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Embodiment:

An Explanatory Framework for the Exploration of
Reincarnation and Personality Survival

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INTRODUCTION

The overall objective of this series of conferences is that of investigating the possibility that an embodied personality can survive the death of its physical body. There seem to be two distinct, but interrelated, ways in which such survival may take place.

- First, it may be possible for a personality, with its memories, emotional texture, and characteristic patterns of thought to continue its existence somewhere and somehow after the physical body dies. In this essay, I will refer to this possibility as “personality survival.”
- Second, it may be possible for a newly embodied personality to establish physical, emotional and mental ties with a previously deceased personality in such a way that we come to consider the new personality to be a “reincarnation” of the old one.

The work of accomplishing the objective of these conferences falls into two parts.

- First, has been necessary to accumulate a body of evidence which establishes the existence of personality survival and of reincarnation, and which outlines the range of phenomena by which these realities are made manifest.
- Second, it is necessary to establish a framework of explanation within which the relevant phenomena can be discussed and further investigated. This explanatory framework must:
 - o Elucidate the particular phenomena under investigation
 - o Show clearly some coherent relationship between these phenomena and those phenomena which are investigated by mainstream science.

In this essay, I take it for granted that the evidence for both kinds of survival has already been established, and that the range of phenomena which need to be explicated has been, for the time being, laid out. On the basis of that evidence, I will attempt to outline a useful explanatory framework which can order this data, and can suggest directions for future research.

THE DIFFICULTIES OF THE TASK AT HAND

This essay will make considerable demands on the attention of its readers. It will involve a consideration of issues which, at first glance, may seem to be far removed from the specific issues of personality survival and reincarnation. Before I commence the actual task of exposition, I would like to outline the peculiar difficulties of the task at hand, and to show why an approach like the one I am taking in this essay is necessary.

In our civilization, we have come to privilege the findings of what we call “scientific research.” Among the various branches of science, we grant the greatest honors to the so-called “hard sciences” -- that is, to those sciences which model themselves most closely on the discipline of physics. We tend to believe that the hard sciences give us true access to the ultimate realities which constitute the universe that we inhabit.

Now the hard sciences are based on measurements, and on the discovery of invariant mathematical relationships among the results of those measurements. These invariant mathematical relationships are expressed in the justifiably famous equations (e.g., $I=V/R$ or $E=MC^2$) with which the hard sciences have gifted our civilization. But if we agree that the ultimate realities are those disclosed by these sciences, then we are committed to the idea that the ultimate realities are automatic, unconscious, uninfluenced by purpose, and situated in a spacetime which can be characterized by a metrical geometry. More simply, we are committed to the proposition that the ultimate realities are all “physical.”

The hard sciences have enormous authority because they provide the conceptual foundation for the technologies which so overwhelmingly pervade our lives. And yet, when we come to investigate the more intimate texture of our experience, the hard sciences leave us entirely unsatisfied. Centuries of work dedicated to producing a scientific explanation for the mere fact of consciousness have led us finally to the

acknowledgement of the “hard problem.”¹ If we assume that what is ultimately real is just that which is physical, then it becomes impossible to explain how it is that we have any conscious experience of any reality at all.

This “hard problem” has particular relevance to the study of personality survival and reincarnation. If we assume that what is actually real is what is physical, and if we assume that personality can somehow be reduced to the functioning of the physical body, then the very idea of personality survival and of reincarnation become systematically unintelligible. And yet we have the evidence in hand. Personality survival and reincarnation are real, they cannot be accounted for within the explanatory framework provided by the hard sciences, and that explanatory framework is the dominant, *de facto* ontology on which our civilization is based. Thus, the task of articulating the framework of explanation that we need will require us to consider some of the most difficult intellectual issues facing our civilization at this point in its history.

The very ontology on which scientific research is based prevents us from articulating the explanatory framework that we need. It is only on the basis of a new ontology that we can do justice both to the results of scientific research in the hard sciences *and* to the results of psychological and parapsychological research.

¹ David Chalmers, *The Conscious Mind: In Search of a Fundamental Theory* (New York: Oxford University Press, 1996).

THE OUTLINES OF A SOLUTION

I have come to the conclusion that an adequate solution to these hitherto intractable intellectual issues requires us to articulate an ontology that combine two different doctrines – the *doctrine of panexperientialism*, and the *doctrine of the subtle worlds*.²

Panexperientialism is the idea that matter and consciousness are two sides of the same coin. In other words, panexperientialism is a doctrine that imagines reality in terms of a plurality of real things, each of which is a complex whole which has properties that are *both* mental *and* physical, both material and conscious. In other words, we are here considering the possibility that there *is* no matter without consciousness, and no consciousness without matter.

The doctrine of panexperientialism resurfaced in the mainstream Western tradition independently and simultaneously through three of the greatest philosophers of the 20th century – Teilhard de Chardin, Sri Aurobindo, and Alfred North Whitehead. Each of these thinkers made major contributions to the elucidation of this doctrine, but in this essay we will be working primarily with the formulation of this doctrine which is found in the works of Alfred North Whitehead. As we will see, this doctrine resituates consciousness within the material world and provides a fully satisfying solution to the entire mind/body problem. It is on the foundation of panexperientialism, that we can construct a framework that will serve the needs of our current research.

On the other hand, even panexperientialism does not give us everything that we need in an explanatory framework. Panexperientialism gives us a framework within which matter and consciousness can be intelligibly coordinated. Panexperientialism, in its Whiteheadian form, may (as we will see in what follows) allow us to understand reincarnation, but it does not yet, give us a fully adequate understanding of personality survival.

² I have explored this doctrine at greater length and with greater depth in Eric Weiss, *The Doctrine of the Subtle Worlds*, unpublished dissertation, 2003. This document is available from UMI at 800-521-0600.

Let us say that consciousness is intrinsic to matter. In these terms we can, as we will see subsequently, form an interesting and useful explanation of how it is that a body ‘has’ a personality. But if that personality is intrinsically involved with the physical body, then there will be no basis on which we can understand the survival of that personality when its body disintegrates. In order to make full sense of the phenomena associated with personality survival, we will also have to invoke the *doctrine of subtle matter and subtle worlds*.

That doctrine, which is sometimes known under the name “hylozoism”, and which Michael Murphy has introduced into the proceedings of these conferences under the name of “hylic pluralism,” is an ancient doctrine – one which was accepted by all pre-modern cultures. Indeed, in the context of this doctrine, which conceptualizes the personality in terms of a number of different “vehicles of consciousness,” personality survival becomes quite natural and easy to understand.

But the doctrine of subtle worlds, without a basis in panexperientialism, is not sufficient for our needs for two reasons.

- First, even though the doctrine of the subtle worlds might allow us to conceptualize the existence of “subtle vehicles,” it does not give us any reason to think that these “subtle vehicles” are any more conscious than the “gross vehicle” made of physical matter. If the mind/body problem is not somehow solved, then the notion of subtle bodies still does not give us an intelligible way of understanding the continuity of *consciousness* which is such an important part of personality survival.

- Secondly, no one has, in my opinion, been able to generate an entirely satisfactory account of the relationship between the subtle worlds, on the one hand, and the physical world studied by the hard sciences, on the other.³

In this paper, I will show how the doctrine of panexperientialism can be seamlessly combined with the doctrine of the subtle worlds to provide an entirely satisfying framework of explanation for the phenomena at hand – i.e. for personality survival and for reincarnation.

PANEXPERIENTIALISM

The easiest way to understand Panexperientialism is to begin with the notion of “actual occasions.” This idea was introduced into the Western metaphysical tradition by Alfred North Whitehead. It is a notion of great depth and vast explanatory power. In this section, I will introduce panexperientialism by conducting a preliminary examination of the notion of actual occasions, and by demonstrating the plausibility of that notion in terms of scientifically informed common sense.

We begin our philosophical work in a world that is already interpreted into language by common sense. Common sense tells that we are in a world of discrete things, and one of the first philosophical questions we ask as we begin the task of critiquing common sense is: “what are things made of?” The notion of “actual occasions” is one way of answering that question.

³ All of the attempts to relate subtle matter to physical matter of which I am aware rely on the metaphors of density (in which subtle matter is held to be “less dense”), of frequency (in which subtle matter is held to be “vibrating at a higher frequency”), or dimension (in which subtle matter and subtle worlds are held to be “in higher dimensions”). A detailed critique of these metaphors would make this paper unconscionably long. Briefly, the problem with these metaphors is twofold. First, none of these metaphors explain the relationship between subtler matter and consciousness – indeed, none of these metaphors helps at all in the solution to the hard problem. Secondly, all of these metaphors attempt to treat subtle matter as an extension of the kind of matter studied in physics. As I have discussed at length in my dissertation, (Weiss, op. cit.), there is every reason to believe that the kind of measurement used in physics to define the reality of physical matter is entirely inapplicable in subtle worlds.

The Idea Of Actual Occasions

My body, and the things with which I interact in the world around me, are clearly decomposable. We have the sense that somewhere, at the bottom of that decomposition process, there must be some bottom, some basis, some primitive *stuff* out of which everything else is made. What is that stuff like?

Materialists, who articulate the philosophical orthodoxy of the modern age, have given an answer to this question that dominates the imagination of our civilization. They, themselves, have gone through a considerable evolution of their basic explanatory concepts over the past few centuries. They began with the idea of ‘atoms’ – of finite, self-existent, fully actual, ontologically independent *things* existing in a Euclidean space and an independent, uniformly flowing time. Over the centuries, materialists have admitted the existence of energetic fields, of probability fields, of variable interactions between space, time and mass, of complementary sets of properties for physical entities, and even of non-local interactions among such entities. The original metaphysical simplicity of the Newtonian vision has elaborated itself into a vast and baroque complexity. But no matter how elaborate their notions become, scientific materialists are unified in their conviction that the ultimate stuff is dead. For them, the ultimate stuff:

- Is not conscious or aware
- Is governed by laws that are automatically administered and can be mathematically expressed
- May act randomly, but never purposefully
- Is not aware of itself or of others and has, thus, no value for itself.

This, for some of us at least, is a stark and terrifying view of reality. It leaves us with the sense that we are epiphenomenal, an accidental and unimportant byproduct of vast, indifferent processes. Some people, however, find in this view a kind of austere beauty. It brings a sense of freedom from the meddling of parentified Gods. It confers on its adherents a hugely pragmatic view of life and an awesome power over local configurations of physical events. Whatever the aesthetic merits of this view, however,

and in spite of its practical power, it does not do a good job of explaining the ultimate stuff of reality.

The problem is that no materialist has ever explained just how it is that dead stuff could manage to configure itself so as to become aware, feeling, alive, imaginative and mentally conscious. This is the famous “hard problem” which was mentioned earlier in this essay. Also, and more particularly, since materialists must interpret personality as somehow a function of the physical operations of the biological body, within the confines of materialism we can generate no coherent accounting for the facts of personality survival and reincarnation.

This makes room for the philosophical idealists, who pay attention to the fact that both things, and questions about those things, are always experiences *in consciousness*. They approach the question “what are things made of” *through* the question “how are things experienced?”. Every truth to which I have access is a truth that I experience. The sensual, the vital, the emotional, and the cognitive are so many ranges in the spectrum of experience. Experience is, by definition, conscious.⁴ All knowledge is knowledge of the contents of consciousness. Consciousness, or, perhaps, Mind, then, is seen by philosophical idealists as the basic *stuff* out of which things arise.

The problem with idealism is that it has a tendency to degenerate into solipsism, and it leaves us with a sense that the world around us ought to be dreamlike and unsubstantial. Idealists have a hard time accounting for the stubborn, indifferent, alien facticity of the material world.

Idealism also fails us in our quest for an understanding of personality survival and reincarnation in another way. If we posit that all manifestation is the expression of one, featureless, undifferentiated consciousness, (as, for example, is done in Advaita Vedanta), then it becomes difficult to account for the individualization of consciousness

⁴ Whitehead uses the word ‘conscious’ in a technical sense to mean *intellectually* conscious – i.e., conscious of perceiving actualities against a background of possibility. He, thus, distinguishes between ‘experience,’ which is a kind of bare awareness, and “consciousness,” which is a much more complex operation. In this paper, I will use the word “consciousness” to mean what Whitehead means by “experience” – the intrinsic subjectivity of all actual occasions. This usage of “consciousness” is much closer to the way that the word consciousness is currently employed.

which is so prominent in our experience. Indeed, Advaita Vedanta itself relegates the individualization of consciousness (along with all of the other specific and changing characteristics of differing personalities and of the worlds that they experience), to the status of an illusion. A framework which provides no way of intelligibly accounting for the individualization of consciousness, is unlikely to be a fruitful context in which to discuss the survival and reincarnation of the individual personality.

When we see that neither a monism of matter nor a monism of consciousness is entirely satisfying, we may posit some kind of dualism – e.g., in the modern era, we may assume that the results of the hard sciences are valid within the domain of physical matter, but that there is also another kind of reality, a kind of conscious substance, that is ontologically distinct from physical substance. This approach seems appealing since allows us to imagine that it is the consciousness, rather than the body, which survives bodily death and ultimately reincarnates in a new physical body.

This dualistic approach was most famously pioneered in the early modern period by René Descartes who proposed that there were two kinds of substance – *res extensa* (or extended substance) and *res cogitans* (or thinking substance). The difficulty with this idea, and indeed with all forms of ontological dualism, is that they provides for no necessary and intelligible relationship between the two kinds of substance which they posit. In the context of modern, scientific dualism, all of the causal interactions that we can measure and which, therefore, we credit as real, take place within the closed domain of the *res extensa*. Thus, while we can imagine a consciousness that survives the death of the body, we are hard pressed to understand the relevance of that consciousness to the body that it inhabits unless that body is entirely a function of consciousness itself. The doctrine of metaphysical dualism is unstable. It may, as we can see in our own intellectual tradition, quickly reduce the *res cogitans* to the status of an epiphenomenon, thus rendering it essentially irrelevant, and banishing it from respectable discourse. Or, as we can see in some significant strands of Vedic thought, it may fall back into a monism of consciousness by relegating matter, and all other differentiations, to the status of an illusion. In either case, dualism does not provide a satisfactory resolution to the “hard problem.”

Philosophical debate over the past few centuries in the West has roughly constellated itself as a debate between idealists, materialists, and dualists.⁵ Either the basic stuff out of which things are made is dead matter, or it is conscious mind, or it is some awkward combination of two kinds of ontological ultimate.

Each of these positions is compelling. Each of them represents some important element of the truth of things. None of them is entirely satisfactory.

Whitehead, recognizing this impasse, opened up a new and vastly useful way of reconceptualizing the basic stuff of reality.

First, he pointed out – and this is in perfect accord with our experience of the world and with all of our scientific understandings – that what is out there in the real world are not self-existent things that endure unchanging through time, but rather *happenings* or *events*.

When we look to science, we find that the early modern atomists had a difficult time accounting for the richness of the world – and, in particular, for the richness of interactions among atoms – in terms of the simple ‘billiard ball’ idea of those entities with which they began. In the attempt to account for chemical and energetic interactions among atoms, scientists first resolved them into moving systems of particles, each of which carries an energetic field; then further resolved those smaller particles into dynamic fields of probability that occasionally collapse and manifest themselves as short-lived, causally efficacious, energetic blips. Scientists themselves have found that the attempt to describe the stuff of the real in terms of enduring, self-existent, independent actualities was not tenable, and they have been forced to describe objective reality rather as a field of causally interacting, temporally extended events.

Because we are familiar with scientific reasoning, it is not too surprising for us to follow this line of thought, and to see, with Whitehead, we can conceptualize outer, objective reality in terms of interacting events rather than in terms of substantial, self-existent things.

⁵ For a deeper and more elaborate consideration of these basic ontological issues, see Christian De Quincey, *Radical Nature* (Montpelier, Vt.: Invisible Cities Press, 2002).

Now, what happens if we turn around and look at the texture of our own, everyday experience? Suppose we ask the question: “what unit of analysis best serves for producing an interesting and useful description of our own experience?” What Whitehead suggests is that the most interesting way to decompose our own experience “drops of experience.”⁶

If I proceed in a very natural manner, and just ask myself “what am I experiencing?”, I begin to notice meaningful chunks such as “I am experiencing this room.” “I am experiencing that table.” The momentary experience of the room and the momentary experience of the table come to me, in my actual waking consciousness, as complete and already accomplished perceptual events. I may, under certain circumstances, be confused and not know just what it is that I am experiencing. Perhaps, for example, I am looking into a room through a narrow crack, and am not quite able to make out the lines and shapes that I am inspecting. In that case, I am experiencing, let us say, a grey blob and a black line. The experience of the grey blob comes to me all at once, the experience of the black line comes to me all at once, and, if and when I do recognize those shapes as belonging to a chair, that recognition of the chair comes to me all at once, as a relatively discrete drop of experience.

The point here is that the actual drops of experience which I find when I inspect my own consciousness are full, complex, internally structured events which exhibit, in spite of their particularity, intrinsic relations with other events in the larger field in which they are situated.

If we look more closely at these drops of experience, we see that they are always composed of other, simpler, drops of experience. If I look at my experience of that chair, across from me in my office, and I try, retroactively, to further decompose it, I notice smaller drops such as the experience of an arm rest, the experience of the back and so on. Each of these elements is itself encapsulated in a whole drop of experience. Each is intrinsically interrelated with other drops of experience in my field. Each may be further

⁶ Whitehead gets this phrase from William James.

decomposable. Whitehead calls the drops of experience out of which drops of experience are composed “prehensions.”

We can leave for later the question of whether or not this decomposition has a unique bottom. We are not entirely certain that sub-atomic particles are the absolutely ultimate constituents of physical reality. We need not know, at this point, whether or not the process of analytically decomposing our experience has a unique bottom. The point is that no matter how far we take our analysis, we find not independent, self-existent, enduring things, but rather dynamically interacting, whole, temporally extended experiences.

We see, then, that it is quite plausible to describe outer, objective reality in terms of causally interacting events. We see, too, that it is quite plausible to describe inner, subjective experience in terms of dynamically interconnected drops of experience.

We are now in a position to dissolve the bewildering gap between mind and matter that is played out in the debate between materialists, idealists and dualists. Whitehead invites us to consider the possibility that all of reality, whether objective or subjective, is made of just one kind of stuff, and that that stuff is composed of events or actual occasions. Actual occasions, experienced from the outside, are objective events. Actual occasions, experienced from the inside, are drops of experience. Each instant of my experience is an actual occasion in the outer world. Everything that I experience outside of me is some configuration of other actual occasions. The process of manifesting as an energetic event on one hand, and the process of coming into consciousness as a drop of experience on the other, are the same process seen from two different points of view.

This way of conceptualizing reality frees us at a stroke from the utterly perplexing ontological divide between mind and matter that has so haunted the modern psyche.

The ontological notion of actual occasions carries with it an interesting epistemological implication – it provides a compelling philosophical justification for the old Hermetic Principle, the principle of correspondences, “as above, so below; as without so within.” In the modern world, it has been considered erroneous to reason about the nature of outer reality by reference to inner experiences. This has been dismissed as

“projection” or “anthropomorphism.” In fact, this rejection of the Hermetic Principle has always involved a performative contradiction. No matter what our epistemological claims, we always reason from inner experience. All of our most fundamental notions – space, time, energy, causality – are all drawn from inner experience, as all idealists, at least, have recognized. As long as we imagined consciousness and physical stuff to be entirely different orders of being, however, our reasoning from inner experience had to be, at least in scientific discussions, bracketed out and ignored. The explicit use of the Hermetic Principle was relegated to the philosophical hinterlands of psychology and occultism.

In a world of actual occasions, the Hermetic Principle is thoroughly rehabilitated. My experience is an ordered sequence of actual occasions. Each of those occasions is partially constituted by its experience of past events. Each of those past events was, itself, an actual occasion. The actual occasion constituting this moment of my experience will be an event for all future occasions.

If I am brought into being by the same kind of process that brings all other events that I experience into being, then I am entirely justified in reasoning about the nature of those events by reference to my own experience.

Let us see what happens if we apply this Hermetic principle to an analysis of events.

First of all, we know that every drop of experience that constitutes *us* has a dipolar structure. That is, our experiences are experiences *of* and experiences *by*. Every drop of experience is, thus, a relationship between a subject and a field of objects. The subject of an experience – Whitehead calls this the ‘mental pole’ of the actual occasion – is an *active, purposeful awareness*..

In every conscious moment, I am (however dimly) aware. I perceive that my awareness is the centralizing pole around which the experience of diverse objects is organized into some kind of unity. I see that my awareness is my capacity to be affected by external events, and that what I am aware of is precisely those external events that are affecting me.

Whitehead is inviting us to generalize this characteristic of our own experience to all events constituting the universe. In other words, Whitehead is suggesting that every experience which I have of some entity in the objective world – whether that entity is a human being or a billiard ball -- is the experience of the outside of drops of experience that occurred in my past. And he is suggesting that every drop of experience – including, for example, the one which I am having right now as I write this word, is an event which can and will be experienced by actual occasions in the future.

To those of us educated in modern times, this is a rather shocking assertion. We are, in general, willing to grant awareness to humans. We are, usually, willing to grant awareness to domestic animals. But many of us think it's going too far to suggest that there might be awareness in jelly fish, in plants, in cells, in atoms, or in sub-atomic events.

It is important that we realize that Whitehead is not suggesting that atoms, for example, are self-conscious thinking beings. He is also not suggesting that a billiard ball is conscious of itself as such. We will return shortly to the important subject of differences among events, and of differences between events and the systems which they form. What Whitehead *is* suggesting, however, is that all events, from the events that make up my human awareness to the events that make up sub-atomic particles, have the same general structure. He is suggesting that each and every event is ordered around a pole of awareness, and that the capacity *to be causally affected* on one hand, and the capacity *to experience* on the other, are two sides of the same coin.

Let us pause, for a moment, to admire the formal elegance of this suggestion. In our modern, materialistic, way of thinking, we imagine a closed domain of unconscious things – ‘the physical world’ - among which causal interactions take place. Causal interactions are thus imagined as entirely automatic. Consciousness, if there is such a thing, is a kind of transparent, ineffective double, a “ghost in the machine.” Once we have banished consciousness from the workings of nature, we are hard pressed to see how it could have any actual effect on the world in which it appears. And yet, in all of our practical dealings, and especially in our ethical dealings, we have no choice, but to act as if conscious choice (at least in human beings) *is* of decisive importance.

Whitehead's notion of actual occasions structured around a core of awareness re-situates consciousness *within* the natural world. Every event, as we know from our study of physics, arises out of field of possibility. It emerges into manifestation as it resolves the partial indeterminacy inherent in that field. Whitehead suggests that the factor in every event that allows it to register possibilities and to resolve their indeterminacy is conscious awareness.

The awareness of a sub-atomic particle and the awareness of a human being are evidently very different in *degree*, but we need not imagine that they are entirely different in *kind*. Once we realize that 'to be aware of something' and 'to be causally affected by something' are, in a deep sense, synonymous phrases, many of the philosophical conundrums of modernity disappear. Consciousness no longer presents itself as an extra-cosmic mystery, but rather as the crucial factor which resolves possibility into actuality and gives to the universe its discrete determinations. I am conscious not because I am miraculously different from all other material entities, but rather I am conscious precisely because I am, in my process of coming to being, structurally similar to all other material entities.

The first result, then, of our application of the Hermetic Principle to the analysis of events is the realization that *all* discrete events are structured around a mental pole which is a drop of conscious, deciding awareness.

Let us continue the investigation, and see what other results we might derive.

When I deconstruct a moment of my own waking life, I perceive that it grows out of an experience of the past. As I begin each moment of my existence, I *feel* the last moment of my existence, and I *feel* the immediate past of the present situation around me. But my experience is more than that original rush of feeling.

Not only do I feel the immediate past, but in each moment I generate a coherent interpretation of the immediate past. This process of interpretation is quite complex. We will consider further details of this process later on. For now, I want to observe that the process is not uniquely determined by the past that is being interpreted. It sometimes happens that in the process of interpreting the data of my experience, I have a new idea, a

new way of organizing my perceptions. This capacity to introduce novelty into the interpretation of the past is part of what we mean by the term *imagination*.

Finally, in order to close out, as it were, the interpretive process in any given moment, I must make a choice among any incompatible possibilities that my imaginative interpretations present. For example, I am walking down a path which splits in two. There is a moment of awareness, an actual occasion, in which I must decide which of the two paths to take. I draw the situation into my awareness by a process of feeling the sensory inputs, I interpret the situation (possibly in some novel way), and then I made a *decision*.

Thus we see that, in ourselves at least, every actual occasion of experience involves *feeling*, *imaginative interpretation*, and *decision*. Whitehead calls this whole process of feeling, interpreting and deciding the ‘conrescence’ of an actual occasion.

Can we fruitfully generalize this internal observation to the understanding of events in the outer world? Are all events the outcome of a process of conrescence?

Certainly other human beings seem to operate in this way. Again, it is quite plausible to imagine that domestic animals do so as well. But with domestic animals, the function of *decision* seems to be less elaborately developed. Our domestic animals do make decisions – when confronted with a split in the road they do go left or right – but the range of choices that they consider seems to be smaller, and the process of decision-making seems, in them, to be rather less emphasized. But, clearly, our domestic animals do *feel* their own past and the immediate past of the surrounding world, they do *interpret* that world into an ordered, and sometimes novel whole, and they do make *decisions*. As we examine less and less complex forms of life, we see that all of them exhibit this same trio of functions. However, the simpler the form, the more simplified and abstract is its feeling of the past, the less elaborate its imaginative interpretation of that past, and the fewer the number of possibilities that it considers in its decision making process.

There is nothing to prevent us from applying this same analysis even to inorganic forms. We know that a Hydrogen atom is a complex system of events. It is causally affected by the past, it responds to that past from its own point of view, it resolves the indeterminacies in that past and even, in extreme circumstances, such as those at the

center of a sun, it shows imagination by ceasing to function as a Hydrogen atom and entering, instead, into the cosmic adventure of Helium.

Finally, sub-atomic particles, which emerge out of the collapse of a field of probability, are particularly easy to understand in terms of actual occasions.⁷

The second result, then, of our use of the Hermetic Principle is the idea that the differences between the occasions making up our stream of conscious thought differ from the other occasions in nature not in fundamental kind, but only in emphasis on one or another of their constituting processes. By analogy with the nature of our own ongoing experience, we can validly extrapolate to the experiences of animals, vegetables, minerals and subatomic particles. We are all, alike, either actual occasions or complex groupings of actual occasions. And every occasion making up all of these societies is constellated around a pole of awareness.

While there is a continuum of differentiations among occasions, Whitehead suggests that we group occasions into *grades*.

- The lowest grade of actual occasion, which corresponds to inorganic events, experience the initial rush of feeling by means of which they are causally affected by the past in a very simplified and abstract way. They interpret that rush of feeling with a bare minimum of imaginative variation. By and large, they simply decide to perpetuate the past that they have experienced without considering other possibilities.
- Medium grade occasions, which correspond to living events, experience the initial rush of feeling in a fairly full and complex way. In their process of interpreting the past they regularly introduce novelty. As often as not, they decide to perpetuate what they have imagined rather than what they have received. In other words, they respond to circumstances with novel adaptations. In fact, Medium Grade occasions are regularly introducing novelty into the creative advance of

⁷ See Shimony, Abner (1965) "Quantum Physics and the Philosophy of Whitehead." in Max Black (ed.) *Philosophy in America* (London: George Allen and Unwin, Ltd.), and Shimon Malin, *Nature Loves to Hide: Quantum Physics and the Nature of Reality, a Western Perspective* (New York: Oxford University Press 2001).

occasions. Change is built into their nature and manifests as growth, decay, and adaptation.

- High grade occasions, which correspond to thinking events, not only feel the past in a very full way, interpret it with a great deal of imaginative freedom, and then they present to themselves a variety of alternatives, and consciously choose among them.

As we proceed, we will be considering in some detail the modes of interaction among actual occasions of various grades. In fact, we will come to define the human personality as a society of occasions of high grade which is embodied in a society of occasions of medium grade which are, in turn, embodied in a society of occasions of low grade, or inorganic occasion. Before we can make this definition fully intelligible, however, we will have to consider the structure of actual occasions in more detail. This will be done in subsequent section of this essay.

One final result which falls out of our application of the Hermetic Principle is the suggestion that all causal transmission may, in fact, be a transmission of feeling, or a kind of impersonal memory.

Whenever any event is causally affected by another event, the affected event is *feeling* the determinate qualities of the effecting event. Say, for example, I am prehending in this moment a past actual occasion (or some group of such occasions) that were characterized by the property of redness. I see a red flash. I receive it into myself as a felt experience. Now, how did a past actual occasion come to express itself (to ‘objectify itself’ in Whitehead’s language) as red? Only by receiving redness into itself from some actual occasion in *its* past and passing that redness on unchanged; or by receiving the objectification of some non-red past actuality, imagining red as a response to that experience, and then *deciding* to pass on redness into the future.

Now, if we define memory as an experience of past experience, then we realize that any causal transmission is an experience of a past experience, and so it is a kind of

memory.⁸ This identification of causal transmission with memory will be a very useful component of our understanding of personality survival and reincarnation.

Whitehead, thus, is suggesting to us that all entities, in the universe, including ourselves, are composed of actual occasions. On the basis of this, we can apply the Hermetic Principle and, in this case, we learn that:

- All discrete events in the universe are, on the inside, drops of experience.

When we, as observers, see an event being causally effected, it, in its own subjective immediacy, *feels*, those effects. To be causally affected is to feel.

When we, as observers, see the emergence of an event with novel qualities, on some actual occasion has, in its own subjective immediacy, engaged in an act of imagination. To improvise is to bring new feelings into being through imagination.

When we, on the outside, see the indeterminacy of a situation resolved by a particular event, on the inside of that event there has been an act of decision. To become definite is to decide among possibilities.

- Actual occasions differ among themselves in the extent to which they emphasize one or another of their three primary stages of functioning, and thus fall roughly into three grades – inorganic, living, and thinking.
- All actual occasions come to have their determinate characteristics by a process of feeling, imagining and deciding. All occasions in the future will experience past actualities by feeling some portion of the experiences which constituted that occasion. All transmission of causes through time is a transmission of experiences, or a flow of memory.

One of the issues that is preoccupying scientific thought at this time is the notion of “emergence.” If we view the evolutionary process as beginning with very simple, low grade actualities such as sub-atomic particles and atoms, how can we account for the emergence of new qualities in the evolutionary process. The classic example here is the example of “wetness.” There is no wetness in the universe until both Hydrogen and

⁸ What we usually mean by “my memory” is just a particularly rich transmission of causes which takes place through what we will soon define as a personally ordered society.

Oxygen have evolved, and conditions have arisen under which they can suitably combine. Whitehead would explain this by saying that two hydrogen atoms and one oxygen atom, finding themselves in just the right sort of situation, mutually apprehend each other as elements in their respective pasts. They each imagine the possibility of “water molecule,” and then they decide in favor of that possibility. Of course, both hydrogen atoms and oxygen atoms are very predictable, and *almost* invariably make the same choice in the same situation. But the *almost* here is important. There is always some finite indeterminacy. Most atoms in certain situations will combine, but there are always a few that will not. This tiny indeterminacy is just the scope of the freedom that the actualities concerned can exercise. Sufficiently large masses of water molecules have, for us, the property of “wetness.” So wetness. Like all other “emergent properties” enters the evolutionary process through the imaginative decisions of actual occasions. These ideas outline the Doctrine of Panexperientialism.

METAPHYSICS AND SCIENCE

I trust that the last section has demonstrated the plausibility of a panexperientialist ontology centered around the notion of actual occasions. In order for us to show the applicability of this ontology to the phenomena of personality survival and reincarnation, it will be necessary for us to accomplish several more tasks.

- First, we will have to generate, in terms of this ontology, an interesting and plausible definition of personality as such.
- Then we will have to discuss the doctrine of the subtle worlds in order to form a coherent and useful description of what it is that survives in personality survival, of where such a personality has its existence.

In order to accomplish these tasks we will have to examine in more detail just how it is that actual occasions come into being, and how it is that they interact among themselves.

I am inviting you to enter into a kind of metaphysical discussion that most people can safely ignore -- except during those periods, like our own, in which science and common sense are undergoing crises of reorganization. Both science and common sense frame their explanations in terms of a set of basic abstractions. The abstractions of common sense are given to us with the infinite richness of natural language. The abstractions of science gain their power from their ability to generate explanations for a great diversity of phenomena using one, sufficiently simple, and adequately coherent, set of concepts chosen from among all such sets permitted by language.

Our society has devoted much of its intellectual resources to the project of describing all of reality in terms of the set of abstractions used by science. While this has been, in some ways, very illuminating, many of the scientific discoveries of the twentieth century -- relativity, quantum physics, and the increasingly reliable findings of all of the parapsychological sciences -- have defied explanation in terms of the basic abstractions with which science began. Our current science finds itself in need of a fundamental reworking of its basic conceptual underpinning. This fundamental reworking is the work of metaphysics into which I am now inviting you.

Metaphysics is the critique of abstractions⁹. Science, on the other hand, is the exploration of reality *in terms of* a given set of abstractions. Metaphysics examines a given set of abstractions, discerns their limits of applicability, and devises new sets of abstractions to inform future scientific endeavors.

For several centuries, science (and the scientifically influenced portions of common sense) have been attempting to use a set of abstractions which describe reality in terms of measurable inanimate processes. It is set of ideas that we must replace if we are to construct a new knowledge paradigm that can encompass and transcend our current, inorganically fixated, way of thinking.

Whitehead is presenting us a way of describing the universe that reveals it as radiantly alive. In this universe, the flow of energy in spacetime is known as a

⁹ Alfred North Whitehead, *Process and Reality* (New York: The Free Press, 1985). See especially Part I, Chapter I, pp. 3-17.

transmission of feeling through vast societies of experiencing, thinking, imagining and freely deciding sparks of experience.

We have known the fascination of tracing a scientific cosmology based on interactions among the simplest possible physical entities. Now we have the opportunity to deepen that fascination by imagining a scientific cosmology based on entities that are simultaneously events (on the outside), and drops of experience (on the inside). What corresponds, in the physical imagination, to causal transmission, or the flow of energy is, in Whitehead's universe, a succession of experiences, each of which feels the causal power of its past, imaginatively interprets what it feels into a unified understanding, and resolves the indeterminacies implicit in the field of probability out of which it arises by purposeful decisions.

A cosmology based on Whitehead's ontology has not only the power to account for the existence of human *bodies*, it also has the power to account for the intimate texture of consciousness which we ourselves feel in every moment. It also has, as we will see, the power to transform our understanding of matter, space and time in a most remarkable way.

In order to see how all this is possible, we will have now to look more deeply into the process through which an actual occasion comes into being.

THE PROCESS OF CONCRESCENCE

Whitehead, as we have seen, calls this process through which actual occasions come into being "concrecence." Concrecence is the process of becoming concrete. What is here meant by "concrete" grows out of a definition of "concreteness" which may not be immediately apparent. We have come to endow "concreteness" with connotations derived from the substance "concrete." We nowadays think of concreteness as implying solidity, density, heaviness, and resistance to change. But Whitehead is here thinking of "concrete" as the opposite of "abstract." In this sense, what is concrete is the fully

complex actual texture of things, while abstractions are the residua left in consciousness when all but a few considerations concerning those things are held to be irrelevant.

To make this idea clearer, let us say we are contemplating a round red ball, and we are trying to specify what its concrete reality actually is. Clearly “round,” “red” and “ball” are all abstractions from that concrete reality. We derive the abstraction “round” by holding everything but shape to be irrelevant. We derive the abstraction “red” by holding everything but color to be irrelevant, and we derive the abstraction “ball” by holding everything but its function in certain human pastimes to be irrelevant.

Abstractions are the simple, general, sharable ideas in terms of which we generate explanations of concrete facts. No attempt to account for the concrete in terms of the abstract will ever be wholly successful. Concrete reality is always more than the sum of all the abstractions that we can derive from it. Nonetheless, philosophical and scientific knowledge are nothing other than accounts of concrete reality that we make in terms of certain sets of abstractions.

Concrescence, then, is a very basic abstraction which brings into focus the way in which a concrete reality in the universe comes into existence. Concrescence is the process through what we may indifferently call events, drops of experience, or actual occasions, come into being.

The Causes Of Concrescence

We are here working on the assumption that the final real entities which compose ourselves and the world in which we live are actual occasions. We have named the process by which actual occasions come into being “concrescence.” In order to understand concrescence more deeply, we must first look into its causes. What is it that causes a new process of concrescence to begin?

We will see that in order to understand the initiation of a new concrescence, we must investigate four different types of cause. These four types of causes were first identified in the works of Aristotle. Aristotle did the Western tradition an enormous service when he analyzed causation into four types – material, efficient, formal and final.

Material cause is the basic stuff out of which an entity is created, efficient cause is the effect of the past on the entity in the present, formal cause is the pattern of possibilities out of which an entity forms its character, and final cause is the purpose which motivates the entity into being.¹⁰

Scientists, though they focus most of their attention on efficient causes, actually do take into account at least three of Aristotle's four causes. Scientists speak of material cause (the basic stuff out of which everything is made) in terms such as energy and negative entropy, or fields of probability. Scientists speak of efficient cause as the effect of the immediate past on the present. Scientists tend to thrust formal cause into the background by imagining that all formal causation is the expression of one, uniform body of "natural law" which is the same for all entities and which can be best expressed in mathematical equations which describe invariant relations among the results of measurements. Scientists, however, positively reject the notion of final cause. They want to imagine that what happens is shaped by material and efficient causes operating in an invariant scheme of natural law, but they are adamant in their rejection of final causes. They want to imagine that nothing comes into being as the expression of purpose.

The four causes look quite different when they operate in an ontology of actual occasions.

Material Cause

Whitehead calls the ultimate material cause "creativity." Creativity is a primitive notion in Whitehead's system. It is defined as "the process through which the many become one and are increased by one." Concrescence, or the coming into being of an

¹⁰ The oldest and most famous example of the four causes is that of a house: The material cause is the bricks, the wood, etc. The efficient cause is the person (or people) who build it. The formal cause is the blueprint. The final cause is to provide housing for someone. I am here defining formal cause in a slightly different way than Aristotle did. As I understand it, Aristotle defined the formal cause as the character which a substance exhibits. In the context of this ontology, there is no "substance" in Aristotle's sense. The formal cause of an actual occasion is the field of possibility out of which it arises. The particular character which the occasion comes to have is considered as an efficient cause for future occasions.

actual occasion, assembles all of the diverse entities of the past into one, coherent, unified experience. Thus it is the process through which the many become one. And each actual occasion is one of the many to be unified in future concrescences. Thus, “the process through which the many become one and are increased by one.” There is no shadowy and mysterious “substance” or “energy” in an ontology of actual occasions. Creativity is the name for the fact that concrescences continue to occur, thus constituting the “creative advance” of Nature.

Efficient Cause

The efficient cause of an actual occasion is the entirety of its settled past. Note that for actual occasions, the *efficient causal effect* of a past occasion is also the *current, partial, experience of the experience* of that past occasion. Here memory and efficient causation are synonymous terms.

The present experience of a past experience is subject to what Whitehead calls “abstraction in objectification.” “Objectification” is the way in which a past occasion becomes present as an object for a present occasion. To say that there is abstraction in objectification is to say that the experience that a current occasion has of a past occasion is always less complete than the experience that the past occasion had of itself.

For example, I have a very complex, very concrete experience of the person that I was an instant ago. I know what that immediately past “I” was feeling, imagining, and thinking. However, the experience that I have of the self that I was an hour ago, when I was eating breakfast, is considerably more abstract. I can bring into my awareness only the highlights of what was happening at that time. My past is present to me under abstraction. Or, say I am on the beach and sitting on a large boulder. That boulder is objectified for me in a rather full, concrete way. I feel it’s coolness, it’s hardness and it’s massiveness. I see subtle features of its surface. But if I pay attention to another large boulder that is on the same beach, but at some considerable distance from me, it is objectified only by an overall shape and a few outstanding visual details. My experience

of the distant boulder is more abstract than is my experience of the rock on which I am sitting.

One of the most defining characteristics of our experience is the fact that past fades. The full intensity and richness of our past experiences, for better and for worse, fades with the advance of time. An ontology of actual occasions accounts for this feature of experience in terms of abstraction in objectification.

Earlier, we defined “prehension” as a sub-event in the constitution of a complex event, or as a drop of experience into which a drop of experience can be decomposed. The past is causally effective in a current occasion as a set of prehensions which are called “material prehensions.”¹¹ There is one material prehension linking each emerging actuality to every actual occasion in its past. It is these material prehensions that impose abstraction on the objectification of past occasions. Note that some of these material prehensions may not only abstract from, but effectively exclude, some past actuality from any direct participation in the current concrescence. In that case, we say that the current occasion “negatively prehends” those particular past occasions.¹² All other prehensions are “positive prehensions,” or “feelings.” We will return to this function of material prehensions when we explore the nature of space and time later in this essay.

¹¹ What I am calling “material prehension” is what Whitehead calls “physical prehension.” Whitehead’s terminology leads to unnecessary confusions, particularly in the context of the doctrine of the subtle worlds.

¹² Whitehead generally maintains that past actual occasions cannot be negatively prehended, though he is not entirely consistent on this point. In the interpretation of Whitehead that I am developing here, it is necessary to maintain that some past actualities can be negatively prehended. To anticipate future arguments, I will say that those actualities which are not in the spacetime of the current prehension are negatively prehended.

Formal Cause

Clearly, an actual occasion cannot begin its concrescence without some material cause (creativity), and some efficient cause (it's past). But while these two causes are necessary, they are not sufficient. In order for a concrescence to begin, there must also be a formal and a final cause. These two causes together are what Whitehead calls the "initial aim" of a concrescence.

The formal cause for an actual occasion is the entire set of possibilities among which it decides as it is becoming a settled fact for all future occasions in the creative advance.

While the past is present in an emerging occasion as its material prehensions, the formal cause is present in an emerging occasion as a set of "conceptual prehensions." A conceptual prehension is the experience of a possibility as such.

The field of possibilities that can be explored by a concrescing actuality is dependent on the spacetime in which it finds itself, and on its position in that spacetime. Because, as we will later establish, an ontology of actual occasions allows for many different spacetimes and, indeed, many different types of spacetime, in order to fully specify the field of possibilities for a particular concrescence, it is also necessary to specify the spacetime in which a concrescence will find itself, and also its particular position within that spacetime. This is also a function of the formal cause. This issue of the properties of spacetime is one of those metaphysical issues with which most people, and, indeed, most scientists, rarely concern themselves. But if we are going to understand personality survival, we must form some idea of where it is that the deceased personality exists after the death of its body, and specifying this location will require us to form an understanding of spacetime which is very different from that of mainstream science.

When we come to a deeper consideration of the nature of spacetime in an ontology of actual occasions, we will see that in specifying the spacetime and the position of an occasion, the formal cause also determines the occasion's grade.

As we have observed, scientists tend to consider formal cause under the guise of one, self-existent set of “natural laws” which are the same for all entities and which require no explanation. In the case of actual occasions, however, the formal cause is more personal and more intimate. Whitehead suggests that each actual occasion gets its own personal formal cause directly from the mind of God.

This idea requires further explication. Remember that each actual occasion emerges by a process of free decision among the alternative possibilities with which it is presented. If these possibilities were not somehow coordinated, then the outcomes of the decisions made by various occasions would have no relevance to one another, and the universe would devolve into utter chaos. That factor in existence which provides the initial aims for the various occasions must be the factor which is ultimately responsible for the all of the coherence which we do observe in the universe. That factor must be responsible for the very existence of what scientists call “natural law.” It must also, and simultaneously, allow the free choices by which individual actual occasions come into being. Whitehead identifies that factor as God. God, for Whitehead, is (among other things) that factor in existence which establishes an initial relevance among all possibilities, and which provides, for each new occasion, a set of possibilities, coordinate with its past and descriptive of its possible futures, among which it can freely decide. In this way, Whitehead reveals a universe that is not only pervaded by freedom and consciousness, it is also pervaded by Divine persuasion.

The result of this doctrine is a radically new understanding of natural law. Natural law, in this context, is no longer understood as a uniform and invariant set of possible relationships among things that is self-existent and requires no explanation. Rather it is understood to be the expression of an intelligent will that persuades the universe of actual occasions into rich and coherent patterns of order by providing for each occasion a set of possibilities which is coordinate with its spacetime position, quite possibly novel, and among which it can freely choose. Because Whitehead understands formal cause in this way, he presents to us a universe in which natural law itself, not only the entities which operate according to its rules, is evolving as an interaction among divinely presented possibilities and the free choices among those possibilities which

bring actual occasions into being. In other words, Whitehead sees natural law itself as the outcome of ongoing joint decision being made by God and by actual occasions as they concreate. The general configuration of formal causes which characterize the very broad entity that we call our universe is, for Whitehead, just one “cosmic epoch” among others.

Final Cause

We are defining the coming into definiteness of an entity as essentially the making of a decision. The concreation of very low grade occasions, occasions such as quantum events, involve decisions made with a minimum of imagination, and a virtually indetectable level of emotional and cognitive awareness -- but they are nonetheless throbs of decision.

If we take into account only the material, efficient and formal causes which we have so far explored, we can not yet understand the very notion of *decision*. A choice made in the absence of a purpose is not a decision, it is just an outcome of “chance.” We are developing an ontology of actual occasions, each of which feels its past, interprets it into a unified experience, and makes decisions regarding the future. *Decisions can be distinguished from chance only by the presence of purpose.* The purpose which guides the decisions that bring an actual occasion into being is that of creating maximum enjoyment of value for itself and in its relevant future. Each actuality values itself and because it values itself, has intrinsic value. The decisions of actual occasions are informed by a purpose, and thus they are the outcome of free choices rather the outcome of mere chance and necessity.

God, which is the source of the individual final cause for each occasion, is understood by Whitehead as an infinite, everlasting concreation which is, itself, characterized by a final cause. From the fact that nature, as we observe it, is evolutionary, and is, thus, concerned with the production of ever more complex and ever more intensely subjective occasions, we may infer that God’s overall aim is at coherency, depth, and richness of material, moral, and aesthetic experience in the entire creative

advance. As we come to examine reincarnation, we will see that it is this divine evolutionary intent is one of the factors that makes reincarnation intelligible in a universe of actual occasions.

We will, in the following text, often refer to the initial aim, which is the formal cause suffused with the animating power of the final cause.

The Phases Of Concrescence

We have now examined the fundamental preconditions for the initiation of a new concrescence. It is only when the material cause, the efficient cause, the formal cause, and the final cause are in play that a new concrescence can begin.

Once these causes are in play, the concrescence proceeds through a sequence of phases. Whitehead, throughout *Process and Reality*, examines these phases exhaustively and in many different ways. Here I will present a very simplified analysis that is, nonetheless, sufficient for our purposes in this essay.

The Initial Phase

The initial phase of a concrescence is just the co-arising of its four causes. Thus, the initial phase of a concrescence takes place when, as an expression of creativity, there is an inrush of feeling from the past in the form of a set of material prehensions, an inrush of the awareness of relevant possibilities in the form of a set of conceptual prehensions, and the imperative purpose to unify these prehensions into a coherent whole through a process of interpretation and decision directed to the maximization of value in the present and in the relevant future of that occasion. This complex field of causes must be in place at the inception of any event, be it a sub-atomic particle or a moment in our own stream of consciousness.

The Middle Phase

The middle phase of a concrescence is its process of interpretation and decision. The initial phase of the concrescence has ended with the appearance of a multiplicity of material and conceptual prehensions. As the middle phase of concrescence proceeds, new prehensions arise, each of which takes some set of these initial prehensions as its data, makes decisions regarding them, and objectifies the results of its process as a unified data for the other prehensions which follow it. Through this process, the multiplicity of initial prehensions is gradually brought to the point at which it can be experienced as a coherent unity by one, final prehension.

When a middle phase prehension takes in (or prehends) either several possibilities, or several actualities and some set of possibilities, it can objectify them as a “proposition.” The verbal statements of a proposition might be, for example, “balls are round” or “that ball is red.” We tend to think of propositions as certain forms of logical statement. But Whitehead defines propositions in a much broader way. He holds that they are either combinations of possibilities, or else combinations of actualities and possibilities, which are intrinsic to the processes of interpretation and decision that make up the middle phases of concrescence.

Whitehead makes an observation about propositions that will be crucial to our understanding of spacetime in a universe of actual occasions. He brings to our attention to the fact that every proposition which concerns actualities must be couched in terms of a “scheme of indication.” Let us say that I want to form a proposition which could be verbally translated as “that ball is red.” In order for this proposition to have any meaning, there must be some general scheme of order in terms of which the meaning of “that” in “that ball” can be specified. In general, we point to, or indicate, specific actualities in terms of their spacetime position. When I say “that ball is red,” I am referring to the ball that is “over there,” at some specific position in relation to other actualities. Thus spacetime is, among other things, a scheme of indication in terms of which specific actualities can be indicated and woven into propositions.

Our conscious perception of the reality surrounding us¹³ does not, in general, show us individual actual occasions. Instead, we see a collection of complex objects in spacetime. Each of these objects is, as we know, composed for us in the process of perception. Cognitive scientists have analyzed this perceptual process in terms of events such as nerve cells and nerve ganglia. An ontology of actual occasions suggests that what these nerve cells and nerve ganglia do, in their own subjective immediacy, is to form propositions. For example, if I see a ball, somewhere in my body there was an occasion which synthesized all of the material prehensions belonging to that ball into a propositions which says, in effect, “those actualities share in a community which can be generally characterized by the term ball.” The higher level occasion which I am does not concern itself with that process of synthesis. I just sees a ball.

But in order for this complex process of propositional unification to take place, all of the prehensions which are forming these propositions must share a common scheme of indication. As we will come to observe, this common scheme of indication *is* the spacetime of the concrescence in which these prehensions are unified.

The Final Phase

The final phase of a concrescence is the one, crowning prehension which prehends the totality of the initial material and conceptual prehensions woven into a coherent whole, and shaped by decisions regarding its relevant future. In the process of forming this final satisfaction, the concrescence has, under the impulsion of its final cause, decided for or against all of the possibilities contained in its initial formal cause. It has resolved all of its initial indetermination and become fully actual. The objectification of this final prehension is the “final satisfaction” of the concrescence. It includes within itself the unified perspective on the past which the occasion has achieved, and all of the intentions which it has formed concerning its future. While the initial formal cause is part of the “initial aim,” the actual intentions which the occasion forms for its future are

¹³ Whitehead calls this “perception in the mode of presentational immediacy.”

called its “subjective aim.” It is the final satisfaction which is “superjected,” or, in other words, it is the final satisfaction that is objectified by material prehension for all future occasions.

CAUSAL RELATIONS AMONG ACTUAL OCCASIONS

We are working our way towards a full definition of personality. In order to get there, we will have to understand the various ways in which occasions group together to form more complex structures, and in order to do that, we will have to examine briefly the different kinds of causal interactions among actual occasions that makes those groupings possible.

Every actual occasion superjects itself, or has causal effects on the future, in three different ways.

- First, there are certain material prehensions which the occasion passes on to the future essentially unmodified. For example, an occasion in the route of occasions constituting an atom may pass on to its future instantiation realities from its past just as they were received, with an absolute minimum of imaginative interpretation. This kind of transmission is entirely dominant among low grade, inorganic occasions, and this is one of the factors that makes the methods of physics so relevant to the analysis of causal interactions in the physical world.
- Second, the propositions that are formed during concrescence may also be passed on to future occasions and have significant causal effects upon them. This happens in at least two ways:
 - First, the propositions that are involved in the construction of a perceptual object are regularly passed on from occasion to occasion. For example, when I see a chair, I, myself, do not do the work of synthesizing that chair out of a multiplicity of individual material prehensions. Rather, some of the occasions constituting the route of perception through my body do that work. There is some high grade occasion which finally synthesizes the complete chair perception, and passes it along to me in its fully completed

form. What has been passed on to me is essentially a very complex proposition, synthesizing a large group of material prehensions into a final proposition which predicates “chairness” of that group. Again, if I look into my memory and remember the chair upon which I sat at breakfast, it is the entire perceptual object “that chair,” which I experienced then, that is being passed on to me now.

- Secondly, when a concreting actuality prehends the final satisfaction of some higher grade occasion in its past, that past final satisfaction may include in it propositions specifically relevant to the current concrecence. For example, let us say that at some time in the past I was speaking with a co-worker and lost my temper. Also, shortly after that I formed a proposition with the verbal form “the next time I am speaking with that co-worker, I will not lose my temper again.” Now I find myself speaking with that co-worker again. I now remember (I am causally affected by) that earlier occasion in which I formulated my resolve. That proposition is now objectified in me and (hopefully) modifies my current behavior. This type of causation by proposition is also the way in which we control our own bodies. Say, for example, that I want to move my arm. I first compose in my own concrecence a proposition such as “my arm should extend outward from my body parallel to the floor.” That proposition becomes an attractive possibility for the occasions of my nervous system, and they, in turn, translated my proposition into propositions relevant to the muscle cells of my arm. Assuming the conditions are right (as they often are), the muscle cells of my arm then move in a manner which realizes my proposition. Thus, in an ontology of actual occasions, it becomes clear that our thoughts have causal power over future events both within and around our own streams of being.
- Third, an occasion may be one of the formal causes of certain occasions in its future. This mode of formal causation is, as we will later establish, important in understanding the continuity of personality.

- Fourth, an occasion partially determines the formal causes of the occasions which serve as its own prehensions. This particular mode of causal influence will be discussed in the following section.

EMBODIMENT

One of the mysteries which we have to explicate if we are to form an understanding of reincarnation and of personality survival is the peculiar relationship between a body and its personality. If there is going to be personality survival, there must be some way in which the personality, which will, after death, exist *without* the physical body, must, at least during its waking life, be fully present *in* the physical body. We will call the relationship of a personality to its body “embodiment.” This relationship is one between a high grade concrescence and a set of low grade occasions which are serving as its prehensions. This idea requires some expansion.¹⁴

Let us examine a moment in our own stream of consciousness in light of the distinction between concrescence and prehension. In this moment, I am a consciousness located at a center around which all of my experiences are ordered into a complete, intelligible whole – my individual experience of the universe. Everything that has happened in my spacetime past, back all the way back to the beginning of the universe is, however negligibly, causally relevant to me and to my experience of my world now. We say, that I feel, or have a positive material prehension, of every past actuality in my spacetime. In my waking life, however, my material prehensions of the surrounding world come to me through that part of my immediate past which constituted my own body a moment ago. Thus the vast majority of this multiplicity of actualities is shielded from me, or put below the threshold of my waking consciousness, by layers of prehensions intervening between me and them. What I, as a relatively high grade

¹⁴ The following exposition is not a presentation of Whitehead’s ideas per se, but rather a presentation of my own reworking of Whitehead’s ideas. For a fuller consideration of the differences between my ideas and Whitehead’s, see Appendix I.

occasion, generally enjoy are just those prehensions which are in my immediate past, and are of a grade at, or just a little below, my own.

For example, I am sitting at my desk in my office, my visual field has a computer screen at the center of its focus, and moves off more and more vaguely towards the edges of the room. Presumably, the visual field is mediated by a hierarchy¹⁵ of occasions beginning with the living concrescences of sensory cells, and proceeding through a route of higher and higher grade occasions which, qua events, appear as subsystems of my body such as sensory cells, nervous cells, nerve ganglia, and my brain. In any case, the visual picture that I see comes to me all at once. It is a sub-drop of my experience, one which takes in objectifications from occasions before it in time and below it in grade, synthesizes them in some manner, and passes them on to me as a complex sub-drop of my own experience.

The one concrescence that is “me” in any given waking moment directly prehends the physical world through a chunk of visual experience from an occasion which synthesizes the inputs from my eye, a chunk of auditory experience from an occasion which synthesizes the inputs from my ear, a chunk of proprioceptive and kinesthetic experience from an occasion which synthesizes the inputs from the various sensations in my body, and chunks of gustatory and olfactory experience from occasions which synthesize inputs from my nose and tongue. There are also other chunks, of experience such as chunks of emotive experience from occasions which synthesize the experiences of my internal organs, and chunks of imaginal experience which present to me experiences of possibilities, of dreams, and so on. Each of these synthesizing occasions

¹⁵ The word hierarchy as it is used in this essay carries no connotation of domination or submission. It is merely a name for a transitive inclusion relationship which can be used to order some group of entities. Inclusion is a relationship I such that when $a I b$ and $b I c$, then $a I c$.

is a direct prehension in my momentary concrescence. In a sense, these prehensions are the constituents of my being. Prehensions are what I am made of.¹⁶

So any one moment in my stream of conscious experience is constituted by a set of prehensions. These prehensions are concrescences in their own right. But they are concrescences of a lower grade, and there is a special relationship between the formal cause of my concrescence and the formal causes of those lower grade occasions.

We can understand this special relationship among formal causes by remembering that an actual occasion cannot make any decisions before it has begun its process of concrescence, and that that the beginning of a new concrescence requires the co-arising of its four causes. Since a new concrescence cannot decide its own position in spacetime, that decision must be part of the formal cause which stipulates the field of possibilities that the new concrescence will explore. The efficient cause of the occasion comes, as we discussed earlier, in the form of a set of material prehensions of the settled past. The formal cause comes as a prehension of the mind of God, or of the ultimate source of universal order. But the spacetime position in which the concrescence is to take place is also conditioned by the formal causes of higher grade concrescences which are in process of becoming. So the formal cause of the new occasion must also include conceptual prehensions of these higher grade concrescences for which it will ultimately serve as a prehension. When the formal cause of an occasion includes conceptual prehensions of a higher grade actuality in process of concrescence, we say that the higher grade concrescence is *embodied* in the lower grade concrescence.

¹⁶ Whiteheadian scholars will notice that the argument that I am presenting here is slightly simplified. I have chosen to present the decomposition my concrescence as the formation of presentational immediacy by the hierarchy of occasions constituting the body. I could also decompose my concrescence into series of genetic phases, working up from material prehensions and conceptual prehensions through the formation of propositions, the testing and reformulation of those propositions against the data of the material prehensions and ending in the final satisfaction. Whitehead never fully reconciles these two accounts of the perceptual process. I am interpreting these two accounts as different ways of referring to the same thing. In other words, I am proposing that various cells and organs of the body are actually functioning as material prehensions for the occasions of its personally ordered core. I am aware that this is not Whitehead's explicit position, but I am convinced that it is an element in a rethinking of Whitehead's system so that it that will both satisfy various issues that are outstanding in Whitehead scholarship and will better adapt Whitehead's ontology to the purpose of expressing the mystery of embodiment and the doctrine of the subtle worlds. I intend, in the near future, to illuminate this revision in a book length essay.

When a higher grade occasion is embodied through an occasion of lower grade, the higher grade occasion is not coercively controlling the lower grade occasion involved. Rather it brings about a difference in the specific range of possibilities among which that lower grade actuality will decide. Process theology, which has grown out of Whitehead's work, makes much of the fact that the relationship between God and the actual occasions is one of persuasion, not one of coercion. We are here suggesting a strong analogy between God's relationship with actual occasions one hand, and the relationship that a high grade occasions has to the set of lower grade actual occasions in which it is embodied, on the other.

I objectify the physical world through prehensions in which I was embodied. That is, those occasions in the physical world which included in their formal causes a prehension of my own formal cause are objectified in me with particular clarity. But the border between my body and the rest of the world is not abrupt. In some sense the entirety of my past is a kind of extended body, and the formal causes of those occasions resonate with my own to some extent. Those past occasions in which my own personality was embodied resonate strongly with my personality, and are thus objectified more fully in the present. There may be many different degrees of resonance in my relations with various occasions in my past. To the extent that the formal cause of an occasion of some given grade lower than mine is resonant with my own formal cause, I experience it as having been part of me. To the extent that its formal cause is at odds with mine, I experience it as separate entity. My fingernails are less "me" than are my heart and my brain. The prehensions of my physical body, as they get lower in grade, are less and less influenced by my formal cause, and the formal causes of occasions outside of my body are, in spite of the modest resonance that must be there if I am to apprehend them at all, most often indifferent to, or even at odds with, my own specific formal cause.

Summary Of Remarks on Embodiment

A concrescence is a discrete individual; it is its own particular free atom of feeling, interpreting and deciding. But various higher grade occasions may also be

embodied in it. Each higher grade occasions is embodied through a lower grade occasion just to the extent that its formal cause is resonant with the formal cause of that lower grade occasion. In a certain sense, the entirety of my past is my body. But those occasions in the past which had a conceptual prehension of my formal cause as an element of their formal causes are the ones in which I was embodied. They are particularly mine.

Any actual occasion is a free experience in its own right, and also, potentially, a prehension for other, higher grade occasions. Many selves are embodied through any given drop of experience.

***THE GROUPING OF OCCASIONS, THE MYSTERY OF AUTOPOIESIS,
AND THE DEFINITION OF COMPLEXITY***

Based on patterns of causal transmission among them, actual occasions tend to organize themselves into larger groups. Whitehead calls these groups “nexus.” There are two types of nexus which we will consider here, non-social nexus and social nexus.

Non-Social Nexus

Non-social nexus are groups which occasions form by mutual efficient causal interactions among themselves that do not involve a coordination of formal causes. Non-social nexus can, to a large extent, be explained in terms of efficient causation alone, and these are the nexus to which physical science has devoted so much of its attention. Examples of non-social nexus include quantum particles not involved in higher level societies, rocks, desks, clouds of gas, crowds of people on city streets, and dissipative structures such as whirlpools. These are groupings of occasions in mutual efficient causal interaction. Each occasion in these nexus has just its own, independent, formal cause. Occasions in a non-social nexus take into account other actualities with which they are interacting, but the field of possibility which they are exploring is essentially independent from the field of possibility being explored by those other occasions. A non-

social nexus emerges out of the actions of its constituent occasions, but it is not guided by an overall aim of any kind.

Social Nexus, or Societies

Social nexus (or societies), on the other hand, are fully self-organizing. A social nexus is an autopoietic system¹⁷. An autopoietic system is one which, draws its own boundary within its environment and, through its operation, creates the materials and processes necessary for its own continued operation. An autopoietic system is a homeostatic system which keeps steady just those parameters which support its own continued existence.

Now autopoiesis, though it has achieved some fairly widespread acceptance as the fundamental character of living systems, is still quite mysterious. Complexity science has evolved some fairly convincing understandings of dissipative systems in terms of attractors in phase space, but the transition from dissipative systems into autopoietic systems is not at all understood. It is rather vaguely suggested that autopoietic systems are just more complex dissipative structures. In other words, in harmony with the reductive project of mainstream science, it is assumed that social nexus can be reduced to non-social nexus. But this understanding fails in at least two different ways.

First of all, this reductionistic approach gives us no way of understanding the unified consciousness which inhabits, or is embodied through, the component subsystems of an autopoietic system.¹⁸ For example, it seems clear that a living cell is an autopoietic system of many complex molecules. But a cell acts as the expression of its own, unique, unified subjectivity and it explores a set of possibilities entirely different from the set of possibilities explored by its constituent molecules. How are we to explain that higher

¹⁷ For a much richer analysis of the notion of autopoiesis, see Eric Jantsch, *The Self-Organizing Universe* (Oxford and New York: Pergamon Press, 1980). Also, I have analyzed the logic of autopoiesis much more fully in Eric Weiss, *Self-Organizing Systems and the Phenomenology of Mind*, unpublished.

¹⁸ Christian de Quincey has dealt with this issue under the name of the “binding problem.” While my solution differs from his in detail, we are approaching the same problem in a very similar spirit. See De Quincey, *Op. cit.*, pp. 230-235.

level, unified *experience*? Scientists are mute on this question. Ken Wilber speaks of a “hierarchy of holons,” but he does not, as far as I know, address the specific question of how these successive levels of the hierarchy form the individual consciousness that characterizes the higher level holons that form out of groups of lower level holons.¹⁹ Here I would like to suggest that a social nexus, a society, or an autopoietic system comes into being when a higher level occasion is *embodied* in a nexus of lower level occasions.

This would imply that every moment of an autopoietic system is, to a significant degree, the expression of one overarching concrescence that is of a higher grade than that of any of its constituent occasions. Thus an autopoietic system can only come into being under the influence of some actuality that is of a higher grade than any of its constituent occasions. It is possible that the lower grade occasions may, in some sense, create the higher level occasion which orders them into a society. For example, we may speculate that a sufficiently complex, non-social dissipative system creates the conditions in which a higher grade occasion comes into being. This higher grade occasion then influences the formal causes of the subsequent occasions in that dissipative system so that the relationships among them become considerably more intimate. This would be the coming into being of a living system. It is also possible, as Sri Aurobindo in particular, and the esoteric tradition in general, suggests, that there are pre-existent high grade actualities that may be seduced into involvement with the lower grade actualities of the physical world when those occasions self-organize into patterns that it finds interesting. In any case, we now have this definition: *a society, or an autopoietic system, comes into being when the occasions of which it consists have include in their formal cause prehensions of the formal cause of a higher grade concrescence contemporary with them. In other words, all of the members of an autopoietic system are functioning as prehensions for a higher grade concrescence which is embodied through them. An autopoietic system is an instance of embodiment.*

¹⁹ Wilber’s works are voluminous, and my acquaintance with them is mostly through Ken Wilber, *Sex, Ecology, Spirituality* (Shambhala 1995). I am aware that he has advanced many theories since that time, and perhaps his later works address this issue.

A second difficulty with the reductionistic interpretation of autopoiesis is that fails to account for the “coordination of spontaneities”²⁰ among the occasions that make it up. Consider, for example, the physical human body as an autopoietic system. The system consists, at one important level, of living cells. Each of these cells is, in every moment, a concrescence in its own right. It has its own life, and it makes its own free decisions. Nonetheless, the free decisions of the cells are somehow coordinated for the benefit of the body as a whole. When the cells break out of this field of coordinated spontaneity, we call them “cancerous.”²¹

In a non-social nexus, there is a continuity of causes that tends to enforce a certain uniformity of behaviors, but an exercise of free spontaneity on the part of the members of that occasion will simply cause, to some extent, the breakdown of the nexus as a whole. For example, consider the non-social nexus constituting an iron key. If some of the individual occasions in that key decide to relate to some system of occasions constituting a water molecule, then the key will begin to rust. But in a human body, the various free decisions of the cells in my arm, for example, will coordinate themselves in the context of some movement of that arm suggested by the higher level occasion that is partially embodied through them. The only way that we can account for a “coordination of spontaneities” is on the basis of a coordination of formal causes. If an occasion is going to make free decisions in the service of a higher organization, then the very possibilities that it is missioned (by its formal cause) to explore must be, to a significant extent, conditioned by the formal cause of some higher grade actuality.

In short, the idea that a higher grade occasion can influence the formal causes of some system of lower grade occasions allows us to account for the emergence of autopoietic systems, for the coordination of spontaneities among their constituent occasions, and for the unified consciousness which so clearly inhabits such a system.

²⁰ This phrase was used in this context by Whitehead somewhere in *Adventures of Ideas*. I have not yet found the specific reference.

²¹ All of the scientific approaches to cancer have focused on efficient causes. The ontology being developed here suggests rather that cancer results from a breakdown in the coordination of *formal* causes. This interpretation would support the findings of psychoneuroimmunology, and may open up further lines of research in that area.

This way of understanding autopoiesis also enables us to give a clear definition of the term “complexity.” Complexity is a very important notion in contemporary scientific thinking. Teilhard de Chardin, in his attempt to frame a scientific understanding of evolution, saw it is a progressive development of “complexity/consciousness.” Complexity has since become such an important notion that people speak of “a science of complexity.” But no one has succeeded in giving the term “complexity” an adequate definition. It seems that we can recognize relative complexity among systems, but all attempts to frame a definition of complexity in purely quantitative terms have failed. In an ontology of actual occasions, complexity is a function of grade. The higher the grade of an actual occasion, the more concrete is its objectification of its past, the more elaborate the pattern of prehensions that constitute its interpretative process, and the more elaborate are its processes of decisions. At the same time, the higher the grade of an occasion, the more intense is its conscious experience. Here we see the intrinsic connection between complexity and consciousness that Teilhard de Chardin was obscurely grasping. In the physical world, we can say that the higher the grade of the occasion that is embodied in a system of physical occasions, the richer are the patterns of efficient, formal and final causes that are at play in it, and thus the more complex it is.

Societies With Personal Order

There is one particular form of society which will play an extremely important part in our understanding of personality. This is what Whitehead calls “societies with personal order.” A society with personal order is a society which consists of a succession of individual occasions which follow each other serially, like pearls on a string. To be slightly more precise, we can say that a society has personal order when there is a route of occasions such that each emerging occasion in that route identifies one particular occasion of its own grade, in its immediate past, as its unique predecessor. There can be no personality unless there is a society with personal order at its core.

We ourselves, the very most intimate part of ourselves which we call “me,” are societies with personal order. There is only one instance of “me” in each moment. When

I look into the immediate past, I can identify one particular occasion there that was “me” in that moment. That past occasion found one particular occasion in its immediate past which it considered to be “me,” and so on for some important range of the past.

Wherever we see an autopoietic system, the high grade concrescences which are embodied in that system from moment to moment are always members of a society with personal order.

We usually think of personally ordered societies as a route of transmission for efficient causes. For example, the person that I was a moment ago has an enormous power of efficient causation over the person that I now am. I receive from that last moment all of its emotional intensity, all of its ongoing intentions, and much more. But in order for this flow of efficient causes to continue, there must also be some continuity of formal cause from occasion to occasion as well. In this case, we would have to say that the formal cause of one occasion in the society is largely identical to the formal cause of its predecessor. The continuity of formal cause is never perfect. Each occasion has its own unique formal cause and thus its own personal possibilities and its own individual freedom. Nonetheless, there is a sense in which each occasion in a personally ordered society has acted as a partial formal cause for its successor in that same society.

To see why this is necessary, consider the situation in a society with personal order just as its current member reaches its final satisfaction. The occasion that is ending fully anticipates its seamless continuation in another occasion in the immediate future. But unless a new concrescence is initiated with a formal cause largely identical to that of the old occasion, the expectation of continuity will be thwarted. In more intimate terms, I could say that I fully intend to finish this sentence. However death might intervene between any two letters. Only if the ultimate source of order in the universe sees fit to initiate a suitable concrescence through which my personality can continue will my expectation of further survival be fulfilled. In this case, we would have to say that the formal cause of one occasion in the society is formed under the influence of the formal cause of its predecessor. If we bracket out the intervention of God, who makes the final decisions about formal cause of any new concrescence, we could say that the past occasion has acted as a formal cause for its successor in the personally ordered society of

which it is a member. Thus personally ordered societies are an ongoing flow of both efficient and formal causes in the creative advance.

We see that the world around us is filled with personally ordered societies. Atoms, cells, organs, and all organic beings are personally ordered societies. Evidently societies with personal order are an important way in which the world of actual occasions focuses and intensifies its experience of value, and evidently God, when it is possible, favors the continuation of such societies.

The use of the word “God” in this context may be misleading. Recall that we are using the word God primarily to refer to the ultimate source of order in the universe. We have defined this source, however, not as a fixed pattern of mathematical relations, but rather as an active intention towards order, harmonized complexity, and richness of experience in the universe. When we say, therefore, that God favors the continuation of personally ordered societies, we are just saying that those societies are a singularly effective way of achieving higher value in the creative advance, and thus the factor which brings order into the that advance tends to encourage the continued existence of such societies.

Most of the societies which we observe in the physical world are “corpuscular,” which is to say that they are partially composed of lower grade societies which are also personally ordered. For example, the society which I am in the physical world is composed of organs which have their own personal order. Those organs are composed of cells which have their own personal order. Ultimately my body is composed of atoms, which are the lowest type of personally ordered societies in the physical world. The sub-atomic particles of which those atoms are composed do not have personal order. We could say that the lower border of the macroscopic world is the first emergence of personal order in the atoms.

***A PRELIMINARY DEFINITION OF PERSONALITY AND A WAY OF
UNDERSTANDING REINCARNATION***

At this point, we have sketched out the development of a conceptual apparatus which allows us to form a preliminary definition of human personality, and which allows us to explicate the phenomena of reincarnation.

We can now define the human personality as *a personally ordered society of high grade (mental) occasions which is embodied in a hierarchical system of lower grade personally ordered societies.*

Every member of the personally ordered society which I am comes into being with a formal cause that largely identical to the formal cause of its predecessor. Every member of all of the lower grade societies in which I am embodied includes in its formal cause a conceptual prehension of that same formal cause. While, to some extent, I prehend all of the occasions in my body (e.g., in biofeedback I can come to identify and to control the activity of single cells), it is generally the case that I prehend the lower grade actualities in my body *through* the higher grade societies that order them. I am generally aware of my “eye consciousness,” my “ear consciousness” and the consciousness which orders the inputs from my other senses. I am also aware of my “heart consciousness,”²² my “belly consciousness” and so on. These organ consciousnesses generally objectify themselves as emotional tones. Each of these subsidiary consciousnesses is a personally ordered society of actual occasions. I am also aware of other such societies, which may order various inputs from various organ systems, and which I can identify as my “sub-personalities,” or as “complexes in my psyche.”

This personally ordered society that I am cannot remain in existence without the cooperation of the ultimate ordering factor in the universe. Since it is God that establishes my initial aim (my formal and final cause) in every moment, only if God

²² When we understand the heart consciousness to be a personality in its own right, it is not so surprising that people with heart transplants often find that memories and personality traits from the donor of that heart come into the personality of the personality of the recipient along with the physical organ.

decides that the continuity of the society that I have been until now is important will God bring an occasion into being which is missioned to the perpetuation of that particular line.

If we remain with the idea that all existence is physically embodied, then the personally ordered society that I am can only exist as long as my body supports it. At some point, the conditions which permit my continued existence cease to obtain, and I cease to exist. I am then dead. Meanwhile, new human beings are being conceived. In each new human being, there will be some occasion that is the first member of that particular personally ordered society. The question is, how will God constitute the formal cause of that occasion? Remember that in articulating that formal cause, God is first aiming at maximum richness and coherence of experience, and second, in service of that aim, God is taking account the whole of the settled past. If God were to form the formal cause of the first occasion of a new human being by taking into account in a way that is largely identical to the formal cause that animated the personality of a deceased human personality, God would be making the universe into a more interesting and coherent place. If God ignored past personally ordered societies in forming the formal cause for new ones, God would be wasting a valuable resource, and impoverishing the universe. In other words, the very same logic which leads God to perpetuate the society which I am from moment to moment in my current life will most likely lead God to perpetuate this same society in future human beings. Thus, in terms of the metaphysical system here being developed, it seems entirely reasonable that there would be continuity of formal cause across successive personalities in time. And this is just what we mean by reincarnation.

It is interesting to note that the ontology we are developing does not require contiguity in physical space-time as a condition of continuity. The initial aim of a deceased human being, with all of its unexplored possibilities, may take up its career anywhere in the future of a given death. Also, the continuity we are here proposing is not mediated by any chain of efficient causes. It is a continuity of possibility and a continuity of purpose more than it is a continuity of specific bodily, emotional or mental traits. Continuity of identity is not dependent on continuity of memory.

Continuity of memory within the stream of personality is dependent upon two factors. First, there must be some continuity of formal cause so that I can recognize the occasion which I am objectifying in memory to be a past “me.” Secondly, there must be some similarity of meaning and feeling through which I can access the memory: for example, I remember those occasions earlier in my life which, however far away in space and time they may have been, are most relevant to the occasion which is having the memory. But I know that there are many occasions in my past which I do not now remember.

When a reincarnation takes place in circumstances which closely resemble the circumstances of a recent death, then there may be not only a continuity of formal cause, but also a continuity of memory, triggered by the similarity of the environment. Also, since, in the context of this ontology, memory is causal influence, it is easy to understand how the circumstances of the past personality (say, for example, the circumstances of its own death and of the wound that caused it), may have physical effects in the formation of the new body. The memory itself, which is operative from the moment of conception, may be a causal influence in the formation of the fetus, and may result in lesions on the new body that correspond to the wounds that terminated the life of the old body.

To the extent that the circumstances of the new birth are remote from the circumstances of the old birth, however, there may be an entire absence of mentally conscious memory, and no readily discernable influence of the past body on the new one. But even when there is a great distance in circumstance among the various births, it may, under certain conditions, be possible to recover memories of a relevant past life and to recognize them as my own. This explains “past life memories” of lives that took place in the distant past.

Whether or not there is any visible or conscious continuity of memory, however, the similarity of formal causes between occasions in the new incarnation and occasions in the old incarnation do establishes some important route for the flow of memory, or of efficient causal influence. As we have seen, there is no continuity of personality without a partial continuity of formal cause. It is because of the partial continuity of formal causes for the occasions making up my life that I have especially rich and easy access to

my own memories. This rich flow of efficient causal influence through personally ordered societies will continue if there is reincarnation in the sense here defined. This causal influence from all of the past occasions in a personality, influences within and among lifetimes, is one of the things that is meant by the term *karma*.

Note that karma, in this sense, is not the crude notion of reward and punishment that finds a place in some popular religions.²³ We must understand karma first as it operates in a single lifetime. My personality is a stream of occasions which share a largely identical formal cause. That is to say, my personality is exploring a certain range of possibilities throughout my life. But as I grow older, my past decisions become efficient causes that strongly condition the actual possibilities which I can explore in each new moment. Both the good decisions and the bad decisions which I have made enrich, in some way, the actual field of possibilities among which I can decide in this moment. There is the outer karma which is the effects of my decisions on the circumstances of my life, and the inner karma which is the lessons that I have learned. My personality is deepened by my karma. Karma, in a broad sense, is the richness of efficient causes pressing on the present as a result of my past decisions and the actions in which they resulted. When there is reincarnation in the sense here being explored, the new personality starts its life with some subliminal knowledge of all of the lessons learned by past personalities with which it shares commonality of formal cause. The results of my past actions have blended into the general evolutionary situation, and may have little or no discernable effect on a new incarnation. But the inner karma may have a strong influence on all of its future personalities. Of course, each personality is new. It finds itself in a new body, in new circumstances. Each occasion of the new personality has its own, purely individual, moment of freedom. But the wisdom that those occasions brings to bear on the decisions that they make depends, in part, not only on decisions that it made in prior portions of its current incarnation, but also on decisions that were made by its previous incarnations. My karma is the memory, or the efficient causal power, of all of the occasions through which my own personality was embodied in the past.

²³ For a deeper exploration of the notion of karma, see Sri Aurobindo, *The Problem of Rebirth* (Pondicherry: Sri Aurobindo Ashram, 1994).

Thus, with the ideas that we have developed thus far, we can now define the human personality, we can account for its reincarnation in an interesting way, and we can form an illuminating, though partial, definition of karma.

As I have shown at some length elsewhere,²⁴ and as many scientists are now coming to realize²⁵, Whitehead's metaphysics is the best philosophical system with which to address the perplexities that have been introduced into our civilization by relativity and quantum physics. Here we see that Whitehead's ontology is also, in the form here adumbrated, adequate to understanding the phenomena of reincarnation and karma.

In modern times, we have neglected the study of formal causes, and of the ways in which such causes are transmitted from occasion to occasion. This is one of the crucial studies that must be undertaken if we are to develop a fuller understand of the phenomenon of reincarnation.

We will now turn to an examination of the issue of personality survival.

THE NECESSARY CONDITIONS FOR PERSONALITY SURVIVAL

Personality survival is logically independent of reincarnation. Reincarnation involves a continuity of formal cause across various episodes of physical embodiment, with or without a continuity of mentally conscious memory. Personality survival, on the other hand, involves a continuation of the personality formed during a lifetime, with much of its memory and much of its character intact, and without any continuation of the physical body in which it was formed.

In this section, we will explore the following questions:

²⁴ Weiss, *The Doctrine of the Subtle Worlds*, op cit.

²⁵ See, for example, Abner Shimony, "Quantum Physics and the Philosophy of Whitehead." in Max Black, *Philosophy in America* (London: George Allen and Unwin, Ltd., 1965); Shimon Malin, *Nature Loves to Hide: Quantum Physics and the Nature of Reality, a Western Perspective* (New York: Oxford University Press, 2001); Michael Epperson, *Quantum Mechanics and the Philosophy of Alfred North Whitehead* (Fordham University Press, forthcoming in May 2004); Timothy E. Eastman and Hank Keeton (Eds.), *Physics and Whitehead: Quantum, Process, and Experience* (State University of New York Press, January 2004).

- How is it possible for a personality to survive the death of its physical body?
- Where does the personality exist after its body has died?
- How can such a personality communicate with those personalities that are still in physical bodies?

How Is It Possible For A Personality To Survive The Death Of Its Physical Body?

David Ray Griffin has pioneered the effort to account for personality survival in terms of an ontology of actual occasions.²⁶

His proposal involves three elements.

First, he defines personality, more or less as we have done, as a personally ordered society of high grade occasions that is embodied in the corpuscular, hierarchical society which constitutes its physical body.

Second, he points out that perception by means of the senses is just one particular instance of a more general mode of perception by means of which actual occasions form relations with the past. In Whitehead's language, perception through the senses is perception "in the mode of presentational immediacy," but perception in the mode of presentational immediacy is built up out of perceptions "in the mode of causal efficacy." Perception in the mode of causal efficacy is just what we have been calling "material prehension." It is the direct relationship which an occasion forms with other occasions in its past. So, for example, when we prehend the person that we were an instant ago, we do not perceive that person through our senses. Rather we have a direct, unmediated, prehension of that past actuality. Also, when we remember occasions within our own, personally ordered, society that had their concrescence in the more distant past, that, too, is a direct prehension that is not mediated by the senses. In the same way, when we prehend the data that has been synthesized by, for example, our "eye consciousness," we do not prehend that data through the senses. Rather, our sensory awareness is constituted by our direct prehension of the visual field by means of that eye consciousness. Thus the

²⁶ Griffin, David Ray, *Parapsychology, Philosophy and Spirituality: A Postmodern Exploration* (State University of New York Press, 1997).

basic mode of perception for an actual occasion is perception in the mode of causal efficacy. Presentational immediacy an expression of the chains of objectification that pass through the ordered hierarchy of occasions which mediates the physical world to the personality through its senses.

There is no metaphysical reason which would compel us to believe that the prehensions of an actual occasion that is part of a personality must be restricted to prehensions of the other occasions in its body. Indeed, the compelling body of evidence that has been accumulated by research into remote viewing can be understood as demonstrating that the human personality canprehend realities that are spatio-temporally distant from the body without the intervention of any sensory organs. Also, the research on psychokinesis²⁷ suggests that a personality can also have influences on physical events which are not mediated by the bodily organs. Thus, a personality – a personally ordered society of high grade actualities – that had survived the death of its body might both perceive the physical world, and have some effects on it.

Third, Griffin suggests that occasions of higher and higher grade have “more and more power.” He therefore hypothesizes that occasions above a certain grade may have enough “power” to perpetuate themselves even in the absence of a physical body which supports them. Griffin is rather vague, at least the section of his text concerning the metaphysics of personality survival, as to just what this power might be. I would suggest that this power is twofold.

- First, it is the power to generate a superject which is sufficiently rich that it can, without other inputs from the body, provide a sufficiently interesting initial data to support the existence of another occasion of the same grade.
- Second, it is the power to influence the formal causes of occasions which may, with the cooperation of God, coneresce in its immediate future.

²⁷ For example, see Robert Jahn and Brenda J. Dunne, *Margins of Reality: The Role of Consciousness in the Physical World* (San Diego, New York and London:Harcourt Brace Jovanovich, 1987).

Thus the more power the occasions in a personally ordered society has, the more likely that that society will continue into the future. This power is both a power of efficient causation, and a power of formal causation.

This explanation seems reasonable as far as it goes, but it needs to be supplemented in at least two ways. First, it suggests what seems to be a rather lonely, uncomfortable and frustrating mode of existence for disincarnate personalities. They would, in effect, wander around in the physical world with no body, perceiving what is happening there, and having some, very minimal ability to influence what they perceive. An existence in which I can apprehend events with which I am concerned, but in which I can exercise only very minimal control over those events, does not seem, to me, to be a fulfilling one. This existence might become more interesting if disincarnate personalities could form relations with each other, in which case they might begin to constitute a kind of community of ghosts. This might be a way of explaining some kind of personality survival, but it is not a fate which I would anticipate with pleasure. Also, and more importantly, this model of personality survival does not account for the vast body of evidence which has been handed down through the esoteric traditions, and which now come to us through mediums, which suggest that the life of the disincarnate personality is very rich and very interesting. This traditional evidence also suggests that the disincarnate portion of the personality existence involves interactions with a large variety of disincarnate beings, in a world with very different laws than those which obtain in the physical world, and constitute a vitally important part of the personality life cycle.²⁸

If we are to take these esoteric accounts of life after death seriously, we must ask *where* it is that the disincarnate personality might live if it isn't living in the *physical* world. We would like to be able to say that the disincarnate personality has its continued existence in a "subtle world." But science cannot find these subtle worlds anywhere in physical spacetime. So where, exactly, are these subtle worlds, and what are the laws in

²⁸ For an example of a fairly typical presentation of the esoteric view on the afterlife see A.E. Powell, *The Astral Body* (Wheaton, Ill: Theosophical Publishing House, 1972).

terms of which they can be understood? Here we enter into the task of reconciling panexperientialism with the doctrine of the subtle worlds.

Where Does The Personality Exist After Its Body Has Died?

In earlier civilizations the nearness and relevance of subtle worlds was taken for granted. In early Greek civilization, for example, the regular intervention of Gods and Goddesses in everyday human affairs was understood to be a regular occurrence, and Ulysses could reach the Underworld just by sailing far enough in the right direction. By Dante's time, however, the subtle worlds had retreated a bit. They were still found in space, but they were now understood to be below the surface of the Earth and out beyond the orbit of the Moon. The perspectival revolution of the Renaissance, in which civilized people came to understand space as an infinitely extended, three dimensional, cubical grid, banished the subtle worlds from space altogether. The subtle worlds, having been banished from space, reappeared as the shadowy domain of the "Unconscious."²⁹

In order for us to understand post-mortem personality existence, we need to rescue the subtle worlds from the obscurity of the unconscious, and reconceptualize them as actual spatiotemporal domains which exist in a meaningful, objectively real, relationship with the physical world disclosed by physics. Accomplishing this task will require us to form an understanding of spacetime that is quite different from the one that we normally employ in science, and in scientifically informed common sense.

In scientific work we understand spacetime simply as a geometrical configured container within which events transpire. In what follows, we will see that spacetime is, in fact, much more intimately involved with the creative advance of actual occasions, and much broader in its definition than the abstractions of physics – which are, of course, valid in their own domain - would lead us to believe.

²⁹ Eric Weiss, *The Experience Of Space: Chaos Theory and the Evolution of Consciousness*, <http://www.ciis.edu/pcc/STUDENTS/weiss.html>.

Actual Occasions As Atoms Of Spacetime

We usually think of spacetime an outer environment in which we and other events co-exist. However, though we seldom remark on this, it is also the case that we, in every moment of our existence, *are* the spacetime in which all other things exist. This is one of those somewhat embarrassing observations which tend to be taken seriously only by sophomores and by serious metaphysicians. But the fact is that all that we know of spacetime and its inhabitants is what we can glean, ultimately, from our own experiences. For each of us, our experience contains the whole of the known universe. Thus rather than thinking of spacetime as containing actual occasions, we can also think of actual occasions as atoms of spacetime.

In an ontology of actual occasions, there is no outer, objective spacetime in which those occasions occur. Rather, each actual occasion houses the entirety of its past, and anticipates the entirety of its future, and the final satisfaction of each occasions will be contained in every future occasion. Outside of actual occasions there is simply nothing.

Once we acknowledge the fact that actual occasions are, themselves, atoms of spacetime, the way is cleared, as we will soon see, for a radically new way of understanding the varieties of spacetime that are possible.

Spacetime as a scheme of indication

Spacetime is not just a neutral container. If it were just a container, then it would not provide us with some way of differentiating the various occasions in our past one from another in terms of their relative positions, and it would not enable us to recognize meaningful groupings among those occasions. In order to perform these functions, spacetime must be not only a container, but also a systematic ordering in terms of which things have relevance to each other.

As we look around us in each moment, all of the occasions of which we can be directly aware are contained in our experience. However, those occasions are not merely *contained*, they are also meaningfully *arrayed*. The way in which the events that I

am experiencing are systematically arrayed, around me and among themselves, allows me to indicate specific actualities (e.g., that black patch “over there”), to differentiate actualities one from another (e.g., “not that one, the one to the left of it”), to recognize meaningful associations of actualities (e.g., that lamp on the table), and to trace routes of causal interaction (e.g., the striking of the stones *caused* a spark in the nearby space). In this sense, spacetime is a meaningful pattern of interactions among the actualities which I find in my past, and it is a meaningful pattern within which I can locate myself at a specific position. When spacetime is considered as a systematic patterning of events, it is functioning as a *scheme of indication*.

Earlier, when we discussed the propositions that are intrinsic to the functioning of actual occasions, we noticed that each proposition which involves specific actualities must employ some *scheme of indication*. We observed, also, that all of the prehensions which are bound together in a single concrescence must share a scheme of indication in common.

When a new concrescence is initiated, it begins with the co-emergence of its four causes, which include material prehensions of past actualities, and conceptual prehensions of possibilities in terms of which it can order that past and anticipate its own future. The process of concrescence weaves those material prehensions and those conceptual prehensions into one, complex proposition which is known as the final satisfaction of the concrescence. In effect, the final satisfaction of an occasion predicates of its past world that its members belonged to the particular unified perspective which this new occasion has established, and suggests possibilities for relevant occasions in the future. The relevant occasions in the future are just those which share a common scheme of indication with it, so that they can understand the propositions constituting its final satisfaction. Not only must a concrescence share a common scheme of indication with its constituent prehensions. It must also share a common scheme of indication with all those occasions constituting the largest and most general society of which it is a member. This largest scheme of indication marks the borders of its actual world.

Let us say I want to leave a note for a friend, telling him where to meet me at a certain time. Say I live in a small neighborhood in which there are a few streets, and

each of the houses on a street is assigned an individual number. I can now indicate, in my note, any specific house in my neighborhood, *providing that we both use that same scheme of indication*. But in order for me to adequately designate any house in the actual world, I would have to stipulate not only its street address, but also (either explicitly or implicitly), the city in which it is found, where that city is on its planet, where that planet is in its solar system, and so on indefinitely.

The actual world that I share with you is comprised of those actualities that we can indicate to each other. Our common scheme of indication specifies the shape and texture of the spacetime that we inhabit.

This scheme of indication has already characterized the relations among the occasions of our past, and as such it can be empirically discovered by each new actuality. In this way, the understanding of spacetime that we are developing here does justice to the partial truths of the Empiricist's (e.g., Locke) who described spacetime as an empirically discovered pattern of relationship among *sensa (a posteriori)*. In one sense, each new actuality learns its scheme of indication by abstracting it from its material prehensions, and then passes that scheme of indication on as the one in which it encodes its own propositions concerning the future.

When we are referring to this aspect of spacetime, we will sometimes use "scheme of indication" as a synonym for "spacetime."

This scheme of indication must be in place before two other important functions of spacetime can be supported.

The first of those functions is the imposition of abstraction on objectification. We noted earlier that the a new concrescence only receives into itself an abstract representation of the full final satisfaction of the occasions in its past. But this abstraction in objectification does not effect all past actualities alike. Rather, in general, the further away a past actuality was in spacetime, the greater the abstraction imposed on its objectification in the present. The degree of abstraction imposed on any particular objectification is a function of relative position in spacetime, and that relative position can only be understood in terms of a scheme of indication.

Secondly, to the extent that I can precisely indicate relative spatiotemporal positions, I am in a position to trace routes for the transmission of efficient causes. In

this sense, we say that the spacetime, or the scheme of indication, is a set of possible routes for causal transmission. The realization that causal interactions among inorganic events can be traced as a function of relative proximity in more or less Euclidean space was one of the primary conceptual discoveries opening up the field of modern science.

All of the members of any society, of any self-organizing system at whatever scale, must share a common scheme of indication, which is to say that they must share a common spacetime through which their interactions are mediated. The abstraction in objectification for any occasion outside of our spacetime universe becomes so high that we say it is “negatively prehended.” That is, it is excluded from any explicit relevance in the concrescence by which it is objectified. The structure of the spacetime, the form of the scheme of indication, is perpetuated through the creative advance with the perpetuation of the society of occasions that are bound within it. The spacetime in which we find ourselves is also the largest society of occasions to which we belong. It is our position with that larger society that significantly determines the more local societies in which we also participate.

To summarize this discussion, we have suggested that our understanding of spacetime must include the notions of:

- Actual occasions as atoms of spacetime, so that the only container for any occasion are the occasions that follow it in the creative advance.
- Spacetime as a scheme of indication, characterizing relations among occasions and binding occasions into a social order such that:
 - Individual members of that society can indicate common actualities
 - Variable degrees of abstraction in objectification can be imposed
 - Routes of causal transmission can be indicated and accurately traced.

Spacetime and formal cause

We have now seen how every actual occasion houses the entirety of its past, and also how each actual occasion discovers the scheme of indication which is the shape and texture of its spacetime by prehending the pattern of relations binding the occasions of its past into one overall society. But we have still not accounted for the fact that this

conrescence is initiated at *this* particular position in the context of *these* particular societies. It is this position that largely determines the field of possibility that the new conrescence is missioned to explore. The decision as to the particular spacetime scheme in which a conrescence will happen, and also as to its position in that spacetime scheme, must be made before the conrescence can begin. I suggest that the position of a new conrescence is specified by the ultimate source of all universal order, as part of the formal cause. In this sense spacetime is *a priori* for any given occasion. In this way, the understanding here being developed does justice to the Idealists, such as Kant, who imagine spacetime as a precondition for conscious experience.

Spacetime and grade

We have now seen that the spacetime in terms of which an actual occasion orders its experience is a scheme of indication which binds it into its larger society. I now want to demonstrate that certain characteristics of the spacetime in which an occasion finds itself are co-determined with its grade.

Earlier, we defined three major grades of occasions:

- Low grade, or inorganic, occasions
- Medium grade, or living, occasions
- High grade, or thinking, occasions

With the results of the definitions that we have proposed in these pages, let us go back and return our attention to the differentiation of grades.

- Grades share a common material cause (creativity), but they differ in:
- Richness and complexity of material prehensions (efficient cause)
- Richness and complexity of final cause
- Richness and complexity of initial conceptual prehensions (formal cause), or of the field of possibilities which that occasion is missioned to explore
- Richness and complexity of the spacetime that they inhabit (scheme of indication)

Let us now examine in some detail the spacetimes that characterizes societies of actual occasions of various grades.

Low Grade, Inorganic Occasions

Low grade occasions require only minimal complexity in the past out of which they are arising. In a region, say an intergalactic region of physical space, where there are no higher grade occasions and no complex societies of low grade occasions, then the only actualities that can come into existence are of low grade (higher grade actualities can come into being only when there is a sufficiently rich array of initial data to support the complexity of their functioning). Even if a low grade actuality comes into being in an area which *could* support higher grade concrescence – say in the interior of the body of a complex living organism, it still objectifies its past in a highly abstract manner. For example, the atoms around it may belong to brain cells, but for the low grade actuality coming into being, they are just other atoms, prehended in terms of their electromagnetic and gravitational presences.

Low grade actualities, as we have learned from our study of the physical world, are very conservative. Their formal causes are very narrow and quite generic – so much so that we can, as it were, average them out, and thus we can imagine that all low grade actualities share one and the same formal cause – i.e., the uniform set of physical laws which scientists imagine as pervading the entirety of the physical world. And their final causes, their purposes, seems to be an aim at the enjoyment of fixed patterns of process. An atom, for example, is an autopoietic system of sub-atomic events. Unless the atom is disturbed from outside, it will continue the fixed pattern of process characterizing that system for vast periods of time. Low grade occasions must, under some circumstances, introduce novelty into the creative advance. If they didn't, there could be no evolution in the physical world at all. But they introduce that novelty grudgingly, and only under extreme circumstances.

Given these considerations, we would expect the scheme of indication in terms of which low grade actualities operate to be very simple and very regular. The remarkable discovery which has made all of modern science possible is the discovery of the exact nature of the scheme of indication that is used to determine routes of causal

transmission among low grade actualities in our cosmic epoch. That scheme of indication can be entirely described in terms of a uniform, metrical geometry.

Modern science is only possible in a world in which measurement is possible. I have elsewhere³⁰ examined these conditions in some depth. Very briefly, the operation of measurement involves judgments of congruence between entities to be measured, on the one hand, and rulers (rigid rods) and clocks (periodic oscillators), on the other.

Measurement is only possible when:

- Rulers and clocks can be judged to have the same relevant properties throughout the spacetime in which they are used and
- When the spacetime in which measurement is conducted can be understood as embodying a set of parallel lines.

The first of these conditions is obvious, but note that it can only be secured if the occasions out of which the rulers and the clocks are constructed are low grade occasions which hold to sufficiently invariant patterns of process. The second condition is not quite so obvious. The point is that a ruler, for example, can only be understood to be measuring the same distance “over there” as it does “over here” only if the ruler is judged to be playing an analogous role in some set of parallel lines which can be constructed between here and there.³¹ In other words, measurement is only possible if the scheme of indication in terms of which the occasions being measured are operating is such that it can be described as a uniform, metrical geometry.³²

A personally ordered society of actual occasions, each one of which is distinct from the others, but all of which are bound together by a common scheme of indication

³⁰ Weiss, Eric *The Doctrine of the Subtle Worlds*, op cit., Chapters 3 and 4.

³¹ A. N. Whitehead, “The Principle of Relativity with Applications to Physical Science,” in Northrop, F.S.C. and Mason W. Gross, eds. *Alfred North Whitehead: An Anthology* (New York: Macmillan, 1961), pp. 330-331.

³² An astute reader may notice that this notion of a uniform metrical geometry characterizing all of spacetime is at odds with Einstein’s General Theory of Relativity. Einstein’s formulation of general relativity suggests a heterogeneous, non-uniform relation between time and space depending on the proximity of massive bodies. Whitehead, for this reason, felt compelled to reject Einstein’s formulation of General Relativity. He worked out his own version of Relativity Theory, a version in which spacetime remains regular. This theory, along with the supporting mathematics, can be found in Whitehead, *Relativity*.

appears to the occasions within it as a “world.” The low level, inorganic occasions of our universe form, in this sense, a world. We call that world, which is the world which modern physics describes, the Physical World.

When scientists discovered that mathematics is the language of nature, they had, in effect, discovered the scheme of indication in terms of which causal relations in the Physical World can be followed. The great breakthrough that led to modern science and technology was the realization that the routes of causal transmission in the physical world move through a uniform, metrical, geometrical spacetime. With this realization, it became possible to abstract out from the complex and concrete texture of experience the pattern of causal interaction proper to the low grade occasions in our cosmic epoch.

We have just defined a world as “personally ordered society of actual occasions, each one of which is distinct from the others, but all of which are bound together by a common scheme of indication.” Let us further define “science” as a comprehensive understanding of the patterns of causal interaction characterizing a given world. By our previous definition, Physical Science is just the science of the Physical World. Physical reductionism mistakenly takes this physical world to be the only real world.

But now that we have seen the connection between “world, grade of occasions, and scheme of indication binding occasions into a system,” let us look at the experiences of medium grade occasions.

Medium Grade, Organic Occasions

Medium grade occasions require a field of initial data which is fairly complex. If we are thinking in terms of an evolutionary process which begins in a nexus of subatomic events, then only when those subatomic events have evolved considerable complexity (only when they have organized themselves into something like societies of complex molecules engaged in a dissipative system) can they embody living occasions in the physical world.

Whereas the formal causes underlying various inorganic occasions can be imagined as one, uniform and invariant field of possibilities (natural law), it becomes apparent at the level of life that each species and, at higher levels still, each individual,

has its own field of possibilities to explore, and, thus, has its own particular formal cause. Because we are working under the assumption that all actual occasions come into being in roughly the same way, we are justified in projecting backwards from the individual formal causes that characterize higher grade living beings, all the way back to individual formal causes which must characterize each low grade occasion as well. High grade occasions differ from other occasions in more and more complex ways. We could say that higher grade occasions are more individualized. But no matter how low the grade of an occasion, it is still a unique individual. Because the level of individualization is low among low grade actualities, we can, for certain purposes, treat all of the formal causes of very low grade occasions as one field of law. But when we remember that all occasions function in similar ways, it makes more sense to say that each occasion, no matter how low its grade, has its own, individual, formal cause.

At the level of medium grade occasions, the range of variation among the formal causes that they are individually exploring is much greater than it is in the Physical World. The range of possibilities explored by medium grade occasions is much larger than the range of possibilities that is explored by low grade occasions. Medium grades have much greater freedom than do their low grade counterparts.

Consider, for example, the behavior of a macromolecule that is situated inside a cell which is wandering around on the bottom of a Petri dish. Suppose we were to trace the movement of that macromolecule in the dish without taking into account the living purposes of the cell to which it belongs. The cell is wandering around its dish, looking for food and avoiding threats. So if we don't know that the macromolecule is part of a cell, there is no way that we can account for its large scale movements merely on the basis of gravitational and electromagnetic interactions between it and the other macromolecules around it. The cell is exploring a field of possibilities of which its member macromolecules are entirely ignorant. It is an article of blind faith on the part of scientists that the movements of the cell can somehow, eventually, be accounted for entirely in terms of the behaviors of its constituent molecules. An ontology of actual occasions gives us good reason to suspect that this faith is entirely unjustified. In this context, it is more natural to assume that the higher grade occasion which embodies

itself in the macromolecules of the cell brings into play a field of possibilities which is entirely unavailable to macromolecules.

Low grade occasions are intent on the early phases of concrescence. They feel the past, then merely pass what they have felt on through the creative advance. Medium grade occasions, by contrast, are intent on the middle phases of concrescence. They are missioned, to explore all of the possibilities that are made available by what we call *the imagination*.

We often think of the imagination as a kind of fantastical, unreal array of possibilities; as something that is somehow a byproduct of the bodily and nervous organizations of complex organic beings. Scientific reductionism, which afflicts the comprehension of all human beings educated in modern Western civilization, wants us to believe that the only “real” possibilities are those that can be expressed in terms of physical laws. But physical laws are an extremely small subset of all of the systems of law which are both imaginable and metaphysically possible. Consider, for example, the laws that govern the behaviors of things in dreams and out-of-body experiences. In those situations, it is possible for people to fly, to relocate abruptly, to be in more than one place at a time, to influence external objects by means of their own thoughts, and so forth. The laws operating in dreams and out-of-body experiences make many kinds of behavior available that are not possible in the physical world. It seems natural, when we think in terms of actual occasions, to assume that any set of laws which can be coherently imagined is possible, and that there must be some reason why the laws of the Physical World have come to be just as narrow as they are. Exploring the reasons for the existence of the particular set of physical laws which govern low grade actualities in our epoch would take us far beyond the scope of this essay.³³ The important point here is that medium grade occasions are not limited to the laws of physics. They bring into the physical world entirely new patterns of possibility (formal causes) and vastly more dynamic purposes (final causes).

³³ Sri Aurobindo works at this problem with his doctrine of involution, which is explored extensively in Sri Aurobindo, *The Life Divine*, 2d American ed., (Pondicherry: Sri Aurobindo Ashram, 1990) and Sri Aurobindo, *Savitri*, 3rd ed., (Pondicherry: Sri Aurobindo Ashram, 1970).

The final cause, or purpose, which brings medium grade occasions into being is that of exploring, through life, growth, old age and death, the experience of creative adaptation in whatever world it comes to inhabit.

We have been asking where it is that a personality might exist after the death of its body. We get an important clue which will help us to answer that question when we realize that actual occasions of medium grade do not employ the same scheme of indication, and thus do not occupy the same spacetime, as do the inorganic occasions in which they may be embodied. The spacetime defined by this medium grade scheme of indication is spacetime of the Vital World.³⁴

Let us consider, for example, causal interactions among medium grade actualities. Remember that, in the context of this ontology, we are understanding memory as efficient causation from the past. We know, through the work of many generations of physicists, that low grade actualities largely objectify the whole of the past through just those occasions that are in its immediate proximity in its spacetime past. In other words, routes of causal influence among low grade actualities flow more or less linearly through a spacetime that can be characterized by metrical geometry. By far the most significant causal influences on an emerging low grade occasion come from those occasions that were very close to its present spatial position in its immediate past.

But for medium grade occasions, the situation is very different. A living occasion will remember, and thus be causally influenced by, those occasions anywhere in the past that most “resonate” with the concrete feeling of the current moment. We ourselves, as high grade societies of occasions, have many of the characteristic of medium grade societies as well. So we know, for example, that deep and powerful memories from distant reaches of our past – indeed, even from other lifetimes – may be elicited by certain meditative practices, by hypnosis, or by situations that are highly charged with emotion. Also, as most of us know, our waking lives can be powerfully affected by experiences that we have in dreams. Those dreams take place in a spacetime

³⁴ The term “Vital World” comes from Sri Aurobindo. Theosophists refer to this world as the “Astral World.” I sometimes think this world might best be named the “Imaginal World.” Other esoteric traditions use other names.

that is nowhere and nowhen in physical spacetime.³⁵ It seems that the scheme of indication, the spacetime, or the routes of causal transmission which bind medium grade actualities into worlds are not entirely mediated by proximity in the spacetime of physics. Rather, these societies are bound together, in significant part, by what Rupert Sheldrake calls “morphic resonance.”³⁶ The scheme of indication which orders memories, and which orders, therefore, the spacetime past of the Vital World, is not a scheme which has any number of orthogonal dimensions. It is rather a much richer, much more complex scheme of indication which orders the past in at least two ways:

- First, given that the experiences which we have in imagination, daydream, dream, lucid dream and out-of-body experiences are ordered as recognizable scenes centered around some kind of a body, the scheme of indication binding medium grade occasions must partially be partly cast in terms of some kind of geometry. Most probably, this geometry is a projective geometry, which permits spatial distance but which does not support the parallel lines in terms of which measurement can be understood.
- Second, given the causal patterns which we observe in our own memories, it must order its experience more dominantly in terms of a scheme of morphic resonance. This scheme can not be defined by any number of orthogonal dimensions. It is rather formed by some order among an indefinite array of immeasurable qualities. The order we are looking for here is probably rather like the mythic order which Jung observes in the “collective unconscious,” or like the various symbolic orders which are utilized in various schools of magic. *The key to a science of the Vital World is the development of a more and more precise understanding of this complex scheme of indication.*

We can easily observe the ways in which we already occupy Vital spacetime.

- First, suppose I am involved in some complex interpersonal interaction. Say I am negotiating with my wife over who will do which household chores. I stretch my

³⁵ We can, of course, and after we awaken, say that the dream took place “last night,” and we can, if we are physical reductionists, say that it happened “in my head.” But if we take the actual spacetime that we inhabited in the dream seriously, that particular spacetime is nowhere in physical space, and it may, in its own terms, take place in the past or the future, or even in some temporal region which cannot be specified.. Whitehead explores these issues further in Alfred North Whitehead, “Uniformity and Contingency” in *Science and Philosophy* (New York:Philosophical Library, 1948).

³⁶ Rupert Sheldrake, *A New Science of Life* (Los Angeles: J. P. Tarcher, Inc. 1981).

imagination so as to visualize some successful outcome to the situation, and I evaluate those potential outcomes largely in terms of the feeling tone which they will engender. Thus the “place” I am trying to get to is not a place in physical spacetime. I may be trying to avoid an unpleasant outcome such as one that has happened in the past, and I may be trying to achieve an outcome which will feel both just and loving in the future. But the spacetime binding my molecules is largely irrelevant to the spacetime in which I am navigating these interpersonal relations. Or suppose I notice that when I get angry, I tend to lose my temper and create an emotional mess. I may resolve that “the next time I get angry” I will behave differently. If my resolution is effective, then I will have had a significant causal influence on an occasion in my future that may be at any one of a very large number of locations in physical spacetime. For example, the memory may objectify itself tomorrow in my home, or three weeks from now at my office. This is a causal influence that is relatively indifferent to spatiotemporal proximity. When I “indicate” the occasion on which I want to have an effect, I do not do so in terms of any mathematical scheme of indication, but rather in terms of a scheme of morphic resonances.

- Second, when we withdraw attention from the societies of low grade occasions making up the physical substance of our bodies, we may find our bodily existence fading into the background, and then we are daydreaming, dreaming, having lucid dreams or having out-of-body experiences. All of these experiences happen in an imaginal spacetime that is partly characterized by projective geometry, and partly characterized by a systematic pattern of morphic resonances.

I am here suggesting that this imaginal spacetime is precisely the spacetime inhabited by all medium grade occasions. When medium grade, living occasions are *embodied* in low grade occasions, the possibilities which they can express is vastly restricted. You will recall that an actual occasion of higher grade is embodied in a society of lower grade occasions when it influences the formal causes of those occasions in such a way that they come to function as its prehensions. But when an actual occasion is embodied in a society of lower grade actualities, those lower grade occasions still retain their own individual freedom, and they are still heavily influenced by the lower grade societies into which they, themselves, are born. Thus, for example, even

though the healthy cells in our bodies have significantly different formal causes from the cancerous cells which might exist in our bodies at the same time, all of those cells are responsive to other cells in the larger society of cells in which they exist, to their own biological imperatives, and to the limitations imposed on them by the societies of macromolecules through which they, in turn, are embodied.

In this way, we can understand the ways in which our bodies only imperfectly express our intentions. I want my arm to straighten itself out, and it does so. I want my arm to elongate to twice its length, and it does not do so. The atoms in which I am embodied, even though they are functioning as my prehensions, are still governed by the low grade societies in which they have their own existence.

For our purposes, the important thing to realize is that there is no metaphysical necessity which stipulates that medium grade actual occasions *must* be embodied in societies of lower grade actualities. As we have seen, medium grade actualities need two factors before they can arise: they need a relevant past that is sufficiently complex, and an appropriate initial aim (formal and final cause). Physical reductionists make the assumption that that a sufficiently interesting set of initial data can *only* be generated by a hierarchical, corpuscular society of lower level occasions terminating, at its lower end, in sub-atomic physical occasions. But there is no reason why a much smaller society of medium grade occasions could not generate a set of initial data quite as interesting as a larger society of lower grade actualities. In the limiting case of personally ordered societies, an occasion of sufficiently high grade can, given a supportive cosmic epoch and the coming into being of an appropriate initial aim, supply *all by itself* a sufficiently interesting initial data to precipitate a new occasion of the same grade. In other words, there can be large societies of medium (and higher) grade occasions, operating in terms of a dreamlike, imaginal scheme of indication, and existing in entire independence of low grade actualities such as those in the physical world of our cosmic epoch. These occasions constitute the Vital World.

High grade, thinking occasions

High grade actual occasions require an initial data which is even more complex than that which is needed for medium grade occasions. Such an initial data can be provided either by a society of medium grade occasions (which may or may not be embodied in low grade actual occasions in some physical world), or it may be provided by a society of other high grade actualities.

High grade occasions emphasize the later stages of concrescence. The later phases of concrescence are concerned with questions of ethics, and questions of aesthetics. The later stages of concrescence are an attempt to establish, for the concrescence, a sense of its own ultimate value. But value transcends form, and exists in a space of pure meaning. The formal causes for a high grade occasions give to it some subset of the space of *formless meaning* which it can freely explore.

To make this more tangible, I would ask you to notice what happens just before you speak or write a sentence. When I do this exercise, I notice that just before I utter a sentence I already know, before I speak or write, the meaning that my sentence will come to express. The meaning may be modified somewhat as the sentence takes expression in form. But before I start the sentence, I already know just about where it will end. I know the *meaning*, and that meaning is clearly distinct from and interrelated with other such meanings, but I haven't yet expressed that meaning in form. I prehend these formless meanings. Thus it is logical to assume that there are occasions in my body which are operating in a world of formless meanings. Those formless occasions share causal interactions through a scheme of indication that is literally too complex and too concrete to find expression in the imagination. If these words have meaning to you, then you have found one way to glimpse the reality of the Mental World inhabited by the highest grades of occasions in our personalities.

In the Mental World, high grade actualities are distinct from each other, and ordered into a society by a scheme of indication. Geometrical spacetime is almost entirely irrelevant to that scheme of indication and, thus, this spacetime cannot be imagined. The definition is here proposed that the spacetime of the mental world is formless in that geometry is only relevant to it in a very minor way. Vital spacetime is

a spacetime in which geometry is significantly involved and which, therefore can be imagined. Physical spacetime is a spacetime in which geometry is almost all determining, and it can be measured. The higher the world, the less the dominance of geometry in determining its causal interactions.

The divisions between the Mental World, the Vital World and the Physical World are important thresholds. As a general rule, occasions of a sufficiently different grade from a concurring occasion, though they may be relevant to its concurrence, can not be directly prehended. They cannot be prehended if they are of too low a grade, nor if they are of too high a grade. Also, occasions generally prehend other occasions within the same World with some facility, but prehensions across the thresholds of the Worlds is more difficult. If an occasion is of too low a grade for me to prehend, it is subconscious. If an occasion is of too high a grade for me to prehend, it is superconscious. In either case, it is subliminal. Thus this ontology also gives us a way of more precisely stipulating a meaning for “threshold” and the “subliminal.”

The Cosmology of the Subtle Worlds

It is here suggested that the cosmic epoch in which we exist consists of three interconnected worlds.

The Mental World

The highest of these three worlds is a world consisting only of high grade, formless actualities. The core of a human personality is a personally ordered society of these high grade actualities.

Nonetheless, we can not say very much about this Mental World. Our prehensions of formless actualities are shrouded in the darkness of deep sleep. Apparently, when we are embodied in physical brains, it is very difficult for us to include in our operative scheme of indication the formless worlds in which we are, in part, existing.

The higher the grade of an actual occasions, the fuller and less abstract is its objectification of its environment. My prehension of the environment is very concrete for those occasions constituting the core of my identity, and very abstract for occasions that are outside of my body. In a world of higher grade actualities all beings would sense each other more as sub-personalities of themselves, rather than as fellow objects in a physical world. It is for this reason that we can (quite erroneously) claim all of the feelings and thoughts that flow through our beings as “mine.”

These other, high grade actualities, are not “in my head” or “merely imagined.” They have their own independent reality, but they never have quite the externality than embodied beings can have for each other in the context of the physical world. The higher the level of the subtle world, the less privacy there is among its constituent occasions, and the more the personally ordered societies that arise there begin to experience themselves as empathic and telepathic. Note that while physical occasions objectify for one another in what physicists recognize as energetic interactions, medium grade occasions objectify for each other as an exchange of emotional energy, which we are here calling empathy, and mental occasions objectify for each other as a direct exchange of meaning which we are here calling telepathy. In the physical world, we are empathic and telepathic mostly with the cells and organs of our bodies. In the Vital World, because this empathy and telepathy become more general, the boundaries of the body become more porous. At the highest levels of the Mental World, there is an approach to universal consciousness. A personally ordered society existing at that level would be in deep telepathic rapport with all other minds in the cosmos. Whatever capacity that we do have for self-consciousness, and for transcendence comes into our lives as a result of our superconscient participation in the Mental World.

The Vital World

The Vital World is the world of medium grade, or living occasions.

The Vital World is subliminal for the Mental World. The threshold that separates the Vital World from the Mental World is the line that separates formless

meaning from formal expression. It is the line that introduces the relevance of geometry into the scheme of indication.

Since the lowest grades of actuality that occur in this Vital World are of medium grade – i.e., they are alive – all of the larger societies that they form will also be alive. Physical Worlds, or worlds of inanimate beings may form somewhere in the Vital Worlds by a process of limitation, but the vital world contains and pervades the physical worlds that arise within it. In other words, *the question that we need to ask is not “where are the subtle worlds in physical spacetime?” It is rather, “Where is the Physical World located in the Vital World out of which it arises.”*

There will be variations in the speed of change among various societies in the Vital World, so that a medium grade occasion can experience certain relatively invariant objects in its environment. There will, however, be no objects so stable that they can function as rulers or as clocks. In addition, although geometry will be relevant to varying degrees in the various ranges of the vital worlds, geometry never assumes in those worlds the importance that it has in the Physical World. In the Vital World, we are dealing with a spacetime that cannot be reduced to any number of orthogonal dimensions. Thus measurement is impossible in the Vital Worlds. This should make it clear that *it will take a method entirely other than the measurement based method of modern, hard science, to make sense of the subtle worlds.*

Where the Vital World dips below the threshold of the Mental, the dimension of transcendence and knowledge-informed freedom that is native to the Mental Worlds, is diminished. The initial aim of occasions in the Vital Worlds is an aim at the exploration of specific concrete outcomes for specific concrete situations. The decisions in the Vital Worlds proper are not made in light of a dispassionate contemplation of many possible outcomes, but rather under the impetus of a pull towards a specific, near-term outcome. The vital worlds are dominated by the force of desire.

The schemes of indication which binds medium grade occasions into societies are -much more fluid and much more complex that any geometry can possibly describe. The scheme of indication used by subtle world societies enable the designation of more

than one place at a time as “here.”³⁷ In other words, in the Vital World, an individual can congrese at two or more places at the same time. Because the scheme of indication is such that many places, even those that are not geometrically proximate, are in the immediate past and in the immediate future of any concrecing occasion, occasions can, in effect, move instantaneously, over immense distances in any one scheme of indication, and can also shift among various schemes of indication, or among various differing spacetime context in the Vital World.

Objects in these Vital Worlds will not deconstruct in the same way as objects deconstruct in the Physical World. Both in the Vital World and in the Physical World, we can deconstruct our experiences of an object by analyzing it down into groups of sensory impressions, and then into the individual sensory impressions that compose those groups along with the other subjective impressions necessary in assembling the sensory impressions into larger wholes. This is the kind of analysis, undertaken in different contexts by British Empiricists and Buddhist Abhidharmikas. This mode of deconstruction is available both in the Physical World and in the Vital World.

In the physical world, there is also another mode of deconstruction that is available. Physical things can be decomposed into different substances, and these substances can be ground up into smaller and smaller bits each of which retains characteristics that also belong to the original substance. For example, I can take a sailors knife and decompose it into a metal blade and a carved, stone handle. I can then grind up the stone from the handle into finer and finer powders, each grain of which will retain the pastel color, the rough texture, and the hardness that belonged to the stone handle itself. This process can be repeated for a long time, though there is always a bottom beyond which the relevant properties are lost. In this process of decomposition, many layers of structure are lost. As we approach the finest dust, all that is left are more-or-less atomic grains in geometrical proximity. It is the fascination with this general property of the physical world, its capacity to be ground up into smaller and

³⁷ People will sometimes describe dreams in which “I was Character X, or maybe I was Character Y,” implying a kind of complex bilocation. Also people will sometimes say “I was Character X in the dream, but also I was watching, as if from outside.”

smaller pieces, which are nonetheless physical objects with simple, precisely definable physical properties, that fuels the project of physical reductionism.

This property does not obtain in the Vital World. In the Vital World, the hierarchy of occasions comprised in an embodied being may be extremely shallow. For example, say in a lucid dream or an out of body experience I find something that looks like a sailor's knife. It is possible that that entire knife may be one personally ordered society of occasions, objectifying itself through a highly complex final satisfaction which I apprehend as the entire knife. If that is so, then the knife could not be decomposed, even into handle and blade. Any attempt to break it apart would result either in its disappearance from my local spacetime, or in its transfiguration into some other form. Again, it may be that it *is* possible to separate the knife from the blade. In that case, both the knife and the blade might themselves be personal identities which can immediately assume forms that are essentially unrelated to the forms that they had when they participated together in the constituting of a knife. No matter how far down the process goes, the simplest occasions that exist in the vital worlds are at least beings as complex and as adaptive as are living cells in the physical world. To the extent that vital societies are *not* rooted in inorganic societies, they enjoy an increased range of freedom and greater depth of intimacy in their material interactions.

The higher the grade of an occasion, the more intimate and more transparent are its interactions with other occasions of its own grade and of the grades below it. This idea becomes clearer if we look at the inner experience as a physically embodied personality. When I bring my attention to my own embodied experience, I find:

- A region outside of my body which I experience as entirely other
- Parts of my body which are almost like bits of the outer world that I carry with me – for example, my fingernails and the strands of my hair.
- Parts of my body which are part of me just insofar as their pleasure and their pain are shared with the occasions around them and with me. Almost every living cell in the human body is being intimately and concretely apprehended by the cells around it, and by many higher level concretions with which it shares a body.

- There are the parts of my body with which my functioning and my everyday identity are closely identified – for example, my various limbs, which I very much do not want to lose.
- Finally there are the organs and the nervous ganglia with which I am so identified that I can barely distinguish them from myself. My body is, thus, a kind of cone of higher and higher grade societies, each higher one operating with greater freedom, and each higher one characterized by more intimate communion among its members

In the vital worlds, all beings are, to some degree, sharing feelings with each other the way that the cells of our bodies do in our waking lives. The whole Vital World is, in that sense, more like the inside of a single body. In such a world, our individual bodies would not have the firm boundaries that they have here. Rather they would shade off into the environment in a more gradual way. The more powerful a Vital World being becomes, the more it develops body-like control over its local environment.

The Physical World

The Physical World is subconscious for the Vital World. The threshold that separates the Physical World from the Vital World is the line beneath which geometry comes to entirely dominate the scheme of indication. There may be subtle physical worlds in which projective geometry dominates the scheme of indication. These subtle worlds would be rather like the physical world that we know, but would not permit of exact measurements. Some of the worlds apprehended in out of body experiences seem to operate in this manner. But what we mean by the physical world is a society of low grade occasions interacting through a scheme of indication overwhelmingly characterized by a uniform, metrical geometry.³⁸ The physical world is a world in which there are societies which are of sufficiently low grade to support rulers and clocks, and which utilize a scheme of indication within which measurement is defined.

³⁸ The scheme of indication must always be qualified by qualitative considerations. There is always some nonlocal causal interaction, and also those intrinsic interrelations among occasions that can be described in mathematical equations but can only be discovered empirically.

This Physical World that emerges out of an ontology of actual occasions shows all of the behaviors that centuries of physics has led us to expect. But at the same time, it is illuminated by consciousness, meaning, appreciation and purpose. It is also part of a larger universe in which it is contained and pervaded by other, more subtle, worlds.

It is in the Vital World, the world that are just “above” the physical world in the hierarchy of worlds, that an Earthly personality will exist after the death of its body. The kinds of experiences that are possible in the Vital Worlds encompass the limits of the imaginable.

How can such a personality communicate with those personalities that are still in physical bodies?

Before answering this question, it is necessary to emphasize the point that such a personality *need not* be in communication with any physical occasions at all. In other words, for a personality in the subtle worlds, there are many worlds of dream to explore. The Physical World is just one particular, radically rigid dream world. Disembodied personalities need not be involved in any interaction whatsoever with the material world in which they were born. But they may choose to have such contact.

We can understand how a disembodied personality can communicate with an embodied personality when we recall that both of those personalities are societies of the same grade, interacting with each other within a world which is common to them both. Thus a disembodied personality could appear to a waking personality as a “complex in the unconscious,” as a “semi-autonomous personality” co-emerging with us out of the background of our being. Because the scheme of indication characterizing Vital Worlds is so complex, a disembodied personality objectifying in my concrescence does not need to objectify itself in any of the other high grade concrescence with which I am sharing a physical spacetime. In this way, prehensions of disembodied personalities often remain subliminal, or are judged to be hallucinations.

One of the great challenges that faces us in the elucidation of the subtle worlds in general, and of our communications with deceased personalities in particular, is that of figuring out the difference between “real” communication with an “actual” deceased

personality and “inner” communication with an “imagined” personality. The difference here is very real. It can be felt. But we have not yet succeeded in giving adequate formal expression to the precise nature of that difference. An ontology of actual occasions world formally express this difference as a difference in the degree of commonality between the formal causes characterizing the sub-personality and the dominant personality in which it is an element. There is some threshold of commonality in formal causes below which another personality can be experienced as “other than me.”

If we can learn to identify and to know, in some specific way, where that threshold is, then we can confidently discriminate between parts of me, on the one hand, and the objectifications of other vital beings with which I am in society, on the other. When we can do this, our communication with deceased personalities and other subtle world beings will get much clearer.

THE LIFECYCLE OF THE PERSONALITY

This paper was written with the specific goal of articulating an explanatory framework within which the data that demonstrates the existence of reincarnation and of personality survival can be fruitfully interpreted. Such a framework, if it is going to be entirely useful, must not only allow a deeper exploration of reincarnation and of personality survival, it must also allow us to understand how those phenomena operate in the kind of world that is described by the hard, physical sciences.

We have now sketched out the outlines of such a framework which:

- Recasts the mind body question in a form which makes its solution seem readily evident
- Illuminates the philosophical issues that are being raised by quantum physics, the theory of relativity, thermodynamics, the theory of self-organization, the emergence of

new qualities in the process of evolution, the fractal view of reality, and the hypothesis of artificial intelligence.³⁹

- Illuminates theological speculation⁴⁰
- Illuminates the “unreasonable effectiveness of mathematics” and the limits of scientific method
- Provides a language within which we can intelligibly describe the subtle worlds and the patterns of causal interactions within and among those worlds, and also the interactions between those worlds and the physical world.
- Provides a context within which the results of the research on reincarnation and personality survival can be both understood and deepened.

In this last section of this essay, I want to return to the specific issues of reincarnation and of personality survival with which we began. I want to do this by sketching out an expanded view of the human life-cycle as it unfolds within this larger universe which we have glimpsed.

One of the advantages of the explanatory framework that is here under consideration is its ability to frame many hypothesis concerning the human life cycle. We can, for example, consider the possibility of multiple simultaneous incarnations, or the possibility that one personality may be the reincarnation of several others. Any number of other hypotheses might be proposed and, having been proposed, it might be possible to find data supporting or negating them. I cannot even anticipate the results of such a program of research.

³⁹ I have, in this essay, briefly mentioned Whitehead’s work on relativity, and the implications of his work for a theory of evolutionary emergence. Some work on Whitehead and thermodynamics can be found in Niels Hanson *Process Thought, Teleology And Thermodynamics*, unpublished (Institute of Philosophy, Bldg. 328, Nordre Riuggade, University of Aarhus, DK-8000, Aarhus, Denmark). I have also included some preliminary remarks on Whitehead’s metaphysics and the mystery of self-organization. In Appendix I, I begin the task of conducting a fractal examination of the nature of time. The work on Whitehead and Artificial Intelligence is not made explicit here, but I hope to spell that out in a subsequent publication.

⁴⁰ There is an extensive literature on the theological implications of Whitehead’s thought. For an introduction to that literature, see John Cobb, Jr. and David Ray Griffin, *Process Theology, an Introductory Exposition* (Philadelphia:Westminster Press, 1976).

My objective here is to give expression, within this framework, of the broad outline of the human life cycle that is found in Theosophical Texts.⁴¹

First of all, we must remember that this human life cycle unfolds in a universe that is vastly larger and more complex than is the mere physical world in which just a part of the human life cycle is played out. The worlds which comprise this universe are each societies of actual occasions of a similar grade, which are organized into worlds by shared schemes of indication. The lowest of these worlds, the Physical World, binds a society of low grade occasions into a world by means of a scheme of indication that is almost entirely defined by metrical geometry. The higher worlds, out of which the Physical World grows by a process of limitation, are ordered by schemes of indication which are more and more flexible, more and more complex, and less and less conditioned by geometrical factors. Each of these worlds exists independently of the worlds below it, and there are vast regions of each of the higher worlds which are entirely unconcerned with the lower worlds which may appear, under certain conditions, within them.

We can call the nucleus of a human personality in this expanded cosmos a “Soul.” The Soul is the permanent identity, the identity which is sustained within and among various lifetimes. There are two ways in which this Soul can be understood within our framework. D.K., in the Alice Bailey material, suggests that the Soul is an entity located in the higher reaches of the Mental World. In this case, we can understand the Soul as a personally ordered society of high grade mental actualities which holds a strand of meaningful connection between all of the various personalities in which it is embodied. Alternatively, many sources, including Sri Aurobindo, seem to suggest that the Soul is an entity which has its proper abode in a world which is even “above” the Mental World. In that case, we could consider the Soul to be a kind of timeless enjoyment of a field of possibilities out of which the initial aims of all the personalities in which it becomes embodied are fashioned.

In any case, we imagine this Soul as incarnating in a series of personalities. The process of incarnation is a process of embodiment. That is to say that a Soul, when it

⁴¹ See, for example, Powell, *Astral Body*, op. cit.

wants to incarnate in a world, pays interacts with some number of socially ordered occasions in that world in such a way it they come to have an initial conceptual prehension of its formal cause. At that point, without losing their individual freedom, or their own ongoing existence in their native world, those lower grade occasions come to function also as prehensions for the Soul which is becoming embodied in them. In effect, when there is embodiment, there is a situation in which two or more subjects (the occasion itself and the higher grade occasion for which it is a prehension) share in the same concrescence. This opens up new possibilities for the lower level concrescence which is functioning as the “body,” and it also may complicate the initial aim of that lower level concrescence in such a way that its decision making may become more complex. In other words, some of the deep conflicts that we experience in our lives may be conflicting suggestions of the various higher level entities that may be embodied through us.

When there is embodiment, the Soul or the higher level concrescence that is being embodied in a world comes to objectify the rest of that world through the society of occasions in which it is embodied. For example, we experience the whole of the physical world through the physical organism in which are embodied.

The Theosophists suggest that the Soul begins a particular incarnation by becoming embodied in a very simple society of occasions in the Mental World and a very simple society of occasions in the Vital World. Finally, the nascent personality that it has so formed becomes embodied in a particular zygote in the Physical World.

We may speculate that the genetic material of the zygote establishes a kind of morphic resonance with the reincarnating entity in a way that makes it easy for the reincarnating entity to resonate with the cells that the zygote produces through its progressive divisions. Thus the reincarnating entity, with its own formal cause, comes to influence the formal causes of all of the cells that the organism ultimately produces. The formal cause of the reincarnating entity is the “morphic field” which seems necessary in explaining the process of biological morphogenesis. The reincarnating entity modifies the formal causes of the cells in the body in such a way that they come to diversify their morphology so as to function as its specialized prehensions in the physical world.

The primitive societies that the reincarnating entity has formed in the Mental and Vital Worlds, like the zygotes, also begin a process of diversification and morphogenetic organization. But the initial aims of those Mental and Vital societies are influenced by the reincarnating entity in such a way that they prehend the world primarily through the lower level societies in which they are embodied, and they devote little of their attention to the Mental and Vital Worlds in which they, themselves, live, move and have their being.

In this way, a personality which is Mental, Vital and Physical develops through the experiences of the physical organism in which it is embodied. Although the personality is entirely concerned with events in the Physical World, it is nonetheless also embodied in the Vital and Mental Worlds.

Let us explore this pattern of embodiment through Figure 1.

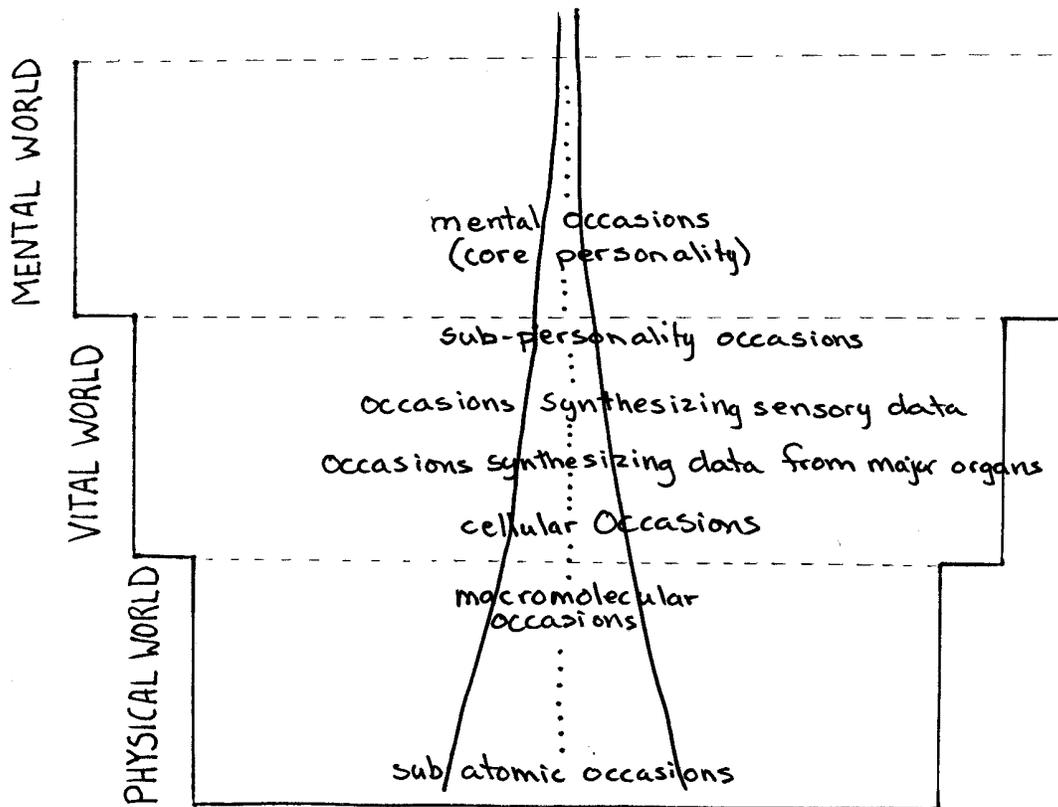


Figure 1: The Pattern of Embodiment

The personality is here imagined as a corpuscular, hierarchical society of actual occasions. Each occasion is, of course, conscious in its own right. But the lower level occasions are drawn into self-organizing systems by becoming prehensions for higher level occasions in the hierarchy. The Physical Body is that particular set of low grade actualities which is drawn into the orbit of the various vital societies in the body. These vital societies themselves are drawn into a unity by their relationship to the mental societies in the body, and constitute what we call the Vital Body. They share a bond of common feeling, or empathy, with each other as a result of their participation in a single body. The mental occasions in the body form the Mental Body. They may either be the core of the personality, or they may be drawn into a unity by their relationship to the Soul (this is why the cone has been left open at the top). In any case, they share in the deep intimacy common to all interactions among high grade occasions in the Mental World. This personality started out with a new Mental Body, a new Vital Body, and a new Physical Body.⁴² And both the Vital Body and the Mental body form largely in response to the objectifications of the lower level societies in which they are embodied.

Because we are so preoccupied, especially when we are awake, with the input from the lower grade occasions of our bodies, we can fairly easily come to believe that the Physical World is the only real world there is. In that case, we come to experience ourselves as islands of low abstraction in objectification in a vast sea of high abstraction in objectification. In other words, we experience ourselves as being deeply intimate with the occasions in our own bodies, but we imagine that all communication with other embodied beings must be *through* the regions of low grade occasions which separate us from each other.

Figure 2 suggests this view. In this way of understanding, when I want to communicate some meanings to you, I must first express that meanings in the form of language, then I must encode that language in (for example) spoken words, which excite

⁴² Sri Aurobindo seems to suggest that it might be possible for a single Vital Body to incarnate in a series of Physical Bodies, or that a single Mental Body might incarnate in a series of Vital Bodies. This is another hypothesis which an ontology of actual occasions can express, and which can be explored as an hypothesis, by appropriate experiments.

the regions of the physical world that are between us, and then you must pick up those sounds, recognize them as language, and use that language to invoke a meaning that is (hopefully) fairly close to the one that I wanted to communicate. In this way of speaking, the personality is understood to be isolated from other personalities by the relative isolation of the physical body in which it is incarnated.

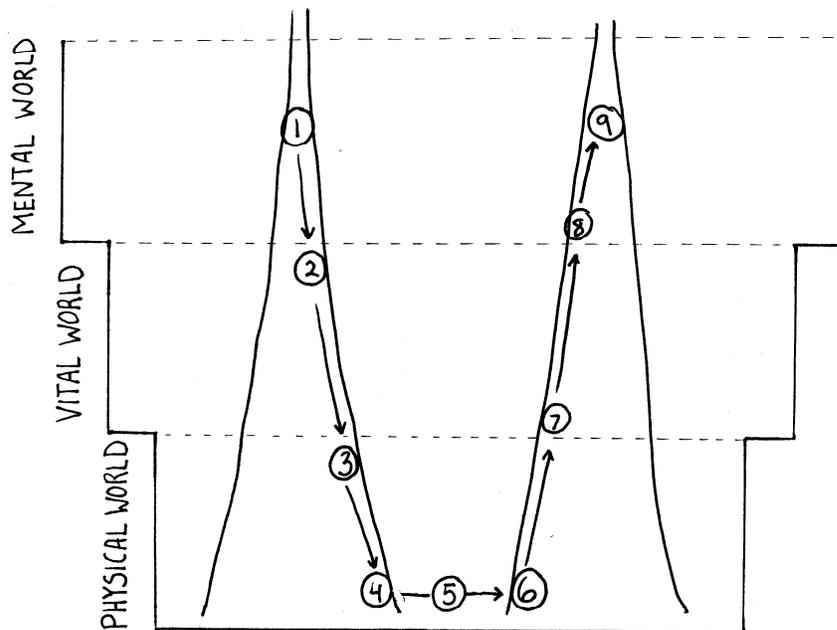


Figure 2: Embodied Communication Through the Physical World

- 1: Prehension of a formless meaning
- 2: Translation of formless meaning into form, the acquisition of form by meaning
- 3: The translation of imaginal form into physical impulse
- 4: The vibration of the vocal chords
- 5: The propagation of vibration through the inorganic occasions of the atmosphere
- 6: The reception of vibration by the ear
- 7: The translation of physical vibration into meaningful form
- 8: The translation of meaningful form into formless meaning
- 9: Prehension of a formless meaning

The ontology that we are considering here, however, suggests that we are not isolated in our physical bodies. Because the occasions of our Vital and Physical Bodies

actually exist in different spacetimes, they are proximate to each other in ways which are not entirely conditioned by geometrical, physical proximity.

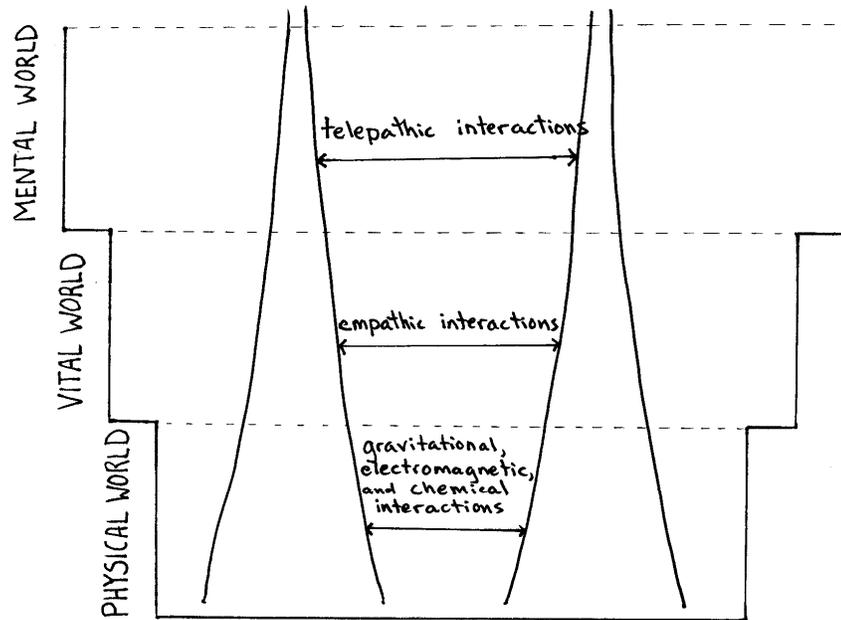


Figure 3: Embodied Communication Through the Physical and Subtle Worlds

Figure 3 suggests that all of the occasions of our various bodies are interconnected through the spacetimes to which they are native. The physical occasions of our bodies are interconnected across space in particular by electromagnetic influences (intersecting energetic fields), by chemical interactions (pheromones, etc.), and by mechanical interactions (touch, vibration, etc.). The vital occasions of our bodies are interacting through the complex vital spacetime which is largely dominated by morphic resonance. Thus the medium level occasions of our bodies are in direct empathic interaction with one another, whether our minds are noticing that or not. My heart feels your heart, my belly feels your belly. The occasions of our bodies are in elaborate patterns of empathic communication that are usually below the threshold of the Mental consciousness in which our personalities are focused. Our primitive awareness of these

empathic bonds is what we call “vibes.” Finally, our Mental Bodies are subliminally engaged in telepathic communication with the Mental Bodies of our physical neighbors, and also with Mental Bodies all over the planet, and quite probably all over the Universe. In everyday waking life, it is when these empathic and telepathic interactions “line up” that we know we are actually sharing the meaning which is reflected in the words and gestures that we exchange.

Once we realize that the Vital Body and Mental Body are situated in worlds proper to their modes of functioning, and once we realize that those worlds systematically transcend the Physical World, we at once recognize that there can be many entities in those worlds other than those which are embodied in the Physical World. Figure 4 suggests this complication of our embodied situation. Here we see that we are first of all in sensory contact with other embodied beings. Then we are in empathic communication with beings in the Vital World, some of which may be physically embodied, and some of which might also be the embodiments of Mental Bodies. And we are in direct telepathic communication not only with other embodied Mental Bodies, but also with Mental Bodies that may or may not be embodied in the Vital World.

The problem that we have while we are alive is that we do not know how to discriminate between these other, subtle world beings, and our own sub-personalities. Thus we can inflate our egos by assuming that all of the thoughts and all of the feelings that occur “in me” and necessarily “mine.” This is the primary confusion that has to be cleared up if we are to gain true, conscious access to the subtle worlds in which we are embodied. Also, as we learn to retain lucidity and continuity of consciousness in the Subtle Bodies when we withdraw attention from the Physical (as we do in sleep or in trance), we then develop the ability to function with full mental consciousness in the subtle worlds themselves.

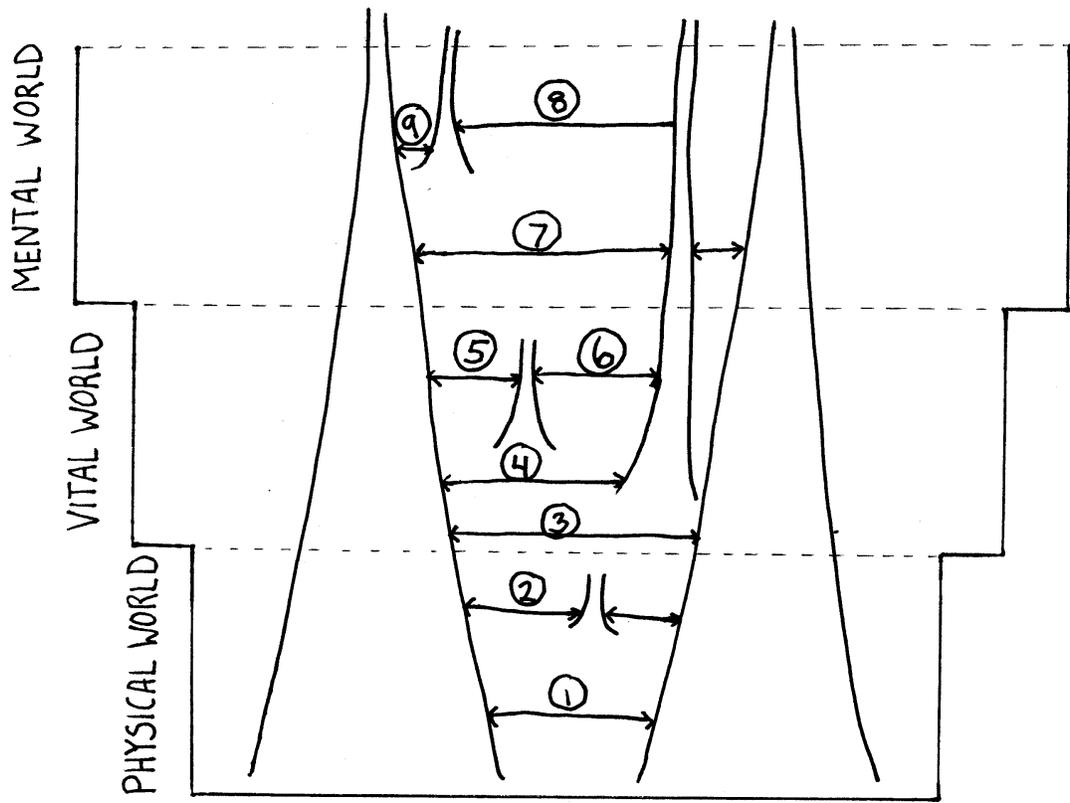


Figure 4: Communications Among Embodied and Disembodied Entities

- 1: Physical interactions among two embodied human personalities
- 2: Causal interactions among an embodied human personality and an inorganic nexus (e.g., a rock)
- 3: Empathic interactions among medium grade occasions partially constituting embodied human beings
- 4: Empathic interactions among medium grade occasions in a human personality and the medium grade occasions that embody a mental personality in the vital world (this could be, for example, a sharing of "vibes" with a deceased human personality)
- 5: Causal interactions among an embodied human being and a nexus of vital actualities that is not embodying a mind
- 6: Causal interaction among a non-mental vital nexus and a vitally embodied mental personality
- 7: Telepathic interactions among a human personality and another mental personality that is vitally embodied (e.g., a deceased human personality)
- 8: Causal interactions between a purely mental personality and a mental personality that is vitally embodied.
- 9: Telepathic interactions among a human personality and a purely mental personality.

At the end of our lives, we have developed a complex personality that has been formed through the experiences gained in a single physical lifetime. The Theosophists suggest that physical death is just a relinquishment by the personality of its physical embodiment. In other words, The vital occasions in my body cease to modify the initial aims of physical occasions, and thus cease to prehend the physical world through the

occasions of the physical body.⁴³ At that point, the molecules of the body, freed from the ordering power of the higher level occasions, revert to their status as regular, inorganic occasions in the Physical World and the body begins to decay.

Meanwhile, however, the emotional and mental personality that has formed during the lifetime continues its existence in the Vital World. When we die, we awaken to our existence in the world of dreams. Our experience in those worlds will depend very much on the experiences that we have had in the Physical World. If we have not developed our personality to the level at which it can hold mental awareness outside of the physical body, then our post-mortem experience may be pleasant or unpleasant given the dreamspace that we customarily inhabit, but it will retain the vague and incoherent quality that now characterizes our nighttime dreams. On the other hand, if the personality has developed sufficient mental clarity, and, in particular, if it has already developed the capacity to differentiate itself out from the other entities functioning in the Vital and Mental Worlds, then its post-mortem experience may be a very interesting time of further growth and development.

If the personality in the Vital Body is sufficiently conscious during its sojourn in the Vital Worlds, it may make deliberate contact with embodied personalities, and share information with them. Of course, as much mediumistic research has demonstrated, these disembodied personalities are actual continuations of the waking personality, and may bring many of their faults with them into their post-mortem existence. Nonetheless, given that during our physical waking lives we are more or less helplessly open to influences from the subtle worlds, it is nice to imagine that there might be entities there who would look out for our best interests. Who better than the deceased personalities of those we have loved? I suspect that this is a powerful motive for ancestor worship. Ancestor worship keeps our dead ancestors interested in us, and inspires them to represent our interests in the world in which they are functioning.

⁴³ The exact point in the bodily hierarchy where the break imposed by physical death falls is not clear. It may be that many of the lower grade personalities, such as those that inhabit individual cells, may also be left behind at death. Those occasions, themselves, may also reincarnate.

After some time, the Vital Body will also die. The Mental Body will cease to animate it with its intention, and it will decompose in its own way. Then the Mental Body will enjoy the type of existence proper to the Mental World.

If the Mental Body, or some high grade part of the Mental Body, proves to be the reincarnating entity, then after some period of purely mental functioning, it will, presumably, enter into another life cycle. If the Soul proves to be some entity outside of the Mental World, then the Mental Body will, itself, die, and there will be some sojourn beyond the personality in a quite unimaginable spacetime proper to Soul existence. In any case, the Soul or the Higher Mental Body can, if it so wills, either take form in the subtle worlds for some period, or it can enter, once again, into the full incarnational process.

Finally, if it suits the purposes of the Soul, it will incarnate in the Physical World again, thus initiating a new cycle of human existence.

This description is, as I have said, a mere hypothesis. The human life cycle may be much more complex than this model suggests.

CONCLUDING REMARKS

We have now succeeded in articulating an explanatory framework within which both reincarnation and personality survival can be understood. In addition, this explanatory framework:

- Allows us to articulate a cosmology in which the findings of all modern and post-modern science find philosophical justification;
- Allows us to frame a satisfying definition for the notions of autopoiesis and complexity, and permits us to frame a precise definition for the notion of embodiment
- Allows us to coherently articulate the nature of the subtle worlds and the way in which those subtle worlds are bound into a larger whole with the physical world.

This analysis also opens up several new directions for scientific progress. We have seen that a proper analysis of reality in the context of this ontology requires a rehabilitation of the Hermetic Principle, and also of Aristotle's four causes. In particular,

we have seen that a proper understanding of personality continuity within and among lifetimes, and a proper understanding of embodiment, require us to abandon the reduction of formal causes to a single, all-embracing natural law. Rather, we must develop an understanding in which each of the fundamental realities in the cosmos has its own, individual formal cause, and in which there is some way in which formal causes can be propagated through the creative advance. This rediscovery of the importance of formal causation is not only necessary for understanding personal continuity, but, since it allows us a deeper understanding for the factors that bind the organic body into a unity, it is also likely to have significant impact on the theory and practice of medicine.

Additionally, we have seen that spacetime, in one of its most crucial aspects, is a scheme of indication that binds systems of actualities into a world. While the geometrical scheme of indication that binds the low grade occasions of our cosmic epoch into the Physical World is now fairly well understood, it is only as we develop a clearer understanding of the more complex schemes of indication that bind higher grade occasions into various subtle worlds that we can construct an expansion of scientific method appropriate to those domains of investigation.

Finally, we have seen that the primary obstacle facing us in our attempt to communicate with disembodied intelligences, including the intelligences of our deceased ancestors, is that of learning to recognize the subtle difference between our own sub-personalities and the other intelligences which also share subtle spaces with embodied beings such as ourselves.

This explanatory framework allows us to articulate many different hypotheses about the human life cycle. The articulation of these hypotheses, and the devising of relevant tests for confirming or disconfirming them, will have interesting results that cannot, as of this writing, be predicted.

APPENDIX 1 – CONCRESCENCE AND PREHENSION

Whitehead is fairly clear in his insistence that concrescences and prehensions have vastly differing ontological status. Concrescences are, for him, the final real things. Each of them has an initial aim from God Him/Her/Itself. But a prehensions has its initial aim entirely from the initial aim of the concrescence in which it is playing a role. Thus, for Whitehead, it has no element of independent self-existence.

But since, even for Whitehead, concrescences get their initial aims from God, and prehensions get their initial aims from the concrescences of which they are a part, they both get their initial aims from elsewhere, and so the ontological difference between seems rather small. The idea partially developed in this paper is that prehensions are just lower grade concrescences.

The doctrine which I am presenting is a rather major revision of Whitehead's work. It requires at least three other changes to his system, i.e.,

It requires the doctrine that an occasion can serve as a prehension for a higher grade occasion to the extent that its formal cause is relevant to the formal cause of that higher grade occasion.

It requires a distinction between prehensions of past actualities on one hand, and prehensions of lower grade concrescences that are in unison of becoming with a higher grade concrescence for which they will serve as a prehension, on the other. A past concrescence serves as a prehension to the extent that its formal cause has some resonance with the formal cause of the current concrescence. A contemporary, lower grade concrescence that is in unison of becoming with a higher grade concrescence actually has its formal cause partially shaped by the higher grade concrescence for which it will be a prehension. Clearly, past concrescences that have served as prehensions for a past member of a personally ordered society will have particularly intimate relations with a current concrescence in the same personality – hence our intimacy with our own bodies.

The fact that occasions may serve as a prehensions for higher grade occasions in unison of becoming with them requires a fractal analysis of time. Time is discontinuous and atomic, as a theory of actual occasion requires, but each atom of time can be further

decomposed into other atoms of time. Thus the coordinate division of an occasion is not just an abstraction. There are occasions which go through their own concrescences in their own spacetimes, but some finite sequence of those occasions may be in unison of becoming in the spacetime coordinate with the concrescence of an occasion of higher grade. This is a way of defining what Lewis Ford called “open occasions.”⁴⁴

Since a concrescence is a prehension for a higher grade occasion that partially determines its formal cause, there is no reason that several different high grade occasions cannot have influence on the formal cause of a lower grade occasion and, thus, experience that occasion as one of their prehensions. In other words, a concrescence can be shared by several subjects.

In this way of understanding, prehension:

- The initial data is the occasion serving as a prehension
- The objective datum is the objectification of that occasion insofar as it is shaped by the formal cause of the concrescence in which it is an element
- The subjective form is the tone of its subjective experience insofar as it is shaped by the formal cause of the concrescence in which it is an element.
- The subject is the concrescence for which the lower grade occasion is serving as a prehension, But note, that the occasion also has its own subject, its own subjective immediacy and its own quantum of free choice.

We can then understand our universe as a particular process of concrescence for which all actualities, from the Big Bang to the end of physical time, are all prehensions. Thus the evolutionary process could be seen as moving towards a final unity which is, in some paradoxical sense, already complete. This finds a place within Whitehead’s cosmology for the convergence towards an already established unity that is so prominent in the thought of Teilhard de Chardin and Sri Aurobindo.

⁴⁴ Lewis Ford, “Inclusive Occasions,” in Ernst Wolf-Gazo, *Process in Context: Essays in Post-Whiteheadian Perspectives* (Bern: Peter Lang, 1988).

But God, in this ontology, would not be any finite concrescence, no matter how grand. God would be an infinite, everlasting concrescence in which even the entire evolutionary scheme of our cosmos is just a prehension.