

REACHING MIND THROUGH SYMBOLIC DISCOURSE

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Abstract

Characteristics of mind are often associated with cognition, language, reason and other logical elements. There are many varied expressions of mind; discourse is one. As expansive and encompassing as mind characteristics are, depth psychology reveals that the psyche is the foundation, or background, of the mind and much more. The psyche expresses itself through mind, discourse and in many other manifestations. This paper briefly describes the relationship between mind and psyche using two seemingly disparate disciplines: art and science. In an attempt to visualize and comprehend the vast reach of mind and its underlying foundation, the psyche, a multidimensional model also is presented.

Introduction

The reach of mind covers a lot of ground. When we think about the human mind it seems endless in its capacity and capabilities. After all, everything we think, do and say is an expression our minds. Or is it? There is another aspect of human nature that encompasses the seemingly endless mind. That is the human psyche.

The psyche appears to be endless, a limitless expanse filling the human experience with many psychic expressions. It influences how, and what, we experience; it influences how we function and live. We're all familiar with dreams, myths, emotions, imagination and creativity. These are a few expressions from psyche. Another of its expressions, and the focus of this paper, is the human mind. Psyche attempts to reveal itself through its numerous forms of expression. Mind is but one.

Mind is seemingly involved in everything we do: language, thought, reason, problem solving, and so on. If we reflect for a few minutes on the pervasiveness of the human mind within the human condition, we begin to understand the depth and breadth of the reach of mind. Naturally, I cannot cover all these characteristics in this small paper, but I am presenting a couple of perspectives that may be novel approaches to psyche's expression of mind. Let's begin with discourse.

Discourse, Mind and Psyche

The various academic disciplines of philosophy, psychology, art, math and psychoanalysis are examples of discourse. Each discourse is subject to research and investigation in order to be useful and enable us to understand its characteristics. We use discourse to create, develop and relate to each other, and the world around us. Each discourse possesses unique mind qualities and characteristics within its expression. Each also expresses other functions of psyche intermixed with its mind qualities. For example, consider an artistic expression, say a painting. There are images, relationships between colors and objects, emotional associations, imaginative stimulations, verbal descriptions and dialogue, mathematical proportions, and intuitive insights, among other possibilities of mind and psyche found within, and associated with, a painting. My point is that the holism of psyche is expressed in mind and all its other functions as well. It is difficult to speak of the specifics of any expression of mind without including qualities and characteristic expressions from psyche.

Some of the common elements of mind found in different discourses are the obvious: thought, reason, logic, categorization, hierarchy, labels, general cognitive processes, language, patterns, abstractions, consciousness and association.

In Leonard Shlain's (1991) book, *Art and Physics*, wonderful insights into the relationship between psyche and mind are introduced. In particular, Shlain reveals the relevance of art as a precursor to major systems of thought, paradigm shifts, transformations of consciousness, and social developments.

Art and Science

In the late 13th and early 14th centuries, Giotto di Bondone, a Florentine painter, almost single-handedly restored the art of design. He seems to be the first artist on record to intuitively understand the necessity to paint a scene from a point of view outside the painting – a stationary point of view organized on horizontal and vertical axes. In doing this, he returned painting to Euclid's concept of space within the picture plane. Simply stated, he took the flat picture plane, used for a thousand years, and added a third dimension – depth. The main focus or perspective of the viewer was located outside the picture plane in front of the canvas. This perspective was formerly missing in the paintings before his intuitive insight. This was a monumental move that persisted in its importance for close to 500 years.

Depth, or the third dimension, also introduced a shift in the artist's framework of time. Each picture became one frozen instant in time, illuminated in 3 dimensions. Prior to Giotto's innovation, each picture seemed to represent a number of temporal events. Now, just one event in a single instant in time was portrayed.

Giotto died in 1337. About thirty years later, in a different discourse altogether, Nichole d'Oresme introduced a new resource to the scientific community – the graph. It was a means of plotting scientific and mathematical functions, visually revealing the functions and opening them to detailed reviews based on their graphic representations. The graph represented characteristics such as time, space and motion using the various axes. This was the same principle that Giotto uncovered years earlier. More importantly, this is an example of psyche expressing itself in image and mind through two disparate discourses. As stated earlier, psyche uses mind as a resource to help reveal itself, represent its meaning and develop consciousness. The mind qualities are clearly seen in the mathematical graph.

In 1435, Leon Battista Alberti extended Giotto's idea of perspective by describing a key element in art – the vanishing point. The vanishing point occurs at the intersection of perpendiculars of the horizontal and vertical axes but on the third axis – the z axis. It occurs when parallel lines seem to converge; it produces a focal point within the painting or artistic piece. This development instigated a movement from sacred or religious art to realistic art.

At the same time that Alberti was actively painting, another Florentine artist, Piero della Francesca was painting as well. He introduced shadow. This brought forth some realism about light which could only be done after Euclidean space and time became sequential within a painting. Piero proposed that light within his paintings traveled in a straight line in the 3-dimensional space. His proclamation predated Leibniz and Newton's investigation of light by 200 years. From Piero, onward, artists no longer portrayed light as piercing through the canvas.

The medieval worldview of two dimensions now expanded to three dimensions to include depth and a focal point. And although 3-space was not very lively, it enabled many scientific theories and discoveries. For example, Copernicus, questioning the orbits of the planets,

did so from the perspective of the sun. This was an imaginary perspective in 3-space that led to the correct understanding of the structure of the solar system and the orbital paths of the planets.

Philosophers and scientist began thinking more in terms of causality and realism. Rene Descartes, in the 17th century, stated: "I think, therefore I am." This began the separation of mind from body, introducing the dualism of mind and matter. More and more reflection on mind and theories of mind began to develop. John Locke spoke of tabula rasa – the mind is an empty slate on which sensory experiences are recorded. He claimed that memory followed from experiences, and this led to idea formation. At this point, we can certainly exclaim that mind had arrived and was in the consciousness of the collective!

Emmanuel Kant, on the other hand, stated that a-prior knowledge was present at birth -- that some truths were independent of sensory experience. He claimed that space, time and causality were among the innate knowledge forms.

Of course there were other poets, artists and philosophers attempting to refute the shifting paradigm and maintain a balance. William Blake was the loudest protestor. He saw space and time as one, a unified whole. This was prior to Einstein's discovery of the 4th dimension of space-time.

Manet, a 19th century artist, challenged the mindset of the time by eliminating the vanishing point; thereby, introducing multiple perspectives and space-time, or 4th dimensional characteristics, in his paintings. At the same time, Claude Monet experimented with time by introducing a series of paintings of the same object, depicting movement or change over time. He believed that objects must be painted not only in three space extensions but in duration as well. Again, he introduced the 4th dimension before Einstein developed a mathematical understanding of it, before the mind characteristics were introduced.

Manet also began to explore different notions of gravity. This was a dramatic shift from fixed notions about gravity in art and nature. Typically, objects in a painting rested firmly on the ground or on another object, depicting the force of gravity affecting the objects. During this time, Manet's figures rested on nothing solid, as if floating in air (ex., *Mademoiselle Victorine in the Costume of an Espada* – 1863, and *The Dead Toreador* - 1864). His intuitive vision somehow informed the artist that gravity was another questionable characteristic of nature and life. He challenged Newtonian science.

Other modern painters in the late nineteenth century also examined antigravity. Acrobats became a common subject, depicted in weightless positions, defying the so-called law of gravity. Manet, Edgar Degas, Georges Seurat and Pablo Picasso were among the painters exploring an innovative, intuitive notion that broke down the standard understanding of, and ever-present, gravity. All this occurred prior to Einstein's discovery called the General Theory of Relativity.

Einstein, in the early part of the twentieth century, uncovered new scientific theories that would literally shatter common steady-fast beliefs about mass, energy, space and time. He came to realize that space and time were united, as were mass and energy. In addition, he soon discovered a relationship between space-time and mass-energy that revolutionized the scientific understanding of gravity. Gravity was no longer a force, as in Newtonian physics, but a bending of space-time in which an object, or a mass-energy object, such as the earth was accelerating within it. The acceleration produced the gravity. In his general theory of relativity, mass informs space-time how to bend or curve and curved space-time informs matter how to behave. That is, space-time is molded by the presence of a massive object, and conversely, mass is the

manifestation of intensely curved space-time (Shlain, 1991, p. 331). This is a true symbiotic relationship, a syzygy!

Once again, we see the discourse of art predating the discourse of science and scientific discovery in which the intuitive notion of the psyche manifest in the artist, and later the scientist.

My main point in presenting some highlights of these two seemingly disparate discourses – art and science – is to show how psyche expresses itself in image, imagination, and creativity, prior to expressing itself in mind characteristics. The original language of psyche is image and symbol. Psyche reveals itself in image as well as mind related discourses. Both are symbolic expressions of psyche's meaning.

Having introduced the reach of mind through symbolic image and discourse, I want to provide a model that captures both. A model that is extremely useful in understanding the reach of mind. Wilson Van Dusen developed this exciting model of mind in his doctoral dissertation. At the time, Einstein reviewed it at the request of Van Dusen's doctoral committee. Einstein gave the dissertation his approval. The model is based on dimension theory. Its applicability for this paper is helpful.

Multidimensional Theory of Mind

This model uses topological mathematics as a means of understanding and defining the various dimensions in association to one another. This does not mean that the content, or entities, of one dimension depend on those of another dimension, but simply that a lower dimension is subsumed by a higher dimension, and both are associated with each other. For example, three-dimensional space subsumes two-dimensional space and both hold a close topological association to each other.

To define an association between a higher dimension and a lower dimension, two rules apply. First, visualize a lower dimensional entity in a series; then holistically view the series. Second, if a higher dimensional space is severed in half and a neighborhood constructed within the severed end/side, the content of the neighborhood defines the lower level dimensional space, or entity.

Here is a simple example. If a line is put in a series and viewed holistically, the series of lines become a plane. A one-dimensional entity, a line, in a series, yields to a two-dimensional entity or a plane. Now, if we sever a plane and look head-on at the severed end, then draw a neighborhood within the severed end, it becomes clear that the neighborhood encircles a line. Thus, the dimensional space that is lower than the plane is a line. The plane is a two-dimensional space entity and the line is a one-dimensional space entity. We can do the same analysis with any dimension. For example, if a line is severed in half and we view the severed side head-on and draw a neighborhood within that side, the neighborhood encircles a point. The one dimensional line reveals a zero-dimensional point as a subsumed lower dimensional space.

Van Dusen's model describes dimensions from the zero-space dimension to the seventh dimension. My presentation includes some variation of his work, extending it to dimensions greater than seven.

Zero to Three-Space

The lowest dimension, the zero-dimension, is a point. The point is also the zero-space entity. Putting a series of points together and viewing them holistically yields a line. One-

dimensional space is formed. A series of lines was described earlier as a plane, a two-dimensional entity. A series of planes form a solid, or cube. This is a 3-dimensional entity. Careful inspection of the zero to third dimensions reveals no time, no life, no mind, nothing we consider human except a solid body in 3-space without any chemical, electrical, cellular or sensory activity. These lower dimensions are only spatially oriented.

This brings to light the mind-body dualism. Since the body is a 3-space entity, as described, it isn't endowed with life or mind at this level. It is easy to see how the dualism is understood from this perspective. Also, the brain must be considered part of the body, a simple 3-space entity as well. It, too, is not endowed with life or mind qualities at this level. Of course human nature is a holism; we know we are alive and that we all possess minds. The question is where are mind qualities if not in the body? As descriptions of higher dimensions of reality are introduced, this question is addressed.

Fourth-Dimensional Space

The fourth dimension was discovered and described by Einstein. If a series of cubes or solid forms are viewed holistically, Einstein informs us that this is called an event in our everyday lives. Therefore, a fourth-dimensional entity is an event. For example, if you walk from your kitchen to your bedroom, you are forming an event. Events involve movement through space and time, but as Einstein discovered, space and time are unified. He borrowed the term space-time and applied it to the fourth dimension as the key attribute. Any time you move, or move an object, you are moving through the 4th-dimension, through space-time! The key elements are space, time, and movement.

To prove that this dimension follows the third-dimension, visualize that you are walking from the kitchen to the bathroom. Sever that event in the middle of its movement. Look at the severed end head-on and draw a neighborhood within it. What you find enclosed in the neighborhood is a stationary, solid body (your body in this example) with no movement, dynamics or time involvement -- just spatial characteristics. This is clearly a three-dimensional form.

Fifth Dimension and Higher

Now things begin to get much more interesting, and more complex. Van Dusen informs us that a series of events leads to the 5th-dimension. The entities of the fifth-dimension are described in three general ways: memory, sensory perception and future perceptions or precognition. The fifth-dimension entities sound so different than the others because they are our first encounter with mind characteristics! Clearly memory, if not sensory perception and future perceptions or precognition, belongs to our understanding of mind. The fifth-dimension is described as a mind/mental space.

Consider a series of events and ask yourself if the three 5th-dimensional categories make sense. Once you move from the kitchen to the bedroom, you are no longer in the kitchen. You are in the bedroom in the present moment, a different timeframe. The movement from the kitchen is now a memory, as are all the events that were attached to this movement. Once you're in the bedroom, in the present moment, the entire movement to the bedroom is a memory. The 4-space event in series becomes a memory.

While in the present moment of an event, a sensory perception is occurring. This is a 5-mental space entity. Also, all possible events from the 4th-dimension that could occur remain in potentia, forming many possible future events yet to manifest. This is precognition.

Moving on to the 6th-dimension, we must put a memory, a sensory perception and precognition in separate series. As you might surmise, the 6th-dimension is also a mind dimension, or mental space. A series of memories, according to Van Dusen, is an abstraction. Abstractions are ideas. Take, for example, the idea or abstraction of tableness. That is, all the tables encountered in one's life which are now in memory. The fascinating piece is that the abstraction is not associated with a sense of knowing, with any sense of an ego knowing, or a sense of ego, or ego-consciousness. It is simply the emergence of an idea! This also forms the beginnings of the thinking function described by Jung (1969) in his personality theory, or typology.

A series of sensory perceptions yields itself to evaluation functions, to a primitive sensory awareness or consciousness, to polarities or opposites within the series of sensational perceptions. Again, there is an absence of knowing, or better understood as the ego knowing something. Instead, it is a rudimentary consciousness, or awareness, of objects and feeling evaluations of opposites in the moment. This is also the beginnings of rudimentary personality. Although the ego isn't present, nor is there an ego-consciousness, the feeling evaluation of opposites from the series of sense perceptions form primitive personality structures for the feeling function as well as the sensate function (sensory awareness in the moment) described within Jung's (1969) personality theory, or typology.

What remains to question is a series of future events or precognition? I consider this a precognitive sense of knowing, an intuition. Once again, this is another form of a primitive personality structure. Within Jung's (1969) typology, the intuitive function is described as providing the possibility of something. Within this dimension is the rudimentary form of this function. Intuition comes from beyond the ego; therefore, it is still not a sense of a knowing ego. Van Dusen describes the memory series, abstractions and ideas, and the series of sensory perceptions, as belonging to the field of intellectual and dynamic tendencies. These are all mind qualities, and the beginnings of personality!

Van Dusen provides us with additional examples and divisions to further help illuminate the 6th-dimension. Here are a few. When moving from polarities in the 5th-dimension to the 6th-dimension. There are similar acts in the 5th-dimension leading to habits in the 6th; positive and negative qualities in the 5th leading to primitive or instinctual desires, as well as dislikes and fears, respectively. In general, Van Dusen describes the 6th-dimension as intellectual and dynamic mental representations.

The seventh-dimension is formed from a series of ideas, personality structures and dynamic tendencies. A series of ideas is what we refer to as knowledge. A series of dynamic tendencies lends itself to another level of consciousness, a sense of knowing about something, knowing acts with a primitive ego structure. I say primitive because the sense of knowing is not one of knowing oneself but ideas, facts, and tendencies. A more complete ego structure is found within the eighth-mental space. In the 7th mental-space there is only a primitive ego structure and primitive consciousness that begins to differentiate the ego from its surroundings. Primitive ego desires, values, morals and beliefs, and rudimentary identity are also differentiated in this dimension. Also present are the functions of apprehension and reflection.

Psychological complexes are formed from the series of dynamic tendencies, and personality types/functions begin to be differentiated and formed within the 7th-dimension as well. Only a primitive consciousness of these complexes and personality functions exists at this level. Van Dusen describes the 7th-dimensional mental space entity in general as a person with an ego-determinative system, capable of insight. This seems a bit too developed. Instead, a person

with the beginnings of differentiated ego characteristics capable of insight other than identity and self seems more appropriate.

The 8th-dimension, or mental space, includes what Jungians refer to as ego-consciousness. This enables the ego to know itself, to realize its identity, desires, morals, values and beliefs, to differentiate itself from its surroundings and other people with clear boundaries and separateness, and much more.

In addition, putting knowledge in a series, a 7th-dimensional entity moving to an 8th-dimensional entity, yields a symbol in the 8th-dimension. A sense of meaning for a symbol becomes apparent from the series, as does the mental capacity to question the meaning and the functional ability to discover meaning. It is the series of primitive ego functions in the 7th-dimension that yield to an ego-consciousness in the 8th-dimension, as well as a more differentiated personality.

In the 9th-mental space, a series of symbols from the 8th-mental-space, leads to Jung's description of archetypes. At this level, a series of ego-consciousness lends itself to a broader form of consciousness of its surroundings and a greater potential consciousness of aspects within the psyche. It is important to remember that mind is only one arm, albeit a large arm, of the psyche. This greater potential consciousness of different elements of the psyche leads to a potential sense of Self, in Jungian terms, something greater than the ego.

The 10th-mental space brings forth the early formation of the Self; that is, in Jungian psychology, the center of the psyche. The degree of Self surfaces at this dimension extends from a series of archetypes and ego-conscious states. A series of ego-conscious states also forms a greater sense of ego identity. While a series of archetypes from the 9th-dimension also lends itself to myths, stories, dreams, religious structures, imagination and more.

In Closing

Van Dusen's model of mind, with the variations introduced, provides a clear vision of the reach of mind and the intermixing of psyche and mind qualities. Quantum physics has opened the door to the possible realities to other dimensions, perhaps as described in Van Dusen's model. Quantum physicist David Bohm introduced two orders of reality: the implicate and explicate orders. Reflecting on Bohm's two orders of reality, it is relatively easy to intuit how the higher dimensions, consisting of mind and psyche, are implicate order realities that unfold into the human brain and body, aspects of the explicate order reality. But that topic must be left for another time.

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