

A Primer to Whiteheadian Process Thought

by Kevin Winters

Introduction

Process philosophy, as its name suggests, “affirms that process is fundamental...to be *actual* is to be a process.”¹ The prime proponent of this view within the modern world was the philosopher/scientist Alfred North Whitehead. As a preliminary, it is important to note the basis from which Whitehead came to his thought. Due to the revolutions in scientific thought that were occurring during his day (particularly quantum mechanics), Whitehead felt that the ‘traditional’ way of viewing the world was inadequate. The particular view with which he struggled was substance dualism which described the world as composed of subjects that endure through time, are defined according to their necessary properties, and ‘change’ only in relation to the instantiation of contingent properties (or the complete dissolving of the substance in question).² Contrary to this view, Whitehead felt, was the world of the quantum: every atomic particle is in a state of relative flux, everything is defined according to its place in its environment, and change was a necessary component of an entity’s identity, not a merely accidental occurrence.

It was on the backdrop of the failure of substance concepts to capture these aspects of reality, of its antiquated nature in relation to the findings of modern science, that Whitehead developed his philosophy. His *magnum opus* is *Process and Reality*,

¹ Cobb, John, Jr. and David Ray Griffin, *Process Theology: An Introductory Exposition* (Philadelphia: The Westminster Press, 1976), 14.

² Every substance is defined according to its ‘necessary’ properties, which allow it to be distinguished from others and retain its self-identity. It may change in its contingent aspects, but in order to remain the thing it is it *must* retain its necessary properties; to lose those properties is to cease being the substance it is. Whitehead accepts this to a degree but felt that substance proponents had taken the concept too far.

consisting of a series of lectures given at the University of Edinburgh in 1927 for the Gifford Lectures.³ When creating a new philosophical worldview, two general approaches can be used (or a mix of the two): to either adapt old terminology and use it in novel ways or developing new terminology in the hopes that old biases will not be inherent in the new terms. Whitehead largely chose to follow the second path, which accounts for the difficulty of his mode of thought: when Whitehead uses common terms (such as ‘emotion’ and ‘feeling’) in conjunction with new terms (such as ‘prehension’ and ‘concrecence’) a different and nuanced meaning is meant, not entirely divorced from its past meanings, but not completely determined thereby. Thus, ‘emotion’ could better be stated as ‘e-motion’ while ‘feeling’ could better be stated ‘vector of e-motion,’ etc. It could be argued that the lack of seeing and accounting for these fine distinctions is the foundation of initial distaste for Whitehead’s metaphysic; when clarified and understood, with their respective arguments, process philosophy cannot be so quickly denounced.

The ‘processes’ of process thought are enacted in many forms and patterns, but each is founded in four basic concepts. These consist of the ‘actual entity/occasions,’ ‘prehension/concrecence,’ ‘modes of perception’ and, finally, ‘organizational duality.’ This introduction will consist of elucidating these terms as Whitehead conceived them. But here it should be mentioned that, since Whitehead’s time, his thought has been appropriated in various ways and some of the notions below may not be held by all process adherents. What is presented, however, is my best explication of Whitehead’s thought.

³ Other representatives chosen to present Lectures at Edinburgh include William James, Sir James Frazer, Albert Schweitzer, Reinhold Niebuhr, Neils Bohr, Austin Farrer, Sir John Eccles, and Iris Murdoch.

Actual Entities/Occasions

The primary actualities that Whitehead terms “actual entities” are “the final real things of which the world is made. There is no going behind actual entities to find anything more real.”⁴ Another common term used for actual entities is ‘actual occasions,’ which more fully expresses Whitehead’s view.⁵ Furthermore, these actual occasions are not anything in particular but a broad category that applies to all actualities; everything that we experience and understand, even ourselves, is an actual occasion:

They differ among themselves: God is an actual entity, and so is the most trivial puff of existence in far-off empty space. But, though there are gradations of importance, and diversities of function, yet in the principles which actuality exemplifies all are on the same level.⁶

The above is essential for the “ontological principle” that states, “actual entities are the only *reasons*; so that to search for a *reason* is to search for one or more actual entities.”⁷

In short, all things that exist, whether illusion or concrete, can be explained by appealing to an actual occasion or series of actual occasions; actual occasions are sources of meaning and hence the ‘reasons’ for why things are the way they are.

Actual occasions, by their nature, are not really ‘things’ in the substance sense, but are “drops of experience, complex and interdependent.”⁸ An actual occasion, as opposed to a ‘substance,’ has no independent and complete set of properties necessarily possessed by the occasion apart from its relationship to other occasions that define ‘what it is.’ Rather, properties emerge from the form of relationships and interactions actual occasions have with each other; put another way, actual occasions exhibit properties only

⁴ *Process and Reality: An Essay in Cosmology*, (New York, NY: The Free Press, 1985 [1978]), 18.

⁵ Due to its being more explicit, and despite the fact that most use the term ‘actual entity,’ throughout this analysis I will continue to use “actual occasion” so that the common implications of ‘entity’ (i.e. as a substance-thing) will be less likely to be assumed.

⁶ *Ibid.*

⁷ *Ibid.*, 24; emphasis in original.

⁸ *Ibid.*, 18.

as they relate to other occasions (a solitary actual occasion is a metaphysical contradiction). A readily apparent analogy is found in modern molecular physics: various chemical constructs are created according to the organization of the basic fundamental entities that constitute it; it is defined according to the organization and relationships between its respective parts, each being essential both in form and content for the existence of that construct. Thus, in many cases the order of the environmental whole or organism exert a normalizing role on the parts that constitute it so that an electron within a given environment/organism will be and act different than an electron in another. Process thought seeks to universalize this relational foundation.

The scientific basis of Whitehead's view of actual occasions as "drops" rather than enduring substances is found in the then-recent discovery of the quantum leap, in tandem with the Planck length. In a quantum leap, an electron 'jumps' energy levels—its place within the orbit of a nucleus—without traversing any of the space in between. Planck's constant gives a similar notion: space is not continuous in that particles cannot move any distance; rather, they *must* move equal to or greater than the Planck length— 10^{-33} centimeters. Once one rejects the immaterialist's view and accept some form of materialism, one cannot speak of entities as enduring seamlessly through space—they 'occur' in chunks that are incapable of sustaining continuous existence in space. Whitehead, as will be seen later, also quantizes time to the same effect—entities do not endure through time but occur in quantized bits and pieces.⁹ This rejection of the continuous nature of space-time is central to understanding Whitehead's view.

⁹ Whitehead made this move without the benefit of modern research on quantum gravity that essentially comes to the same conclusion; see Lee Smolin's *Three Roads to Quantum Gravity* (New York: Basic Books, 2001). There, Smolin quantizes the *Planck's time* as 10^{-43} of a second (*Ibid*, 62).

The initial difficulty of understanding reality as ‘drops of experience’ comes from our common sense notion of appearances: we see the world as an apparently enduring thing; when we look at a rock, we do not see it changing, rather we see it as a stubborn entity that appears to resist anything we would term ‘process.’ Such common sense notions are the foundation of the substance argument, but it falls prey to a common fallacy: the ‘fallacy of misplaced concreteness.’ Whitehead argued that the fallacy of misplaced concreteness is committed when someone mistakes the emergent abstraction for the real thing, or the ‘ultimate’ real thing. Thus, when I look at the rock it ‘appears’ to be a stable, enduring entity that alters very little in its basic makeup. If I were to take this perception and conclude, as a substance proponent would (and as so-called ‘common sense’ supposedly dictates), that the nature of the rock must be as it is perceived, as a stable, enduring entity, I have mistaken the abstraction for the thing-itself. In its basic makeup, the rock is composed of sub-atomic entities that are continually in flux, though invisible to the naked eye. As David Ray Griffin astutely puts it, “The fact that visual perception reveals no experience in nature...may tell us more about the nature of sensory perception than it does about the nature of nature.”¹⁰ As the basic nature of material objects is found in quantized space-time, the appearance of seamless endurance is an ‘abstraction,’ not the ‘concreteness’ of the objects actual makeup.

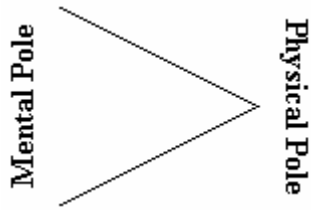
As ‘drops of experience,’ each actual entity goes through a continual process of objectifying and ‘choosing,’ of becoming concrete and being abstract (what has rightly

¹⁰ Griffin, David Ray, *Reenchantment without Supernaturalism: A Process Philosophy of Religion* (Ithaca, NY: Cornell University Press, 2001), 99. This appears to give credence to Kant’s view that ‘substance’ is merely an apparent (phenomenal) entity that, as far as we know, is not related to the thing-in-itself. By limiting the substance to the perceptual world, Kant was demonstrating his seminal point: the world is forced to conform to our means of perception, not the other way around. When I discuss “modes of perception” below, the way this concept fits into the process metaphysic will become more apparent.

been termed, in another philosophical tradition, a ‘diachrony’). The concreteness and abstraction are enacted by the occasion’s two poles of existence, named the physical/objective pole and mental/subjective pole. As Whitehead argued, “The actual entity on its physical side is composed of its determinate feelings of its actual world.”¹¹ The physical pole is the end state of any individual process, the objectified and fully determined state of an occasion of experience. When this objectification occurs, the actual occasion has become an entity capable of influencing other actual occasions, an ‘object’ in the common sense of the term. The physical pole constitutes the stability of reality, the foundation upon which our experience of stable objects is built and made possible, and the basis for the substance view. This demonstrates the quasi-mistaken understanding of calling this metaphysic ‘process’: alteration and change are one part of the metaphysical worldview, but it is incomplete in-and-of itself and needs the foundation of the established past from which the present process springs. Stability is given to the actual world by the inclusion of the physical pole and is a necessary prerequisite for novel process.

The occasion’s becoming an ‘object’ can be better understood by viewing it in terms of quantized space-time. Consider two actual occasions on a subatomic level: object *a* is currently ‘in’ the state in between Planck’s time while object *b* is at the very beginning of Planck’s time. At that instant, object *a*’s current state cannot be included in object *b*’s causal influence; only object *a* as it was found at the end of its previous Planck time can be included in *b*’s causal present. Thus, in terms of *b*’s present, *a* is an ‘object’ only as it was found in its past, but not in terms of its current state. This concept can be further extended when viewed in terms of the theory of relativity and causation.

¹¹ *Process and Reality*, 45.



Prior to the objectification of the physical pole is the mental pole,¹² characterized by “a principle of *unrest*,” teeters on the “realization of what is not and may be.”¹³

Figure 1 - An Actual Occasion

When an actual occasion is in its mental mode of existence—in the terms of physics, its state in between Planck’s time—it has no definable properties (as in the physical pole), but is in an indeterminate state of potentiality and ‘indecision.’ The actual occasion prehends (see “Prehension and Phases of Concrescence” below) the possible expressions of its potentiality (i.e. “what is not and may be”)¹⁴ and is left to ‘decide’ which state it will actualize—it is not fully determined by its past.¹⁵ A macro-analogy is our own everyday thinking and decision-making (a higher-level expression of the mental pole): we have the options before us, weigh and consider them, possibly with some trepidation, and ultimately decide which possibility to actualize. This, Whitehead proposes, occurs in all actual occasions, simple or complex, though, in relation to the former, on a fundamentally more primitive level.¹⁶ The

¹² Whitehead distinguishes between ‘mind’ and ‘intellect’; only the latter includes conscious thought. Mind can generally be defined as the creation of novelty in an actual occasion, whereas intellect is an example of a higher manifestation of mind. While the former is found in all actual occasions, the latter is only found in complex occasions. See “Organizational Duality” below for further distinctions and clarification.

¹³ *Ibid*, 32.

¹⁴ The ‘possibilities’ that are prehended are termed ‘eternal objects.’ Eternal objects find their existence in God who is thereby the giver of the possibility of novelty. Whitehead held that these ‘objects’ are necessary aspects of God; he cannot arbitrarily decide to have them at one time and discard them at another time. Many will readily see the Platonic basis of this concept (which Whitehead readily admits) and many have attempted to create a process metaphysic without eternal objects, including the current author. But, given Whitehead’s views and the very foundations on which his metaphysic rests (i.e. the ontological principle), all attempts to restructure process thought without eternal objects has been unsuccessful (including the author’s); they appear to be necessary aspects of Whitehead’s ontology.

¹⁵ I have placed ‘decide’ in quotations because an actual occasion does not decide as humans do, through cognitive processes. The ‘decision’ of the occasion is primordial, being essentially pre-cognitive in its nature. Some have argued, “But we don’t know what that would be like for an electron to ‘experience’ or ‘decide.’” The process philosopher would rightly respond, “Neither do we know what it would be like to be an entity without experience.” Neither view is strictly ‘conceivable’ and both rest on certain metaphysical (rather than physical) assumptions.

¹⁶ This way of viewing reality is not so anthropomorphic as it is anti-anthropocentric, or the idea that conscious human experience—viewed in terms of computation within the rationalistic tradition—is the

‘decision’ of the occasion in its mental pole finalizes what state it will actualize in the physical pole, which of its potentials it will lay bare and open to the world. In Figure 1 above, you can see a commonly used diagram of an actual occasion, where the temporal direction of the occasion goes from left to right.

Immediately one may recognize a radical departure from the traditional way to view reality: mind and body are seen as two parts of a single whole, two sides to a single coin, as it were. Whitehead felt this to be very important, for one of the primary responsibilities of any given metaphysic is to demonstrate the relation between final (i.e. purposeful) and efficient (i.e. ballistic) causation.¹⁷ In opposition to the traditional view, which viewed final causation as the sole action of ‘mind’ and efficient causation as the sole action of ‘body,’ Whitehead instead provided to all actualities both causal types, temporally distinct in their utilization. The process of fluctuation between the physical and mental pole, between efficient and final causation, is termed ‘concrescence.’

Prehension and Phases of Concrescence

The being of any particular entity, from an atom of gold to a conscious human, is defined according to how it enacts its concrescence. Before concrescence can be understood, however, we must look at prehension. Whitehead defines “prehensions” as “Concrete Facts of Relatedness,”¹⁸ meaning that prehensions are the causal and relational interactions between actual occasions (Whitehead often calls these ‘feelings,’ but in a more experiential rather than emotional sense). Causal interactions between occasions

only type of experience in the cosmos. Anthropocentrism is a concept that many moderns have adopted since Descartes and the advent of the ‘thinking thing’ (finding a particular place in modern A.I. theory, which assumption some have held to be its downfall). Process thought seeks to war against this widespread, socially acceptable metaphysical assumption by arguing that it is just that: an assumption.

¹⁷ *Ibid*, 84.

¹⁸ *Ibid*, 22.

are two-fold: the first is termed ‘physical prehension,’ consisting of one actual occasion prehending the most recent physical pole of other actual occasions (i.e. one actual occasion prehending another);¹⁹ the second is termed ‘conceptual prehension,’ which consists of an occasions prehending its possibilities for objectification (i.e. eternal objects). Despite the causal information presented to any particular occasion, the occasion may utilize a ‘positive prehension,’ where it accepts the prehension into its consideration for objectification, or a ‘negative prehension,’ where it excludes the prehension for particular influence.²⁰ Lastly, according to Whitehead, each prehension is defined according to three factors: “(a) the ‘subject’ which is prehending; namely, the actual entity in which that prehension is a concrete element; (b) the ‘datum’ which is prehended; (c) the ‘subjective form’ which is *how* that subject prehends the datum.”²¹ In understanding that an occasion can ‘accept’ or ‘deny’ influences, in terms that will be given later, the ‘subjective form’ is the manner in which the occasion prehends another occasion; put differently, an occasion gives its own unique ‘coloring’ to its prehensions, accepting and integrating it in a way unique to itself. But even in its subjective form, the actual occasion inherits a sense of the datum’s original character, apart from its subjective

¹⁹ As implied above, one actual occasion can onlyprehend the most recent objectification of any given actual occasion. Put another way, an actual occasion cannotprehend the mental inconclusiveness of another actual occasion. Furthermore, in accepting the theory of relativity, Whitehead held that each actual entity has its own temporal frame of reference. Thus, contemporary occasions cannotprehend each other as no objectification has yet occurred.

²⁰ Whitehead often refers to prehensions as ‘vectors of feelings.’ This, he argued, demonstrates the prehension’s dual utility: it makes the prehension’s origin apparent, that it came from somewhere, and indicates its indeterminate status in the actual occasion, that it is a possibility for actualization, not a pure determinant.

²¹ *Ibid*, 23; emphasis in original.

appropriation of it.²² These forms of prehension are utilized during an occasion's concrescence.

A particular occasion's process of becoming is (loosely) defined according to four phases of concrescence.²³ The first stage, termed 'conformal feelings,' is the physical prehension of objective data—i.e. the physical pole of other occasions—into the occasion's subjective concrescence; it is the bare inclusion of past actualities. The second stage, termed 'conceptual feelings,' is the positive conceptual prehension of the occasion's possibilities for objectification into the subjective concrescence (i.e. eternal objects); it is the inclusion of bare possibility. The third stage, termed 'simple comparative feelings,' consists of the comparison of the datum prehended in the first two phases of concrescence: "The physical feeling is feeling a real [i.e. objectified] fact; the conceptual feeling is valuing an abstract possibility. The new datum [in this phase] is the compatibility or incompatibility of the fact as felt with the [potentiality] as a datum in feeling."²⁴ In this phase, genuine possibilities are distinguished from impossible potentialities; the actuality of the current state of things, the world as it is objectified *now*, limits which potentials are real possibilities. It is also in this phase that value is given to the inherited data (physical and conceptual), creating something of a hierarchy of possibility within the occasion—i.e. some things have a naturally higher probability of

²² For Whitehead, this principle of inheritance is what allows us to have genuine experiences of objects outside ourselves. Immanuel Kant is famous for dichotomizing the world into phenomena, or our conscious human experiences of objects, and noumena, the world apart from our mode of experiencing it. He argued that, due to our subjective appropriation of data from the noumenal world, we are unable to claim to have knowledge of the world itself, apart from such subjective representations. For Whitehead, a properly functioning organism receives and perpetuates the meaning inherent in the datum, despite its transmutation of it in its subjective concrescence; it is a con-forming as opposed to a representation.

²³ It is important to note that concrescence is not a temporally ordered occurrence with definable parts/sections. Rather, concrescence occurs as a quantum, an irreducible whole of such a nature that if its 'parts' were separated it would cease being what it is. The following list, therefore, is simply an intellectual/abstract separation of its 'parts' and no direct correlation can be made between the abstraction and the concrete whole.

²⁴ *Ibid*, 276.

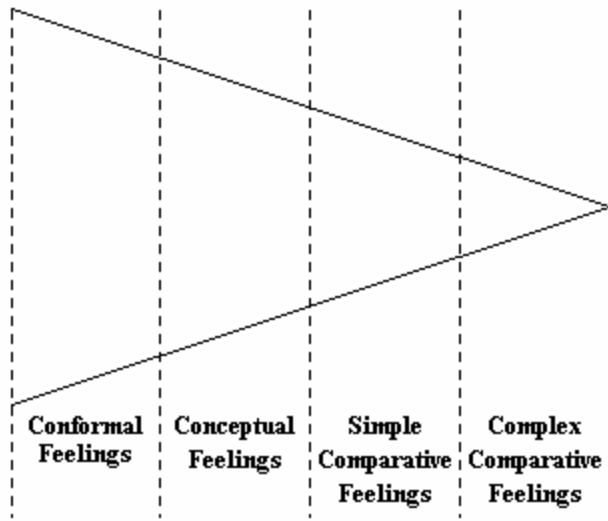


Figure 2 - Phases of Concrescence

occurring than others, given the objectified history prior to the concrescence. The final phase, termed ‘complex comparative feelings,’ is the final appropriation and negation of genuine possibilities (defined by the compatibility of physical and conceptual prehensions) wherein objectification is realized

according to the objects ‘subjective form.’ In its highest expression, consciousness emerges, but it is also seminal to the functioning of the most basic and simple actual occasions. See Figure 2 for a representation of the phases of concrescence and notice the funneling and narrowing of the data integrated as the phases progress.²⁵

From the above one immediately recognizes that the process metaphysic constitutes a radically different way of viewing reality when compared to substance theory. According to substance theory, each entity has an essential nature that can be considered complete apart from its contingent interactions with other entities; put another way, a substance’s nature is in no way dependent on other entities (past God’s giving it existence). With process thought, this view is reversed for no entities can be considered

²⁵ For more information on the particular sub-categories within each of the above phases, read Donald W. Sherburne’s *A Key to Whitehead’s Process and Reality* (Chicago: University of Chicago Press, 1966), 36-71, a systematic compilation and reorganization of the most relevant passages of *Process and Reality*. Due to its generally unorganized nature, it is often suggested that people *not* start with Whitehead’s *Process and Reality*, but rather that they begin with Sherburne’s work above and turn to *Process and Reality* to discover the more subtle intricacies of Whitehead’s thought. I echo this suggestion to anyone interested in learning more.

apart from their interactions with other entities; *all of reality is necessarily relational*.²⁶ With this understanding, the process philosopher would contend that the basic substance statement, that to exist is to be a subject with properties, has jumped too quickly from non-existence to existence.²⁷ The process philosopher would prefer to define existence as openness to interaction and relationships, having the capacity to have a particular type of (active) being.²⁸ Without this openness and capacity for relations, predication is a meaningless and advanced form of abstract existence. Thus, though it would readily be admitted that all existing entities *do* have predicates, using predication as the basis of existence is starting too far up the metaphysical ladder, committing the fallacy of misplaced concreteness.

It would be good here to note that Griffin terms this view ‘panexperientialism,’ preferred above ‘panpsychism.’²⁹ All actualities are experiential—they are defined by their experiences and it is only because of this fundamental experience that higher-order experience (as in human experience) can occur. How, then, might one define experience? Here Whitehead is informative: experience is the “self-enjoyment of being one among many, and of being one arising out of the composition of many.”³⁰ This has two important connotations: first, experience cannot occur in a vacuum, apart from the ‘many’; second, experience is a simplified unification of complex interactions. On the

²⁶ “...there is no element in the universe capable of pure privacy. If we could obtain a complete analysis of meaning, the notion of pure privacy would be seen to be self-contradictory” (*Ibid*, 212).

²⁷ Not to mention that it is mistaken in its universalization of the subject-predicate distinction, which has gone into disrepute in the general philosophical community. Whitehead accepts its utility up to a point, but feels that universalizing it is inappropriate and incompatible with nature’s dual temporal aspect of subjectivity and objectivity.

²⁸ Hartshorne has stated it as “*To be is to be available* for all future actualities” (“The Development of Process Philosophy,” in *Philosophers of Process*, Browning, Douglas and William T. Myers, ed. (New York, NY: Forham University Press, 1998), 404; emphasis in original).

²⁹ ‘Panpsychism’ generally implies that all of reality has minds (psyche) similar to that of man’s. This is not Whitehead or Griffin’s view and, as such, I will use the preferred term ‘panexperientialism.’

³⁰ *Process and Reality*, 145.

latter, the end of every concrescence is a simple ‘feeling’ or ‘satisfaction’ that arises from the complexity of its multiple prehensions, the satisfaction/objectification of the process. Charles Sanders Peirce, a fellow pragmatist and contemporary of Whitehead, provided an analogous definition: “a sensation is a simple predicate taken in place of a complex predicate.”³¹ Put one more way, experience is the unification of multiple prehensions/feelings in an occasion ending in a novel simple feeling. This definition is general enough to apply to non-cognitive entities and clear enough to apply to human cognitive experience without fear of equivocation.

Modes of Perception

One of Whitehead’s most important anthropological contributions was his realization that common, everyday perception is a derivative mode of information gathering, prehension being its primitive foundation. By denying the ‘empiricist principle,’ that conscious sensory perception is the only mode of human experience, Whitehead presented a cogent epistemology wherein solipsism (‘I-ism’; the claim that ‘I’ am the only existing reality and all else are figments of ‘my’ imagination) is defeated and our common-sense notion of knowing the thing-in-itself is made possible. In order to understand how Whitehead was able to accomplish the above, consider his description of the formation of a particular perception.

The first phase in perception is termed ‘perception in the mode of causal efficacy.’ In the mode of causal efficacy, an actual occasion prehends all influences within its particular environment. Occurring during the prehensional phase of ‘conformal feelings,’ perception in the mode of causal efficacy is vast and necessarily vague,

³¹ Edward C. Moore, ed., *Charles S. Peirce: The Essential Writings* (Amherst, NY: Prometheus Books, 1998), 103.

theoretically including the prehension of all objectified actual occasions in the cosmos. It is in this phase of perception that our understanding of causation as a genuine reality is generated, for we necessarily are ‘caused’ to acknowledge the world outside of us; hence, solipsism is defeated. When one focuses only on sensuous perception, as Hume and Kant do, one is immediately forced to doubt the existence of non-sensory (or non-phenomenal) causation. Whitehead argued that the ultimate justification for accepting the veracity of this mode of non-sensory perception is in our bodily experience: we say that we ‘see *with* our eyes’ and ‘feel *with* our hands,’ thus accepting the genuine causal (non-conscious/non-cognitive) influence that these parts of our bodies play in, and prior to, our sensuous/cognitive experiences. I do not have a perception and then generalize or infer the role of the body in it; I already ‘perceive’ the causal (and experiential) role that the body plays in the perception as fundamentally inherent and basic.

The second mode of perception is termed ‘perception in the mode of presentational immediacy.’ In presentational immediacy, an actual occasion is presented with bare facts, with things ‘as they are’ without betraying their origin or temporal placement in the causal order. This form of perception is loosely tied in to the first phase of concrescence—Conformal Feelings—and constitutes the basic world as we see it, as ‘simply present.’ It was Hume’s fixation on this mode of perception that lead him to seriously question induction and causation, for if all that we know is simply the present experience/phenomenon then causal connections between a temporal order of different perceptions would have to be denied (or at least placed in inescapable obscurity); if perceptions are merely present, without recourse to time or space, causation is ruled out by definition, except in terms of judgments and deductions, not primary experience.

The last mode of perception is termed ‘perception in the mode of symbolic reference.’ In this mode, there is an interplay between the two previous modes wherein further meaning is given to specific prehensions by means of symbolism, interpretation, and inference. To borrow an example utilized by Griffin: when someone is looking at the Sun (don’t try this at home) they cannot be mistaken that they are experiencing a yellow-orange disc (‘presentational immediacy’), nor can they be mistaken that something is causing this experience (‘causal efficacy’), but it is not certain that the sensation comes from the object in question, for the source of this perception may not be the object being perceived.³² It is due to this symbolic interpretation of experience that the substance view appears to have validity, for in our interpretive experience of an object we *do* experience and interpret it as an enduring entity; such is a genuine experience and constitutes one aspect of reality. But the fallacy of misplaced concreteness, which becomes prominent in this phase, asks the substantialist to see the derivative aspect of such an inference. Such possibilities for error are the price of a high order of organization, which leads to the final consideration in this section: organizational duality.

Organizational Duality

Understanding that experience/process is inherent in all of the actual world, what is it that differentiates conscious human experience from, say, the experience of a rock? David Griffin, who has probably done more on the mind-body problem from a process perspective than any other thinker, proposes an “organizational duality” where “the diverse organizations produce radically diverse modes of functioning, requiring radically

³² Griffin, David Ray, *Unsnarling the World-Knot: Consciousness, Freedom, and the Mind Body Problem* (Berkeley, CA: University of California Press, 1998), 135.

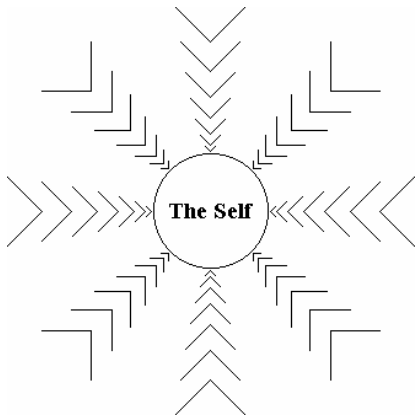


Figure 3 - The Emergent Self

diverse types of explanations.”³³ Griffin proposes that the rich consciousness that humans experience is due to the complexity and vastness of the cumulative experience of the occasions that constitute its body.

Griffin, following Whitehead’s lead, proposes that, loosely speaking, there are two types of organization: “aggregational societies” and “compound

individuals,” where “societies” simply means any conglomerate or collection of actual occasions in one entity. He differentiates the two as follows: “I will argue that there is a difference in principle between ‘aggregational societies,’ such as billiard balls and computers, and ‘compound individuals,’ such as rats and human beings; only the latter [as a whole] are said to have experience and freedom.”³⁴ The “aggregational society” is a mereological whole: the object is constituted of parts that do not contribute to a unified nexus of experience in a dominant occasion—the object is simply the sum of its parts. Thus, a rock cannot be said *of itself* to have experience, though its individual constituents may; put another way, experience cannot be attributed to ‘the society’ of the rock, though it may be attributed to the actual occasions of which it is constituted.

A compound individual is one where the intensification of prehension/feeling culminates into a dominant occasion. As a richer form of concrescence, the prehensions of the lower-grade constituents of the body—cells, aggregates of cells and body systems—are transmitted through particular paths, of which the nervous system is one example, adding their objectified experiences to other similarly transmitted experiences,

³³ *Ibid*, 189.

³⁴ *Ibid*, 40.

eventually being unified into an emergent complex of experience. Consider Figure 3 above: the sources of experience are all concentrated into the dominant occasion, termed “The Self,” with varied forms of feeling being integrated and unified into a single experience. There is also top-down influence, for “the concrete enduring entities are organisms, so that the plan of the *whole* [i.e. dominant occasion] influences the very characters of the various subordinate organisms which enter into it... Thus an electron within a living body is different from an electron outside it, by reason of the plan of the body.”³⁵ The aggregate of the person is defined according to its participation within the human body and when that participation is no longer in force its identity changes—a hand is human by virtue of its participation in the whole.³⁶

Some may be quick to argue that this is simply a physicalistic (meaning atomistic) emergentist theory. In reality, this view is stronger for one particular reason: it requires no large jump from non-existence to existence in relation to experience. The typical emergentist holds to the inert nature of matter, that it is devoid of experience or process. For man, though, they are willing to attribute experience of a rather high order—consciousness. Ultimately, their task is to say *when* experience appears from the un-experiencing ‘stuff’ of which the person is made. If they do posit a starting point, whether correct or not, it appears that it is magical, that at one instant that which we term ‘experience’ suddenly jumps on the scene with no identifiable precursor to betray its future occurrence. Put another way, the physicalistic emergentist must make a rather

³⁵ *Ibid*, 191.

³⁶ Agreeing with Charles Hartshorne, Griffin argues that “each higher member [of a compound individual] would fill the whole spatial region of the lower members from which it emerged, so that molecular occasions would fill the entire region of the molecule, living occasions would fill the entire region of the cell, and dominant occasions would fill the entire region of the brain” (*Reenchantment Without Supernaturalism*, 121).

large jump in the causal order of things in order for experience to be possible. Scientifically speaking, there is no degree of continuity, simply a stark contrast between antecedent realities with the new reality.³⁷ The panexperientialist, on the other hand, has an easily recognizable causal genealogy of advancement from lower orders of experience to higher orders; no causal quantum leap must be made. Starting from the simple experiences in the subatomic entities on the tips of my fingers and toes, the experiences/concrescences of the body develop, combine, and build on one another as they merge into one incredibly rich and complex experience in consciousness.

Not only does panexperientialism provide a more continuous and, hence, smooth development of experience, it also allows for freedom and advanced creativity not allowed by the physicalist paradigm. Before this can be understood, exactly how process thought construes ‘freedom’ will have to be considered. Earlier it was claimed that an actual occasion necessarily depends on its past to give it determinate data in its present causal state. It was also mentioned that each actual occasion will integrate this data in a particular way—the ‘subjective form.’ Process thought defines freedom in terms of this creative appropriation—the present occasion’s mode of integrating and appropriating the past creates a new reality that is not determinately had in the past.

With a compound individual, the mental pole plays a much stronger role in determining the finalization of a given concrescence than in aggregational societies, which are necessarily dominated by the average. Hence, an entity with a dominant occasion is the more ‘aware’ it is of its possibilities than the sub-dominant societies that make it up and, hence, more capable of continuing the novelty found therein. Put another

³⁷ This problem has caused some modern theorists to doubt the existence of ‘qualia,’ or experiential phenomena in human existence. These theorists argue over where qualia can be found and where it cannot, which aspects of human existence can be termed experiential and which cannot.

way, though novelty is possible for every actual occasion, the lack of a dominant occasion in aggregational societies produces a somewhat ‘stale’ ground upon which novelty may develop; the prehended possibilities of the aggregated occasions are dominated by a generally stable set of possibilities that squelch out extended innovation. This openness to and awareness of further possibilities provides compound individuals with the capacity for freedom and for the perpetuation of any non-average, novel concrescence that may appear in a given occasion.

For any given prehension, the most pervasive and inclusive prehensions are those in its immediate environment. For an aggregational society, the immediate environment is prevalent with averages (what Whitehead sometimes termed the ‘law of large numbers’) that effectively squelch any novelty, even should it arise for a particular occasion in the aggregate. The vast and differential prehensions available for the compound individual allows sufficient novelty to become apparent and available for future concrescences to build and advance on. This line of development allows the compound individual to step out of the merely average and attend to viable creative acts. An interesting point in relation to this is Whitehead’s warranted view that there must be a balance between novelty and average-ness, chaos and order.³⁸ If unmitigated novelty reigned there would be no physical objects, for if no norms were present to give conformity to reality chaos would necessarily ensue. In this way, even process must be delimited within certain domains or ‘laws’ lest chaos and no-thing-ness become the whole of reality; freedom, even in the most basic occasion, must be found within certain limits.

³⁸ See *Ibid*, 99-105.

Likewise, with the complexity of a given organism comes the possibility for further contrast and richness. A single electron lacks sufficient complexity to integrate either width or depth in prehensions; it simply cannot embody it:

As we pass to the inorganic world, causation never for a moment seems to lose its grip. What is lost is originativeness, and any evidence of immediate absorption in the present. So far as we can see, inorganic entities are vehicles for receiving, for storing in a napkin, and for restoring without loss or gain.³⁹

With the human body, there are five senses that provide various types of experience and the body, due to its intricate complexity, is able to embody and integrate both width and depth of experience. Each of these bodily experiences, through the mediation of eyes, ears, noses, tongue, and skin, provide contrast as each will integrate its data in different ways—the ‘subjective aim’ of the eye is to ‘feel’ light in a way different from the skin or tongue, and vice versa. Within the human body, these varied appropriations integrate through nervous centers and eventually are compounded in the brain and, ultimately, in human experience. Thus, the simple organization of atomic particles is metaphysically incapable of embodying high degrees of complexity and contrast, hence their unoriginal status and interactions, whereas the complexity and contrast in the human body allows for extensive embodiment of various experiences and types.

For illustration, consider two examples, one from an ‘aggregate society’—a rock—and the other from a ‘compound society’—a carpenter. As stated earlier, the organization of a rock is not such that a dominant occasion emerges from it; it is merely the sum of its parts. The possibilities open for a rock are incredibly limited; though there is a remote possibility that a rock will suddenly leap into the air, the probability is so slight that such a dramatic change in its status would occur is nearly impossible and

³⁹ *Process and Reality*, 177.

improbable. Thus, to speak of the rock itself in terms of its possibility for novelty and freedom, one realizes that it is nearly incapable of the form of appropriation open for human agents.

In speaking of a human agent—here using the example of a carpenter—the possible appropriation of the past in the creation of a new present is extended significantly. The past culture in which our carpenter was raised opens up the possibility of her being a carpenter; the material needs and desires of that culture allow for carpenters to exist, be gainfully employed, and gain the tutelage necessary for the carpentry skills to develop. Likewise, the materials that were available for the carpenter, in terms of equipment and training/education, opened up the possibility that this particular carpenter gain the training she needed to master her trade. Lastly, the carpenter’s natural skills, physical constitution, and personal exertions—physical and mental—allow her to take on the existence of a carpenter; with all of her basic abilities and potentialities, she has chosen the path of the carpenter, as opposed to the path of the musician, politician, or warrior, all of which are genuine possibilities given her skills and interests. In this way, the carpenter has appropriated the past to *become* a carpenter; she has taken all the data from the past that open and delimit her possibilities of becoming and has created a new entity—herself-as-carpenter. Because of her organizational complexity, she is able to integrate all these factors—social, historical, physical, mental, etc.—which a rock or dog is not able to embody/appropriate.