## **Simple MYSPHYT Theory**

IV: The means to an end

Before the Mysphyt theory can be fully understood, it is necessary to clearly state the basic differences between the Eastern and Western mystical traditions. A clear vision of these differences is necessary because Western mysticism offers clues to what happens when intuition and logic are combined. The synthesis of modern physics and mysticism necessitates such a process. The Eastern mystic wishes to realize or become one with consciousness and thus explore consciousness-based reality. That reality exists according to its own merits and is purely intuitive. Western mystics explore this same reality, but relate it to God. Relating consciousness-based reality to God has engendered philosophical debates in Western religious circles on questions such as whether God is immanent or transcendent. Religious philosophers in the West and their mystic counterparts cannot escape the basic duality of human thought processes; they can only postpone the larger questions by debating lower level topics such as the immanence or transcendence of God. This debate is itself analogous to the arguments between the discrete and continuous nature of matter in physics, which also reflects the basic dichotomy of the human viewpoint of reality. Even here, the basic argument reduces to the dichotomy between intuition and logic when it is understood that an immanent God could only be experienced intuitively while a transcendent God could be understood in human terms of logic.

The task of the Western mystics is every bit as intuitive and subjective as their Eastern counterparts, but it is more logical in its interpretation according to Western standards. In their search for God, Eastern mystics psych-out consciousness while Western mystics flesh-out consciousness. Eastern mysticism is more subjectively holistic while Western mysticism is slightly less subjective with objective overtones, but both arrive at the same view of the 'oneness' or unity of the universe and reality. The interpretation of that 'oneness' forms the major difference between the two. In Eastern mysticism it is an intimate connection with all of reality and its beings while in the West is interpreted more as a universal love for all beings. There is no real difference between the Eastern 'oneness' and the Western 'love,' except for the religious interpretation. An application of the Eastern sense of 'oneness' leads to a type of 'transpersonal psychology' instead of the religious overtones of the Western mystic experience. There is no less 'love' in either experience, but the interpretations and utilizations of that feeling are different within the two cultural settings.

Western mystics look for an ecstatic revelation of God, even if they do not always interpret what is revealed as God in a Biblical (Talmudic or Koranic) sense while the eastern mystics seek enlightenment and 'satori' without the intervention or reference of God. Eastern mystics are otherworldly in their subjectivism while Western mystics are

more pragmatic when applying objectivity to their subjectivism. By utilizing a strong mixture of the physical perspective of reality (objectivity) and consciousness (subjectivity), the Western philosophical view of reality is mediated by consciousness, which is itself mediated by physical reality. In the East, physical reality is denied so that this circular argument on the interdependence of consciousness and physical reality can be broken and the practitioner can thus attain enlightenment.

If consciousness creates reality as the Eastern mystics teach, then that consciousness cannot be totally understood or even experienced unless the physical reality that it created to understand itself is completely understood, or at least understood well enough to increase the value of the experience. Since experiencing the totality of physical reality is out of the question, understanding physical reality as completely as possible through the rules of nature (the physical laws) that seem to govern it is the only alternative. So the Eastern mystical practice of experiencing consciousness as the underlying reality is incomplete unless the mystics can experience all of physical reality as a part of this consciousness. To do so requires western science.

In the more pragmatic, objective view, the Western mystics have long dealt with Western physical science. Thus, Western mysticism offers insights into combining physics and mysticism. But the Eastern form of mysticism cannot be relegated to a lesser position on this account. The Eastern mystical tradition has been interpreted in such a way that it has developed a form of 'transpersonal psychology.' So, the Eastern traditions are not devoid of scientific interpretation, just devoid of interpretation within the physical sciences as they are regarded in the West. It is only within the last century that the Western form of psychology has evolved and only within the past few decades that the Western form of transpersonal psychology has been developed. Therefore, new connections between Eastern mysticism and Western science can follow a different path than the Western mysticism and physical science. It is exactly at the point where modern physics and psychology come together that mysticism will have its greatest connection with Western science. And that point is in the conjunction of consciousness and modern physics, at the most fundamental level of reality.

The study of similarities between modern physics and mysticism is grossly incomplete if Western mysticism is not included. The previous emphasis on Eastern mysticism was originally necessary to more easily define the similarities at the point of conjunction with modern physics. It was necessary to define the limits of the similarities, just as some form of reductionism is necessary in science to define objects and quantities for measurement. But once this has been done, a closer look at Western mysticism is required for the analysis and further generalization of the concepts of consciousness and reality. Previous authors have relied only on similarities without realizing that these similarities are part of a process of historical development, which amounts to an evolutionary trend in science.

While Western mysticism is more intimately tied to common religion, Western science has found more parallels in Eastern mysticism. Both Western science and Eastern mysticism share the common characteristic that they have no necessity of God. This gives

them a similarity of purpose, investigating reality. It does not mean that they reject or deny God. They just have no necessity of defining God. However, in the past they have had no need of each other even though they shared similar goals. While Western religion asks "Why" and Western science asks "How," science has answered "How" logically. Eastern mysticism accepts the "Why," but answers "How" intuitively. To some minds, the Eastern mystical traditions may appear superior to their Western counterparts in their purity of purpose, but this opinion carries with it the assumptions that physical reality is unwanted, unnecessary or inconsequential, when, in fact, physical reality is an important and necessary part of the whole of reality.

There is no further need to find conceptual parallels between either form of mysticism and modern physics, or between the Western and Eastern branches of mysticism for their own sake. Such similarities already exist in abundance. Only individual explanations of a limited number of these examples are needed for the analysis of the similarities. Explanations of these similarities will demonstrate that the physical reality of Western science is essential to *all* mystical experience as well as offer an explanation of how all three are parts of a single unified historical process. By defining and measuring our physical world, deriving laws, principles and mathematical models, science has formed its own view of consciousness and the relationship between consciousness and physical reality. But the relationship between consciousness and the rest of the universe is grossly incomplete despite the best efforts of science.

Consciousness has never been adequately defined by science. This fact alone indicates the inadequacy of the scientific approach and implies that mysticism has much to offer science and modern physics. On the other hand, mysticism has not made very many fundamental strides in the last two thousand years in spite of its promise. Small advances have been made, but there have been no fundamental revolutionary changes in mystic practices and isolated individuals have made these small advances. If combined with modern physics and science, mysticism has a great deal to gain, including a wider acceptance by non-mystics.

Only two examples of mystic thought are necessary to illustrate these points, the first from Western mysticism and the second from Eastern mysticism. The first is from the Jewish mystical tradition of the Kabbala. Isaac Luria, a kabbalist mystic, attempted to explain the paradox inherent in the question of divine transcendence or immanence during the sixteenth century. He proposed an ingenious myth of the creation by En Sof, the kabbalistic 'Godhead.' Since the 'Godhead' is truth and good, it needed to create its opposites, false and evil, from within itself. So En Sof the 'Godhead' vacated a region of its own being within itself. This place exists within the 'Godhead,' but the place was not part of the 'Godhead.' This place became our physical universe, so we exist within the 'Godhead,' demonstrating immanence, but cannot be part of the 'Godhead.' We still remain separate from the 'Godhead,' which amounts to transcendence. At the same time, the 'Godhead' is both immanent and transcendent simultaneously.

Luria confronted the question that had troubled monotheists for centuries: how could a perfect and infinite God have created a finite world riddled

with evil? Where had evil come from? Luria found his answer by imagining what had happened before the emanation of the *seftroth*, when En Sof had been turned in upon itself in sublime introspection. In order to make room for the world, Luria taught, En Sof had, as it were, vacated a region within himself. In this act of "shrinking" or "withdrawal" (tsimtsum), God had thus created a place where he was not, an empty space that he could fill by the simultaneous process of self-revelation and creation. It was a daring attempt to illustrate the difficult doctrine of creation out of nothing: the very first act of En Sof was a self imposed exile from a part of himself. He had, as it were, descended more deeply into his own being and put a limit upon himself. It is an idea that is not dissimilar to the primordial kenosis that Christians have imagined in the Trinity, whereby God emptied himself into his Son in an act of self expression. For sixteenth-century Kabbalists, tsimtsum was primarily a symbol of exile, which underlay the structure of all created existence and had been experienced by En Sof himself. (Armstrong, 267)

This ingenious creation myth allowed both the immanence of God and his transcendence to co-exist. Karen Armstrong has even found a parallel between this creation myth and the most popular scientific version of the beginning of our universe. In her book *The History of God*, Armstrong compares Luria's myth with the modern physicists' concept of the Big Bang.

This strange myth is reminiscent of the earlier Gnostic myths of a primordial dislocation. It expresses the tension involved in the whole creative process, which is far closer to the Big Bang envisaged by scientists today than the more peaceful, orderly sequence described by Genesis. (Armstrong, 268)

Armstrong is no scientist and her knowledge of science is undoubtedly limited. Her book has nothing to do with science, but she was still able to recognize the similarity between Luria's myth and the scientific model of the beginning. She also felt it necessary to mention this similarity. This similarity exists because of a primary characteristic of Western mysticism that is absent in Eastern mysticism. Like Western science, Western mysticism suffers from the necessity to build logical models of reality that meet its own particular criteria and based upon its intuitive knowledge of reality. Science also builds explanatory models, but they are based on knowledge that was developed through a different method and follows different criteria.

It is quite informative to take this analogy of models one step further and make a comparison between Luria's myth and the hyperspatial explanation of the beginning moment of our universe. The Hyperspace theory offers one of the latest twists to the search for a 'theory of everything' in physics. Such a theory is literally a 'unified field theory' that combines all of the basic forces (interactions) of nature within a single model. This theory also unifies the quantum and relativistic approaches to explaining physical reality. It proposes that our four-dimensional space-time continuum is an integral part of

a larger ten-dimensional (or perhaps even a twenty-six dimensional) universe. At the time of the Big Bang, dimensions six through ten were compactified (shrunk) to infinitesimally small proportions at the expense of the enlargement of the normal four dimensions through which we sense our physical being. In this sense, our physical reality was created out of its own self, just as in Luria's religious model. Our space-time evolved out of a larger universe that we cannot sense. Yet the other dimensions in the ten-dimensional model are necessary to allow enough space (please forgive the pun) or parameters to account for all of the physical characteristics of our four-dimensional portion of the universe. We cannot sense the higher dimensions because they are rolled up in physical dimensions too small for us to ever notice.

Both Luria's and the hyperspatial models of the universe were based upon the best data, tools and methods that were available when the models were developed. Luria's data was gained intuitively through mystical methods of realization while science's data came after years of painstaking conceptual evolution (and revolution) and gathering of measurements. Both are logical arguments that allow opposites, such as good and evil (Luria), immanence and transcendence (Luria), and quantum and relativity (Hyperspace) to be synthesized into a larger explanatory worldview. But Luria's is a logical exposition of mystical (intuitive) knowledge while the Hyperspace theory is a logical explanation of scientifically (reason) based knowledge.

Two seemingly incompatible methods have come to a probable equivalence of concept. This can be explained by analogy with the 'principle of relativity' from Einstein's special theory of relativity. In special relativity, two or more observers will observe the same characteristics for the same phenomena moving at different constant speeds when the different speeds are taken into account. In like manner, we can say that mysticism and science will see or detect the same event (or phenomenon) in the same way and having the same characteristics except for the differences of interpretation according to the disposition of their fundamental philosophies. Creation was an event, so they have both come to similar views of that event.

The Eastern example can also be viewed as a creation model, conforming to some of the same analyses, but it is not so much the story of a physical creation as it is a creation of consciousness, reflecting the Eastern priorities and criteria. It comes from the *Tao de Ching* by Lao Tzu, the primary writing of the Taoist tradition.

The Tao produced One; One produced Two; Two produced Three; Three produced All things. All things leave behind them the Obscurity (out of which they have come), and go forward to embrace the Brightness (into which they have emerged), while they are harmonized by the Breath of Vacancy. (Lao Tzu, 43.1)

This one statement represents the only truly universal constant that exists as perceived by the human mind, the dichotomies or groups of complementary opposites that characterize our very being. It is also an expression of the MYSPHYT theory at its simplest non-scientific level, showing the reverse order of events as proposed in the theory. Both

mystics and scientists follow paths in reverse order of this statement, moving from the many things, to the three to the two and finally to the one, in their search for a knowledge of reality.

This statement can be interpreted in many different ways, but a good general interpretation is as follows. The Tao is the ineffable, unimaginable 'entity' of myth, legend and religion. Its interpretation would depend upon any given person's religious preferences. It could be Jehovah, God, Zeus, Allah, the Buddha nature, Brahma, Krishna, or any other of dozens of manifestations of the 'Godhead.' The Tao produced the one, or consciousness. That consciousness produced two aspects, mind and matter, or if you would rather, consciousness-based reality and physical reality. From this basic dichotomy of opposites, or seeming opposites, came the three major forms of interpretation of reality; intuition, reason (or logic) and emotion. From these three came all 'things,' the vast myriad of events, phenomena and interpretations of the world around us.

The Tao is beyond all human comprehension. In the Taoist statement, the 'One' is strikingly similar to Luria's 'Godhead' or perhaps even a universal consciousness, but the Tao is also guite unique and thus different from the 'Godhead.' The 'Two' created by the 'One' are the two realities represented as the body of the 'Godhead' and the vacated portion of that body, consciousness-based reality and physical reality, respectively. This dichotomy of opposites is a common feature to both forms of mysticism, all forms of science, philosophy and culture in general. But even more importantly, this dichotomy of opposites is a limit to our further knowledge of reality. We can know the 'Two' things that have been derived from the 'One,' but it seems that we can only know them separately. In mysticism, the goal is break through this intellectual limit to any knowledge of a truer reality by intuitively synthesizing the two into one, or outright transcending them and thus reversing the path of creation. An example of this intuitive act can be found in understanding the Zen Buddhist koan "What is the sound of one hand clapping?" This koan is not all that different from various philosophical questions such as "If a tree falls in a forest and no one is there to hear it, does it make a sound?" and "How many angels can dance on the head of a pin?" These Western paradoxes are debated philosophically, from the basis of reason and logic, rather than being treated intuitively, once again emphasizing the differences between the Eastern and Western processes of thought.

Science progresses in a manner that is not totally unlike that of mysticism. One particular method by which science advances or evolves is by the synthesis of ideas. Many times these ideas are conceptual opposites; at least they are thought to be so before they are unified. Benjamin Franklin's kite experiment demonstrating that static (motionless) electricity and lightning (moving electricity) represented a single phenomenon is a good example. Michael Faraday began his scientific career by listing all the forms of electricity, including static (stationary) and current (moving), and demonstrated that they were all forms of the same thing. He then unified magnetism and electricity. We now assume electricity and magnetism are two forms of the same thing, electromagnetism, but before Faraday's unification they were thought to be opposites. The work of Christian Oersted and others was also instrumental in this unification, but Faraday's contribution was by far the greatest and most revolutionary.

Even the notion of scientific progress suffers from the same interpretation in terms of opposites. Does science progress through revolution or evolution? No one has yet given a definitive answer to this question. And finally, Faraday spent his last few years trying to unify electromagnetism and gravity. He failed, but others carried on his search and today the quest for a unification of electromagnetism and gravity is still a major priority of theoretical physics. Like the mystic process of unifying two conceptual opposites to gain enlightenment, these examples demonstrate that science also unifies opposites, but science concludes this process through reason, measurement and experiment. Science seeks enlightenment of a sort, on its own terms. It is not the enlightenment of consciousness that the mystics pursue, but rather the enlightenment that comes from a greater knowledge and understanding of physical reality.

The process by which science seeks its own brand of enlightenment depends on a reductionism that is missing from mysticism. Mysticism is more an act of passive contemplation, whereas the scientific method is physically active and attempts to bend smaller bits of nature to its will so that it can learn about nature. Mysticism uses the intuitive faculties of the mind to bring opposites together and expose the false nature of these complementary qualities. On the other hand, science uses logic and reason to reduce the opposites to their essential components and understand them individually. In this manner, science is reductionist and to criticize it as reductionist is inane. Those who criticize science by labeling it reductionist would just as likely criticize the blue sky for being blue without ever realizing that if the blue sky were not blue then it would not be blue sky and they would have no sky to complain about. Criticizing science as reductionist is like criticizing a dog for being a dog or a car for being a car. Even Luria realized that En Sof needed to be reductionist to understand its own nature.

Reduction is essential to the method of science, but most people do not understand that reduction in science is diametrically opposed to the aim of science, the generalization of concepts. Mysticism is wholly non-reductionist in both its goals and its methods. So the goals of mysticism and science are not that radically different even though their methods are different. Critics see only the methods and discount or ignore the similarities of their goals, the discovery and understanding of reality, whatever that reality may prove to be. Through reduction, science categorizes and breaks our world up into smaller units (for easier study) so our finite brains can try to comprehend both the infinite and the infinitesimal aspects of reality. Science stresses the differences between the objects and entities that it categorizes in order to define and measure them.

Scientists then find the patterns by which the objects in nature act on each other so they can develop generalizations regarding the nature of the reality to which these categorized parts belong. This is the big experiment of physics. We idealize objects, situations, phenomena and events to a minimum number of variables to derive a recognizable relationship or hypothesis, then science expands upon those simpler relationships in experiments to include correction factors and thus a grander view of the phenomena and our world. In this manner, science generalizes concepts using the scientific method. Specialization through reduction eventually leads to generalization and expanded views of reality.

Science has no specific goal toward which it progresses. Ideally, it is progress toward an understanding of the nature of reality, but at the same time no one knows what that nature will finally prove to be. Science does not 'a priori' say that nature is this or that. Science is a discipline of discovery and the final goal of science is slowly being discovered. All that science can do is hope and trust that the nature of reality is in the end understandable by humankind, but as yet science has no proof that it is. If the nature of reality is consciousness, then consciousness is the final goal of science and many scientists are slowly coming to this realization. On the other hand, mysticism does have a final goal which is much more specific than that of science, so it can move directly toward that goal without reduction. This does not mean that their goals are different.

Once the goals of mysticism and science are demonstrated to be the same, then they must converge. If their goals are the same, even if science does not know what the nature of reality will turn out to be in the end, then their convergence is inevitable. The major difference between science and mysticism rests in the fact that science does not assume to know the final goal, but mysticism does. At this point in time, discoveries in physics indicate the importance of the role of human consciousness in physical reality and points to the possibility that the nature of reality rests in consciousness; so modern physics and mysticism are presently converging. As long as physics follows the path that it is presently on, it will continue to close the gap that exists between itself and mysticism.

We have to find out what our physical world is in order to isolate and understand consciousness. Science can only learn what consciousness is by learning what it is not, so science has objectified our world by the reduction of physical objects. Since consciousness is thought to play an active role in the construction of physical reality, the next logical step in the evolution of science and physics is to describe the nature of consciousness. Consciousness plays an as yet unspecified role in reality. It cannot be isolated, defined or reduced by science or at least has resisted all attempts to do so in the past. The scientific method seems to be failing in this respect so other methods may be necessary. This is one of the primary dilemmas of science. All science can do is partially define it by stating what it is not (or does not seem to be) and note the ways in which consciousness interacts with matter and thus understand consciousness the best it can.

Science has previously described mechanisms and processes by reducing them to their components and understanding the components, thus understanding the whole of the mechanism or process by extrapolation. But it now seems to be facing physical situations where this method of analysis will no longer work. As science moves deeper into the substratum of physical reality, it is discovering that it is up against a wall, which it cannot breach, using its present methods. It is possible that mysticism can offer a way out of the dilemma. Science seeks to understand the whole of reality as a sum of its parts, but it is occasionally forced to notice that wholes can be more than the sum of their parts. When this occurs, science dismisses the occurrence by assuming that it will eventually understand the whole through more precise measurements or other advances in science. Mysticism looks directly at the whole and immediately understands the working of the

whole, but knows less of the individual parts of the whole. Science needs to approach questions on the nature of reality in the same way as mysticism.

The difficulties now faced by science are not new. Science has run into similar difficulties in the past and has always managed to either overcome them, at least for a time, or circumvent them altogether. But science has only raised the stakes of its explanations to a higher level, passing from one level of understanding to the higher level when difficulties arise with which it cannot normally cope. For example, science could not evolve out of its medieval stupor under the concept of space that it had inherited from Aristotelian physics. A new concept of space slowly emerged, culminating with Newton's laws of motion. In Newtonian physics, the concept of relative space accounted for all mechanical phenomena, while absolute space was philosophically necessary to account for inertia and other physical properties such as action-at-a-distance. These concepts were adequate for the purposes of science for a long time at the level of knowledge for which they were designed. However, physics and science eventually progressed beyond these narrow concepts of space. Newly discovered phenomena put a strain on the accepted concepts of space. The concept of a field was first developed to explain electromagnetic phenomena. Then the concept of a luminiferous aether was developed to account for some of the shortcomings of absolute space and a new level of knowledge was achieved. But this new level brought further problems, leading to relativity theory and quantum mechanics

With relativity theory, absolute space and the aether were shown to be superfluous concepts in that they were not necessary to explain known phenomena. Relativity theory first unified space and time and then plotted the road to a unification of space, time and matter that has not yet been completed. In dealing with the interactions of electromagnetic waves and matter on the sub-microscopic scale, quantum theory defined the limits to which space and time could be considered separate entities. It described a more intimate relationship between matter, space and time with the Uncertainty Principle. In each of these cases, seemingly opposing concepts were unified to yield a greater view of the whole, reaching higher and higher levels of physical understanding at deeper levels of reality. But quantum theory also opened a Pandora's box by introducing consciousness into physics. So in science, as in mysticism, the synthesis of opposing complementary concepts has followed a path back to consciousness.

In the beginning, space was very subjective. It was linked to human perception and mind before it was first objectified by Aristotle and the Greek philosophers. Every successive refinement to the concept of space that followed increased its objectification at the expense of its subjectivity. Newton's absolute space was also subjective to a degree even though its existence was based upon purely logical and thus objective reasoning. Newtonian space was thought to be one of the crowning achievements of objective science, but it eventually caused problems that resulted in its own downfall. Every time the concept of space was rewritten or reworked for science it became more objective and further dissociated from mind and consciousness. Now it seems that both space and matter are returning to the fold of subjectivity and consciousness. When science looks at its best information on the whole of physical reality, gained through reduction and

abstraction, the physical reality that it finds seems once again to be greater than the sum of its parts, greater by a quality that we associate with consciousness. This is especially true for the concepts of space and time, which lay at the very foundations of relativity and quantum theory.

The complementary opposites whose synthesis has played such an important role in scientific advances as well as mysticism are also quite common within human culture. So it is necessary to look at them within their cultural context to learn more about them. Gene Roddenberry expressed perhaps the clearest example of this phenomenon, as it pertains to the human condition, in the original 1960's TV series of *Star Trek*. It can be called the Spock-McCoy Syndrome. Spock, Doctor McCoy and Captain Kirk, the three main characters of the stories, were actually three aspects of a single entity or mind. Spock was logic, pure reason trying to subdue emotion, but at his core a small amount of emotion could always be discerned. Doc McCoy was motivated primarily by emotion, but he was also a scientist deep down inside, at his own center. As the characters faced different problems, Spock sometimes saved the day through logic and the other times McCoy's emotionalism was central to the plot.

Captain Kirk, who mediated between emotion and logic (or science), was the true hero. Kirk was the physical manifestation of a synthesis of the two opposites, so he ultimately resolved all the problems, sometimes leaning more toward logic (and Spock) and sometimes leaning more toward emotion (and McCoy's point of view). Such a dynamic interplay of opposites is one of the underlying principles of all the great literature from Homer's *Odysseus* to Roddenberry's *Star Trek* and beyond, a fact that clearly demonstrates the universality and the dynamism of opposites as far as humans are concerned. Very seldom does any problem in our own world find its solution in pure logic or pure emotion, but a combination of the two.

We, as human beings, seem to naturally understand things by defining their opposites and then looking at them by contrast or comparison. This act is a simple form of reduction. This is so commonplace that science cannot claim reduction in its growing list of discoveries and accomplishments. Nor does this characteristic describe science alone. The method of reduction seems to be a characteristic of all human interactions. It seems to be a product of the bicameral physiology of the human brain and, in so far as the human brain is the seat of the human mind, the human mind seems to share in this split. We are, as humans, mystic and physicist alike, trying to reach the same goal, but our human brains limit us all. We can only go so far with reason and so far with emotion, just as we can only go so far with intuition, but eventually we need all three, just as Spock and McCoy needed Kirk, to solve the problems that we face. These can be the everyday problems that we face during our lives or they can be the vast overriding problems facing humanity or science as a whole, but in this one respect they all are the same.

A simple listing of some common (and not so common) complementary opposites should serve to illustrate the widespread nature of this phenomenon.

rich	poor
individuality	The state
positive	negative
freedom	tyranny
democracy	dictatorship
right	
right	wrong
good	
truth	
man	woman
happy	sad
intuition	
science	religion
science	spirit
love	hate
right brain	left brain
open	
outward	inward
subject	verb
contrast	comparison
active	passive
revolution	evolution
electricity	magnetism
space	time
matter	void
discrete	continuous
particle	wave
quantum	relativity
Quantum mechanics	General relativity

and so on in a seemingly endless dance of concepts. The only relationship shared by these concepts is that between individual terms in the left column and their complementary counterparts in the right. There is no relationship, implied or otherwise, between the items in one column for other items in that same column. In other words, the fact that men, love, good, science and discrete fall in the same column does not mean that they are related in any way. The placement of terms in one column or another is strictly coincidental.

Listing opposites in this manner is not a new idea. Others have also done it in the names of science, mysticism and culture, including Ornstein. In fact, Ornstein also associates this split with the physiology of the human brain. The overall significance of the existence of such opposites has also been associated with mysticism by many authors. In fact, the method used by the mystics to reach enlightenment employs transcending such opposites. Since these opposites are a product of the human brain and the human perception of reality, a mystic must move beyond that false perception of reality by transcending the limits of his own brain, the opposites created by the mind, to gain

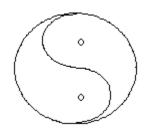
insights into the true nature of reality. "The basic aims of these techniques seems to be to silence the thinking mind and to shift the awareness from the rational to the intuitive mode of consciousness." (Capra, 37) Science would do well to learn and apply the methods of the mystics in this regard. Since it is uncertain, in science, whether the human perception of reality reflects the true nature of reality or just the human brain's picture of reality, science must also transcend these opposites to discover the true nature of reality. Science has discovered logical paradoxes in the results of modern physics, but that discovery does not mean that nature presents those paradoxes for science to discover. Science must determine how nature truly presents itself to us in order to progress any further.

So the dichotomy represented by these complementary opposites is not something new. The importance of this view for science itself should be evident from the last few entries in the list and from another of Capra's statements.

Force and matter, particles and waves, motion and rest, existence and non-existence - these are some of the opposites or contradictory concepts which are transcended in modern physics. (Capra, 154)

These and the other complementary opposites are expressed in the Chinese concepts of yin and yang, as symbolized in the popular mandala that displays the opposites.

Chinese philosophy has gone further than any other in explaining this opposition. At the center of one quantity (either yin or yang), where it is maximized, you find the seed of the other. This fact is not so evident in the Taoist statement above: The 'One,' consciousness, breaks down into the 'Two,' which are pairs of opposites. Since mysticism seeks to overcome these opposites in a fairly direct manner, it would seem that the methods of mysticism would be useful to scientists who also



seek to overcome their own groups of opposites to advance science. After all, the unification of quantum theory and relativity, two such complementary opposites, should be the next major step in modern physics if science is to continue evolving toward an explanation of physical reality.

At this time we have reached an impasse. Science is unable to determine whether this duality is inherent in reality itself or only part of our perception of physical reality. A great deal of evidence has accumulated on this question during the last century or more. In the 1880's, Ernst Mach and others argued that our physical laws reflect our perceptions of the world rather than reality itself. Physical laws were thought to be no more than expedient ways of viewing or thinking about nature, rather than real laws that govern nature. The evidence so far indicates that this basic duality is not part of nature. The whole seems to be greater than the sum of its parts and an intuitive leap or flash of knowledge is needed to reach the next level of scientific advancement.

While science claims the ideal of logic and reason, the seed of intuition can still be discerned at the center of scientific thought. Intuitive leaps and flashes are fairly well documented throughout the history of science. As early as 1950, W.I.B. Beveridge openly challenged the stranglehold of reason and logic on science by documenting the use of intuition and imagination in scientific research. His description of the intuitive process is strikingly similar to what mystics say about their own use of intuition to determine reality.

The most characteristic circumstances of an intuition are a period of intense work on the problem accompanied by a desire for its solution, abandonement of the work perhaps with attention to something else, then the appearance of the idea with dramatic suddenness and often a sense of certainty. Often there is a feeling of exhileration and perhaps surprise that the idea had not been thought of previously. (Beveridge, 97)

Anyone familiar with the mystic experience of enlightenment, no matter what it is called in any given mystical tradition, will recognize Beveridge's description as that of the first moment of attaining enlightenment. It would be reasonable to assume that intuitive flashes of insight are far more prevalent in science than the prejudice of logical minds allows us to believe. Therefore, introducing mystical methods to accentuate and utilize intuition more fully and completely would do little to disrupt the scientific process. Mysticism can easily enhance scientific thought.

Since we are all humans, mystic and physicist, priest and philosopher, shaman and scholar, layman and professor, we all interpret actions and reactions in human terms. When we search for reality, in any of the dual contexts in which it appears, we are both, mystic and physicist, seeking a human solution to reality. So we carry into our worldviews the inherent weaknesses of perception due to our limited human brains and minds. Our only valid test of reality (or whatever we wish to call it) is to test our human view of reality through the eyes (or mind) of non-human intelligence or consciousness. This is directly analogous to Goedel's mathematical theorem, which simply states that you can only test the truth of a mathematical system by going outside of that system. However, we have no way to test our hypotheses and theories on the nature of reality by moving beyond our human perspective of reality. In the absence of non-human intelligences and consciousness, we need to use any and all tools available to breach this barrier to our understanding. That includes the methods of the mystics. The concepts of mysticism and modern physics are converging in spite of all the protestation of some scholars and scientists, so a convergence of their methods would seem appropriate and the sooner this is realized the sooner science can again advance.

## V: Concluding remarks

According to the Mysphyt theory, modern physics and mysticism are all approaching the same view of reality; their worldviews are converging. Many other

authors have offered circumstantial evidence of this fact by pointing out similarities in statements made by representatives of each discipline. But the similarity between modern physics and mysticism goes far beyond the simple similarities that have been publicized. Physics does not have a pre-set or 'a priori' view of reality, as does mysticism. Physics assumes that knowledge of reality is possible and thus seeks to gain that knowledge through reduction of the world into its component parts for analysis. Only then does physics generalize the results of its analysis. This generalization is similar to the generalization of concepts in mysticism. The difference between the two is found in the method by which generalized conclusions are reached. Logic and reason are used in science for reduction while mysticism relies on direct native intuition for its knowledge. Science develops its own intuition of reality through logical analysis of the world while mysticism assumes that human intuition is adequate without further analysis of our world.

Science and modern physics depend on reduction to define quantities for measurement, but the more precise their definitions have become and the deeper they probe the world, the more they are forced to the conclusion that paradoxes exist in nature. Nature seems to tease science with phenomena that can alternately be described and understood by concepts that are complementary opposites of one another. On the other hand, mystics embrace such opposites and overcome them by stimulating their intuitive faculties and thus reach their enlightened understanding of reality.

Mystics realize that the opposing ideas with which we describe our world are illusory and the reality behind those ideas is 'one,' unity. They do not need to logically reduce quantities in nature to discover this fact; they instead assume its truth as a starting point for their 'research.' In a sense, they look at nature or reality as a whole then explain individual phenomena. On the other hand, science dissects the mechanisms of our world and generalizes to the whole of reality. In so doing, they are both attempting to understand the same reality and therefore their conclusions have converged. It has taken science more than two millennia of investigation to come to the same conclusions as the mystics.

The mystics accept the fact that consciousness underlies physical reality and therefore assume that the opposites we find in nature are illusory. So they intuitively transcend the opposites to experience that consciousness and understand reality. Many scientists have long suspected that there is more to physical reality than the mechanisms described in physics. Yet only in the past century has that realization been forced upon the whole of physics through the development of relativity theory and quantum mechanics. It now seems evident to physicists that consciousness is at least intimately related to physical reality if not actually the basis of reality, so mysticism and physics now show many similarities of worldview. Since the convergence of views is inevitable, scientists should study mystical conclusions and methods of transcending opposites to help them make the intuitive leap past such paradoxes that nature seems to present to them.

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## PART I

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Last Updated 30 June 1997

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