people, would dread existing for eternity in the guise of their present personality. Such would be an existential nightmare. No exit, from my own imperfect and frequently-aggravating self.

The hugely encouraging teaching of Tradition is that man, the microcosm, reflects cosmos, the macrocosm. What is within is without. The soul-drop that is the essence of our being can become the ocean of the One, as the ocean becomes the drop (a highly symmetrical concept, by the way). The unreality of a unique personality is dissolved in that unity which produces, through *maya*, the illusion of manyness. Schuon says that "the Intellect coincides, in its innermost nature, with the very Being of things....It is Existence that is real, not things; substance, not its accidents; the unvarying, not the variations."³⁸

Thus Spirit seeks to know, or better, *become*, the unbroken symmetry that preceded Creation. Science seeks to know, for Intellect can never become formless matter, the whys and wherefores of broken symmetry. Both pursuits are noble. Yet only Spirit is able to arrive at the highest truth. And Science, deep down, knows this, if he could only admit it to himself. We have seen that scientists despair at ever understanding the complete truth about existence. They should, for such is impossible given the methodological approach of Science.

Science is adept at putting together the jigsaw puzzle of materiality, all the pieces scattered hither and yon by the broken symmetry of Creation. It is as if a beautiful vase had fallen off a table and shattered into countless shards. Some of those pieces, we have seen, are out of reach of Science; others are too small to pick up, or have fallen down the holes of Gödel's Theorem, the Uncertainty Principle, and all the other mischievous devices Nature uses to humble Science (or, some scientists might say, to drive him crazy).

Science has a dream: to someday be able to fit together as many facts about materiality into a satisfying, if incomplete, picture. This is what Edward O. Wilson calls *consilience*, the intrinsic unity of knowledge. Again, such is an admirable goal. And the methods of Science are well-suited to this end.

Because the puzzle of existence has so many pieces, and there is no way of knowing (outside of revelation or direct mystic experience) what the original design of the Puzzle Maker looked like, it makes sense to have as many minds as possible working on this almost intractable problem. When someone fits together a few shards of material knowledge into a seemingly coherent pattern ("I have a theory!"), it also is prudent to have this potential advance checked over by others. Anyone who has tried to assemble a

³⁸ Frithjof Schuon, *Gnosis* (Bedfont, England: Perennial Books, Ltd., 1990), pp. 24, 91.

complex jigsaw puzzle knows how tempting it is to try to squeeze together two pieces which don't really fit with each other, but oh, how nice it would be if they did.

Science thus is empirical, because it is dealing with bits of knowledge that pertain to observable reality (notwithstanding that Huston Smith correctly observes that “science speaks increasingly of the invisible, and does so respectfully.”)³⁹ And Science is public, because it needs the cross-checking of many reality-assemblers. The job is simply too enormous, too important, and too complex to be left to individual initiative and subjectivity. Scientists respectfully act in accord with their own tradition, in their own way, just as the religiously-minded honor a spiritual Tradition.

Mathematics lies at the core of science's methodological tradition, and this too is entirely appropriate. “The power of mathematics,” says Newton, “resides in its versatility in dealing with an enormous variety of connections between things, concepts, and ideas.”⁴⁰ In a sense we could call it the “glue” which holds together the pieces of the puzzle which Science is trying to fashion into a meaningful pattern. But, and this is tremendously important, Nature herself does not seem to utilize mathematics in any fashion recognizable to the normal human mind. In Newton's words, “Mathematics is not embedded in the structure of reality, but we require the help of its power to penetrate and describe that reality.”⁴¹

Well, Science does. But Spirit is determined to know reality from the inside, as it were. Spirit is much less concerned with understanding the connections between all the bits and pieces of mind and matter in the world—thoughts and things—than with the source of this marvelous play of existence. She wants to know the playwright, not the script. In the words of Jalalludin Rumi, “That voice which is the origin of every cry and sound: that indeed is the only voice, and the rest are only echoes.”⁴²

Words, numbers, concepts, formulas, ideas, beliefs, hypotheses—these, and all the other paraphernalia of everyday human cognition, are pale reflections of whatever mysterious means Nature uses to keep Creation running in such marvelous order. So does it make sense to try to comprehend even physical existence, not to mention higher domains of consciousness, with such woefully inadequate tools?

Mathematician John Casti notes that many obvious limitations on science's ability to know (such as Gödel's Theorem and the Uncertainty Principle) actually are “limitations imposed by *models* of the real world rather than provable limitations about what can be known and/or done in the real world itself.”⁴³ How true. Nature gets along just fine without any observable computational or “thinking” capacity. Hmmm. Is there a lesson here for Science?

Casti provides several examples of how Mother Nature breezes effortlessly through housekeeping tasks that completely stump the vaunted intelligence of Science. Here is one: the proteins that make up every living organism fold up into specific three-dimensional structures that determine their function in the organism. It takes merely a

³⁹ Smith, *Forgotten Truth*, *op.cit.*, p. viii.

⁴⁰ Newton, *The Truth of Science*, *op.cit.*, p. 135.

⁴¹ *Ibid.*, p. 141.

⁴² Camille and Kabir Helminski, trans., *Rumi—Daylight* (Putney, Vermont: Threshold Books, 1990), p. 55.

⁴³ John L. Casti and Anders Karlqvist, ed., *Boundaries and Barriers* (New York: Addison-Wesley Publishing Co., 1996), p. 13.

second or so for proteins with several thousand amino acids to fold into their final configuration. Yet Casti says that “when we try to simulate this folding process on a computer, it has been estimated that it would take 10^{127} years of supercomputer time to find the final folded form for even a very short protein consisting of just 100 amino acids.”⁴⁴ He asks, “How does nature do it?”

Good question. No, a great question. This gets back to my own query, “Where are the laws of nature?” Tradition, of course, has an eminently reasonable and entirely scientific response to both of these questions: Nature can do what she does because Intelligence pervades the cosmos, and on the material plane of reality this Intelligence—or Intellect—manifests as the physical laws of nature. These laws obviously are not physical themselves, or scientists wouldn’t have so much trouble discovering them. Nor are they overtly logical or mathematical (in human terms, at least), because Nature clearly functions in a non-discursive manner—instantly and “intuitively,” not by reasoning step-by-step.

How then, could it ever be possible to know this Intelligence directly, moving beyond the evident limitations of Science? As Rumi puts it, “Know real science is seeing the fire directly, not mere talk, inferring the fire from the smoke.”⁴⁵

Well, at the edges of scientific understanding we are able to get a glimpse of how Spirit is able to move beyond the limitations of her partner in truth-seeking, Science. Earlier it was noted that symmetry is a scientific reflection of the Platonic adage that beauty is truth, and truth beauty. Plotinus writes, “For this reason it is right to say that the soul’s becoming something good and beautiful is its being made like to God, because from Him come beauty and all else which falls to the lot of real beings. Or rather, beautifulness is reality.”⁴⁶

And what is the most symmetrical—hence the most beautiful, the most true, the most unchanging—thing of all?

Nothing.

Cole says, “Physicists sometimes describe ‘nothing’ as a state of perfect symmetry.” Further, “some physicists think that matter came into being when ‘stuff’ froze out of ‘nothing,’ just as a crystal ice cube freezes out of the amorphousness of water. They use mathematics to search for the broken symmetry that turned nothing into us.”⁴⁷

Good luck, Science, in that search. You may find equations that describe the symmetry-breaking process, but you will never know the “nothing” from which everything else has come. Nothing cannot be understood, or revealed, by something. The macrocosmic Nothing, universal Intelligence, that underlies all of physical and mental reality can only be known by the microcosm, individual intelligence, becoming Nothing. Nothing is known by Nothing, and this is the greatest wisdom.

To some, this talk smacks of irrational mystic blathering, New Age claptrap. It is nothing of the sort. Mystic practice has always been the source of ageless Traditional truth, currently largely unrecognized by modern science, but the truth nonetheless. Huston Smith reminds us that “The comparably specialized way [compared to mathematics] of

⁴⁴ *Ibid.*, p. 27.

⁴⁵ E.H. Whinfield, trans., *Teachings of Rumi* (London: The Octagon Press, 1989), p. 306.

⁴⁶ Ennead I.6.6, translation by A.H. Armstrong.

⁴⁷ K.C. Cole, *The Universe and the Teacup*, *op.cit.*, p. 180.

knowing reality's highest transcorporeal reaches is the mystic vision. The word 'mystic' derives from the Greek root *mus*, meaning silent or mute...by derivation unutterable, which is the respect the word lends itself here."⁴⁸

There is indeed a seeming paradox in Spirit's quest to know the reality of everything by becoming nothing. One is reminded of Tradition's law of inverse analogy, described by Schuon as the reversal of the analogy between the principial and manifested orders. Thus what is principally great will be manifestly small; what is inward in the Principle will be outward in Manifestation.⁴⁹ So this law requires us to know nothing if we desire to know everything. "But many that are first shall be last, and the last first." (Mark 10:31) "And whosoever of you will be the chiefest, shall be servant of all." (Mark 10:44)

Piet Hut is an astrophysicist with a keen appreciation of the connection between physical and metaphysical truths. In a fascinating essay, "Structuring Reality: The Role of Limits," he observes that even in the investigation of material reality various structures (including cellular, molecular, atomic, subatomic) "seem to inhabit separate worlds: when we go up or down one level of description, the previous level seems to have disappeared beyond recognition."⁵⁰

Thus to know a deeper level of reality, one must "not-know" the shallower level. If Science had spent all his time delving into the molecular nature of things, the more fundamental workings of the quantum world would have gone undiscovered. Nevertheless, many people understandably are skeptical that digging deeper and deeper into less and less will ever uncover the mysteries of ultimate reality. This *seems* to be the pitfall of reductionism, but Hut argues persuasively for a sort of "reductionism/expansionism" that meshes well with Traditional teachings.

When matter is reduced to its most basic elements—electrons, neutrons, and protons (the latter two being composed of even tinier quarks)—it seemed to classical physics that there was no place else to go. But the "new physics" revealed the existence of quantum fields that pervade the entire universe, and relativity theory demonstrated that matter and space are closely linked (gravity is considered to be the curvature of space produced by the presence of matter). So the presence of material particles, says Hut, "requires a corresponding field that fills the whole of the Universe."⁵¹

He adds, in a wonderful image: "It is as if the smallest peeping hole suddenly has given us a view of the largest scales. By trying to brush a crumb from the table, we run into a surprise: what looked like a crumb turns out to be a pattern that is woven into the table cloth. We find ourselves pulling the whole table cloth with us, together with everything that seemed to rest on it."⁵²

After looking in a similar fashion at "time" and "experience," Hut suggests a working hypothesis—which for Tradition is a certainty. *Perhaps knowledge is an inherent dimension of reality, at least as fundamental as time and space.* This means that knowledge isn't something that is manufactured by the human mind out of unconscious matter and energy (a strange circular notion, given that this very mind is considered by

⁴⁸ Smith, *Forgotten Truth*, *op.cit.*, p. 110.

⁴⁹ James S. Cutsinger, *Advice to the Serious Seeker* (Albany, New York: SUNY Press, 1997), p. 114.

⁵⁰ Casti and Karlqvist, ed., *Boundaries and Barriers*, *op.cit.*, p. 152.

⁵¹ *Ibid.* p. 154.

⁵² *Ibid.*

Science to be made of the same matter and energy). Rather, Intelligence pervades the cosmos, and is revealed in a multitude of ways depending upon the level at which it is perceived.

One tradition may describe these levels as matter, mind, and soul. Another as physical, astral, causal, and spiritual. Another as simply earth and heaven. The words that are used are not important. Reality is really real. It is not affected by human language, notwithstanding the wrangling and conceptual hair-splitting of theologians. Further, non-material realms of existence cannot be known by what Wilber calls the “eye of flesh” (empirical perception) and the “eye of mind” (rational thought). Only through the “eye of contemplation” (mystical gnosis) is genuine spiritual truth revealed.

Similarly, Schuon says that “a distinction has to be made between terrestrial thought, aroused by the environment and finding its term within the environment, and celestial thought aroused by that which is our eternal substance and finding its term beyond ourselves and, in the final analysis, in the Self. Reason is something like a ‘profane intelligence.’”⁵³

Why profane? Partly because much of our supposed “abstract” thinking actually is rooted in thoroughly concrete, and materialistic, images. Psychologist Bernard Baars notes, for instance, that when people educated in the United States dwell on the term “democracy,” fragmentary associative flashes of American flags, people standing in line to vote, and so on, appear in their mind.⁵⁴ While there is more to conceptual thinking than such imagery, clearly Schuon is correct in linking “terrestrial thought” with our worldly environment. “God,” “grace,” “nirvana,” “enlightenment”—whatever spiritual notion we choose to think about, the thoughts generated by our mind almost certainly bear little resemblance to actual metaphysical reality.

Thus Spirit must beware of too much illusory knowing. This is the danger of her becoming overly enmeshed with Science’s approach to knowledge. Realizing that part of the jigsaw puzzle of material reality is missing, Science sets out to fill in that piece and, if successful, describes what he has found with numbers and words. Such is reasonable, given that symbols can stand for what one already knows; “dog” represents the brown furry creature that is currently sleeping by my front door, even though those three letters bear no resemblance to her actual shape or demeanor.

But Spirit cannot find the knowledge she seeks with the eye of flesh or eye of mind. So while those organs may help to point her in the right direction, inward toward the eye of contemplation, they must not become a substitute for actual gnosis, a direct “intuitive” perception of a higher reality. The essence of esoteric spiritual practice (as contrasted to exoteric religion) is learning how to not-know this world in order to know what lies beyond.

Pir Vilayat Inayat Khan puts it nicely: “We tend to confuse our concept of God with our experience of God. We are talking about God, but surreptitiously, unaware, we are thinking; and when we say God we mean our concept of God. We are confusing ourselves....Pir-O-Murshid is saying that the concept can be like a scaffolding, but that

⁵³ Schuon, *Gnosis, op.cit.*, p. 73.

⁵⁴ Bernard J. Baars, *In the Theatre of Consciousness* (New York: Oxford University Press, 1997), p. 80.

you need to be able to destroy that....Our concepts of God are the idol, and can serve as a prop. But at a certain moment they are an obstacle.”⁵⁵

St. Thomas Aquinas devoted his life to composing scholarly theological treatises. Then, three months before his death, a great change came over him while saying mass. When urged to complete the *Summa Theologica*, he replied: “I can do no more; such things have been revealed to me that all I have written seems as straw, and I now await the end of my life.”⁵⁶

Materiality is the parched nether region of existence, barren of meaning though rich in sensory and mental stimulation. Spirituality is an ocean of truth, consciousness, and bliss (*sat-chit-ananda*), flowing with love and wisdom. “Nothing” indeed lies beyond the physical universe, but only in the sense that it is akin to *no thing* known by the eye of flesh or eye of mind. All these organs can do is give us hints of what can be perceived by the eye of contemplation.

Rumi says, “The more awake one is to the material world, the more one is asleep to spirit.”⁵⁷ In like fashion, Plotinus speaks of the necessity of turning away from everything other than the “All.” The All is always present to us, but cannot be realized so long as we are turned toward the “not-being” of the material world. Real being, for Plotinus, is Intellect (also known as *Nous*, Intelligence, or Spirit). Matter is Not-Being. So the negation of this negation, as when a negative number is multiplied by itself, results in a positive, Being.

When one comes to be out of Not-Being, he is not the All, not until he rids himself of this Not-Being. Thus, you increase yourself when you get rid of everything else, and once you have gotten rid of it, the All is present to you....It will not appear to you as long as you are in the midst of other things.⁵⁸

Thus Science and Spirit place an opposite value on knowledge of this world. For Science, it is the greatest good, for Spirit, the greatest harm.

As we have seen, there is a simple reason for these divergent epistemologies: Spirit wants to know everything about the “intelligible” world, which necessitates knowing nothing about the physical world—during her private time of contemplation, at least. Science, on the other hand, seeks empirical and publicly-verifiable knowledge obtained through the mind and senses. Since Science is always trying to smoothly fit more pieces into an existing jigsaw puzzle of facts and theories about materiality, he obviously needs to know what already is known. Spirit is starting from scratch, because spiritual truth is non-symbolic and thus incapable of being conveyed to others. A spiritual teacher can only encourage and guide others to realize what he or she has realized.

As a modern mystic, Sawan Singh, puts it, “Men cannot profit from the experience of others in this Spiritual Science in the same manner as they can by the use of scientific instruments and inventions in material sciences....Generally, the inner experience cannot be

⁵⁵ Pir Vilayat Inayat Khan, *That Which Transpires Behind That Which Appears* (New Lebanon, New York: Omega Publications, 1994), p. 36.

⁵⁶ Robert Maynard Hutchins, ed., *Great Books of the Western World: 19. Thomas Aquinas I* (Chicago: Encyclopedia Britannica, 1952), p. vi.

⁵⁷ Helminski & Helminski, trans., *Rumi—Daylight, op.cit.*, p. 25.

⁵⁸ Ennead VI.5.12, translation by Michael Chase.

had collectively. Every soul has to make its own effort and gain its own experience. It is essentially individualistic.”⁵⁹

While there is a certain absurdity in any conceptualization of the ineffable, below I’ve summarized how I view the epistemological hierarchies of Science and Spirit. Neatly, the values of these partners in truth-seeking are precisely inverted:

Science	Spirit
1. Knowing that you know	1. Not-knowing that you don’t know
2. Knowing	2. Not-knowing
3. Knowing that you don’t know	3. Knowing that you don’t know
4. Not-knowing	4. Knowing
5. Not-knowing that you don’t know	5. Knowing that you know

Here “knowing” refers to knowledge of the domain where both Science and Spirit start their pursuit of truth—the physical world. For Science, the worst thing is to be ignorant that he is ignorant. It is better to simply not-know than to erroneously believe something is true that is actually false. Better still is to be aware of the limits of one’s knowledge, because this allows gaps in understanding to be filled, insofar as possible. Knowing is, of course, preferred to all the forms of not-knowing. But when knowledge is private, or intuitive, it really isn’t considered to be “scientific.”

So if Science wants to make sure that his piece of new knowledge is added to the existing framework of accepted scientific laws and theories, he needs to know that he knows. That is, his knowledge needs to be displayed in some symbolic form for *others* to critique and evaluate. If a biologist spots Big Foot traipsing through the forest, he needs to have some reflection of his personal experience (such as a photograph) to offer as evidence in support of his discovery. This is because Science is engaged in a *public* truth-seeking enterprise.

By contrast, the goal of Spirit is to move further and further away from knowledge of materiality—which includes conceptual representations of physical reality, no matter how pleasingly abstract they may be. Again, please remember that “Science” and “Spirit” are best considered as contrasting sides or faculties of every human being. So it is entirely possible for a person to move back and forth between these “personalities,” putting on one guise, then the other. In the morning, for instance, I meditate and try to forget about the world. The rest of the day, I am necessarily immersed in it through the activity of my mind and senses.

What is important (and exceedingly difficult) is for me to remain “in character” when Spirit is my desired persona. Almost everyone who practices some form of meditation knows how easily worldly thoughts and images intrude upon this supposedly “spiritual” activity. Even when our mind thinks it is contemplating the divine, almost always this is a deception, an illusion conjured up by *maya*’s hall of mirrors in which man’s subjective conception of God is reflected back upon himself and taken for reality.

Schuon warns that: “as we exteriorise ourselves, we create a world in the image of our dream, and the dream thus objectivised flows back upon us, and so on and on, until we are

⁵⁹ Sawan Singh, *Philosophy of the Masters, series IV* (Punjab, India: Radha Soami Satsang Beas, 1989), p. lxiii.

enclosed in a tissue, sometimes inextricable, of dreams exteriorised or materialised and of materialisations interiorised.”⁶⁰ The only way of breaking this spell is to empty our consciousness of everything concerning matter or me (or whatever is physical or personal). What remains is, in the end, Spirit, Soul, Intellect—whatever name we call this essence of our being that alone is capable of knowing transcendent realities as they are, not as we imagine them to be.

Meister Eckhart, a thirteenth century Christian mystic, clearly describes the goal of Spirit’s contemplation:

Since it is God’s nature not to be *like* anyone, we have to come to the state of being *nothing* in order to enter in to the same nature that He is....But so that nothing may be hidden in God that is not revealed to me, there must appear to me nothing *like*, no image, for no image can reveal to us the Godhead or its essence...The least creaturely image that takes shape in you is as big as God. How is that? It deprives you of the whole of God. As soon as this image comes in, God has to leave with all his Godhead. But when the image goes out, God comes in.⁶¹

Not-knowing “creaturely images” is the key that unlocks the door to the spiritual kingdom. But not-knowing still implies a not-knower. (Here, I realize, we are reaching the limits of both language and my own understanding, but I will press on a bit further.) This is why Spirit aspires to something even higher: not-knowing that she does not know.

One is reminded of the Buddhist journey to enlightenment, the fourth *dhyana* or level of consciousness reached by the steadfast contemplative. Eknath Easwaran says that this is not a peculiarly Buddhist experience, for “the Buddha’s description tallies not only with Hindu authorities like Patanjali but also with Western mystics like John of the Cross, Teresa of Avila, Augustine, and Meister Eckhart.”⁶²

In the third *dhyana* one attains a state of “no-thought” in which the waves of the mind are stilled completely, and the spiritual seeker floats in the clear, calm sea of his or her consciousness. Then, in the fourth *dhyana*, nirvana is experienced. In Easwaran’s words: “The partitions fall; consciousness is unified from surface to seabed....The separate personality is lost, yet we cannot say that nothing remains.”⁶³ Here the distinctions almost completely dissolve between knower and known, subject and object, Creator and created. So neither is there one who knows the reality of spirit, nor one who doesn’t know the illusion of matter and mind. In a similar fashion, Plotinus describes union with the One:

When the soul has the good fortune to meet him, and he [the One] comes to her—rather, once he, already present, makes his presence known...then, suddenly, she sees him appear within her; there is no longer anything between them, and they are no longer two, but both are one. Indeed, as long as he is present, you could not tell the two of them apart; an imitation of this is when, in this world, lovers wish to be united to one another.⁶⁴

⁶⁰ Schuon, *Gnosis, op.cit.*, p. 101.

⁶¹ M.O’C. Washe, trans. & ed., *Meister Eckhart* (Shaftesbury, England: Element Books, 1987), pp. 66, 118.

⁶² Eknath Easwaran, *The Dhammapada* (Tomales, Calif.: The Nilgiri Press, 1996), p. 46.

⁶³ *Ibid.*, pp. 57, 58.

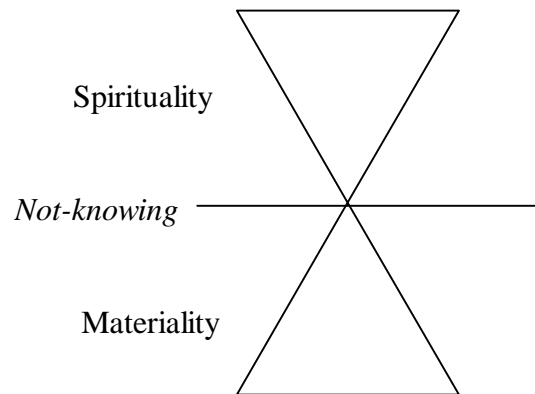
⁶⁴ Ennead VI.7.34, translation by Michael Chase.

Plotinus gives us an “imitation” of what the experience of gnosis is like, necessarily using an image, worldly lovers, with which we are familiar. But when all is said and done, and I am nearing the end of my saying, one is left with the stark reality of the differentness of Science and Spirit. Physical and metaphysical knowledge have precious little in common, because the domains of materiality and spirituality are as discontinuous as they are continuous.

This seeming paradox is a matter of perspective. From the standpoint of unity, the state of nirvana, all is One. From the standpoint of relativity, the world as we know it, all is Many. We have to start from where we are, not from where we want to be (if we were already there, there would be no need for a spiritual path). Spirit is beyond mind and matter. While thoughts, images, conceptions, objects, icons, and symbols may help us reach the edge of genuine spirituality, the mental and physical vehicles which brought us to the border of Spirit’s domain are useless from that point on.

The legs of sensory perception and reason take a seeker as far as the shallows of the Intelligible Ocean. Now, he or she needs to dive in and *swim*. “The inward discovery of pure truth,” says Schuon, “is always a leap in the dark which has no common measure with its own mental premises, whether concepts or other symbols.”⁶⁵

This leap is across the chasm of not-knowing. Only by not-knowing the relative illusion of materiality is it possible to know the objective truth of spirituality. While emanation from the One indeed is properly conceived as either a scheme of concentric circles or of radii extending from the center,⁶⁶ an understanding of the Traditional *practice* of spiritual realization is more properly conveyed by an image of two triangles joined at their tips:



Our physical universe, materiality, is unimaginably vast and largely unknown by Science. But within certain limits Science is free to explore the lower triangle, gathering bits and pieces (and sometimes large chunks) of knowledge with his tools of reason and sense perception. The scientific method is completely stymied only when the boundary of *not-knowing* is approached. This delimits the border between physical reality and whatever lies beyond.

⁶⁵ Frithjof Schuon, *Logic and Transcendence* (London: Perennial Books, Ltd., 1984), p. 45.

⁶⁶ *Ibid.*, p. 85.

Here, as physicists can well attest, matter dissolves into an empty yet energetic vacuum, filled with mysterious quantum fields capable of being described by abstract mathematics but far beyond the ability of Science's eye of flesh to ever perceive. Similarly, Science's understanding of time is veiled by the impenetrable first moment of the Big Bang, which seems to be forever beyond the purview of Science's eye of mind.

Only the eye of contemplation is able to perceive spiritual realities. And this eye remains closed so long as our mind and senses are engaged in their customary activity of trying, futilely, to manufacture meaning out of *maya*. This world is meant to be what it is: earth, not heaven. If God had meant for heaven to appear on earth, it would have by now, or at least made an introductory appearance.

I do not mean to discount either the reality or sacredness of miracles, but it must be admitted that multiplying loaves of bread, walking on water, or even causing a few dead bodies to return to life are far removed from any demonstration of genuine transcendence. Why hasn't any saint or prophet placed another moon in the sky, or even more persuasively, established a permanent paradise on earth which manifests the love, wisdom, harmony, and unity of the Creator? There must be a good reason for the almost complete separation of what is There from what is Here. Could it be that we are meant to actively return to our heavenly source, not wait passively for that kingdom to be revealed to us?

Indeed, Tradition urges Spirit to swim upstream, as it were, against the tremendous force of the Big Bang: entropy, complexification, seeming evolution. The expansion of the universe is not only occurring in deep space; it also manifests as the ever-increasing store of collective human knowledge that is communicated to our individual minds through all the familiar devices of modern culture: books, television, newspapers, magazines, radio, cinema, art, conversation, the Internet. As useful as all this information may be for worldly ends, Tradition teaches that it results in not one iota of genuine spiritual wisdom. This is why Spirit considers Science's knowledge to be ignorance, and not-knowing the genuine path to truth.

Idries Shah relates a Sufi story: A man, Fudail, is asked by his son if he loves him. "Yes, I do," says the father. "But do you not also love God?" "Yes, I believe that I do," the man said. "But how can you, with one heart, love two?" This led Fudail to say: "That which is generally considered to be the highest or noblest attainment of humankind is in reality the lowest of the high ranges possible to humankind."⁶⁷

The pinnacle of Science's epistemology, to know that he knows, is only the starting point of Spirit's quest for ultimate reality. These partners in truth-seeking can be intimate friends, sharing and enjoying much together, but Spirit cannot allow herself to be bound by the intellectual and perceptual fetters of Science. To fulfill her *dharma* and destiny, at some point she has to break out of the bounds of reason and sensory perception to leap across the barrier of not-knowing.

Such is the message found in the mystical core of every deep spiritual faith.

For Taoism, "In the pursuit of learning, every day something is acquired; in the pursuit of Tao, every day something is dropped."⁶⁸ For Kabbalah, "*Ein Sof* precedes thought, and it even precedes the Nothingness out of which thought is born."⁶⁹ For mystical

⁶⁷ Idries Shah, *The Way of the Sufi* (New York: E.P. Dutton, 1970), p. 171.

⁶⁸ Gia-Fu Feng & Jane English, trans., *Tao Te Ching* (New York: Vintage Books, 1972), number 48.

⁶⁹ Rabbi David A. Cooper, *God is a Verb* (New York: Riverhead Books, 1997), p. 67.

Christianity, “God can be found only by learned ignorance.”⁷⁰ For Zen, “you instantly ‘see’ and understand that things *are* by virtue of what they are *not*, and that they owe their being to this not-being which is their ground and origin.”⁷¹ For Sufism, “what outwardly appears existent is really nonexistent, and what seems to be nonexistent is really Existence. The outwardly paradoxical conclusion is that if man desires existence, he must seek it in his own nonexistence.”⁷² For Buddhism, “if you want to reach the other shore of existence, give up what is before, behind, and in between. Set your mind free, and go beyond birth and death.”⁷³

The truth of Tradition is simple: *Not-knowing is the key that opens the door of spiritual realization*. Stated another way, our consciousness must become exceedingly fine and pure in order to flow through the tiny “keyhole” of the door between materiality and spirituality—which ordinarily remains firmly shut, and can be breached not by force, but penetrated only with the most exquisite “lightness of being.”

Of all the world’s mystical writings, I have never found a clearer and more moving exposition of this quintessential message than in “The Cloud of Unknowing”—thought to be composed by an anonymous English country parson of the late fourteenth century. Here are some passages from this classic guide to the contemplative life.

Just as this cloud of unknowing is as it were above you, between you and God, so you must also put a cloud of forgetting beneath you and all creation. We are apt to think that we are very far from God because of this cloud of unknowing between us and him, but surely it would be more correct to say that we are much farther from him if there is no cloud of forgetting between us and the whole created world.

Whenever I say ‘the whole created world’ I always mean not only the individual creatures therein, but everything connected with them. There is no exception whatever, whether you think of them as physical or spiritual beings, or of their states or actions, or of their goodness or badness. In a word, everything must be hidden under this cloud of forgetting.

...So crush all knowledge and all experience of all forms of created things, and of yourself above all. For it is on your own self-knowledge and experience that the knowledge and experience of everything else depend....Let go this ‘everywhere’ and this ‘everything’ in exchange for this ‘nowhere’ and this ‘nothing’....Our inner self calls it ‘All,’ for through it he is learning the secret of all things, physical and spiritual alike, without having to consider every single one separately on its own.⁷⁴

Such is the wisdom of not-knowing. Leaving behind what is physical or personal, usually through the unceasing repetition of a *mantra* or mystic prayer, Spirit seeks to experience the objective reality of transcendent consciousness, Intellect. For Science, on the other hand, wisdom consists in knowing what he does not know about materiality and

⁷⁰ H. Lawrence Bond, trans., *Nicholas of Cusa* (New York: Paulist Press, 1997), p. 107.

⁷¹ Eugen Herrigel, *Zen* (New York: McGraw Hill, 1964), p. 47.

⁷² William Chittick, *The Sufi Path of Love* (Albany, New York: SUNY Press, 1983), p. 175.

⁷³ Easwaran, trans., *The Dhammapada, op.cit.*, p.185.

⁷⁴ Clifton Wolters, trans., *The Cloud of Unknowing and Other Works* (Middlesex, England: Penguin Books, 1987), pp. 66, 111, 143.

doing his best to fill in those gaps. Both pursuits, as we have observed, are laudable. But I cannot consider them of equal value.

For there is no getting around the fact of death, which serves as the touchstone for determining the relative worth of worldly and spiritual knowledge. I like to end an inconclusive discussion with someone who doesn't believe in metaphysical realities with this comment: "Well, certainly we'll find out which of us is right when we die." Spirit's seemingly worthless not-knowing will be revealed as precious celestial wisdom when she takes her last breath, if not before, since the goal of contemplative meditation is dying while living. Rumi tells this story (somewhat modified for my purposes):⁷⁵

A scientist embarks in a boat rowed by a mystic. Turning to the boatman with a self-satisfied air, he asks, "Have you ever studied physics?" "No," replies the mystic. "Then half your life has gone to waste," the scientist says. Soon a storm tosses up great waves, and the boat begins to fill with water. "Do you know how to swim?" shouts the mystic. "No!" cries the scientist. "In that case, my friend, the *whole* of your life has gone to waste, for the boat is sinking."

Rumi concludes: "You may be the greatest scholar in the world in your time, but consider, my friend, how the world passes away—and time!"

The only lasting knowledge is how to swim in the Ocean of Spirit. Even if we forget all else, and remember only this, we possess an Intelligence that Science can only dream of.

⁷⁵ Arberry, *Tales from the Masnavi*, *op.cit.*, p. 65.