

Reflections on Personal Identity

In this essay, I want to delve into the nature of *personal identity*. To do this I will need to briefly introduce some concepts from quantum physics, developmental biology, cell biology, the philosophy of religion and psychology.

Warning: Stop reading now if you're committed to *scientific materialism* because this essay will be heresy for you. To clarify, scientific materialism is the ruling paradigm for most of the educated public and almost all scientists. It is rooted in the mechanistic and reductionist concepts of Newtonian physics. In this model, matter is primary and consciousness is an epiphenomenon. The following essay stands this on its head and takes consciousness as primary and matter as an epiphenomenon. While it isn't a settled point, there is a long standing body of opinion within quantum physics that the collapse of a wave of potential into a particle of matter requires consciousness to collapse the wave. If consciousness is necessary for the creation of matter then the primacy of consciousness, not the primacy of matter, is required to understand the underlying nature of reality. This position is assumed to be valid for the purpose of the following essay.

In the mid twentieth century, the late [David Bohm](#), a giant among quantum physicists, proposed a three component model for describing the nature of reality. The first he called the *explicate order* and is the reality that we experience in the material world. The second he called the *implicate order*. The implicate order is outside of space/time where quantum waves of potential reside and from which the explicate order is generated. The explicate and implicate orders interact with one another resulting in an ongoing adjustment of one to the other. The third he called the *super implicate order* (a.k.a. the *generative order*) the source of transcendent reality. The super implicate order is an aspect of the *holomovement* or *quantum field* that is imbued with consciousness, intelligence and meaning and within which everything exists simultaneously. The super implicate order is where the generative principles reside that control the range of possibilities implicit in the quantum waves comprising the implicate order. Here is an opinion on Bohm's model from John Bell, of Bell's Theorem fame. Upon reading Bohm's reformulation of quantum theory Bell said, "...one could see immediately that what he was saying was right."

In the late twentieth century a developmental biologist, Rupert Sheldrake, proposed that the development of embryos could not be explained merely by DNA instructions. Sheldrake thought that an overall blueprint or a matrix of developmental instructions that exceeded the capability of DNA was needed to explain development. In support of Sheldrake's belief about the capability of DNA, biologists had estimated that there would need to be in excess of 100,000 genes in the human genome to account for a human being. When the human genome was decoded, it was found that there were less than 25,000 genes and far too few to account for a human being by themselves alone. Recently, evidence has come to light that so called "junk" DNA is actually a large reservoir of DNA "modifiers" for genes that could potentially provide the necessary complexity in gene expression to account for a human being. Sheldrake, however, proposed that dynamic patterns he called morphogenetic fields exist for every organism that is or ever has been and is laid down in the quantum field outside of space/time. I say dynamic because there is a feedback loop between these formative patterns and their products in space/time (a.k.a. biological organisms). Sheldrake argues that it is these morphogenetic fields that orchestrate the

unfolding of a biological organism using DNA as a creative instrument. He referred to the implementation of these patterned instructions from the hypothesized morphogenetic fields as *formative causation*. Sheldrake suggests that not only do morphogenetic fields exist for morphogenesis but also for all abilities and talents associated with biological organisms. In short, these "memory" fields may be ubiquitous and affect much more than biological form.

These two perspectives appear to be consistent with one another. Bohm's model is more general and applies to everything while Sheldrake's model is more specific and is directed primarily at biological phenomena. The morphogenetic fields of Sheldrake map pretty well onto the quantum waves of the implicate order in that both exist outside of space/time and both represent sources of formative causation. The two models also have in common a dynamic interaction between the transcendent and the material levels.

In Bohm's model, patterns of possibility are unfolded or projected into the material world to explicate the forms or patterns of the implicate order thereby creating material reality, including time, which is a byproduct of the unfolding. The explicated pattern is then enfolded or injected back into its formative pattern in the implicate order creating a feedback loop. In fact, there is some experimental evidence that suggests that the everyday reality that one experiences is rapidly pulsating. This is somewhat like a very rapidly blinking light but blinking so fast that it appears continuous and seamless, except to extremely sensitive measurements. This fits nicely with Bohm's description of explicate reality resulting from an unfolding and enfolding of possibilities residing in the implicate order. The purpose of the feedback is to influence and adjust the explication of possibilities within waves of possibilities from which the causative patterns arise.

Sheldrake's morphogenetic fields appear to be equivalent to causative patterns in the implicate order of Bohm's model. The unfolding or projection of these patterns represent formative causation for phenomena manifesting in material reality. Sheldrake suggests that experience in material reality feeds back into transcendent reality and modifies the morphogenetic fields. For example, a field or pattern governing mathematical abilities in human beings will be modified as various mathematical skills are mastered by the human species. Once the pattern has been modified, mathematicians in the future will find these skills more readily accessible and easier to master because they can draw on the field or pattern governing mathematical abilities that now includes these new skills. The more a skill is used and the more mathematicians master the skill the stronger the skill will become within the pattern and the more accessible and widely distributed it will become. There already exists some research evidence for this in studies of learning in experimental animals. A change in one of Sheldrake's morphogenetic fields would be an adjustment in the possibilities explicated in one of Bohm's causative patterns resulting from a wave of possibilities.

Recently, a cell biologist, Bruce Lipton, has discussed experimental evidence indicating that the "central dogma" of biology; i.e., the primacy of DNA, is just that -- *dogma*. Lipton points out that the "brain" of the cell is not the nucleus where DNA resides but rather the cell membrane, which is densely populated with signal receptors. Lipton argues that the DNA comprising a gene represents a blueprint for accomplishing a task and is not self-executing but must be executed by a signal external to the DNA. Until a gene is activated nothing happens. A signal is required

to make something happen and signals come from outside the cell. Commonly, signals are represented by chemicals that attach to a specific receptor on the cell membrane that is then transmitted into the cell and to the DNA residing in the nucleus thereby cueing some action. This is an important point relative to Sheldrake's original hypothesis and the current indications that "junk" DNA may provide the necessary complexity not found in the genome alone. Whether one is talking about the DNA comprising a gene or a strand of "junk DNA" the DNA has to be activated by some signal external to the DNA since DNA is not self-activating.

Lipton argues that signals arise from within the chemical environment comprising the body. However, to some degree the status of the internal environment of the body is a product of its interaction with the external environment. For example, if the body consumes food, produces glucose and needs more insulin, a signal is generated that stimulates the production of insulin following the available "blueprint" for insulin. Other kinds of signals can also originate outside the body. For example, if a particle (say lead) occurring in the external environment enters the internal environment (for example in food) it too may become a signal. Such a signal makes its way through a specific receptor type and into cells where it activates DNA or deactivates DNA. If DNA is activated, the process engaged becomes an attempt to produce a suitable response to the element that has been ingested. Activation and deactivation of DNA by environmental signals is an area of genetics only recently recognized and called *epigenetics*. Epigenetic effects are non-heritable modifications of the genetic code that reside outside of the reproductive cells, which is why they are non-heritable.

Lipton points out that a really intriguing aspect of this signaling process is the role of perception or belief in signal generation. If one perceives or believes that something in the environment is beneficial or harmful, whether in fact this is true, the body will respond as if it were true. The result can lead to an alteration of the internal chemical environment thereby producing signals that will in turn affect the functioning of cells within the body and ultimately the body as a whole. For example, if one perceives the external environment to be threatening, even though it is actually benign, the body will go into defensive mode and generate a variety of stress chemicals. These stress chemicals will impact the functioning of all the major organ systems. If this is a chronic state of affairs, the impact of the belief will eventually have serious and negative consequences for health. Lipton's views as described represents a significant break with conventional thinking in biology

However, the importance of Lipton to this essay is related to another proposal that he has set forth. Lipton suggests that neuronal cells, in particular, have receptors for signals that come from beyond the material environment. He bases this speculative hypothesis, in part, on the reported experiences of some heart transplant patients. The heart has neuronal cells as part of its make-up and might therefore have receptors for signals such as those that Lipton proposes, if they in fact exist. What some transplant patients have reported is the acquisition of various tastes, feelings, behaviors and so on that are inconsistent with their personal history but have been found to be consistent with the personal history of their donor.

Lipton proposes that we each leave a personal imprint or pattern in the quantum field in which everything exists simultaneously since it is outside of space/time. He suggests that this pattern interacts with our physical manifestation serving in some respect as a guide for and memory

reservoir for our physical manifestation. What Lipton seems to be proposing is what Sheldrake might call a personal morphogenetic field. A pattern within the quantum field that is a product of our particular creation and development. Likewise since each and every one of us under this proposal would be an explication of a causative pattern in the implicate order what Lipton is suggesting seems to be consistent with Bohm's model as well.

Obviously, these reported effects in some heart transplant patients occur after the donor is deceased and are believed to be too complex to be carried within the cluster of neuronal cells within the heart. Lipton's explanation is that the receptors on these cells are continuing to pick up elements of a personal pattern existing outside of space/time and associated with the donor. Clearly, one implication of this is that personal patterns persists beyond biological existence in material reality. Lipton offers this as evidence in support of a spiritual grounding for existence.

Going back to Bohm and Sheldrake, it is not too difficult to see that what Lipton is proposing is a personal pattern similar to an individual's morphogenetic field suggested by Sheldrake, which in turn appears equivalent to an individual's wave pattern in Bohm's implicate order. Thus, what seems to fall out is a hierarchy of increasingly specific patterns embedded within patterns. That is, there are very specific patterns associated with explication that become broader and more general as one moves through the patterns of possibility comprising the quantum potential of the holomovement. In short, our reality may be the product of a series of nested patterns.

A quantum physicist, [Amit Goswami](#), in his philosophical interpretation of quantum physics describes what he calls a quantum monad. From his description, a quantum monad appears to be a personal field or pattern. The quantum monad is imbued with quantum memory as distinct from classical memory, which is a product of the physical brain. The former might be thought of as contributions to patterns in the implicate order laid down by experiences in the explicate order. For example, experience might contribute to a personal pattern related to music that could be thought of as musical talent. Classical memory, on the other hand, is more like the memory that you retain within the brain as a physical memory trace related to reading musical symbols. Goswami suggests that quantum memory persists and survives in the quantum field where classical memory does not, though it might still be accessible under the principle of non-locality. This personal field or quantum monad is a conscious, complex, evolving pattern explicated into physical reality (explicate order) for the purpose of gaining experience and further development of the more complex pattern from which it is explicated. Thus, personal fields or patterns such as those proposed by Sheldrake and Lipton appear to be related to what Goswami calls a quantum monad.

Goswami offers a hypothetical description of the explication process drawing on concepts from Hindu philosophy which he was taught during his childhood in India. Describing the explication process from the "top" down, so to speak, Goswami says the process begins with the *bliss body* (a.k.a. "Oversoul"), which is an organization of consciousness that is embedded in the quantum field or transcendent reality. The Oversoul identifies a fertilized egg that has inherent within it the potential for certain characteristics desired for an explication, that is, it will be born into a set of circumstances likely to offer the types of experiences sought for the explication. The portion of the bliss body that will be explicated Goswami calls the quantum monad (a.k.a. soul) and consists of several *subtle bodies*. The only subtle body in the explication not mapped on to the physical body is called the *theme body*. The theme body imposes broad outlines for the

explication and these themes are compared to Jung's archetypes. The theme body is associated with the physical body in the explicate order but is not part of it. Another subtle body used in the explication is the *mental body*. The mental body is mapped onto the physical brain, usually at the beginning of the third trimester, which is the point where the structural development of the brain is capable of supporting it. The mental body provides patterns of meaning and feeling necessary for learning to make sense of the explicate order or material reality. The most important subtle body for the physical manifestation is the *vital body*. Though mentioned last, the vital body is the first of the subtle bodies mapped onto the physical body and provides the blueprints that guide the developing forms that will become the completed physical body. The vital body appears to be very similar to what Sheldrake calls a morphogenetic field and is proposed as a source of formative causation. According to Goswami, consciousness is a property of the quantum field. The quantum field is structured, in part, through a collection of bliss bodies each of which generate quantum monads that can be projected into physical bodies.

Probably the most important of the subtle bodies for personal identity is the theme body because it sets up the broad outline of the individual that will physically manifest in the explicate order. Everything else all the way down to the physical body will be broadly consistent with the themes that are being explicated. As mentioned earlier, themes are compared to Jung's archetypes. Given the earlier description of Bohm's model, it seems likely that there are patterns of possibilities within patterns and patterns within those patterns perhaps to infinity. Thus, it appears reasonable to suppose that themes or archetypes exist in both broader and narrower forms. The themes or archetypes that are part of a specific explication are probably the narrowest versions and the most readily accessible and influential. However, these relatively narrow patterns are in all likelihood embedded in broader patterns for the same themes. For example, let's suppose that one of the patterns that comes with the theme body is a pattern defining sex or in Jung's terminology the Animus/animus (species and personal male patterns) and Anima/anima (species and personal female pattern). In the theme body the most prominent aspects of the patterns would be those personal patterns laid down through the explication experiences of prior quantum monads originating from the bliss body. Within the personal patterns or the theme body are patterns known as karmic patterns. On a broader level, these patterns would rest upon the patterns that aggregate through quantum memory all of the sex-based experiences of the species.

Jung considered the collective unconscious to exist outside of space/time as clearly suggested in the following quote: "*The psyche's attachment to the brain, i.e., its space-time limitation, is no longer as self-evident and incontrovertible as we have hitherto been led to believe...It is not only permissible to doubt the absolute validity of space-time perception; it is, in view of the available facts even imperative to do so.*" Clearly, Jung suspected the existence of transcendent reality and the patterns of possibility therein that underlie material reality. It is probable that Jung's description of archetypes, such as the anima and animus, are primarily related to the narrower personal patterns associated with Goswami's theme body since those would be the patterns most readily accessible in explorations of individuals' unconscious. However, these narrower patterns would rest upon broader general (species) patterns. Thus, one would expect that in some respects personal archetypes would contain broad unifying themes but would be to a large degree phenomenological albeit not limited to the current explication alone. The anima and animus could be thought of as patterns for femininity and masculinity. While these patterns may well rest at root in differences in biological patterns, they would be subject to considerable

elaboration and modification through experience, which would impact both the personal versions and the more general species versions.

A typical biological female would, during development, have cell receptors attuned to the pattern, in the vital body, explicating her biological sex; i.e., female. The biological patterns would be largely expressed during the gestational period. The Anima/anima patterns in the theme body would sensitize and tune her neuronal receptors to adopt by imitation and instruction, during development, the social conventions of time and place related to the expression of a feminine gender. The anima would include pre-existing personal patterns from previous explications in female form resting upon or embedded in a more general species pattern (Anima). Finally, it is suggested that such an explication would also include a secondary animus pattern tuned into prior explications in male form that would provide largely unconscious knowledge in a female needed to successfully form relationships with males. Thus, an Oversoul that has had subsequent incarnations in the female sex and that currently has a fragment (quantum monad) explicated in a female form has not only the general formative pattern or archetype to inform the development and elaboration of its explication but also a personal identity pattern or archetype that incorporates prior personal or specific elaborations of the general pattern. In the explication of a typical biological male this description would be reversed.

Note: No doubt some readers recognize that the process of explication of a quantum monad is functionally equivalent to what is, in other contexts, described as reincarnation. Christopher Bache, a philosopher of religion, has written, in his book Lifecycles, a great deal about the nature of the soul (quantum monad) and of reincarnation (explication) drawing extensively on religious writings and traditions. The physician and psychiatrist, Ian Stephenson, spent his entire career at the University of Virginia College of Medicine studying and documenting cases of recollection of past lives by young children. Stephenson's work can be found in multiple volumes reporting on his investigations. Interestingly, Stephenson writing in a medical journal indicated that in southeast Asia instances of individuals with cross-gender identifications are readily accepted and their cross-gender identity is attributed to influences associated with reincarnation. Less objective but very interesting is the work of a few hypnotherapists who have done past life regression research such as Brian Weiss, MD. and Michael Newton, PhD.

The late Carl Sagan commented that of all the evidence that he had examined for paranormal events only three had sufficient evidence to, in his opinion, warrant further scientific study and one of those was that "...young children sometimes report the details of a previous life, which upon checking turn out to be accurate and which they could not have known about in any other way than reincarnation."

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