

**A NEW CLASSIFICATION OF ASPECTS
AND STATES OF CONSCIOUSNESS**

**(A synopsis of the book “Landscapes of the Mind:
The Faces of Reality” written as an article for the
Journal of Consciousness Studies)**

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ABSTRACT

The vital importance of a fruitful classification of the observables in the domain being studied has long been known in science. In the field of consciousness we have been unable to devise such a taxonomy. One of the major difficulties has been the fact that we cannot conceive of consciousness before it has been alloyed with material from outside of itself. There appears to be no such thing as a concept of pure consciousness. The next logical step, therefore, seems to be a classification system of the forms which appear from these syntheses. These can be conceptualized as organized descriptions of how-things-are-and-work: World-Pictures. The beginning steps of such a taxonomy are presented here with some examples of its practical applications.

The central puzzle is not about “how consciousness evolved,” nor is it about “how would we know it was there if we didn’t happen to be aware of it already,” though both of those questions have raised a lot of dust. The central worry is “How can we rationally speak of our inner experience at all? How can we regain our inner world - the world of our everyday experiences - as somehow forming part of the larger, public world which is now described in terms that seem to leave no room for it? On what map can both these areas be shown and intelligibly related?”

Mary Midgley

John Psmith, consulting engineer, has come home after a day's work at his office. He is sitting in his living room, idly leafing through the day's paper, and relaxing. There is a cloud on the horizon of his mind. He has heard on the local news several times in the last few days that there have been a number of cases of meningitis in the neighborhood. He is worried about his four-year-old daughter who is upstairs. Should he, he wonders, have kept her home from nursery school until there was no more threat of an epidemic?

As he thinks about this, he hears the sound of the child crying. He gets up and begins to go up the stairs. He is suddenly terribly frightened. He mutters, "Please, I'll do anything, but don't let Amy have meningitis. If it has to be, let it be me instead of her. She's too small."

It is plain that Psmith is praying. He is pleading with something outside of himself and even offering a bargain. We all understand what is happening. We might well do the same thing under similar circumstances.

Psmith is, at this moment, deeply sincere. He **feels, thinks and acts** as if he knows that there is something or someone to pray to and that results can be obtained by prayer. Where this entity is located is not a real question or a matter of any interest to Psmith. Distance, how far away this entity is, whether it be measured in inches or in light-years is not a factor in his perceptions. As a matter of fact, numbers simply do not apply to anything during the moments when it makes sense to Psmith to pray. The idea of measuring or numbering anything is simply not relevant.

This is a far cry from how Psmith perceived the world and reacted to it during his day at the office. The two world-pictures are very different. As he sat at his desk he did not believe that wishes or prayer could change anything. He might wish deeply that the steel rods he is planning to use in the machine he is designing were stronger, but he is clear that no wish or prayer will make them so. There is simply nothing or no one "out there" to take note of his wishes, no matter how strong they are, and change the strength of the rods. If he wants stronger rods he will have to substitute another metal or another thickness. And he knows exactly how to do this. Further, everything can be, and is best done, in numbers. He knows the numerical relationship between the thickness of the rods and their breaking points, the number of rods he will need, the number of days it will take the factory to make them, the number of miles away the factory is and what this means in days from manufacture to delivery. In short he is in a world where everything of importance can be numbered and expressed in exact quantitative terms. These two views of how-the-world-is-and-works, these two World-Pictures, are clearly very different.

Psmith arrives upstairs and finds to his great relief that the child is not sick. She has awakened in the night confused and frightened. He takes her in his arms and says, "It's all right. Everything is all right."

Psmith is now perceiving and reacting to the world in a third way. In deep sincerity, as he holds Amy to his chest and cuddles her, in both body language and words he is saying that they both live in a friendly universe in which love protects against all problems and that all is well and will be well. This is the truth as he knows it at this moment. It is very different from the way he knows the world as he works at his desk. In that world-picture they will both eventually die and be annihilated and eventually they and their culture and even their planet will be forgotten dust. You can not know that and also feel that the universe is friendly and that love solves all problems.

A second difference between the world as he knows it at his desk and as he knows it while reassuring Amy is that in the reassurance world numbers and measurement are again irrelevant. Counting is not a part of reality.

So far we have seen Psmith construe and react to the world in three different ways. In spite of their differences Psmith, when he was using each one, knew he was correctly perceiving reality and that the picture of the construction of reality he was using at that moment was the only true and valid one.

Later that evening, Psmith and his wife go out dancing. During most of the evening he dances fairly well, enjoys himself, talks with his wife and his thoughts wander over many areas. At one moment, however, he realizes that for some time previously things have been very different. He was fully alert and awake, but thinking of nothing. He was just dancing from his toes to his scalp. He was totally and fully involved in only one thing and that was the dancing. During that period, he danced far better than he usually did and he and his wife responded to each other as if there had been some kind of instantaneous telepathy between them. He had no idea of what brought this change on, only a very vague idea of how long it went on, and after it was over felt charged up, generally very good and a little bit tired. If we analyzed what the world was like for Psmith during this time, we find that he and the music and his wife and the floor and the other dancers were one entity and there were no sharp lines between them, no clear beginnings and ends. There could be no counting because there were no separate entities to count. Everything flowed into everything else and the universe was a seamless garment. There was no such thing as willing, as “executive decision making,” because this would have meant a separation, a “doer” and a “done unto” and these did not exist. Will was not a factor in this world-construction.

From the 1860s to the 1920s the structure and nature of consciousness were the central focus and interest of psychology. Giants such as Wilhelm Wundt and Edward Bradford Titchener led a very large scale foray into this area. In the 1920s interest began to turn elsewhere as we found no way to progress further or even to define our subject.

When I came into psychology in the late 1930s the major part of our history was the study of consciousness through introspection. Many of our academic parents had trained in this as hard and long as any Zen monk. Much debate still continued on such topics as the differences about imageless thought of the Marburg and Würzburg schools.

John B. Watson's viewpoint was being widely discussed and argued about. Some psychologists and textbooks exulted that psychology was at last becoming a scientific discipline. Others that no real science ran away from its data and that psychology without consciousness was like ordering sirloin steak without meat. Many of our leaders saw Watson as the new Moses. Others that Behaviorism needed not a rebuttal but a cure.

Arguments were often heated. Reductionism and its validity were discussed then as much as they are now. In a panel at a major conference John B. Watson was advancing the idea that thought was “nothing but” miniscule movements of the voice box. Will Durant disagreed strongly. In the middle of the debate Durant turned to the audience and said, “There is no point in continuing this discussion. It is obvious that Dr. Watson has already made up his larynx.”

The work of the Gestalt school, led by Wertheimer, Köhler and Köffka was the elephant in the room that we all knew was there and did not know quite what to do with. We knew its importance and hoped that somehow it would stay in its place and remain limited to perception. It violated too many of our verbalized and un verbalized assumptions to be at all comfortable with. By and large we kept its strong and disturbing insights compartmentalized to visual perception and ignored their implications.

Over a period of twenty to thirty years the center of psychology shifted from the study of consciousness to the study of aspects of behavior that could be quantified. Whether

you interpreted this as that our field had finally shaken off the dusty shackles of philosophy or that psychology had lost its soul at its beginning and that it had now lost its mind, depended on your viewpoint. For my good or ill fortune, the psychology departments of the schools at which I studied (The College of William and Mary, and the University of Chicago) were oases which remained somewhat aloof from the conflict and tried to see the best in both sides. I feel very fortunate in this happenstance.

Looking back at my own work during the last sixty-plus years I see how this early orientation has remained with and influenced me. The great majority of my publications dealt with both consciousness and behavior. Whether I was writing on the similarities and differences of the structures of thought of mediums, mystics and physicists, or on body-mind medicine or on the thought processes of the SS during the Holocaust, the basic orientation remained.

I never attempted to actually define consciousness and it is only in the past few years that I have begun to face up to the problem. Up to the present I, like so many of my colleagues,

implicitly used G. T. Ladd's 1887 definition that consciousness is what we have when we are wide awake and that we lose as we "slowly swoon away into deep dreamless sleep." Why we felt that we could not progress beyond this and what we could do about the problem has only begun to be a little clear to me in the past fifteen or so years.

The exact definition of "consciousness" has been worked on for a very long time by some of our best and most dedicated explorers. One need only to look at a paper such as Max Velman's excellent 2009 "How To Define Consciousness - And How Not To Define Consciousness"¹ to get some idea of the amount of serious work that has been done in this area. For those working in the field an interesting experience may be had by reading Christian de Quincey's 2006 "Switched on Consciousness,"² and the comments on his paper by Michael Beaton, Johnathan Bricklin, Louis C. Charles, Jonathan C.W. Edwards, Ilya Farber, Bill Faw, Rocco J. Gennaro, Christian Kaernbach, Chris Nunn, Jaak Panksepp, Jesse Prinz, Matthew Ratcliffe, J. Andrew Ross, Murray Shanahan, Henry Stapp, and Douglas Watt. All of these are extremely competent

researchers well familiar with the immense literature. There are basic differences between their approaches, viewpoints and conclusions. Much to my dismay I find myself nodding in agreement with all of them!

In science we no longer try to define what matter is or what energy is. We look instead for the effect of their observables on each other.

We have given up the attempt to define the fundamentals of our universe or to find reasons for their existence. We know gravity by its relation to falling bodies, the orbits of planets and, perhaps, to distortions in the metric of space. We know inertia in its relations to mass and motion.

There are certain things that you simply can not do, and one saves a great deal of time and energy by learning what they are and stopping trying to do them. Very few of us today spend much time trying to invent a perpetual motion machine that will do work or squaring the circle or trying to determine the velocity and position of an electron at the same time or finding a definite end to the definition of pi.

When Clerk Maxwell, surely one of the greatest intellects in the history of physics, applied the “What is...?” question to “matter” and “energy,” he ended with:

We are acquainted with matter only as that which may have energy communicated to it from other matter and which may, in its turn communicate energy to other matter.

Energy, on the other hand, we know only as that which, in all natural phenomena, is continually passing from one portion of matter to another.³

The professor asked the student, “What is electricity?”

The student replied, “I forget.”

The professor said, “Oh my God! The only man in the world who knew and he has forgotten!”

Henry Margenau

Linnaeus nowhere struggles with the precise definition of “life” or “living.” He proceeds to classify its manifestations.

Similarly Lord Kelvin spent a long and fruitful professional life in the study of matter. He never attempted to define his subject matter.

There is an important impossibility which we have not fully accepted as such: it is to define what consciousness is. It

is impossible to conceive of consciousness in its pure form, before it is alloyed with stimuli from whatever is outside of itself. There is no such thing as a concept of consciousness in this pure form. The best you can do is “a series of cogitative flashes in which nothing whatever is cogitated or symbolized.”⁴ That is not a concept or definition which is going to get you anywhere.⁵

If you can not conceive of consciousness before it becomes a synthesis with something outside of itself the logical next step is to classify the ‘forms’ that this synthesis takes.⁶ Probably the best way to do this is to analyze them in terms of the basic parameters of descriptions of how things are and work. We will call these descriptions “World-Pictures” since they involve a picture of perceived reality at that moment and begin to develop a taxonomy of them.

This description does not tell us what reality actually is, whatever, if anything, that phrase means. It simply describes how it is perceived and lived at this time.⁷

The immense value of a fruitful classification system of the observables in the domains with which a scientist is concerned has long been known and amply demonstrated. One thinks immediately of Linnaeus (“He found biology a chaos and left it a cosmos.”) and of the 1876 Periodic Table of Mendeleev.⁸

Linnaeus started his classification system with “Kingdoms,” the largest “natural grouping” of biology he could discern - Plants and Animals. The next level of “animals” differentiated those with backbones and those without, and so forth.

Following his example the largest natural grouping of world-pictures seems to be those in which the observables can be quantified and those which they can not. We can label these Kingdom 1 (quantifiable observables) and Kingdom 2 (non-quantifiable observables).

By “quantified” we mean we can assign exact numbers that mean the same thing to everybody to each observable and these can be added, subtracted and, in general, dealt with by arithmetic or another mathematical system. Examples of

observables that can be quantified include distance, temperature, shoes and ships and sealing wax and cabbages and kings.

Observables we can not (practically or in theory) quantify include love, awe, pain and others which provide direct access to the data to only one person.

In Kingdom 1 quantifiable questions can be asked, such as how tall is the Great Pyramid, how many elephants are on the veldt, and what is the quickest way to get to Chicago. In Kingdom 2 non-quantifiable questions can be asked, such as how shall I treat my neighbor, how much do I love you, what happens after biological death, how long is the yellow brick road and what is the most pleasant way to get to Chicago.

Kingdom 1 reflects reality as presented by our sensory array, it gives the answers to how-to questions (including building hospitals and atom bombs, dodging speeding trucks, getting food into our mouths). It is absolutely necessary for human survival.⁹ The sensory array of each species presents the world-picture necessary for that species to survive. It is its “alpha” world-picture. When we examine this human alpha

world-picture we find that things act according to mechanical laws. There is no room for freedom of choice. The appropriate logic is inductive. Philosophical materialism is valid.

Kingdom 2 presents a very different picture of how things are and work. It takes the same stimuli and gives a very different interpretation. It tells us very little about 'how-to' but emphasizes and answers questions as to 'why.' This is the other half of reality as critically needed by human beings. To stay alive we need both a how-to and a why: how-to stay alive and why we should do this. In this world-picture freedom of choice is an observable. The appropriate logic is deductive. Philosophical materialism is invalid.

Everything concerning morals, love, values, feeling are in Kingdom 2 (K2). How to build a fire or electric heating system is Kingdom 1 (K1). The basic rules of K1 are those found in a chemistry 101 textbook, an automobile factory, and in Western medicine. The basic rules of K2 are those found in the fairytale or saga, free association and memory, and Eastern medicine.¹⁰

To give an example of how differently the two affect us, let us describe the general orientation of a western citizen in peacetime and the orientation when the country is deeply, emotionally involved in a war.

In Peacetime (K1)

1. Good and Evil have many shades of gray. Many opinions and groups with different ideas are legitimate. Things and opinions are seen as relatively good and bad, satisfactory or unsatisfactory, stupid or intelligent.
2. "Now" is pretty much like other times. There are more of some things, less of others, but the differences are quantitative.
3. The great forces of nature, such as God or human evolution, are not particularly involved in our disputes.

In Wartime (K2)

Good and Evil are Us and Them. There are no innocent bystanders; you are for us or against us. The crucial parts of the world are divided into black and white. Opinions on this are absolutely right or wrong.

"Now" is special, qualitatively different from all other times. Everything is cast in the balance; who wins now wins forever. It is the time of the final battle between good and evil, of Armageddon, of Ragnarok, of the War to End Wars. "It is the final battle," says the Internationale.

"God Wills It," "Dieu et mon Droit," "History fights on our side," "Manifest Destiny," and other such slogans indicate our belief that the great forces of the cosmos are for Us and against Them.

In Peacetime

4. When this present period is over, things will go on pretty much as they have in the past.
5. There are many problems to be solved and their relative importance varies from day to day. Life is essentially complex with many foci.
6. All people act from pretty much the same motives.
7. Problems start on many levels, e.g., economic, political, personal, and must be dealt with on these levels.
8. We are concerned with the causes of problems we are trying to solve.
9. We can talk with those with whom we disagree. Negotiation is possible.

In Wartime

- When this war is over, everything will be vastly different. If we win, much better; if we lose, terribly worse. The world will be deeply changed by what we do here. Winning or losing will change the meaning of the past and the shape of the future.
- There is only one major problem to be solved. All others are secondary. Life is essentially simple. It has one major focus.
- “They” act from a wish for power. “We” act from self-defense, benevolence, and reasons of common decency and morality. Everyone is either for us or against us. There are no neutrals.
- The real problem started with an act of will on the part of the enemy and can only be solved by breaking his will or by making him helpless to act on it.
- We are not concerned with causes, only with outcomes.
- Since the enemy is evil, he naturally lies. Communication is not possible.

In Peacetime

10. All people are fundamentally the same. Differences are quantitative.

In Wartime

“We” and “They” are qualitatively different, so different that the same actions are “good” when we do them, “evil” when the enemy does them. There is doubt that they and we really belong to the same species.

It is plain that when someone uses the rules of K1 they are viewing reality very differently when they are using K2 and will in consequence behave very differently. For an example, I would, when living in the K1 world, never dream of driving my car over a child in the street who has fallen off his bicycle no matter what my hurry. In the world of K2 I would, with no compunction, but rather with a feeling of accomplishment and pride, drop bombs on a city and incinerate 1,000 children.

In the quantitative World-Pictures (Kingdom 1) an entity is “real” if it has consistent effects on other entities and if its observables can be described quantifiably. In the non-quantifiable World-Pictures (Kingdom 2) an entity is “real” if it is conceived. There may or may not be a ghost in the attic at this moment but in K2 ghosts and attics are equally real.

Which set of World-Pictures is “valid?” It depends on what you are trying to do at the moment. If you are trying to convince someone not to commit suicide, you need Kingdom 2 with its values and its deductive logic. If you are trying to show them how to commit suicide in such a way that their heirs can collect on the insurance policy, you need Kingdom 1 with its inductive logic.

In Kingdom 1 inductive logic, the general statement is open to change by specific events. I have three good meals at a new restaurant. I make a general statement that it is a “good” restaurant. If, however, the fourth meal is a bad one, I modify the generalization. The theory bows to the brute fact. The exception tests the rule.

In Kingdom 2 deductive logic the theory rules and facts are interpreted in terms of it. I say, “God is good,” and “prove” it by pointing out that I survived the flood. If you point out that all my neighbors died, I will say, “He works in mysterious ways.” It is deductive logic that keeps me from killing a rich stranger and stealing his money if I find myself in a situation where I could safely do this. The theory is that killing is wrong.

(Unless I am in a war and the enemy is defined as totally evil. Dorothy would never kill Miss Gulch in Kansas but she does kill two Wicked Witches in Oz - and robs their bodies!)

Using deductive logic it is legitimate to say, “I have made up my mind - don’t bother me with the facts.” But out of it also comes geometry, courage, steadfastness in the face of adversity, generosity, a Gandhi, and an Albert Schweitzer. (And a St. Francis of Assisi and an Adolf Hitler.)

I am using the terms “inductive” and “deductive” logic in the oversimplified way that William James did in “The Pluralistic Universe” when he identified the first with empiricism and the second with rationalism, “reduced to their most pregnant differences.” In this sense inductive logic is probable reasoning that can be changed with new observations. Deductive is necessary reasoning that does not change with new observations. Although the two are vastly more complicated than the way I am using them, and frequently overlap in our thinking, they fit quite well in how we perceive and react to the two Kingdoms defined here. Perhaps the example of some practical uses of the taxonomy presented

later in this paper will make my use of the terms more acceptable. If, as has been widely observed, psychology is the study of how people think, and logic the study of how they should think, the present work is an essay on psychology.

Part of the problem of “understanding” consciousness now becomes clear. Its observables are non-quantitative. Therefore it belongs in Kingdom 2. In this Kingdom inductive logic is irrelevant. There is, for example, no Law of the Excluded Middle. An entity can both “be” and “not be.” “Fact” and “Symbol” are frequently so intertwined that they can not be separated. Consciousness is “real” but must be dealt with by the methods and logic relevant to Kingdom 2.

In Linnaeus’ classification “Animals” are followed by the next level of classification - animals with and without backbones. So, too, we must move to our next level. Such general classifications as Plants and Animals and Quantitative and Non-Quantitative are too broad for many problems.

The next largest “natural grouping” seems to be concerned with the question of whether or not the observables are discrete, or are continuous.¹¹ A baseball, the catcher and

the umpire all affect each other, but after nine innings they go their separate ways. What happens to one does not particularly affect the other. Similarly the shoes and coat I am wearing are discrete observables.

However, the pressure, temperature and volume of the gas in a closed container can not be separated and go their own ways. Whatever happens to one affects the other, day or night, June or September. Similarly my emotions, my memories, my intellectual function or the aspects of the atmosphere around us can not ever be meaningfully separated. Each observable affects the other. They are continuous, not discrete.

TABLE ONE

A Beginning Taxonomy of World-Pictures

Kingdoms

K1
Quantitative

K2
Non-Quantitative

Realms

K1i
Quantitative
Discrete

K1ii
Quantitative
Continuous

K2i
Non-Quantitative
Discrete

K2ii
Non-Quantitative
Continuous

Domains

As we called the first level, Quantitative or Non-Quantitative, Kingdoms, we will call the second level, discrete or continuous, Realms.

In K1, the quantifiable Kingdom, we then find two Realms, Realm i in which the observables are quantitative and discrete. This is the realm which our vision tells us is the valid or true one. Here are bicycles and kidneys, meadowlarks and submarines.

In K1, Realm ii is the realm in which the observables are quantitative and continuous.¹² Here lie the observables of hydrodynamics, relativity theory, weather patterns, the behavior of mobs, electrical systems and good cooking.

In Kingdom 2, Realm i is the realm in which the observables are non-quantifiable and discrete. In this realm lie the observables of the fairytale and the saga. Here the whole determines the parts. In this realm unless you know the overall whole and what it is like you do not understand the parts. If you don't understand everything you understand nothing. The Third Prince goes on a quest because that is what Third Princes do. The stepmother is wicked because she

is a stepmother. There is no cause of her wickedness in a traumatic childhood, defective genes, or what have you. In Nazi Germany the Jew was subhuman because that is what Jews were.¹³ A Jew who had positive characteristics was no more conceivable than that the Wicked Witch of the West raised and loved flowers. Wicked witches simply do not use their free will to do that or to set up a refuge for battered women.

Out of this realm, this concept of reality, come morals, ethics and the meaning of life.

Each sequence in this realm starts with an act of will and ends when the consequences of that act are fulfilled. There is free will.

There is a basic black-white quality in this realm. Cinderella and the Prince are all completely good, the stepmother and stepsisters all completely bad. Luke Skywalker and the Emperor are complete opposites, there is no overlap, very little neutrality.

There is a strong tendency when human beings run into an important problem in K1i (the quantitative discrete realm)

and have not the technology to solve it, to start thinking and acting as if the world ran on K2i (the non-quantifiable discrete realm). Thus in World War II if I was going to fly over enemy country and had to fly through antiaircraft fire which I could not predict and do not have the technology to consistently avoid, I would wear my lucky socks and make sure my cap was on backwards. However, where I do have the technology I would act in a K1i (quantifiable discrete) manner, such as making sure the gas tank is full and that the engines are running smoothly.

The fourth realm K2ii is the realm in which the observables are non-quantitative and continuous. If we ask ourselves about the play of emotions, memory and thoughts we have had in the past period we will see that they are non-quantitative and continuous. We perceive a seamless garment, ever-flowing, never twice the same.

There is also a widely known psychological state during which reality is perceived in this way. It has various names: Satori, Samadhi, Fana, Cosmic Consciousness, and others. Its attainment is the goal of many spiritual development schools.

It is widely reported to have strong long-term positive effects on the beliefs and behavior of those who attain it.¹⁴

Since all reality, including the perceiver, is perceived as one, there is no will or executive decision making, since this would imply both a 'doer' and a 'done unto.' Time is seen also as not divided. Was and will be are seen as coexisting with now. Since in this World-Picture you are not your brother's keeper, but are your brother, there are definite moral and ethical implications. No questions can be asked in this World-Picture but very often great questions (the meaning of life, what is death, etc.) are answered to the satisfaction of the individual.

The relationships between events or processes seen in K1 (the quantitative Kingdom) and in K2 (the non-quantitative Kingdom) are complex and little understood at this time. Thus, to paraphrase Gilbert Ryle's famous statement, we say, "Margaret came home in a Rolls Royce and a bad mood." We are dealing with the same event (Margaret came home) both from a K1 viewpoint (in a Rolls Royce) and a K2 viewpoint (in a bad mood). The interactions are clearly many. The bad mood

might induce her to send the car on the longest route, the shortest route, or the most scenic. Or she might throw up all over the upholstery. The opulence of the Rolls Royce might improve or worsen her mood.

Too little is known and this is not the place to try to fully explore this problem. However, there is one part of the relationships we might look at. It is much easier to go from statements in K1 to statements in K2 than vice versa where it is generally, at least, impossible. I can go from 437 flying monkeys to “a great many” or 120 degrees Fahrenheit” to “very hot,” but not the other way around. Dorothy can bring her blue dress from K1 Kansas to K2 Oz, but not bring back the Ruby Slippers.

There are many implications for this in psychotherapy. The most obvious is that if the patient is (and they generally are) evaluating himself in a K2 world-picture with its deductive logic, and has come to the conclusion that “nobody really likes me” it is clearly useless and a waste of time to use specific examples (in inductive logic, a K1 procedure) to the contrary. All therapists know this from experience, but partly because

we have had no theoretical framework in which to fit our knowledge, we very frequently forget.

Each realm also includes the strong basic statement that it is the only valid, true picture of reality.

The movement from one realm to another varies. Often I slip from quantitative discrete K1i to non-quantitative discrete K2i and back so fluidly and smoothly that I do not notice I have done it. I am driving to the mountains to stock a fortress with arms against a predatory federal government, or to pray for peace, or to go on a vision quest. These are certainly K2i activities. But I am careful to drive on the right side of the road, avoid potholes, and fill my tank with gas, K1i activities.

Generally speaking K1i is the realm I participate in when I have the technology to attain my goals consistently. I frequently move into K2i when the goal is important to me and I have not the technology to reach it.

I go from K1i, the quantitative discrete realm, to K1ii, the quantitative continuous realm, generally at first deliberately and with hard work and later automatically when the task demands it, tasks such as designing an electrical or irrigation

system or blending spices for an ideal barbecue sauce. When we finish working on the task we quickly and easily slip back to K1i. The passage from K1i, the generally accepted view of reality in our culture (the human 'alpha' realm) to K2ii, the non-quantitative and continuous realm (e.g., cosmic consciousness) varies. Sometimes it comes after long hard work in meditation and self-training. Sometimes it comes suddenly and unexpectedly, as with Paul on the road to Damascus. Usually our participation in it is brief, a moment or a few hours. The effect may last much longer.

This clarifying into two levels, kingdoms and realms, is only a very bare beginning. Each realm further divides into domains and more and more precisely divides into further domains.¹⁵ Further, there may be more than two kingdoms ultimately needed. Linnaeus started with two and now at least five are generally accepted in biology.

The real background of this work started with the "New Science" of Giambattista Vico in 1725. Here, to our knowledge, for the first time in human history a specific and clear statement was made. This was that there are different, equally valid ways of

organizing our sensory input: that they lead to different possibilities and impossibilities. Thus, he pointed out, “Hamlet” could not have been written in Homer’s time nor “The Iliad” in Shakespeare’s. Neither is superior to or more valid than the other, they are just different.

One did not develop out of another and is therefore superior to it any more than a saw developed out of a hammer and is therefore ‘higher.’ World-Pictures are tools, each adapted to specific types of problems and needs and using different methods.

New refinements may develop as Descartes refined one method and the Philokalia and the Vedas another.

The basic idea that there are different ways to organize our sensory input and that each of these has special abilities and disabilities is far older than Vico’s brilliant and inspired clarification. It has long been observed that all philosophy is “a series of footnotes to Plato.” In the Phaedrus we hear from that great advocate of logic and reason:

“Socrates: [In great misfortune] madness lifts up her voice and flying to prayers and rites [often] comes to the rescue of those in need...and he who is duly out of his mind...is made whole and delivered from evil...and has a release from calamity...”

Jowett, Tr.

Plato continues with an analysis of other states of “inspired madness.” All worthwhile art and poetry, he writes, comes from someone being “out of his mind.”

There have been a number of explorations of the idea that different cultures had different basic beliefs as to how-things-are-and-work. Durckheim called them “Collective Representations,” Whitehead, “Climates of Opinion,” Dilthey, World Views,” Popper “World Three,” Fritz, “Current Reality,” Erwin Lazlo (arguably the most important figure in the area today), “Cultural Cognitive Maps.”

One aspect of this approach is that it helps us past the problems raised by Descartes’ dualism. We no longer have to deal with the problem of finding the means by which consciousness affects the body and vice versa. We have been unable to conceive a bridge between them. (Today we largely try to solve the problem by theoretically treating the *res cogitans* as an epiphenomenon of the *res extensa*. As essentially a “froth on the water,” or, to use a metaphor of T. J. Huxley, as the steam whistle of a locomotive.)

However this simply leads to other problems. Typical of these is what David Chalmers calls “the hard question.” Why, he asks, doesn’t the electrochemical brain changes go on “in the dark”

without any “feel?” Once we separate mind and body we can not seem to get them together again.

The World-Picture approach presented here does not deal with or consider two separate entities or universes or even universes-of-discourse. It deals with organized, coherent concepts of how-things-are-and-work and compares their usefulness in different situations. This helps us avoid a lot of so far insoluble problems.

Vico’s work was largely ignored in his lifetime. Later in the 18th Century Herder picked it up and applied it to different cultures. He stressed that each had a different “center of gravity” and their World-Pictures varied widely leading to completely different sets of problems and developments. Although Vico’s insights became widely known and influenced a number of our intellectual leaders, the implications of it have been very little accepted. We read William James’ Varieties and his Pluralistic Universe. Ernst Cassirer’s Symbolic Forms, Jean Gebser’s The Ever-Present Origin and Isaiah Berlin’s Vico and Herder and think well of them and do not change our thinking at all.

The trouble is that most of us have a basic commitment to the idea that there is one true, “valid” concept of reality (ours, of

course) and that all others are “primitive,” “childlike,” “mythological,” or “pathological.”

Generally speaking the cultural anthropologists (there are major exceptions like Mead, Benedict, Malinowski, Greenfield and others) genuflect and pay lip service to the idea that a native tribal view of reality is valid with their prejudices to the contrary then shining through at every pore.

The anthropologist, and practically everyone else East and West, usually believes in his or her heart that one of two things about reality is true. The first is that reality “really is” what our sensory array tells us it is. The desk we lean on is hard and brown and Eddington’s other desk made up of empty space haunted by areas containing mass, charge and velocity is also real, but our feelings tell us its reality lies somewhere between that of Washington’s cherry tree and the Easter Bunny. (And never mind the atomic research that led to Hiroshima and Nagasaki.)

The other set of beliefs that is widely spread over the human race is that reality comes in two editions - trade and deluxe. (I do not remember who first used this metaphor.) Here are Plato’s appearances and forms, the Buddhist illusion and Brahma, the mystic’s world-of-the-many and world-of-the-one, and a wide

selection of others. All agree that both are real, but the deluxe is somehow more real. (Sort of like in Orwell's "Animal Farm" in which all the animals were equal but some were more equal than others).

We today see and largely ignore the current flowing from Vico's brilliance except for some theoretical physicists who have only rarely heard of Vico. These physicists have learned from Max Planck and Einstein how fundamentally different reality in the micro-universe is from reality in the sensory universe and in the macro-universe. They accept this in their work but most of them are fundamentally and emotionally committed to there being only one real picture of reality, and they stay on the quest, started by Pythagoras, for a unified field theory to explain and connect these different World-Pictures.

With this exception we have, by and large, ignored the hard core of Vico's work, that there is no way to rank the great World-Pictures on a validity scale except in terms of specific goals. The approach presented here is that to ask the question "What is the true shape of reality?" is meaningless. (In science, as we all are aware, a meaningless question is one that you can not, even in theory, answer and prove your answer's validity). We can ask "In

order to attain a particular goal what is the best way to construe reality, the best way for our specific purposes?”

Each species has a sensory array that gives it a specific World-Picture. This is the world-picture that makes it most likely that the species will survive (its “alpha” World-Picture). To go further than this is, as Max Planck somewhere pointed out, a matter for religion, not science.

With this in mind let us see where the idea of a classification system of World-Pictures leads us.

* * * * *

In 1990, in a desperate attempt to end the Mideast bloodbath, the then Israeli Prime Minister, Ehud Barak, made a startling offer to the Palestinians. Barak was in an unusual position to make the offer - he had been the most decorated soldier in the Israeli army and his loyalty, dedication and experience were unquestionable. He offered nearly everything that the Palestinians had been demanding - 90% of the West Bank, East Jerusalem, control of the Temple Mount, etc. The Israeli public was shocked at the size of the offer (In the words of one Israeli newspaper, “He gave away the store.”), but generally were ready to accept it if the Palestinians would do

their part and stop the attacks on civilians, bombs in buses and supermarkets, and suicide bombers.

This unexpected offer, far more than anything that had previously been put on the table was expected to provoke, at the very least, a counteroffer and negotiations and to be a large and real step toward peace. What did happen was unpredictable from a “common sense,” quantifiable/discrete K1i viewpoint and completely predictable from the concept of World-Pictures.

The Israelis were using a World-Picture in K1i. In this Quantitative/Discrete, the Western “common sense” Realm (read “Kansas” or see the description of the General Peace World-Picture), this offer would be seen as at worst a point for further negotiations, at best a major attempt to end the bloodbath and to convince the Palestinians that the Israelis were serious in their search for peace. It was by far the most generous offer that had ever been made in the long negotiations and should, from the viewpoint of K1i, have advanced the peace process by a long and crucial step.

However, the Arabs were using a World-Picture of K2i (read “Oz” or see the description of the General War World-Picture). Completely logically from the Basic Limiting Principles of this, Non-Quantitative/Discrete Realm, they made no counteroffer, raised

new and clearly impossible-to-accept conditions for peace, broke off negotiations and immediately increased the violence - the Intifada.

In K2i everything is black or white; there are no shades of gray. The enemy is implacably evil, always lies and, to the point here, would never give up an advantage or concede a negotiating point unless either it had to because of weakness or it was some sort of trick to gain a new advantage.¹⁶ These two are, from the viewpoint of K2i the only possible reasons such an offer would be made. Using the Basic Limiting Principles of this Realm it would have been completely illogical for the Palestinians to accept the offer or to conceive that it was made in good faith.

Not seeing how it could be a trick, they had to assume that it was made through weakness. It seemed obvious and clear to them that the Israelis had been so devastated and weakened by their suicide bombing policy that if they increased it they could get even more than had been offered, perhaps even attain their ideal goal of the total collapse and destruction of the State of Israel.

Neither side understood that their opponent had defined the-way-the-world-works far differently than they had themselves. Both behaved logically and reasonably from their own viewpoint. Real communication and mutual understanding was impossible. If there

had been understanding of this difference on either side, a quite different set of options would have been seen as both possible and necessary.

* * * * *

If the approach presented by this paper seems to limit the ways we have to solve problems such as that of how to deal with terrorism, it also leads to new possibilities, to new methods. As an example of how we might use the viewpoint of this work, I will take the problem of the general animosity that is now building up between the Middle Eastern Mohammedan world and the Western European and American world. As shown by the example of the Barak-Palestinian disaster, a large part of the problem is that one group is primarily using a K1i (sensory) World-Picture and the other a K2i (mythic) one. It is very difficult, if not impossible, to convince people using a K2i (mythic) approach to change it to a K1i (sensory) World-Picture. Logic and reason are frustratingly ineffectual. However, the group using a sensory (Kansas) World-Picture can understand the mythic (Oz) World-Picture of the other group and work effectually within it. For our purposes here, part of a mythic (K2i) approach is:

A. There is a division of all people into good and bad.

(There is no problem of who is who in Cinderella.)

B. There is a great quest by the good guys to solve a very important problem:

The quest has:

1. A great goal which involves us emotionally.
2. A practical way of reaching the goal, fraught with great difficulties.
3. A “happily-ever-after” end point.

Working within this viewpoint the task becomes to redefine the quest so that it now includes both groups as good guys on the same quest. Imagine, for example, a leading statesman of either group at conflict today making this major speech (an Inaugural Address or at the UN or whatever).

“We, in the Middle East and in the West, have major problems with each other. They must and will be solved before we can have real peace. But while we struggle and seek for solutions, children are starving to death all over the world. This is not permissible. The terribly hungry children must come first. Whatever our goal and God, whatever terrible political and personal injustices that have been done to us, we must first make certain that no child in the world is crying helplessly and in pain as he or she dies of starvation. Everything else can wait. What can we, you and I and all of us, all human beings, do about this? We personally will immediately allocate as much money as we now spend on weapons to see that no child in the world dies of hunger. But we

can not do this alone. We can only succeed together. These are our human children who are suffering and dying. They are not black or white, yellow or brown, Moslem or Christian, Hindu or Buddhist, or divided in any other way. They are our children. They must come first. Let us work together now on this single issue.”

The speaker has redefined the problem in a practical, mythic, K2i way that makes it possible for all groups to join in and very difficult for any to refuse. In the deepest sense, he has met his opponents where they are and spoken to them in their own language.

In the mythic World-Picture you do not tell the young Prince not to go on a quest or try to reason him out of it. Doing so will get you nowhere. You enlist him in a greater quest. In the saga it would have been hopeless to try to convince Eric the Red not to go to Greenland. But he could have been convinced to go on to America. Or the Prince to take Cinderella and together go off to found a great new kingdom where peace and happiness for all would exist forever. Instead of an “us” and “them” he (or she) has stated the situation so as to build a “we.”¹⁷

If you are in conflict with someone and are using different World-Pictures, you can not solve the problem by the methods appropriate to yours. You must see the world he lives in with his

eyes (“Walk a mile in his moccasins.”) and solve it with an appropriate method. This leads to new opportunities to solve apparently intractable problems. (The above is just one example.)¹⁸

Conclusions:

1. A new taxonomy of aspects and states of consciousness is suggested and the beginning of it presented.
2. Two implications of this work so far are shown.

1. Max Velman, *J. of Consc. Study*, 2009, 16/5, pp. 139-156.
2. Christian de Quincey, *J. of Consc. Study*, 13 No. 4, 2006, p. 7.
 Of all the material I have read in this field, the most personally rewarding was Science and Poetry by Mary Midgley (New York, Routledge, 2001). The voyage she invites the reader on is deep and wise, profound and stimulating and, to use a modern phrase, very reader friendly.
3. Pearson, K., The Grammar of Science, Meridian, New York, 1957, p. 272.
4. Findlay, N. in Vesey, G.N.A., Body and Mind, London, Allen and Unwin, 1964, p. 352.
5. And if you can not conceive of consciousness before it is synthesized with stimuli from outside of itself, it becomes a very chancy thing to try to describe the true and real structure of consciousness, even if there is such a thing. (Is consciousness really the same when you are playing chess, at the height of sexual arousal or in deep prayer? To say that consciousness has one structure that encompasses all of these requires a long intellectual stretch.)
 From an opposite viewpoint Einstein and Infeld showed you can not conceive of “outside reality” before it is alloyed with consciousness. (The Evolution of Physics) To be more precise, you can not conceive it in such a way as to be able to test your conception for validity. Morris Raphael Cohen somewhere said, “The word reality maintains itself as a term of praise rather than of description....It is an expression which carries an agreeable afflatus without dependence on any particular meaning.”
 Part of the reason we have been unable to define consciousness is that you can not define or classify something you can not conceive of. I am reminded of a statement made by James Thurber in his lovely little book The Thirteen Clocks. He writes that coming down the stair was “something that looked very much like something no

one had ever seen before.” Perhaps Thurber (or Lewis Carroll) might have written a metaphor for one problem in our attempts to define consciousness the story of the chemist who told a friend of his present project. It was to design the universal solvent, a solvent which would dissolve anything. The friend asked, “After you get it, what are you going to keep it in?”

6. The concept that the knower and known can not be distinguished or separated is a very old one. It goes back at least to Aquinas. Later Vico and Herder brought this concept into the scientific realm. And Omar the Tentmaker famously asked, “Who is the potter, pray, and who is the pot?”

For further material on this see *The Summa* or, far less painfully, read Jacques Maritain *The Range of Reason*, Scribner, New York, 1983 and Isaiah Berlin’s *Vico and Herder*, Hogarth, London, 1936.

7. Merleau Ponty and others have shown that the importance of a perception lies not in how it is stated or verbalized but how it is lived.
8. Alfred North Whitehead has repeatedly pointed out that a science is tremendously handicapped until it finds a way to **organize** the material it is studying. Until it finds a way to fruitfully classify the parts and aspects of the field - its “observables” - it can only progress in fits and starts.
“Ought we not to consider first whether that which we wish either to learn or to teach is simple or multiform, and if simple, then to inquire what power this has of acting or being acted upon by other, and if multiform, then to number the forms, and see first in the case of one of them, and then in the case of all of them, the several powers which they by nature have of doing or suffering.
Plato: *The Phaedrus*
(Jowett, Tr.)

An excellent and important paper on the problems of ordering in the study of consciousness is “Beyond Plato: Towards a Science of Alterations of Consciousness” by Edzel Cardena, Utrecht 2: Creating the Future of Parapsychology, 2010, New York, The Parapsychology Foundation, pp. 305-322.

9. The sensory array of each species gives it the information necessary for that individual or species to survive. This is very different in different species. For example one might compare the sensory input of a human, a wood tick and an electric eel. We might therefore think of defining reality (whatever, if anything, that term means) as species-specific. The sensory input of each species leads to a World-Picture essential to its survival. This is the alpha World-Picture of that species.
10. Western medicine regards germs, accessible to the senses with the aid of a few pieces of polished glass of paramount importance. Eastern medicine so regards chakras and meridians, not accessible to the senses. Western medicine concentrates on the specific, such as directly removing the cancer cells. Eastern medicine relies on the general, that is, changing the energetic and other balances of the body so that the body will heal the cancer cells. Both produce some excellent results in some conditions and are not very effective in others.
11. In Henry Margenau’s words: the question is not whether or not matter is continuous or discrete. The question is how do our theories succeed in attaining our goals when we regard matter as continuous or regard it as discrete? Open Vistas, New Haven, Yale University Press, 1961 and see LeShan, L., The Medium, the Mystic and the Physicist, New York, Viking, 1974 and LeShan, L. and Margenau, H. Einstein’s Space and Van Gogh’s Sky, New York, Macmillan, 1982.

12. This nomenclature differs from that projected in my book “Landscapes of the Mind.” I am reporting on a work in progress, and as we go along hopefully I will change and see things differently. Anyone who has read both this article and the book is invited to make their choice. I make no apologies for this difference. Further I hope that in the future when I write on this subject I will have learned more and write differently than I have so far.
13. Unless you understand that the Nazis were viewing the Jews from a K2i viewpoint, and using deductive logic, their behavior in the Holocaust is inexplicable. (See LeShan, L., The Pattern of Evil, New York, X Libris, 2006.)
14. The basic statement of all serious mystical schools seems to be Tat Tvam Asi, translated usually as “that art thou”; whatever you see, perceive or think of you and it are one, that the universe is so continuous its parts can not be separated.
15. Perhaps the next level of K2i, the level of non-quantitative discrete observables differentiates those domains in which magic occurs and those in which it does not. The two laws of magic can be seen in various areas, not in others. These two laws are: (1) similarity, if two objects resemble each other they can affect each other and are each other. If I have a plant with heart-shaped leaves it will give medicine useful for the heart; and (2) contiguity, if two objects have ever been together they are always together. Thus if I have some of your discarded fingernails and I treat them in the proper way, putting them in a doll resembling you and charging it up I can damage you. They are not separated from you. Similarly, the day of your birth affects you all the rest of your life. These two laws are seen in voodoo, for example, they are not seen in the saga. Perhaps the next level of the discrete non-quantitative is the domain which differentiates these two.

16. See St. George and the Dragon, Frodo and Mordor. Most pro- and anti-abortion groups and most 1943 Britons and Germans.
17. After your people have fought alongside the British Army in a number of foreign wars it is hard to consider yourself a Welshman first and an Englishman second and the two implacably opposed to each other.
18. For material on the “Counter Enlightenment” started by Vico, on which this paper is largely based, see Isiah Berlin’s 1956 “The Proper Study of Mankind,” New York, Scribner.

The anthropologist Sidney Greenfield has pointed out to me that this paper has been written from the viewpoint of a psychologist and that an economist or an anthropologist would have dealt with this matter quite differently. Although I sense truth in his observation, I am not at this time clear about its implications.