AN INQUIRY INTO THE NOTION OF COLLECTIVE CONSCIOUSNESS

by

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CERTIFICATE OF APPROVAL

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ABSTRACT

Awareness of how we are embedded within collectives, and the degree to which collectives may create more complex forms of consciousness within which we participate as individuals, is of critical importance as we face the global challenges of the twenty-first century. We have begun to realize that our own well-being is interdependent with that of our environment and all the beings that share that environment. We are immersed in a constant interplay between our individual selves and the world around us, be it other people, other beings, or our physical environment.

In the interest of bringing our awareness to how we are embedded within and actively participate in multiple levels of collective consciousness, this dissertation is an inquiry into notions of what constitutes consciousness and how understanding these notions of consciousness can increase our awareness of our participation at the level of the collective. I propose that with greater awareness of our participation we can proactively engage with the consciousness of collectives. This investigation takes a multidisciplinary approach, examining theories and concepts from philosophy, physics, neurobiology, systems theory, and psychology.

A significant finding revealed in this work is how prevalent across disciplines is the distinction between two very different types of collective consciousness. The first form is that of a collective consciousness that exhibits pressure for conformity, supports mob behavior, and homogeneity. It has more like to like bonds than complex hierarchical bonds. The individual is subsumed by the collective. Groupthink is an outcome of this form of collective consciousness. The second form is a more organic and complex collective consciousness that embraces diversity, distinctions, and is heterogeneous. The value of the individual as a unique participant in a greater whole is acknowledged.

With this finding, it becomes of paramount importance to recognize our participation in either of these two types of collective consciousness in order to exercise agency in our participation. The final chapter suggests some potential methods for enhancing this awareness.

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Preface

I am sitting in a circle with approximately fifteen other people in the faculty lounge of a local college. We are gathered here for a three-hour session of Bohmian Dialogue. I sit quietly, following the conversation, participating only as a listener. I find that I have no impulse to engage verbally. That is both my natural inclination and a residual effect of having come straight to this dialogue session from a five-day silent insight meditation retreat. Shortly after the session starts the conversation turns to a discussion of silence and the various feelings that silence in a group evokes in the participants. Some participants feel anxious or uncomfortable when silence in a group extends for more than a few moments. Others state their comfort with silence and the sensations of communion engendered when they sit in silence with others. The conversation moves on only to return to this inquiry into feelings about silence multiple times throughout the session. I have remained quiet, intrigued by this conversation that speaks to the range of sensations and thoughts that I meandered through on my five-day silent retreat. Finally, with just a few minutes left in the session, I speak up. I share my fascination that this particular session has been largely a discussion about silence and that I had come directly to it from a silent insight meditation retreat. One of the other participants looks at me and says,"Oh, I was wondering why we were having this conversation!"

I would be able to write off this experience as "mere" coincidence except for the fact that experiences similar to this consistently occur in the context of Bohmian Dialogue groups. What is happening when this occurs? How is it that

something that someone in the group experienced but hasn't mentioned becomes the topic of conversation for an entire group? How often do "coincidences" like this occur in daily life while we either write them off as meaningless or do not even notice them? How often have you sat in a group, silent, holding a question or concern that is then expressed by someone else in the group?

My own interest in collective consciousness emerged in my late teens. First I happened to read *Memories, Dreams, Reflections*, in which the Swiss psychiatrist Carl Jung exposed me to the concept of a collective unconscious. Shortly thereafter I was introduced to Tavistock group work and became fascinated by group dynamics and group process. While being sensitive to group dynamics from my training as a Tavistock consultant, I did not become focused on the concept of collective consciousness until I came across Pierre Teilhard de Chardin's concept of the noosphere and the corresponding concepts of centration and radial and tangential energy.[1] With these concepts and Teilhard de Chardin's perception of the creation of an aircraft or a radio as presupposing a complex organism consisting of multiple human beings and the resources they utilize,[2] I once again became fascinated by group process and dynamics along with the notion that collective consciousness can occur at nested levels of complexity: atom, molecule, cell, organ, organism, social grouping, societal structure, and the ecosystems within which we are embedded. While a number of spiritual traditions

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[1] Teilhard de Chardin, *The Human Phenomenon.*

[2] Teilhard de Chardin, *Activation of Energy*, 31.

recognize a sense of consciousness at the level of the individual and at the level of a Whole or Absolute—a cosmic consciousness that embraces the completeness of the universe—there is less focus on the nested levels of consciousness that occur between the individual being and a universal consciousness. It is our participation in these nested levels of families, groups, organizations, and societal structures, which has come to fascinate me.

Concurrent exposure to the Dialogue process developed by the physicist David Bohm gave me a rich ground within which to explore the experience of collective consciousness. As I delved into his work, I discovered that Bohm offered a theory of quantum mechanics that can elucidate collective consciousness.[3] This led me to explore physics-based theories of consciousness along with researching how collective consciousness is described through the lens of a variety of other disciplines. This is the ground from which this inquiry into collective consciousness arose.

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[3] Bohm and Hiley, *The Undivided Universe*.

Chapter 1:

What Is Collective Consciousness?

In this dissertation I define *collective consciousness* as the phenomenon whereby clusters of individual entities are participating in a consciousness that includes and goes beyond the sum of the individual participants. It affects and can become a driver of our thoughts and actions without our being aware of its reciprocal participation in us as individual participants.

The goal of this inquiry is to heighten our awareness of how we participate in nested and overlapping layers of collective consciousness. I propose that if we increase our awareness of this participation we have the option of exercising more agency as to what form this participation takes. In order to bring our focus to this phenomenon, we first need to understand the various ways the term *consciousness* is used and what it points to in the term *collective consciousness*. Different theorists and researchers use these terms to point to subtly (and sometimes grossly) different phenomena. In general, the term consciousness is often used synonymously with the terms *mind*, *experience*, and *awareness*. In his work *Radical Nature,* Christian de Quincy makes a useful distinction between two ways the term *consciousness* is understood and utilized. He divides differing uses of the term into two major categories. The first category is termed the philosophical meaning of consciousness. The second category is the psychological meaning of consciousness.

De Quincy defines the philosophical meaning of consciousness as "a *state or quality of being* with a capacity for *sentience* and

subjectivity. . . . Philosophical [understanding of] consciousness is about the context of consciousness . . . that makes possible any and all contents of consciousness."[4] Psychological consciousness refers to specific states of awareness "characterized by being awake and alert, and is contrasted with the 'unconscious,' a state of being asleep, or with psychic contents below the threshold of conscious-awake awareness."[5] It is helpful when approaching the research on consciousness to keep these two categories in mind to clarify which phenomenon the research is investigating.

My own understanding of consciousness falls within the category of the philosophical notion of consciousness. I see consciousness as an integrated self-sustaining awareness; information held by a consciousness is accessible throughout the system that comprises it. Self-awareness—the awareness of a system that it is aware—is a meta-level or intensification of consciousness. At the level of atoms or cells, a minimal consciousness allows for sensing and agency, the ability to make a choice. Levels of consciousness are nested: the atom in the molecule, the molecule in the cell, the cell in the organ, the organ in the body, the individual in the group, up to the potential for planetary and even universal consciousness.

I use the term *collective consciousness* to refer to a consciousness that consists of a number of individual elements, each with its own particular

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[4] de Quincy, 64.

[5] de Quincy, 64.

consciousness, that then coheres to create its own self-sustaining whole. Any group that persists over time even as the particular members change creates a collective consciousness. Other terms that point to this phenomenon are *group mind*, *groupthink*, and *hive mind.*

The first use of the term *collective consciousness* is credited to Emile Durkheim in his work, *The Division of Labor in Society:* "The totality of beliefs and sentiments common to the average members of a society forms a determinate system with a life of its own. It can be termed the collective or creative consciousness."[6] While Durkheim's work is initially focused specifically on criminality in society and falls outside of the scope of this investigation there are some correspondences that are worth further exploration. Durkheim specifies collective consciousness as "a determinate system with a life of its own." This is very close to my conception of collective consciousness. It should be noted that the French term used by Durkheim is *conscience collectif*. The word *conscience* is variously translated into English as either conscience or consciousness. Both translations are accurate translations from the French. In reading his work, I agree with the translator George Simpson that Durkheim's usage is in fact closer to the English word *conscience*.[7] That being so, Durkheim also clearly appears to be pointing to the phenomenon that I am referring to as collective consciousness. Durkheim also distinguishes between what he refers to as *mechanical solidarity*

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[6] Durkheim, *Division of Labour in Society,* loc. 1539 out of 8274.

[7] Durkheim, loc. 63 out of 8274.

and *organic solidarity*. These two concepts differentiate between a consciousness that is homogenous—consisting of entities with shared beliefs—and one that is heterogeneous with differentiation of roles and beliefs forming a more organic entity. The difference is captured in the titles of two chapters: "Mechanical Solidarity through Likeness" and "Organic Solidarity through the Division of Labor."[8] We will see the importance of the two differing types of collective consciousness reappear in the works of Pierre Teilhard de Chardin, Jean Gebser, Sri Ghose Aurobindo, and Irving Janis.

Awareness of how we are embedded within collectives and the degree to which collectives may create a coherent consciousness of their own is of critical importance as we face the global challenges of the twenty-first century. The mechanistic approach to understanding our world has led to serious threats to our survival. We have begun to recognize that we can no longer separate our own well-being from the well-being of our environment and the other beings that share that environment. It is becoming more widely recognized and acknowledged that we participate in a vibrant community that consists both of our natural environment and of all the other beings that inhabit that environment. We are immersed in a constant interplay between our individual selves and the world around us, be it other people, other beings, or the natural environments within which we are embedded.

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[8] Durkheim, table of contents.

These communities form collectives that consist of both the individual beings involved and their environment. As we will see in the work of the sociologist Raymond Trevor Bradley,[9] a collective can behave as a coherent organism influencing the individuals that participate within it. Each individual participates in and influences the larger complex system. The larger complex system also has an impact on the experience of the individual. We see this in social structures such as families and work settings, and even in societal structures such as economies and corporations. The larger more comprehensive structure seemingly takes on a life of its own even while the individual participants may be transient, similar to the transient molecules and cells that make up our bodies.

The Concept of Collective Consciousness

In an article in the magazine *Inquiring Minds* published in 1994, Thich Nhat Hanh, a prominent Buddhist monk, suggested, "The next Buddha may be a Sangha."[10] By this he meant the next Buddha might take the form of a community, a collective consciousness, rather than being embodied in one individual person. The Jesuit priest Pierre Teilhard de Chardin conceived of the development of the *noosphere*, a sphere of consciousness that is formed by the collectivity of human minds.[11] Swiss psychologist Carl Jung and the Indian sage

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[9] Bradley and Pribram, "Communication and Stability in Social Collectives."

[10] Thich Nhat Hanh, "The Next Buddha May Be a Sangha."

[11] Teilhard de Chardin, *The Human Phenomenon*.

Sri Aurobindo both recognized consciousness at the level of the collective.[12] Jung perceived a collective unconscious that influenced individuals in both positive and negative ways. Sri Aurobindo saw the evolution of a higher level of collective consciousness. Both of these latter thinkers expressed their concern about the negative aspects of collective consciousness as it took form in the collectivity of Nazism and communism in the twentieth century. Each of the above thinkers is pointing to the phenomenon wherein individual humans participate in a consciousness formed by a collection of individuals, from several to a multitude, that takes on a wholeness of its own. It then influences the experience of the individual participant at the same time as they influence it.

In *The Undiscovered Self,* Jung writes of the "collective possession" exhibited by the masses at Hitler rallies: "If the affective temperature rises above this level, the possibility of reason's having any effect ceases and its place is taken by slogans and chimerical wish-fantasies. That is to say, a sort of collective possession results which rapidly develops into a psychic epidemic."[13] He expresses the dangers inherent in being unaware of our relationship to the collective, pointing to the necessity of making an unconscious participation conscious.

Starting from the position that consciousness is a phenomenon present not just in individual human beings but also as a coherent, self-sustaining

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[12] Aurobindo Ghose (Sri Aurobindo), *The Future Evolution of Man*; Jung, *Memories, Dreams, Reflections*.

[13] Jung, *The Undiscovered Self,* 2–3.

phenomenon in collections of human beings and that we are always participating in forms of collective consciousness, I show how this phenomenon is illuminated in the contexts of varying disciplines. This work explores this phenomenon primarily as it manifests in groups of humans though a case can be made that the collective level of consciousness is always present and includes not only humans but all beings and their environment. In general this consciousness affects us without being at the forefront of our awareness.

We participate in multiple layers of collective consciousness. These collectives might consist of family and social groupings, organizations, social structures, and the ecosystems in which each of us is an individual participant. We are as a cell in a larger organism that we both affect and which affects us. If we heighten our awareness of this participation, bringing our attention to it, we can recognize how collective consciousness affects each of us as individuals. An enhanced recognition and awareness of this phenomenon gives us the potential to exert more agency and choice in how we participate in these collective levels of consciousness.

Through the examination of a variety of models of consciousness across multiple disciplines, my goal is to provide ways to conceptualize and to recognize consciousness as it takes form in the collective. This has the potential to allow these collective levels of consciousness to become more accessible to each of us. I propose that when we heighten our awareness of how we participate in levels of consciousness beyond that of our individual selves, we can assert our own individual agency within the greater whole and avoid becoming co-opted by mob

psychology and groupthink. We then have the potential for our individual contributions to enrich the various levels of collective consciousness in which we participate.

Chapter Breakdown

Any investigation of the nature of collective consciousness necessitates an attempt at understanding the concept of consciousness itself. As we shall see, there are many different approaches to understanding consciousness and each researcher of consciousness has either subtly or dramatically different understandings of what constitutes consciousness. In this first chapter I offer an approach to distinguishing between different ways the term *consciousness* is used and an overview of my understanding of collective consciousness.

Chapter 2 explains how I approach this inquiry, utilizing a broad-based examination of research and theories of consciousness. The primary methodology of this inquiry is a multidisciplinary approach that explores a wide range of research on, and theories of, consciousness and collective behavior. Theories and research from philosophy, physics, biology, psychology, and sociology will be examined as to their relevance to deepening our understanding and awareness of participation in collective consciousness. A few of the dominant current theories of consciousness will be highlighted.

Chapter 3 provides a larger context in which to understand collective consciousness through models of reality that recognize the possibility and potentials (both positive and negative) of collective consciousness. An exploration of the work of Pierre Teilhard de Chardin and his concept of the noosphere

provides a context for examining the notion of consciousness and the form it takes in more complex systems. Jean Gebser, Sri Aurobindo, and Alfred North Whitehead are other twentieth-century thinkers whose models of reality can be windows into collective consciousness. The work of each of these thinkers is explored in more depth to provide a context within which to understand collective consciousness.

Chapter 4 offers an overview of several current theories and models of consciousness. The first section explores explanations of consciousness that are based in physics and in particular examines the concept of consciousness presented by David Bohm and Basil Hiley in their work *The Undivided Universe.* This section also includes other physics-based concepts of consciousness such as the Orch OR theory of Roger Penrose and Stuart Hameroff, the concept of the perceptronium of Max Tegmark, and several field theories of consciousness. The second section of Chapter 4 explores theories of consciousness that arise from complexity and systems theory, particularly those of Giulio Tononi and Christof Koch, and Fritjof Capra and Pier Luisi Luigi. With each of the theories explored in this chapter we see how they either support or negate the concept of a collective consciousness.

Chapter 5 delves deeper into notion of collective consciousness by applying concepts and research from the earlier chapters to the collective. Here I also explore insights into collective consciousness from the fields of mainstream psychology, transpersonal psychology, and sociology. The difference between a

non-reflective collective consciousness and a collective consciousness that is participated in with awareness is explored in more depth.

Chapter 6 reiterates some of what has been explored in the first chapters and emphasizes what these works have revealed about the nature of collective consciousness. This concluding chapter examines what collective consciousness means for individual experiencers in relationship to the collectives in which they are embedded. I emphasize that developing awareness of our own participation in collective consciousness allows the potential for us to be present with more agency, choosing to what degree we submerge our individual selves in the group consciousness and to what degree we maintain our individuality and enrich the collective consciousness by offering and expressing differing perspectives within the collective consciousness. To this end, I highlight some methods that might increase this awareness.

Defining Consciousness—A Problematic Term

There is no universally accepted definition of consciousness. In reviewing the literature on consciousness it is evident that the term is used to mean very different things in different contexts and different disciplines. It is often used interchangeably with related terms such as *awareness* and *mind* that also have no clearly agreed upon definition. As I noted earlier in this chapter, for the purposes of this inquiry I use the distinction made by Christian de Quincy in his work, *Radical Nature.* Most notions of conscious can be placed either into the philosophical meaning of consciousness or the psychological meaning of consciousness. The first is a more general understanding of consciousness that

encompasses and goes beyond all of the states that are defined as being conscious in the second meaning of consciousness. As we shall see in several of the explanations of consciousness, I would add that philosophical consciousness is based in the idea of a process that creates the context for the contents of consciousness, whereas psychological consciousness refers to specific types of states of awareness.

My search of the literature has revealed that most articles on consciousness fall into one or the other understanding of the term *consciousness*. This distinction has an effect on how researchers consider the possibility of there being collective consciousness in any form. Differing notions of consciousness lead to differing approaches to research in consciousness studies as well as to differing perspectives on the reality and nature of collective consciousness. My review of the literature on consciousness is not exhaustive as there is a wide body of approaches to understanding consciousness. The aim of this overview is to highlight some of the more significant theories that might bear direct relevance to this inquiry into collective consciousness.

A number of theories of consciousness, particularly those that are neurologically based and focused explicitly on the brain, do not lend themselves to a theory of collective consciousness. However, a few of these theories will be explored. How they potentially negate the idea of collective consciousness will be highlighted as well as where they actually might have the flexibility, perhaps through quantum nonlocality or field effects, to support the notion of a collective consciousness. Theories that are based on the psychological meaning of

consciousness, at first glance, would seem to preclude the idea of a collective consciousness. In some cases, if we start from the more expansive notion of philosophical consciousness, these theories can be useful.

My own understanding of consciousness is that of the sense of the most basic process of experience. Awareness and experience occur within the context of consciousness. The psychological states of being conscious, unconscious, awake, asleep, dreaming, etc. occur within the context of the more basic process of consciousness. As such, my understanding falls within the category of a philosophical understanding of consciousness. A collective consciousness is a process whereby a whole takes form that includes and subsumes the individual consciousnesses that participate in it. And as with the atoms, molecules, and cells that constitute our bodies, the individuals that constitute a collective consciousness may be transient, while the collective continues to maintain its form. This form influences our experience as individual participants and can subconsciously influence our choices and agency within the collective whole.

Any inquiry into the nature of collective consciousness necessitates an inquiry into the nature and understanding of consciousness itself. While Chapter 3 provides a larger context, through several models of reality, for understanding the nature of collective consciousness, Chapter 4 delves specifically into concepts and models of consciousness itself. There is great variation in the way that researchers understand the term consciousness. Each of the works examined is analyzed for how consciousness is understood in the context of that research and how each

definition of consciousness may or may not help us understand collective consciousness.

Chapter 2:

Methods—Tackling the Inquiry

An important aspect of this inquiry into collective consciousness is to make the concept and the experience of collective consciousness accessible across a broad spectrum of readers. To this end, I draw concepts, theories, and models from diverse disciplines. This multidisciplinary approach allows readers with differing knowledge bases to find a thread that might entice them into the material. In this chapter, I identify the different disciplines that I bring together to create a broad-based inquiry. The particular thinkers, researchers, and theoreticians that make up the body of the inquiry are noted and I indicate my reason for choosing each.

The examination the notion of consciousness occurs through a variety of perspectives and explores how consciousness takes form at the collective level. Literature, theories, and research on consciousness from multiple disciplines are reviewed in order to create a broad base for understanding the phenomenon of consciousness itself as a preparation for deepening our awareness of how it manifests at the level of the collective where we participate in the consciousness of groups, organizations, and our larger environment. The theories examined are assessed for their ability to support or negate the concept of collective consciousness and, importantly, what they offer in terms of potentially more conscious, coherent, healthy, "free" engagement in the collective. We will see where differing definitions of consciousness influence our understanding of the possibility of collective consciousness.

First I explore several philosophical models and the works of a number of theorists from various disciplines to broaden our understanding and provide models of reality where we can see the presence of collective consciousness. These models include the concept of the noosphere developed by Pierre Teilhard de Chardin, the philosophy of organism of the mathematician Alfred North Whitehead, and the structures of consciousness of Jean Gebser. The Indian sage Sri Aurobindo's thoughts and concerns on collective consciousness are also examined.

Teilhard de Chardin's concept of the noosphere is an explicit exploration of the development of a consciousness that expands beyond the individual. Concepts that underpin the noosphere, such as tangential and radial energy and centration, are explored as they offer a particular way of understanding the power of the collective. Teilhard de Chardin's description of the creation of an aircraft or a Leica in *The Activation of Energy* was a spur to my interest in this area of inquiry.

Whitehead's philosophy of organism provides a way of understanding reality that allows us to conceive of how, in any given moment, multiple data points cohere to form a whole.[14] I show how this perspective can allow us to understand the coherence of a collective consciousness. The structures of consciousness that Gebser describes highlight a way of understanding the

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[14] Whitehead, *Process and Reality.*

difference between a fused unity consciousness and a consciousness that forms a coherent whole while embracing differences within it.[15]

The philosophy of the sage Sri Aurobindo offers a conception of supermind whereby consciousness is expanded beyond the individual human.[16] These concepts are examined briefly, but in particular I highlight Aurobindo's concerns with a fused, unhealthy collective consciousness that brings into focus the need for our individual recognition of how we participate in and are affected by collective consciousness.

The group process that David Bohm developed, simply called Dialogue, provides anecdotes from an experiential setting that illuminate the process of collective consciousness.[17] His underlying theoretical perspective of the implicate and explicate orders, developed out of his ontological interpretation of quantum mechanics, leads us into exploring a variety of physics- and complexity-based theories of consciousness.[18] Bohm's observations on thought as a system are also briefly considered.[19]

Quantum theory and field theories are two theoretical bases from physics for the exploration of the phenomenon of consciousness. In particular, the work of

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[15] Gebser, *The Ever Present Origin*.

[16] Aurobindo Ghose (Sri Aurobindo), *The Future Evolution of Man.*

[17] Bohm, *On Dialogue.*

[18] Bohm and Hiley, *The Undivided Universe.*

[19] Bohm, *Thought as a System.*

the physicists David Bohm and Basil Hiley on quantum theory and their ensuing speculations on consciousness, set out towards the end of *The Undivided Universe*, are investigated. As we shall see, Bohm explicitly explores the possibility of a collective consciousness.[20] Other physics based theories of consciousness, including the Orch OR (orchestrated objective reduction) theory of the mathematician Roger Penrose and anesthesiologist Stuart Hameroff, are examined to see how they can bring insight into the phenomenon of consciousness. The Orch OR theory is based in quantum mechanics as it might operate in the neurons of the brain. Mae-Wan Ho, a biophysicist, proposes a second quantum-based theory of consciousness, based on the concept of quantum coherence.[21] This theory presents a different approach to understanding consciousness through quantum mechanics. The Orch OR theory is examined as a theory that currently is receiving wide exposure. Ho's theory is offered as an alternative.

Physics-based theories also include field theories of consciousness such as those of Johnjoe McFadden, a molecular biologist, and Susan Pockett, a neurophysiologist. McFadden and Pockett have been selected for their alternative field theories of consciousness, offering another physics-based perspective. McFadden sets out his CEMI (conscious electromagnetic information) field

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[20] Bohm and Hiley, 386.

[21] Ho, "Quantum Coherence and Conscious Experience."

theory in two papers that we will examine.[22] Pockett offers an alternative field theory based on the electromagnetic field.[23] Both of these researchers approach consciousness from the psychological definition, that of states of consciousness. The research of Steve Morris on coherence generated by the electromagnetic field of the heart is also examined as it offers another way of understanding a collective field effect. [24]

A theory that bridges physics and systems theory is that of Max Tegmark, a theoretical physicist and cosmologist. Tegmark combines systems theory, information theory, and physics in his speculation that consciousness is a state of matter, one he terms *perceptronium*.[25] His work leads us into systems and information theory where we explore the work on consciousness of Giulio Tononi and Cristof Koch,[26] which Tegmark draws from in his speculations on consciousness as a state of matter. Tononi and Koch propose a theory of consciousness based on the integration of information. Using systems theory as their base, Fritjof Capra, a physicist, and Pier Luisi Luigi, a chemist, postulate a

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[22] McFadden, "Synchronous Firing and Its Influence on the Brain's Electromagnetic Field: Evidence for an Electromagnetic Theory of Consciousness" and "The Conscious Electromagnetic Field Theory: the Hard Problem Made Easy."

[23] Pockett, "Field Theories of Consciousness."

[24] Morris, "Achieving Collective Coherence."

[25] Tegmark, "Consciousness as a State of Matter."

[26] Tononi and Koch, "Consciousness: Here, There and Everywhere?"

systems theory of life that can be extrapolated from to illuminate another view of collective consciousness.[27]

Other current theories of consciousness from the fields of sociology and neuroscience flesh out this investigation. These include the sociological studies of Karl Pribram, a neurosurgeon and psychiatrist, and Raymond Trevor Bradley, a neuropsychologist, arising from Pribram's holographic brain theory.[28] These sociological studies offer anecdotes of collective consciousness in action as well parsing out the dynamics of that process. Their studies shows how the information held by the group affects and influences the individual members.

In the fields of transpersonal and mainstream psychology I draw upon the work of Henry Reed, a Jungian analyst, on liminal space, and upon the work of Irving Janis, a psychologist, on *groupthink*. Reed's work explores the experience of shared information in dyads, identifying it as *shared consciousness*.[29] The work of Janis focuses primarily on the negative aspects of collective consciousness, identifying it as groupthink. [30] We will see that he emphasizes the pressure to conform, to be homogenous, in this form of collective consciousness. This is reminiscent of Durkheim's "Mechanical Solidarity." These works provide

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[27] Capra and Luisi, "Mind and Consciousness," in *The Systems View of Life: A Unifying Vision.*

[28] See Pribram, "Consciousness Reassessed," and Bradley and Pribram, "Communication and Stability in Social Collectives."

[29] Reed, "Close Encounters in the Liminal Zone: Experiments in Imaginal Communication Part I."

[30] Janis, *Victims of GroupThink*.

descriptions of collective consciousness as it takes shape in a variety of settings. I also briefly touch on the group therapy work of the Tavistock Institute and their insights into what they term the group "field."[31]

Emphasizing the importance of differentiation within the group field, group psychotherapists Susan Gantt and Yvonne Agazarian explore the positive aspects of collective consciousness in the therapeutic setting.[32] I present their work to illustrate how knowledge of the phenomenon of collective consciousness can be used to enhance the experience of both the individual participants in a group and the consciousness of the collective.

In the field of biology, there are two researchers whose work either expresses a metaphor or an iteration of the same or a similar phenomenon. I briefly touch the work of Bruce Lipton on the biology of belief which points to agency at the level of the molecule, cell, and organ—nested entities with agency—that combine to form more complex collectives that then can be extrapolated from to recognize consciousness in collectivities of beings. I also look at Rupert Sheldrake's work on morphic resonance. This work offers another perspective on collective consciousness that arises out of biology. We will see that the fields created by morphic resonance can be considered a form of collective consciousness at a regional or species level.

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[31] Colman and Bexton, *Group Relations Reader*.

[32] Gantt and Agazarian, "Developing the Group Mind Through Functional Subgrouping: Linking Systems-Centered Training (SCT) and Interpersonal Neurobiology."

My use of a multidisciplinary approach provides the reader with multiple perspectives from which to sense into our experience of collective consciousness. My own perspective of consciousness falls within the philosophical meaning of consciousness. While a number of the theories, at first glance, might seem to be problematic bases for understanding collective consciousness, we will see that approaching them from the philosophical meaning of consciousness or utilizing the underlying dynamics of quantum mechanics can make them useful lenses for broadening our understanding.

Through this process of examining a variety of notions of consciousness and seeing how they can elucidate our understanding of the nature of collective consciousness, how it influences us, and how we participate within it, we will heighten our sensitivity to the experience. With heightened awareness we can act within these overlapping and nested collective consciousnesses with more choice, and exert more agency in our participation.

Chapter 3:

Collective Consciousness

> Take simply the case of an aircraft, or a radio, or a Leica: and consider the physics, the chemistry and mechanics such things presuppose for their existence—the mines, laboratories, factories, arms, brains, hands . . . the familiar objects presuppose nothing less than a *complex reflective organism*, acting *per modus unius,* as a single agent. Already we see in them the work not simply of man but mankind.
>
> –Pierre Teilhard de Chardin, *Activation of Energy* [33]

> because the individual human being represents a *corpuscular magnitude* he *must* be subject to the same development of every other species of corpuscle in the World: that means that he *must* coalesce into physical relationships and groupings that belong to a higher order than his. . . . This gift or faculty of *perceiving*, without actually *seeing*, the reality and organicity of collective magnitudes is still comparatively rare
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> –Pierre Teilhard de Chardin, *The Heart of Matter* [34]

In the first quote above, Pierre Teilhard de Chardin describes how he perceives the manifestation of collective consciousness in the products that are the result of humans working in groups, as a collective. This perception corresponds with his sense of humanity's involvement in a collective consciousness that embraces humanity as a whole. Teilhard developed his theory of the noosphere to explain the development of this sphere of collective consciousness.

The second quote reveals Teilhard's perception of both the individual human's involvement in this collective consciousness and the lack of awareness that most humans have of this involvement. Teilhard's theory of the noosphere

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[33] Teilhard de Chardin, *Activation of Energy,* 37.

[34] Teilhard de Chardin, *The Heart of Matter,* 31.

provides one lens for understanding and recognizing the reality of collective consciousness.

In this chapter I take a closer look at Teilhard's concept of the noosphere and then I examine the philosophies of Sri Aurobindo, Jean Gebser, and Alfred North Whitehead to see how these support and illuminate the concept of collective consciousness. The works of these thinkers provide a variety of perspectives that can help us recognize our embeddedness in collective consciousness. While each of these perspectives fits within the philosophical notion of consciousness, each approaches consciousness from a different angle. Teilhard's conception of the noosphere is informed by his background as both a Jesuit priest and a paleontologist. As such he takes a long view of history with a Christian theological underpinning. Sri Aurobindo has a background in both Western philosophy through his schooling in England and a deep immersion in Indian thought. As such his perspective is grounded in the spirituality of Indian thought. Gebser's interest is in the structures of consciousness from an evolutionary perspective. The process philosophy of Whitehead is shaped by his mathematics background and shows in the precision of his categorical distinctions set out in *Process and Reality.* In addition, the works of Teilhard, Gebser, and Sri Aurobindo highlight the difference between an undifferentiated collective consciousness and one that embraces differentiation within it.

Pierre Teilhard de Chardin

Teilhard de Chardin develops his concept of the noosphere throughout his writings published in *The Activation of Energy*, *The Heart of Matter,* and *the*

Human Phenomenon. The noosphere is conceived of as a sphere of consciousness that envelops the earth as humans become more connected to each other through various groupings. Teilhard de Chardin's understanding of energy underpins his theory of the noosphere. According to Teilhard de Chardin, all elements of the universe consist of two types of energy. These two types of energy pervade the universe and are integral to the development of the noosphere: *tangential* energy and *radial* energy. Tangential energy is the more familiar concept of energy used in physics and is evident in the outward expression of matter. It is that which is perceivable by our five senses and what connects elements externally. Starting with the smallest particles Teilhard de Chardin perceives all matter as comprised of tangential energy and also of radial energy, the energy that gives rise to interiority and subjectivity. Radial energy is the inward expression of matter, the energy of its interiority or subjectivity. This is the energy of consciousness. Elements can connect directly through radial energy, that is, through consciousness. For Teilhard de Chardin, consciousness spans a broad spectrum from the "most rudimentary forms of interior perception conceivable to the human phenomenon of reflective consciousness."[35]

All matter is conceived of as having, at least to some small degree, both tangential and radial energy, from clearly conscious organisms down to the smallest particles of matter. As particles begin to interact to form more complex entities their energies combine and intensify. The process of the combining of

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[35] Teilhard de Chardin, *The Human Phenomenon*, 25.

radial energy is referred to as *centration*. Particles that interact with greater complexity have greater *centricity.* A subatomic particle in its simplest form has minimal radial energy. With increasing complexification, as particles combine in complex ways to form atoms, molecules, and cells on to organs, organisms, and groups of organisms, there is an increase of centration and an intensification of consciousness. Interiority goes all the way down to the first enfolding of what it is that manifests as matter in the form of particles.

Particles that combine as aggregations in less complex interactions, such as the atoms and molecules that form rocks, do not intensify their centricity or radial energy. Teilhard de Chardin describes the formation of minerals as follows:

> [Minerals] have taken a path that prematurely closes them in on themselves. By innate structure, their molecules are incapable of growing larger. To grow and expand they therefore must somehow get out of themselves and resort to a purely external subterfuge of association: sticking to one another and linking together atom to atom, without actually combining or uniting. . . . In this way regular groupings are born whose composition is often highly advanced, yet does not correspond to any properly centered unity. [36]

Elements that combine laterally, "sticking to one another . . . without actually combining," have less complexity. Their centers do not combine to form more complex elements and thereby do not increase their interiority, their centration, or their consciousness.

Particles that interact to form more complex entities are more enfolded and their radial energy combines to form a greater centricity. Atoms combine to form molecules, molecules combine to form cells, cells combine to form more

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[36] Teilhard, *Activation of Energy*, 34–35.

complex organs, and organs combine in complex ways to form organisms. At each step in this process of complexification there is a greater centricity and an intensification of radial energy, of interiority. Teilhard de Chardin makes it clear that he equates interiority with consciousness stating, "we see . . . the stuff of the universe reappearing to . . . a higher degree of interiority, that is, of consciousness." [37] All elements contain both radial and tangential energy but as elements combine in more complex ways they exude less tangential energy while increasing their radial energy. As a system complexifies it closes in upon itself and it has less surface or tangential energy and greater radial energy. There is an inverse relationship between the two energies.

The relationship between tangential and radial energy goes all the way up to the most complex and interrelated systems. Something as large as the economy, that appears to function autonomously from both the individual humans and the infrastructure that comprise it, demonstrates the relationship that Teilhard de Chardin describes between radial and tangential energy. The various "atoms" and "cells" that make up the entity can change, each being more transient than the whole, but the centrated entity of the economy continues to function. And yet the whole entity would collapse without the continued presence of multiple individual humans and infrastructure. It is the same with the atoms, molecules, and cells that form our own bodies: the individual particles within an entity can be transient. Our bodies are constantly shedding cells and forming or incorporating new ones.

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[37] Teilhard de Chardin, *The Human Phenomenon,* 49.

Yet the entity remains relatively stable along with its sense of interiority and subjectivity (its consciousness).

Returning to the quote that opens this chapter, Teilhard de Chardin views groups of humans, working together, as forming the next step in this process of complexification and intensification of consciousness. They form "nothing less than a *complex reflective organism*, acting *per modus unius,* as a single agent."[38] A group of humans can function together as a complex reflective organism. The centration that intensifies as elements relate in more complex ways can continue its intensification of interiority, of consciousness, at the level of a group of organisms. This is what constitutes the development of the noosphere.

While Teilhard de Chardin's concern was developing the concept of the noosphere as enveloping Earth through the participation of all of humanity in a collective consciousness, my concern is our ability to recognize how we participate in the consciousness of smaller collectives, of subgroupings of humans that form within the species level of participation. The subgroupings that we exist within can be nested, overlapping, or completely separate from each other, only connected through us as an individual who participates in each of them. These collectives can be our family, our work setting, or any group that we participate in up to the social structures such as nation and economy. In a footnote in *The Activation of Energy*, Teilhard de Chardin recognizes these subgroups as developing into an organism of their own:

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[38] Teilhard de Chardin, *Activation of Energy,* 37.

> It starts by two or three individuals who are inspired by the same plan meeting by chance. After that . . . the nucleus grows and the ramifications reach out further. Finally, by the mere association of pre-existing units and relationships . . . a new organism is found to have been born into the milieu of man. [39]

Because of the complexification of the relationships between the individuals, centration occurs. Humans form groups—collectives—that have complex relationships between the individual participants, with differentiation of roles and differing contributions to the whole. This complexity increases the centration, with a corresponding consciousness belonging to the collective as a whole.

The grouping of individual humans along with infrastructure into more complex systems is a stage in the development of the noosphere. Each of these systems from the very small atom of a family, through the organs of corporations and economic and political systems, to the developing and enveloping global nervous system evidenced by the spread of the internet and world wide web into a "global brain," speak to the continued centration of radial energy and interiority in ever more complex, synthesized forms. In *Activation of Energy*, Teilhard writes:

> The human "species," like any other piece of living matter, has an organic tendency to multiply itself to the maximum. However, unlike what happens in a shoal of fish or a colony of bacteria . . . this multiplication does more than simply increase the number of elements that make up the population: in addition, it produces a system of ever more closely linked and more fully centred structures in the totality of the group that is in a state of expansion.[40]

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[39] Teilhard de Chardin, *Activation of Energy,* 134–35.

[40] Teilhard de Chardin, *Activation of Energy,* 321.

As particular atoms or cells of these systems, we, individually, are not necessarily capable of seeing the "face" of the larger entity, or of understanding its actions and purposes. Our own centration, synthesizing with others in a more complex system, becomes part of a larger and deeper interiority that contributes to the noosphere.

Of deep concern to Teilhard were the current events of his day with the eruption of world wars, concern with a nationalism that created conflicts, and concern with the rise of collectivization in the form of communism that would seem to negate the sense of individuality. He had a strong sense of the difference between a collectivization that subsumed the individual and one that intensified the individuation of each participant while also intensifying its own centration. What seems to distinguish these two types of collective consciousness is whether there is a pressure towards homogeneity or whether individuation is encouraged and supported within the collective consciousness. Teilhard understood the fear of one's losing one's own individual sense within a larger collective: "When we feel the circle of the noosphere inexorably closing in on us (economically, politically, socially) we should not be afraid that we shall see our own petty personality, treasured by us, founder in a blind collectivism."[41] Instead, he writes; "True union does not fuse: it differentiates and personalizes."[42] Collective consciousness, it seems, can take one of two forms. In the first form, the individual is subsumed by

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[41] Teilhard de Chardin, *Activation of Energy*, 117.

[42] Teilhard de Chardin, *Activation of Energy*, 222.

the greater consciousness and loses his/her autonomy, giving way to 'blind collectivism'. In the second form, differentiation is reinforced and more complexity with greater centration ensues: "In a universe that is in the course of centration (provided the centration be carried out in the right way) the individual and the collectivity never cease to reinforce and complete one another."[43] This concern with an undifferentiated collective consciousness and one that embraces differentiation also appears in the works of Sri Aurobindo Ghose, Jean Gebser, and later in the work of the psychologist Irving Janis on "Groupthink."

Sri Aurobindo Ghose

The British educated Indian sage, Sri Aurobindo Ghose, similar to Teilhard, was focused on the relationship of the individual to the Absolute. He saw the existence of an Overmind and Supermind that took the form of a consciousness beyond that of the individual. He also held the negative aspects of collective consciousness as a deep concern. And like Teilhard, Aurobindo emphasizes the difference between a collective that is homogenous and one that embraces differentiation and individuality in its members.

To Aurobindo, consciousness is a fundamental quality of the universe: "the fundamental thing in existence, it is the energy, the motion, the movement of consciousness that creates the universe and all that is in it not only the macrocosm but the microcosm is nothing but consciousness arranging itself."[44] The human's

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[43] Teilhard de Chardin, *Activation of Energy*, 51.

[44] Sri Aurobindo, *The Life Divine*, 236–37.

mental processes are but one manifestation of consciousness, a form that it takes. This is a philosophical definition of consciousness rather than a psychological one. As a human individual develops his/her awareness beyond the individuated mental state he/she becomes more conscious of participation in the Absolute. Aurobindo sees this as the evolution of the individual and of society:

> The perfect society will be that which most entirely favours the perfection of the individual; the perfection of the individual will be incomplete if it does not help towards the perfect state of the social aggregate to which he belongs and eventually to that of the largest possible human aggregate, the whole of a united humanity.[45]

Aurobindo is primarily concerned with the relationship of the individual to a collective consciousness that is an ultimate unity—what he refers to as the Absolute—and of the individual mind to the supramental, which he conceives of as a higher level of integrated consciousness. He does see the collective groupings of society as an intermediary state. Aurobindo speaks directly to the issue of differentiation within a larger whole: "The law of the Supermind is unity fulfilled in diversity; unity does not imply uniformity."[46] He was deeply concerned with the difference between a merged and a differentiated collective.

Aurobindo highly valued the individual and the importance of individuation and he struggled with the tension between a merged collective mind and a collectivity that embraces its differences:

> It is wrong to demand that the individual subordinate himself to the collectivity or merge in it, because it is by its most advanced individuals

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[45] Sri Aurobindo, *The Human Cycle*, 287.

[46] Sri Aurobindo, *The Future Evolution of Man*, 99.

> that collectivity progresses. . . . But it is true that as the individual advances spiritually, he finds himself more and more united with the collectivity and the all.[47]

While Aurobindo's primary emphasis is on the development of the individual self to awareness of the greater Self, of identity with a cosmic self, he recognized and was concerned with the pressures towards a homogenous collective consciousness. Growing out of the political issues of his time and the rise of collectivist societies, he expressed concern with the dangers of a conflated collective mind: "The communal ego is idealized as the soul of the nation, the race, the community; but this is a colossal and may turn out to be a fatal error."[48] His writings express the tension between an individual ego and a communal collective ego that does not recognize the importance of differentiation and individuation. Supermind, the supramental, is a unity that is fulfilled in diversity. The individual is not submerged in undifferentiated awareness with the divine. The individual is aware of participating as part of a larger whole with others—becoming transparent to his /her connectedness to the surrounding world at various levels of wholeness. Here again, the difference between a collective consciousness that subsumes the individual participant and one that embraces the diversity within it is highlighted.

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[47] Sri Aurobindo, *The Future Evolution of Man*, ix.

[48] Sri Aurobindo, *The Future Evolution of Man*, 35.

Jean Gebser

The structures of consciousness identified by Jean Gebser in *The Ever Present Origin,* offer a different lens for examining collective consciousness as well as a way of understanding the differences between an undifferentiated collective and one that embraces diversity. Each of the five structures of consciousness that Gebser identifies is relevant to an examination of collective consciousness as the structures define the individual's relationship to the collective and the whole. While Gebser's concern lies primarily with the relationship of each structure to the others, his distinctions can also offer a lens to examine the relationship of the individual to the collective.

Gebser's five structures of consciousness are the ways in which we experience and perceive the world. In *The Ever Present Origin,* Gebser presents a highly detailed and complex exposition of each of the structures of consciousness and their relationship to each other. These structures define human consciousness in terms of its sense of differentiation not only within human groups but also with the universe as a whole. Here, we are explicitly concerned with those aspects of each structure that illuminate the relationship between individual entities and collective consciousness. The structures, particularly the archaic and the integral, highlight the difference between a merged collective and a differentiated one.

The first structure Gebser presents is the archaic, "[t]he structure closest to and presumably originally identical with origin."[49] Gebser's origin is the

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[49] Gebser, 43.

undifferentiated ground of being that both contains, and out of which, each of the structures of consciousness arises. Gebser places the archaic structure as predating written records so there is little on which to base a conception of the form this structure takes. What seems most apparent in the archaic structure is that the whole and the individual are undifferentiated. There is not a sense of self and other. Instead there is "indeed the non-distinguishibility of archaic man from world and universe—a non-awakeness by virtue of which he is still unquestionably part of the whole." [50] The archaic human consciousness is identified with, subsumed within, the universe as a whole. The individual human is immersed in a collective consciousness with no sense of distinction from others or even the world around him.

As humans move through the successive stages of consciousness there begins to be a sense of distinction between self and other that is magnified with each stage. Differentiation from the unitary whole begins to take form with the emergence of the magic structure of consciousness. Gebser describes this as the "transition from a zero-dimensional structure of identity to one-dimensional unity."[51] The human is no longer merged in identity with the whole but instead experiences a unity *with* the whole. In this structure of consciousness the human begins to experience himself as an individual, "a unity not yet able to recognize the world as a whole, but only the details (or 'points') which reach his still sleep-

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[50] Gebser, 45.

[51] Gebser, 46.

like consciousness and in turn stand for the whole."[52] The human's relationship to the world within which he is embedded begins to change. The human is becoming individualized, differentiated from the whole. With this distinction the human can, through his/her realization of differentiation from "other," begin to consciously manipulate his/her world, "Here, in these attempts to free himself from the grip and spell of nature, with which in the beginning he was still fused in unity, magic man begins the struggle for power which has not ceased since; here man becomes the maker." [53] This is the precursor to the current paradigm where humans have separated themselves so thoroughly from nature that it is viewed as a resource rather than an essential part of the same whole in which humanity participates.

Further differentiation appears with the advent of the mythical structure of consciousness. In the mythical structure the emphasis is not on the sense of individuality but on the relationship to the surrounding world. The human begins to experience a more conscious separation from nature, "the liberating struggle against nature in the magic structure brought about a disengagement from nature and an awareness of the external world."[54] With the mythical structure there arises in humans an awakening of a sense of self and other, "The awakening toward the self proceeds circuitously through the awakening toward the 'Thou'; and in the 'Thou' the entire world opens up, a previously egoless world of total

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[52] Gebser, 46.

[53] Gebser, 46.

[54] Gebser, 66.

merging." [55] Humans have become individuated enough to become aware of an internal individualized sense of being, a soul. In doing so they also become aware of the world surrounding them as differentiated, as other. The human consciousness is no longer merged with the universe.

The disengagement of the part from the whole strengthens with the emergence of the mental structure of consciousness. Humans have a sense of being distinct individuals, no longer subsumed in a merged collective. For an elucidation of the mental structure as it emerged during the height of Greek civilization, Gebser uses the example of the Greek drama: "[I]n the drama we have an *individual* who acts in contrast to a 'common psyche' and distinct from it."[56] The individual consciousness has become separated from the collective. In the Greek drama, the chorus evokes the collective consciousness as a fused, submerged, unconscious. The individual consciousness is placed in opposition to this collective unconscious furthering the separation and distinctness from the whole. The collective level of consciousness is still perceived as being undifferentiated and unconscious.

Each new structure of consciousness emerges from the one before as its effectiveness no longer serves humanity and its downsides become apparent. The distinct individuation that occurs with the mental structure of consciousness becomes a liability with humans treating the world around them as a resource

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[55] Gebser, 69.

[56] Gebser, 81.

rather than a participatory environment. Gebser sees the necessary transformation out of the mental structure to be that of an integral structure of consciousness. The integral structure is, in a sense, a reunification with the whole, a recognition of both our individuality and of the way we are embedded in and participate in a collective. Gebser's focus lies in the relationship between the different structures of consciousness. With the integral structure, all the structures of consciousness co-exist but become transparent to each other while maintaining their distinctiveness. This principle can also be applied to the relationship of the individual to the whole. While in the archaic structure the individual is merged without distinction in the collective consciousness, with the integral structure, individuals retain their uniqueness while becoming aware of their deep connection and involvement with all that is around them. Gebser calls this "diaphany," communicating a sense of the transparency between the structures of consciousness and between the self and other in the integral structure of consciousness. The archaic structure of consciousness is an undifferentiated collective consciousness. The integral structure of consciousness allows for the differentiation of the individual from the collective while recognizing the interconnection between collective and the individual.

Alfred North Whitehead

Turning to a quite different approach to understanding collective consciousness, the process philosophy of Alfred North Whitehead, which he referred to as a "philosophy of organism," is worth a brief overview. Whitehead's own understanding of consciousness falls closer to the psychological

understanding. In Whiteheads's view consciousness is explicitly consciousness of experience, self-reflective consciousness. This contrasts with my view that consciousness runs the full range from the most subtle sense of experience to full self-reflective awareness. Simple experience is not included in his conception of consciousness. Whitehead writes:

> The principle that I am adopting is that consciousness presupposes experience, and not experience consciousness. It is a special element in the subjective forms of some feelings. Thus an actual entity may, or may not, be conscious of some part of its experience. Its experience is its complete formal constitution, including its consciousness, if any.[57]

Experience can occur without consciousness. While Whitehead's conception of consciousness differs from mine, key concepts from his philosophy of organism are of interest to apply to the notion of collective consciousness in terms of how collective consciousness forms and coalesces.

Whitehead's philosophy of organism conceives of the nature of reality as interconnected processes rather than objects independent from each other. Whitehead developed a particular set of terms to describe these processes. The emphasis of this philosophy is on moments of experience that Whitehead refers to as *actual occasions* or *actual entities*. Whitehead goes into great detail to parse out his philosophy of organism in his work *Process and Reality.* It is a complex exposition that goes deeply into the nuances of this philosophy. Here the very basic notions that underlie this complex philosophy are of interest. The primary terms that I examine for the purposes of this inquiry are *actual occasion* and

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[57] Whitehead, *Process and Reality*, 53.

actual entity, *prehension*, *concrescenc*e, *nexus*, and *societies* of actual occasions or entities. Because this is a philosophy of process rather than of objects it can be difficult to identify the meaning of one term without reference to the others. The terms that Whitehead uses are specific but not always clearly defined by Whitehead. One gleans their meaning from the various contexts within which he uses the terms.

Whitehead utilizes the term actual occasion interchangeably with actual entity to refer to each moment of experience, a moment in the existence of an object, a being, or an instant of time. Actual entities are described by Whitehead as "drops of experience"[58] and as "the 'final real thing' of which the world is made."[59] Any object that we perceive, whether it is an atom, a table, another being, or any moment that we experience, or the universe as a whole, is a nexus or society *concresced* from *prehended* actual occasions. The process constitutes an actual entity.

Prehension is the process of sensing and selecting the specific past actual occasions that will be involved in a current actual occasion. *Concrescence* is the process that constitutes a new actual occasion as the result of that selection. No actual entity exists separate from the world around it: "In other words it is presupposed that no entity can be conceived in complete abstraction from the

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[58] Whitehead, 18.

[59] Whitehead, 18.

system of the universe."[60] Each moment of experience comes into being through its relationship to other actual entities, other processes that it *prehends* either positively or negatively—either they affect it or they do not—and the moment of experience itself concresces to become datum available to be prehended for another moment of experience. Any entity that we perceive or moment that we experience is comprised from, concresced from, the data available for it to prehend, from its prior moments or actual occasions. The process of prehension involves sensing: an actual occasion or entity brings itself into being through sensing and selecting from the data available to it. In Whitehead's conception this process is a non-cognitive process. It does not necessarily involve consciousness as he defines it but it does involve a form of subjective process. There are two forms of prehension: a physical one, one of prehension of other actual occasions, and a conceptual one of prehending what Whitehead terms *eternal objects.* Eternal objects are the qualities that can be selected for that are not themselves physical in character. They are similar to Platonic forms, pure potentiality that can "ingress" when selected for in the process of concrescence. Whitehead uses the term the mental pole for the conceptual form of prehension. All actual entities or occasions have both a mental pole and a physical pole.

Actual entities or occasions interact in two primary ways. They either form a nexus or a society. A society can be formed from a collection of nexūs. Both forms of interaction create entities available to be prehended by the

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[60] Whitehead, 3.

subsequent actual occasions of which they consist, to take part in the next instance of formation of themselves and as a part of the process of the whole universe. Whitehead describes a nexus as "a set of actual entities in the unity of the relatedness constituted by their prehensions of each other"[61] and "any particular fact of togetherness among actual entities is called a 'nexus.'"[62] A nexus refers to a less complex grouping of actual occasions. What we percieve as a rock is constituted by an aggregation of similar elements or actual occasions. More complex groupings of actual occasions, with hierarchal rather than lateral interactions are called *societies*, "[a society] in the sense in which that term is here used, is a nexus with a social order."[63] He later states "The point of a 'society,' as the term is here used, is that it is self-sustaining; in other words, that it is its own reason."[64] What we apprehend as organisms, with hierarchal and nested groupings of actual occasions and entities forming organs within a larger grouping, are "societies."

Actual occasions *perish*; they do not persist over time. As each perishes it becomes available to be prehended by the successive actual occasions. Societies have the possibility of temporal persistence. The actual occasions occur, concrescse, in succession while the society holds its form. Such societies are

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[61] Whitehead, 24.

[62] Whitehead, 24.

[63] Whitehead, 34.

[64] Whitehead, 89

considered enduring objects. Whitehead states that "an ordinary physical object which has temporal endurance is a society."[65] This can apply to an atom, a table, a being or a group of beings, or even a societal structure.

Entities persist through the limitations of the data, the actual occasions or entities and eternal objects, available for them to draw on. Thus the table as a nexus or a being as a society remains stable, limited to drawing from the qualities, molecules, atoms, and so on, each of which comprised of actual occasions of its own, that were present in the prior actual occasions of its existence. The process of prehension, whether it is the conceptual or physical form of prehension, involves a subjectivity. This subjectivity is the sensing, the feeling involved in the selection of data that concresce in an actual occasion or entity. Whitehead does not consider this consciousness in itself as his conception of consciousness presumes self-awareness, an awareness of experience, rather than simple raw experience. I consider the subjectivity to be involved in any concresing actual occasion a form of very basic consciousness.

This bare-bones explication of the core concepts of Whitehead's process philosophy can now be applied to understanding how any group or collective can be conceived of as being a society of actual entities or actual occasions. A collective, whether it is tribal, communal, organizational, or familial, is to a degree a self-sustaining organism. The group persists even as the individual participants change. At any given moment the collective can be considered a

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[65] Whitehead, 35.

society of actual entities or actual occasions that prehend all of the data from their prior actual occasions and concresce in the particular moment of the experience of the collective. While it remains unclear to us as individual participants whether the collective has any self-awareness beyond our own individual awarenesses, the collective acts as an organism, a self-sustaining, hierarchal society of actual occasions. As an organism, the subjectivity of prehension is involved in its concresence. Therefore the collective as a society of actual entities or occasions has at least this very basic form of consciousness. It is involved in its own creation and existence. In this way, Whitehead's philosophy of organism can illuminate the process of the formation of collective consciousness.

So far, I have not highlighted whether it has anything to say about the difference between a homogenous and a heterogenous collective consciousness. With the above presentation of process philosophy, it is possible to make the case for the difference between a collective consciousness that functions more like an aggregate with less hierarchical organization of actual occasions and one which behaves more like an organism with more complex hierarchical relationships between the actual occasions. This approach correlates with both Teilhard's and Aurobindo's concerns with the relationship of the individual with the collective.

Examining these thinkers' philosophical models of reality sets the ground for diverse ways of thinking about collective consciousness and for feeling into the difference between one that functions in a generative manner and one that quenches the differences within it. Teilhard and Aurobindo each have theoretical models of reality that recognize the interface of the individual consciousness with

a collective consciousness. They each also express their concern with the form with which the collective manifests. They see a difference between a collective that is homogenous and subsumes the individual consciousness and one that recognizes and embraces the internal differences. The structures of consciousness offered by Gebser provide another lens that highlights this differentiation. The archaic structure of consciousness is an undifferentiated collective consciousness. The integral structure of consciousness recaptures the sense of the collective while still maintaining the individuation provided in the intervening structures. The philosophy of organism proposed by Whitehead sets out a substantially different way of understanding reality, based as it is in process rather than substance. Though Whitehead's conception of consciousness differs from mine, it is possible to describe collective consciousness within the processes of his philosophy. Any group persisting over time, over successive actual occasions, can be seen as a society of hierarchically related actual occasions and nexūs.

This chapter has covered several philosophical models that offer ways of understanding collective consciousness. In the next chapter I turn to other disciplines to reveal a variety of theories of the process of consciousness and how these theories can inform our understanding of collective consciousness.

Chapter 4:

What Is Consciousness? Current Theories and Models

An understanding of collective consciousness presupposes an understanding of consciousness. In this chapter I examine theories from a variety of disciplines that give different lenses for understanding both consciousness itself and collective consciousness. I begin with an examination of the work of David Bohm and Basil Hiley on their ontological interpretation of quantum mechanics. This interpretation inspired a corresponding philosophical model of reality that Bohm used to illuminate the nature of both consciousness and collective consciousness. Following this I briefly examine the form of collective process, termed Dialogue, developed by Bohm that is grounded in this model. I then explore other physics-based theories of consciousness based in quantum and field theories along with models arising from complexity and information theories.

The Bohm/Hiley Ontological Interpretation

The physicists David Bohm and Basil Hiley present an ontological interpretation of quantum mechanics in their work, *The Undivided Universe.* They argue that conventional interpretations of quantum mechanics are epistemological interpretations that only tell us what we can and cannot know about reality and do not offer an explanation of what is actually real. The text, written largely for students of physics, offers an alternative ontological interpretation of quantum mechanics that has the same predictive rigor and success as the Copenhagen interpretation and similar conventional interpretations. As the work comprises a text for physics students, a large part of the book deals with the various equations

that constitute quantum mechanics and proposes ontological interpretations of these equations. For my purposes the most relevant part of the text is the final chapter where Bohm and Hiley speculate on what their ontological theory of quantum mechanics might have to say about the nature of consciousness.

The main body of the text presents Bohm and Hiley's ontological interpretation in the terms and equations of physics.[66] A variable, called the quantum potential, is introduced into the equations that describe quantum mechanics. This quantum potential covers the statistical probabilities presented in conventional theories. Bohm and Hiley describe the quantum potential as corresponding to a pilot wave that carries *active information* that determines the trajectory of what is observed as a particle. The pilot wave carries all the possibilities of where a particle may be observed. When a particle is actually observed, rather than there being a collapse of the wave function as is proposed in the conventional interpretations of quantum mechanics, the particle is thought to have entered into one channel of the possibilities. The other potentials become inactive and no longer inform the trajectory of the particle. The element of active information is nonlocal in nature, occurring at a different order of reality than conventional Newtonian physics. Bohm terms this order the *implicate* order and asserts this order as underpinning the explicate order of reality that we perceive through our senses and observations.

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[66] Bohm and Hiley, *The Undivided Universe.*

The notion of the implicate order (or implicate orders) was developed by Bohm in response to the fact that aspects of both the theory of relativity and quantum mechanics are not able to be placed within the absolute temporal and spatial orders that underlie Newtonian physics. In *Wholeness and the Implicate Order,* Bohm explains why he sees the necessity of perceiving a new order to understand relativity and quantum mechanics. Newtonian physics is based in a fixed order of space and time and focuses on the analysis of separate parts as the basic descriptive order. With the development of the theory of relativity, Bohm states "neither the point particles nor the quasi-rigid body can be taken as primary concepts. Rather these have to be expressed in terms of events and processes."[67] The implications of quantum mechanics go further in making a new descriptive order necessary. The four most significant features of quantum mechanics that point to a new order are as follows: the indivisibility of quantum action; the wave/particle duality; properties of matter revealed as statistical potentialities; and non-causal correlations.[68] Both the theory of relativity and these aspects of quantum mechanics point to the universe as an "undivided and unbroken whole."[69]

Bohm's term for this new descriptive order is the implicate order. The implicate order enfolds "the totality of existence . . . within each region of space

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[67] Bohm, *Wholeness and the Implicate Order*, 157.

[68] Bohm, *Wholeness and the Implicate Order*, 162–64.

[69] Bohm, *Wholeness and the Implicate Order*, 158.

(and time)."[70] Bohm finds the analogy of a hologram useful in describing what he means by this. With a hologram an image is recorded as waveforms on a photographic plate. When a laser is pointed at the plate the image reforms as a three dimensional image. What is most important in this analogy is that any small piece of the plate contains the whole image (in decreasing resolution) rather than just a part of it in the way that a normal photographic plate would. All the information is enfolded into any part of the plate. With the implicate order all existence is enfolded within each region of space and time. This contrasts with the descriptive order of classical physics where each region of space and time is distinct and separate from the others. Bohm terms the order of classical physics the *explicate* order. Bohm describes the explicate order as unfolding from the implicate order and enfolding back into it. The totality of this process is called the "holomovement."[71]

This concept of a new order underpins Bohm and Hiley's ontological interpretation of quantum mechanics.[72] In the conventional interpretation of quantum mechanics, the collapse of the wave function to a defined result is presumed to occur at the time or point of observation. In the classic double slit experiment which reveals the dual nature of quantum reality, there is a perceived distinction between the observer and the apparatus with which the experiment is

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[70] Bohm, *Wholeness and the Implicate Order*, 218.

[71] Bohm, *Wholeness and the Implicate Order*, 226.

[72] Bohm and Hiley.

conducted, both of which are thought to obey the laws of Newtonian physics, and the particle/wave duality of the observed system which operates in the quantum realm with its own non-Newtonian laws. Somewhere in this process there is deemed to be an observation that "collapses" the wave function. Yet there is no clear agreement as to where the "conscious" observation is made. Is it when the measurement is made? When the measurement is recorded? When the measuring device is read by an experimenter?

In Bohm and Hiley's interpretation there is no separation between the aspects of the experiment—the experimenter, the apparatus, and the process being observed all function as a whole and are described by one equation. [73] The observer is not separate from the particle or wave being observed. The entire experimental set-up participates in the active information pilot wave that guides the particle under observation. All of the parts of the experimental set-up form an unbroken wholeness. All of the potentials inherent in the pilot wave are aspects an underlying order of reality that they term the implicate order. The reality that we perceive with our senses and encounter through our instrumentation is an abstraction from the implicate order. Matter manifests in the explicate order, abstracted from the underlying wholeness of the implicate order.

In the closing chapter of this physics text, Bohm and Hiley inquire into what their interpretation of quantum mechanics might have to say about the nature of consciousness. They first emphasize that their ontological interpretation does

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[73] Bohm and Hiley.

not require the participation of a conscious observer as is sometimes postulated for conventional interpretations of quantum mechanics. Though consciousness is not needed to explain their ontological interpretation, they do see similarities between their description of physical reality and the nature of our conscious experience. Bohm and Hiley describe the essential feature of the implicate order with the idea "that the whole universe is in some way enfolded in everything, and that each thing is enfolded in the whole."[74] They go on to describe that "[i]t takes only a little reflection to see that a similar sort of description will apply . . . to consciousness, with its constant flow of evanescent thought, feeling, desires."[75] They describe these as being enfolded in each other, that "one thought is implicit in another."[76] Because of the similarities between the nature of consciousness and their theory of the implicate order and the nature of physical reality, they speculate that our experience of consciousness is the experience of the implicate order. For Bohm, "consciousness (which we take to include thought, feeling, desire, will, etc.) is to be comprehended in terms of the implicate order, along with reality as a whole."[77] He adds, "Of course, consciousness is more than what

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[74] Bohm and Hiley, 382.

[75] Bohm and Hiley, 382.

[76] Bohm and Hiley, 382.

[77] Bohm, *Wholeness and the Implicate Order,* 249.

has been described above. It also involves awareness, attention, perception, acts of understanding, and perhaps yet more."[78]

Bohm and Hiley see the basic experience of mind as pointing to the implicate order that is nonlocal; individual thoughts are abstractions from the implicate order that become explicate in the same way that the details of our observed physical reality are a particular case of abstraction from the implicate order into the explicate order. Both physical matter and our thoughts and experience unfold from the implicate order into the explicate order and then enfold back again. It is a constant process of enfolding and unfolding. Our experience of music is an example where we experience the flow and wholeness of the composition rather than the separate notes. We experience reality as an unbroken whole; the abstractions we perceive arise from the underlying wholeness of the implicate order.

Bohm's theory of the implicate and explicate orders arose out of his work with quantum mechanics. With this in mind and with Bohm's observations of the nature of thought and consciousness, it would seem that consciousness is intrinsic to reality and, perhaps, pervades the universe, "It is thus implied," write Bohm and Hiley, "that in some sense a rudimentary mind-like quality is present even at the level of particle physics."[79] Particularly relevant to my inquiry into the nature of collective consciousness, Bohm and Hiley go on to say:

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[78] Bohm, *Wholeness and the Implicate Order,* 251–52.

[79] Bohm and Hiley, 386.

> Through enfoldment each relatively autonomous level of mind partakes of the whole to one degree or another. Through this it partakes of all the others in its "gathering" of information. Extending this view, we see each human being similarly participates in an inseparable way in society and the planet as a whole. What may be suggested further is that such participation goes on to a greater collective mind, and perhaps ultimately to some yet more comprehensive mind in principle going indefinitely beyond even the human species as a whole.[80]

Here, Bohm and Hiley are making a case for an understanding of reality based on their interpretation of quantum physics that can describe the processes that underlie the experience of collective consciousness. Though arising from deep engagement with the physical sciences, this falls within the realm of a philosophical understanding of consciousness as it is not constrained by particular states of awareness, such as awake versus deep sleep or unconscious. Consciousness is conceived of as being present even at the finest levels of distinction of matter.

Thought as a System

In talks at Ojai, California that followed on Bohm's collaboration with Krishnamurti, Bohm took an approach that can inform the notion of collective consciousness in a slightly different way. The transcripts of these talks were published as a book entitled *Thought as a System*. The main thrust of these talks was the exploration of Bohm's perception that the ills from which the world suffers can be attributed to flaws in our process of thought. In one of the early talks he presents his reasons for describing thought as a system:

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[80] Bohm and Hiley, 386.

> [T]hought makes what is often called in modern language a system. A system means a set of connected things or parts. But the way people commonly use the word nowadays it means something all of whose parts are mutually interdependent—not only for their mutual action, but for their meaning and for their existence. A corporation is organized as a system—it has this department, that department, that department. They don't have any meaning separately; they only can function together. And also the body is a system. Society is a system in some sense. And so on.[81]

He goes on to say, "A system is constantly engaged in a process of development, change, evolution and structure changes, and so forth, although there are certain features of the system which become relatively fixed."[82] These fixed features of thought affect the way we perceive and interact with the world without our being aware of them.

What is most germane to the discussion here is the idea that thought (either as an aspect of, or equivalent to, consciousness) is a system, the effects of which persist over time and throughout societies and cultures. As such it is a consciousness that deeply affects the perception of the individual participants in the collective as well as their perceptions and experiences affecting the system of thought involved: "That system [thought] not only includes thoughts, 'felts' and feelings, but it includes the state of the body; it includes the whole of society—as thought is passing back and forth between people in a process by which thought evolved from ancient times."[83] Systems of thought can be seen to manifest at all levels of collectives, whether they are family, organizational, or local groupings.

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[81] Bohm, *Thought as a System*, 38.

[82] Bohm, *Thought as a System,* 38.

[83] Bohm, *Thought as a System*, 19.

Thought is not seen to be exclusively personal but flows between people, "thought—this whole system—is even more social and cultural than it is individual."[84] The system of thought informs the behavior of the individual participant and the individual contributes to the system of thought.

Bohm felt that it was important for people to become aware of how the system of thought subconsciously shaped their perceptions of the world around them, with negative impacts. He was concerned with the fragmentation and incoherence in the systems of thought he perceived pervading society and the present day world. The group process, termed *Dialogue,* was developed by Bohm as a way of bringing into our awareness how we are shaped by the system of thought that we are embedded in the interest of freeing ourselves from the unconscious assumptions ensconced in that system. By becoming aware of the process of thought and how it affects us we could perhaps be open to new ways of thinking.[85]

Bohm Dialogue

A dialogue group is convened on a dark and rainy evening. The convener is absorbed in her thoughts on the difficulties she and others have in accepting difference and diversity in both people and ideas. She is struck by how we tend to assert our own point of view as the correct one. Recently she has been re-reading Bohm's thoughts on dialogue and fragmentation of thought and how he proposed

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[84] Bohm, *Thought as a System*, 208

[85] Bohm, *On Dialogue*.

that Dialogue can reveal the fragmentation, that our need to assert our point of view as correct fragments thought. She experienced the impulse to give voice to these thoughts but wondered how she could phrase it in such a way that it could be heard with openness and not create a defensive response. As she sat there pondering this in silence, the conversation of the group turned to issues of difference and diversity and expanded into a long conversation of how we often talk of accepting difference and diversity while not allowing those voices at the table. It was not until afterwards that she realized that, at a slightly different level, the bulk of the conversation of the evening was in fact addressing the concern that she had been holding. The concern appeared to arise in the collective consciousness of the group without her giving it verbal expression. Then in an amusing end to the evening, one of the participants asked if she would tell the group her tale of watching the Japanese tsunami enter a branch of San Francisco Bay. The participant had heard the story the week before and had been so taken with it she wanted the convener to share it with the group. As there were only five minutes left in the session and the group seemed to have reached a point where a shift in topic was appropriate, the convener agreed to the request. When she finished telling the tale, another participant in the group said "Wow! Just as I entered the building this evening for some reason the title of the movie The Last Wave *sprang into my mind." They all laughed at the "coincidence" as the session ended.*

Bohm and Hiley's understanding of quantum theory and Bohm's perception of thought as a system underpins Bohm's development of a group

process that he termed “Dialogue.” In the introduction and above I describe seemingly coincidental occurrences in Dialogue sessions, where the unexpressed experience of one member arises as a topic of conversation for the whole group. Bohm intentionally created this method of group process as a way of tapping into the potential of the implicate order within group settings. By leaving the process as unstructured as possible and having participants consciously focus on their sensations and feelings in the moment, he felt that new thoughts and ideas could emerge through the collective consciousness. [86] The experiences and thoughts of each participant enfold back into the implicate order and then become available as experiences and thoughts elsewhere within the group where they can become explicate. Because of the wholeness and potential of the implicate order, new ways of thinking or being can arise in the group. Rather than relying on already structured thoughts, by pausing and sensing as one participates in the group process, the potential of the implicate order becomes more consciously available.

Bohm suggested that participants pay attention to the sensations and emotions arising in their body, using proprioception—the awareness of one’s physical body—as a way of feeling deeper into their experience. Bohm also felt that one could use proprioception to sense thoughts as they arose, pointing out the sensations that might precede thoughts or feelings, such as butterflies in the belly or tension in the shoulder. For Bohm, proprioception is not occurring just at the level of the individual participant, but also at the collective level: “[Dialogue]

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[86] Bohm, *On Dialogue*.

allows a display of thought and meaning that makes possible a kind of collective proprioception or immediate mirroring back of both the content of thought and the less apparent, dynamic structures that govern it."[87] In Dialogue, there is no task "beyond the interest of its participants in the unfoldment and revelation of the deeper collective meanings that may be revealed."[88] By utilizing proprioception and pausing to notice before one responds in the group setting, one becomes more aware of the collective level of group experience. As we shall see in Chapter 5, Henry Reed's workshops with dyads tap into this same level of shared experience. Bohm felt this method accessed the underlying implicate order, sensing into the holomovement, and allowing new creative ideas to emerge in the group context.

Other Physics-Based Theories

Bohm and Hiley are not the only theorists that postulate that quantum processes bear a relationship to consciousness, in their case as arising from the same underlying order. Other physicists, neuroscientists, and neurobiologists are currently investigating a variety of theories as explanations of consciousness. Two primary lines of thought underpin these theories. Quantum mechanics is one approach and field theories, which may or may not rely on quantum processes, constitute another.

In the realm of the neurosciences there are now several differing approaches to understanding consciousness and in particular its relationship to the

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[87] Bohm, Factor, and Garrett, "Dialogue: A Proposal," par. 12.

[88] Bohm, Factor, and Garrett, "Dialogue: A Proposal," par. 12.

functioning of the brain.[89] As we currently only have theories about this relationship, neuroscientists look for what they term the neural correlates of consciousness. They do not necessarily presuppose a causal relationship between the patterns they observe in the brain and consciousness but note correlations that occur between brain processes and conscious states. Most of these current theories are primarily based on psychological notions of consciousness, defining consciousness as an awake, aware state as opposed to being in a coma, under anesthesiology, or in deep sleep. There are two primary avenues of approach to theories in neuroscience. One approach is to look for quantum effects in the brain or in specific neurons that may produce or correlate with consciousness. Another approach looks at field theories that postulate a global field effect as the generator of consciousness, possibly electromagnetic in nature. Often these approaches imply a causal relationship between either the quantum or field effects and the existence of consciousness.

Quantum Theories

Sir Roger Penrose is a mathematical physicist. Stuart Hameroff is an anesthesiologist. Drawing upon their respective areas of expertise, together they have formulated a theory of consciousness called the Orch OR theory.[90] Orch OR stands for *orchestrated objective reduction* and combines Penrose's objective

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[89] Hameroff and Penrose, "Consciousness in the Universe"; Ho, "Quantum Coherence and Conscious Experience."; McFadden, "Synchronous Firing and Its Influence on the Brain's Electromagnetic Field: Evidence for an Electromagnetic Theory of Consciousness"; Pockett, "Field Theories of Consciousness."

[90] Hameroff and Penrose, "Consciousness in the Universe."

reduction theory of quantum mechanics with Hameroff's observations of the functioning of the brain in normal waking states and under anesthesiology.

As with Bohm's ontological interpretation of quantum mechanics, Penrose postulates a process that resolves the reduction of the quantum potential without necessitating the presence of an observer.[91] This theory differs from Bohm's in that Penrose uses the conventional interpretation's version of the collapse of the wave function. He proposes that this collapse can occur through gravitationally induced wave function collapse, which Penrose describes as the interaction of the process of superposition with space/time geometry. Hameroff postulates that quantum effects that occur within the microtubule structures of the neurons of the brain are the location of a biologically orchestrated objective reduction process that results in a "moment" of consciousness. Hameroff has observed that anesthetics have a direct influence on the microtubule structures in the brain. When anesthetics interfere with the normal functioning of the microtubules, unconsciousness results. Though Hameroff and Penrose postulate a form of proto-consciousness throughout the universe through quantum processes, their theory focuses primarily on the neural functioning of the brain and how it correlates to conscious or unconscious experience. As such, it is largely based on the psychological notion of consciousness.

The Penrose/Hameroff Orch OR theory does not address the question of collective consciousness directly. Because of the involvement of quantum

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[91] Bohm and Hiley; Hameroff and Penrose.

processes that are theorized to have nonlocal effects, there is the possibility by extrapolation of explaining collective phenomena with this theory.

In “Quantum Coherence and Conscious Experience” Mae-Wan Ho, a biophysicist, explores another theory of consciousness grounded in quantum mechanics which focuses on *quantum coherence* as a basis for conscious experience. As it grounds consciousness in quantum processes, it has similarities to the Orch OR theory. It differs in that it does not necessarily locate these quantum processes in a specific structure of the brain; rather it proposes consciousness as a quality of coherent quantum behavior throughout an organism.

Ho’s research has shown that organisms exhibit a liquid crystalline structure. According to Ho this liquid crystalline structure supports a body consciousness that experiences instantaneous communication through quantum coherence. This allows activities in the brain in response to stimuli to be global and simultaneous. In describing the working of this process that she proposes, Ho references the work of Bohm and Hiley:

> If quantum coherence is characteristic of the organism as conscious being, as I have argued here, then the conscious being will possess something like a macroscopic wave function. This wave function is ever evolving, entangling its environment, transforming and creating itself anew. I agree with Bohm and Hiley's ontological interpretation of quantum theory to the extent that there is no collapse of the wave function. In their model, the wave function, with quantum potential playing the role of active information to guide the trajectories of particles, simply changes after interaction to become a new one. The possibility remains that there is no resolution of the wave functions of the quantum objects after interacting. So one may remain entangled and indeed, delocalized over past experiences (i.e., in Lazlo's ambient field). Some interactions may have time scales that are extremely long, so that the wave function of

> interacting parties may take a correspondingly long time to become resolved, and large scale nonlocal connectivity may be maintained.[92]

Quantum coherence in the brain (and throughout the body) is proposed as a nonlocal process underlying our sense of global experience (binding particular sensory experiences together into one perception—the scented orange fruit on our table, for example). Ho explores the fact that memories do not seem to be located in one particular place in the brain, and therefore proposes that they must be accessed through some process of global retrieval. She makes brief mention of the possibility that information is not stored locally in the organism but accessed from a universal field that bears similarities to Bohm's "implicate order." She also notes that her research has shown examples of "collective activities that may involve phase correlations over entire populations." [93] If this is so, it offers a possible explanation of how similar thoughts and ideas can unexpectedly arise throughout the participants in a collective.

Ho does not attribute consciousness only to the brain.[94] She also feels it exists throughout the body of an organism, where body consciousness is the basis of sentience, of simple experience, placing the theory more towards a philosophical notion of consciousness than the psychological one of distinctive states of conscious and unconscious.

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[92] Ho, 4.

[93] Ho, 2.

[94] Ho.

Field Based Theories of Consciousness

Two other physics-based theories of consciousness do not draw explicitly from quantum mechanics but are set in the context of the wave-like nature of reality. Both the theory of Johnjoe McFadden and that of Susan Pockett correlate consciousness with electromagnetic fields that are generated in the brain. They are explicitly brain-based theories of consciousness in that consciousness is correlated primarily with the activity of the brain. Both of these researchers define consciousness within the parameters of a psychological notion of consciousness.

Johnjoe McFadden, a molecular biologist, sets out his CEMI (conscious electromagnetic information) field theory of consciousness in two papers.[95] McFadden takes a psychological view of consciousness, that of the state of being consciously aware of thoughts and actions, and distinguishes his notion of consciousness from a state of simple awareness. He narrowly defines consciousness as only that which can be communicated to the outside world through motor neurons. In his theory, consciousness correlates only with the electromagnetic field of the brain that directly influences motor neurons generating speech, movement, and other motor neuron activities. McFadden suggests that consciousness, as the sensation of awareness and internal experience, is generated or arises within the electromagnetic field of the brain, but

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[95] McFadden, "Synchronous Firing and Its Influence on the Brain's Electromagnetic Field: Evidence for an Electromagnetic Theory of Consciousness"; McFadden, "The Conscious Electromagnetic Field Theory: The Hard Problem Made Easy."

only in the specific instance where motor neurons can be affected and acted upon by the electromagnetic field. Using this theory, he accounts for the globally distributed operations of the brain as well as the relationship between thought and action, that is, how the mind can affect matter. McFadden does recognize the possibility of proto-awareness within electromagnetic fields that are not contained within the human brain but this is not what he considers consciousness. He explicitly denies the possibility of group mind or consciousness as he feels it cannot affect motor neurons, and therefore, by his definition, is to be considered non-conscious.

Susan Pockett, a neurophysiologist, presents a similar theory of consciousness based on electromagnetic fields.[96] Like McFadden's theory, it is primarily focused on those electromagnetic fields that are generated within the brain. Consciousness here again is considered to be the psychological notion of consciousness, that of awake states of awareness. Pockett describes the theory as highly speculative, but she considers it to be a testable theory. Pockett proposes that certain electromagnetic fields in the brain are identical with consciousness. She hypothesizes that if one can interfere with the local electromagnetic fields that she specifies as correlating with consciousness a loss of consciousness would occur. Pockett identifies a particular type of three-dimensional electromagnetic field that is generated in the brain as correlating with awareness. She is definitive in saying that consciousness is only a local phenomenon and does not penetrate

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[96] Pockett, "Field Theories of Consciousness."

beyond the brain. There is no transpersonal aspect to her theory. She does postulate the possibility of consciousness in non-living entities if they can generate the same kind of particular local three-dimensional field she theorizes as the seat of consciousness in the human brain. Because fields can contain nonlocal effects it is possible to extrapolate the idea of electromagnetic fields contributing to collective consciousness, though fields from the brain are not measured far beyond the individual body.

Theories developed and researched by the HeartMath Institute speculate that there is communication and resonance between the electromagnetic fields of the heart amongst individuals and in groups.[97] These theories are not theories of consciousness per se but focus on the communication and resonance that can occur between individuals in dyads and in groups.

Steven Morris, a corporate coach working in Singapore, using HeartMath's methodologies of measuring heart rate variability and coherence, conducted a statistical research experiment exploring whether coherence is generated amongst individual participants' heart rates in a group setting.[98] In his experiment, trained practitioners of HeartMath's heart rate variability coherence technique practiced in the presence of nontrained subjects to see if they could influence the nontrained subjects' experience. When trained subjects just focused on their own heart rate while non-trained subjects attempted to bring their hearts

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[97] McCraty, *Science of the Heart.* Vol 2.

[98] Morris, "Achieving Collective Coherence."

into coherence there was a significant effect compared to the control groups. The effect was less significant if the trained subject intentionally tried to affect coherence in the untrained subject. The study showed that the heart rates of the group members present appeared to affect each other in several different configurations—with more or less synchronized coherence occurring depending on the configuration of focus and attention. The researcher assumes that this coherence is occurring through some sort of field effect. HeartMath's research finds the electromagnetic field of the heart is more expansive than the electromagnetic field of the brain. Therefore they attribute the coherence generated in individual participants to a field effect generated by the electromagnetic field of the heart. [99] This experiment appears to demonstrate a field effect that can create a form of coherence in dyads or in groups that might be relevant to understanding notions of collective consciousness.

Systems and Information Theories of Consciousness

A physics-based theory that incorporates systems and information theory is the speculation of Max Tegmark that consciousness is a state of matter in the same way as are solids, liquids and gases.[100] Max Tegmark is a theoretical physicist and cosmologist. Though he grounds his theory in physics, Tegmark also brings in systems theory and information theories of consciousness.

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[99] McCraty.

[100] Tegmark, "Consciousness as a State of Matter."

Tegmark proposes a state of matter that he terms *perceptronium*. He considers this state to be a state of matter that has information processing abilities. He postulates five principles that distinguish perceptronium from other states of matter. If perceptronium is a state of matter, these principles would then have the potential to identify conscious entities. These five principles are information, integration, independence, dynamics, and utility. The theory combines the physics of matter with integrated information theories of consciousness, such as the theory of Giulio Tononi and Cristof Koch, which I will explore next.[101] Tegmark proposes that consciousness is the way that information feels when it is processed in particular complex ways.[102] While the physics underlying this theory are beyond the reach of this investigation to explore, Tegmark's work is important as it draws together systems theories of integrated information with the quantum processes explored by physics, to create a theory with explanatory potential for the perceptions of conscious observers in the universe. If integrated information can be processed amongst seemingly individual entities, Tegmark's theory may have potential to explain collective consciousness effects. Though the theory refers to consciousness as a state, this is a state of matter which contains dynamic processes, rather than a particular state of being consciously aware. It provides a process as a context for the contents of consciousness. As such, it falls within the philosophical notion of consciousness.

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[101] Tononi and Koch, "Consciousness: Here, There and Everywhere?"

[102] Tegmark.

Tegmark draws from Giulio Tononi and Cristof Koch's Integrated Information Theory (ITT) of consciousness.[103] This integrated information theory postulates that the more that information is integrated in a system the more intense the level of conscious experience of that system. Though the theory speculates that consciousness might be ubiquitous in the universe, it also supports the notion of nonconscious entities. Tononi and Koch postulate that consciousness is a fundamental property of physical systems that have particular causal properties. They predict that consciousness can be graded, and that biological organisms and some simple systems will have consciousness. Aggregates, which do not have complex internal relationships, would not have consciousness. Interestingly, they specifically identify groups of individual humans as aggregates and therefore negate the idea of collective consciousness.

There are five key axioms of ITT: consciousness exists; consciousness is structured; consciousness is specific; consciousness is unified; and consciousness is definite. Consciousness is defined as subjective experience that exists as a unified whole. Though Tononi and Koch view subsystems of a larger system as having the potential for experience of consciousness, in their view if the larger system is an integrated system (say a human who is made up of organs) the consciousness of the larger system subsumes the consciousness of the subsystems and that they do not have individual experience. As individual participants in a

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[103] Tononi and Koch.

larger collective maintain their own sense of consciousness, collectives are not perceived to have a consciousness of their own.

In a slightly different approach, Fritjof Capra and Pier Luigi Luisi examine systems theory for what it can illuminate about the emergence of life and consciousness in the universe. In *The Systems View of Life,* Capra and Luisi make a case for life as an emergent property of ever more complex systems as those systems develop autopoiesis, the ability to sustain the system from within by selecting and utilizing what it needs from its environment. They examine the role of consciousness as part of their exploration of life emerging as a quality of systems. In the chapter on "Mind and Consciousness,"[104] Capra and Luisi make a distinction between cognition and consciousness. Cognition is the term used for the process of knowing, that is, a system's relationship and interactions with its environment. Consciousness is the term that Capra and Luisi utilize for self-reflective awareness, the awareness that one is aware. It is attributed only to more complex living systems that have a brain and a more complex nervous system. Consciousness is considered to be an emergent property of more complex cognitive systems. In neither of these definitions, that of cognition and that of consciousness, is there a term for the simple sense of experience or awareness contained in the philosophical notion of consciousness. Though the authors view life and consciousness as emergent properties of evermore complex systems, the strong link Capra and Luisi make between their usage of the term consciousness

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[104] Capra and Luisi, "Mind and Consciousness," in *The Systems View of Life: A Unifying Vision,* 252–74.

and a physical brain and nervous system would seem to preclude the extrapolation of the idea of consciousness to a collective beyond the individual being.

Interestingly, Capra and Luisi do reference Gregory Bateson's definition of "mental process" or "mind" as a characteristic of all living systems. They make note of the fact that Bateson extends the idea of mind as being manifest in living systems to larger systems such as social systems and ecosystems.[105] Depending on how one defines mind and its relationship to one's definition of consciousness, if mind is a quality or property that intensifies as systems become more complex, then one can extend the notion of mind to collectives at multiple levels of organization.

Conclusion

As we have seen, along with a variety of notions of what constitutes consciousness, there are varying theories as to how consciousness arises and what processes underlie it. Depending on both the definition of consciousness and how the underlying processes are perceived, these theories can either support or negate the notion of a collective consciousness. While some of the theorists themselves deny the possibility of a collective consciousness, it is possible that a differing concept of consciousness allows their theories to illuminate the process. In the next chapter I examine a few of these ideas more closely and introduce insights and theories from biology, mainstream psychology, transpersonal psychology,

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[105] Capra and Luisi, 253.

and sociology that can help us understand our involvement in collective consciousness.

Chapter 5:

What Do Other Disciplines Have to Say?

Following on the exploration of theories from physics and systems theory, I take a brief foray into the field of biology. I have not explored biology at large for its perspective on consciousness, either individual or collective, as I have very little exposure or grounding in this field. In my researches I have come across two approaches that have relevance to this inquiry. The first is the work of Bruce Lipton on the working of the cells of organisms as set out in *The Biology of Belief.* The second is the work of Rupert Sheldrake on morphic fields and the way species transmit information amongst members. From biology I move on to the social sciences and psychology to examine some of their offerings on understanding collective consciousness.

Collective Consciousness in Biology

Bruce Lipton's work is relevant as it grounds the analogy used earlier in this inquiry, that of the progression of molecule to cell, cell to organ, organ to organism, individual to collective, in the understanding of how cells work individually and collectively.[106] Lipton's thinking provides a useful way of understanding collective consciousness in that he takes the understanding of the collective in the opposite direction. Rather than moving from the individual organism to collectives of organisms, he delves into the components of the individual organism. He reveals how as you move from organism to organs to

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[106] Lipton, *The Biology of Belief.*

cells and then to the molecules that make up the organs, you find collectives that function at different levels of scale, with their own awareness and "intelligence," combining to form greater wholes as you move back up through the scales. With the individual human as the starting point we can move either way through levels of combination and see the functioning of collective consciousness. Lipton in a sense is proposing that we, as individual human beings, are in fact a collective consciousness.

Instead of looking at an individual human's role in groupings of humans, Lipton looks at the functioning of individual cells and collectives of cells that comprise the organs that are integrated into a living being. He perceives each cell as having a form of awareness that allows it to function in a symbiotic way with its environment—whether it be the external environment of the individual being or the being's internal environment. In *The Biology of Belief*, Lipton writes: "It is a single cell's 'awareness' of the environment, not its genes, that sets into motion the mechanisms of life."[107] This 'awareness' of the individual cell, its ability to sense its environment and interact with it, taking in and excreting what it needs to maintain itself signals the presence of consciousness. He goes on to say "that the better we understand single cells the better we can understand the community of cells that comprises each human body."[108] Lipton describes the human body in terms of the individually aware cells that together create the body's form, as "a

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[107] Lipton, loc. 146 of 3391.

[108] Lipton, loc. 149 of 3391.

cooperative community of approximately fifty trillion single-celled citizens."[109] He goes on to say "almost all of the cells that make up your body are amoeba-like, individual organisms that have evolved a cooperative strategy for their mutual survival. . . . Reduced to basic terms, human beings are simply the consequence of 'collective amoebic-consciousness.'"[110] Collective amoebic consciousness takes form from individual cells and "each cell is an intelligent being that can survive on its own."[111] In his recognition of cells as individual agents that come together as collectives, with a collective consciousness, Lipton also recognizes the importance of differentiation within the collective: "Over time, this pattern of differentiation, i.e., the distribution of the workload among the members of the community, became embedded in the genes of every cell in the community, significantly increasing the organism's efficiency and its ability to survive." [112] And as with collectives that comprise individual humans but maintain their form, such as organizations, corporations, and societal structures, the individual cells change and are replaced over time while the larger form remains essentially the same. Lipton describes individual beings as "tightly knit multicellular communities, organizations we recognize as animals and plants."[113]

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[109] Lipton, loc. 346 of 3391.

[110] Lipton, loc. 347 of 3391.

[111] Lipton, loc. 518 of 3391.

[112] Lipton, loc. 557 of 3391.

[113] Lipton, loc. 1854 of 3391.

While the primary focus of my work is how individual humans form and relate to the collective consciousness of groups of humans, the work of Lipton reveals the formation of "collective amoebic consciousness" from the community of intelligent individual beings, the cells that comprise our bodies. His work points to the phenomenon of collective consciousness at a different scale.

Rupert Sheldrake, another biologist, offers a theory of transmission of information that has bearing on understanding collective consciousness.[114] One of Sheldrake's primary interests in proposing his theory has to do with the transmission of learning and knowledge in biological organisms, across both time and space. He hypothesizes that species expand their learning and knowledge, not just by genetic programming and being taught by others, but through a field effect that creates a collective information field accessible by each individual of any given species. The ability to learn new tasks spreads through a species via this collective field. Once one individual learns a new behavior it spreads through the local group. Sheldrake claims that others of the species learn this behavior more quickly even when not in physical or temporal contact with the original group. Sheldrake terms this field the *morphic field* and proposes learning is transmitted through any given group or species by *morphic resonance*.

Sheldrake starts from the concept of morphogenetic fields which in biology involves the idea that there are fields that shape and develop each type of organism: "each kind of cell, tissue, organ, and organism has its own kind of field.

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[114] Sheldrake, *The Presence of the Past.*

These fields shape and organize developing microorganisms, plants, and animals and stabilize the forms of adult organisms."[115] He then hypothesizes the concept of *formative causation*, i.e. that the structure of the field is dependent on the "actual forms of previous similar organisms."[116] The organism takes its form through a morphogenetic field from those members of its species that have preceded it. This takes place through morphic resonance that taps into the collective memory of the species. Sheldrake moves from the idea of a morphogenetic field that contains organizing information about the form of an organism to a morphic field which is more general as it also contains organizing fields for behavioral, cultural, and mental activity. And, as with my understanding of collective consciousness, the individual organism is both shaped by and adds to the morphic field: "Human social and cultural patterns depend on formative causation and are sustained by morphic resonance."[117] Formative causation is this exchange of information that goes both ways between the individual and the collective field.

There is an interesting correlation between the ideas of Sheldrake and those presented in Whitehead's process philosophy. Sheldrake refers to all organisms as "structures of activity."[118] They take their form from and contribute

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[115] Sheldrake, 120.

[116] Sheldrake, 120.

[117] Sheldrake, 293.

[118] Sheldrake 121.

to the morphic field of their species. This has similarities to the notion that at each moment in time an organism is a nexus or society of actual occasions that prehends the data available to it to reconstitute itself, to concresce, and in the next moment, the organism itself contributes to the data available.[119] Organisms access the morphic field, which defines the qualities available to the organism. They also add to the morphic field by virtue of their experience.

Sheldrake sees these morphic fields as providing a context for social and cultural groupings that create a collective memory or consciousness: "the organizing fields of animal and human behavior, of social and cultural systems, and of mental activity can all be regarded as morphic fields that contain an inherent memory."[120] While Sheldrake does not specifically utilize the term collective consciousness, he recognizes the application of his theory of morphic resonance and causative formation to the collective. One of the chapters of *The Presence of the Past* is entitled "The Fields of Human Societies and Cultures,"[121] which contains subheadings such as "Human Societies as Organisms"[122] and "Group Mind."[123] In the latter chapter he expands the reach of morphic fields to social and cultural collectives of humans:

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[119] Whitehead.

[120] Sheldrake, 125.

[121] Sheldrake, 274.

[122] Sheldrake, 294.

[123] Sheldrake, 301.

> From the point of view of the hypothesis of formative causation, such social entities are organized by morphic fields. As in the case of other organized systems at all levels of complexity, from molecules to ecosystems, social fields are nested in hierarchies of fields within fields.[124]

These morphic fields can be considered the basis for the collective consciousness of any organized system.

Sheldrake references the work of William McDougall, a psychologist with a particular interest in social psychology. McDougall wrote a book about collective mind in the early twentieth century entitled *The Group Mind.* In it, McDougall writes:

> a society, when it enjoys a long life and becomes highly organised, acquires a structure and qualities which are largely independent of the qualities of the individuals who enter into its composition and take part for a brief time in its life. It becomes an organised system of forces which has a life of its own, tendencies of its own, a power of moulding all its component individuals, and a power of perpetuating itself as a self-identical system, subject only to slow and gradual change. [125]

Here again, we see social structures as having the qualities of an organism. He goes on to say "We may fairly define a mind as an organised system of mental or purposive forces; and, in the sense so defined, every highly organised human society may properly be said to possess a collective mind" [126] McDougall differentiates between collective mind and collective consciousness. McDougall does discuss the concept of collective consciousness specifically in the second

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[124] Sheldrake, 295.

[125] McDougall, *The Group Mind*, loc. 365 of 6510.

[126] McDougall, loc. 375. of 6510.

chapter of *The Group Mind.* He appears to conceive of collective consciousness as being distinct from group mind in that the former is conceived of as something unitary, which in some way exists independently of its component parts. He refers to French and German writers of his time as describing collective consciousness as: "the consciousnesses of individuals are not wholly shut off from one another, but may co-operate in the genesis of, or share in the being of, a more comprehensive consciousness that exists beside and in addition to them."[127] He feels this is different from the collective mind and that the question of how the individual consciousness relates to a collective consciousness is unprovable at the time which he wrote:

> For it may be confidently asserted that up to the present time no such evidence of a "collective consciousness" has been brought forward, and that there is no possibility of any such evidence being obtained before the principles of social psychology have been applied far more thoroughly than has yet been done to the explanation of the course of history. [128]

While McDougall differentiates between collective mind and collective consciousness, the quality of collective mind as "an organized system of forces which have a life of its own" that McDougall describes bears similarity to my conception of collective consciousness.

Collective Consciousness in Sociology

Social psychologists, social scientists, and both mainstream and transpersonal psychologists have studied group behavior and collective

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[127] McDougall, loc. 757–58 of 6510.

[128] McDougall, loc. 922–25 of 6510.

consciousness from multiple perspectives. The following researches and speculations focus directly on dyads or collectives. With these, it is less clear whether the notions of consciousness involved fall under the category of philosophical or psychological consciousness. The group field effect would probably fall within the philosophical notion as it does not tend to specify specific states of awareness but rather focuses on the context of awareness.

Karl Pribram, a neurophysiologist, teamed up with Raymond Trevor Bradley, a sociologist, to study social collectives.[129] Pribram developed his own theory of consciousness from his work as a neurophysiologist.[130] For Pribram, consciousness is understood psychologically, in that he distinguishes consciousness as comprising those processes that arise to the level of self-conscious awareness, as opposed to subconscious habitual behavior. Pribram also notes that the term *consciousness*, with its prefix of "con," has the meaning of knowing together. In his theory, "mind stuff" and "matter stuff" are differing aspects of an underlying order. Pribram acknowledges the similarity of his theory to that of Bohm's implicate order though he uses a different term for this order. Similar to Bohm, he posits an underlying order to the reality that we perceive that actualizes as "in-formation" (knowledge, communication, mind-stuff) and "ex-formation" (the material world in space/time). His term for this order is "flux," which he describes as spectral density that can apply to either matter or

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[129] Bradley and Pribram, "Communication and Stability in Social Collectives."

[130] Pribram, "Consciousness Reassessed."

information. Flux underlies and transcends our normal perceived space/time as pre-space/time. Pribram considers flux to have holographic qualities and the process of in-formation and ex-formation from flux is equivalent to Bohm's holomovement, which describes the relationship between the implicate order and the manifestations of the explicate order.

Consciousness is primary for Pribram, as all knowing begins with experience that is then accessible to monitoring and to transmission to others. The "knowing together" aspect of consciousness comprises both the relationship between our selves and the biological and physical world and our relationships to each other. It is through consciousness that we relate to each other and to the biological and physical universe. Pribram emphasizes the "knowing together" aspect of consciousness and considers consciousness to be pervasive.[131] Conscious experience is embedded in a larger consciousness that encompasses "knowing together." While Pribram's definition of consciousness is specifically that of self-conscious awareness, both the concept of a larger consciousness and the concept of flux lend a philosophical approach to consciousness in his theory. As such, Pribram's theory has the potential for also illuminating the processes of social collectives.

Working with Raymond Trevor Bradley, Pribram applied his notion of flux to the investigation of communication and stability in social collectives. Pribram and Bradley identified flux as one of two particular processes which, in

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[131] Pribram.

relationship to each other, correlate with either stability or instability in social collectives.[132] The first is the aforementioned process of *flux*, the distribution of energy and spectral density within a collective, and the other is the process of *control*, the spatial and temporal constraints on the individuals that make up the social collective. The relationship between these two processes creates a field that affects the flow of information within a collective. Through a longitudinal study of communes as social collectives, Pribram and Bradley found that when there is a low level of flux (the distribution of energy) and a low level of control (constraints) a social collective tends to dissipate. A high level of both flux and control correlates with a more dramatic collapse of the collective. In between the two extremes, a collective can have a variety of degrees of flux and control, which in inverse relationship allow for either stability or innovation in the collective. Either of these states (stability or innovation) will contribute to the collective's ongoing survival. The results of this research have similarities to systems theory where a system functions optimally at the boundary between order and chaos. Control provides the constraints for stasis and flux provides the energy that is either constrained (stasis) or not constrained (chaotic).

Taking the above research further, in a study of "Love, Power, Brain, Mind, and Agency," Bradley goes on to make a case for the existence of a holographic field effect for information flow within a social system.[133] This field

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[132] Bradley and Pribram.

[133] Bradley, "Love, Power, Brain, Mind, and Agency," in *The Great Adventure: Toward a Fully Human Theory of Evolution.*

effect is based on the relationship between affective (love) relationships and power (hierarchical) relationships. Bradley terms this a *socioaffective field*. This study is built on Pribram and Bradley's earlier research on flux and control in a collective.[134] It examines how the information flow, efficiency, and stability of a social system seem to be determined by the interaction of the two complementary aspects of affective and power relationships as a field effect. This field effect creates a larger whole that embraces the individual participants who make up a social collective. The conception of this field effect is grounded within both the classical concept of holography where the information that has the potential to create the whole is encoded through out the field, and the quantum holographic concepts of information theory. Affective and power relationships create a field which encodes those relationships and distributes them throughout the system. Each participant contributes to and is constrained by the larger whole through the field effect. Each participant shares in the information and dynamics of the collective consciousness of the social system.

Collective Consciousness in Psychology

As noted at the start of this investigation, the work of Jung was an early inspiration to my journey into the exploration of collective consciousness. His concept of a collective unconscious intrigued me. With this investigation I discovered his concern with mass-mindedness and mob psychology. Therefore it

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[134] Bradley and Pribram.

is interesting to take a brief look at his work on the importance of individuation and its relation to a homogenous or a heterogeneous collective consciousness.

In letters exchanged with Hans A. Illing, Jung expressed both the negative and positive sides of being immersed in a group consciousness. On the negative side he writes: "Young people in a group get up to tricks they would never do by themselves."[135] But he also notes that there can be a positive side to this immersion noting that in the setting of war; "compulsion neuroses among soldiers vanished overnight as a result of group activity."[136] Both of these examples highlight the heightened suggestibility that can result from participating in a group consciousness. At a larger social scale he saw this heightened suggestibility resulting in vulnerability to despotic authoritarians, as with Nazism. He further writes in this letter: "a State composed of nothing but sheep is never anything other than a herd of sheep, even though it is led by a shepherd with a vicious dog." [137] So while he perceived a positive quality to this immersion he felt the goal of the individual should be individuation, becoming aware of the influence of the collective unconscious and bringing its shadow aspects into awareness. This allows the individual to participate in the collective while maintaining his/her own individuality and not being one of "a herd of sheep."

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[135] Jung, *Letters,* 218.

[136] Jung, *Letters,* 218.

[137] Jung, *Letters*, 220.

Jung utilizes the term *consciousness* in the psychological sense, referring to that which we are conscious of, as opposed to the psychic contents that affect us yet are not at the forefront of our awareness:

> By consciousness I understand the relation of psychic contents to the ego in so far as this relation is perceived as such by the ego. Relations to the ego that are not perceived as such are *unconscious.* Consciousness is the function or activity which maintains the relation of psychic contents to the ego.[138]

His use of the term *psyche* is closer to my conception of consciousness in that it encompasses the totality of psychic contents including those that lie in the unconscious, rather than just that of which we are consciously aware.

The *collective unconscious* is constituted of the psychic contents or processes that belong to societies and to humankind in general, but, "are not related to the ego in any perceptible way."[139] These are comprised of "the mythological associations, the motifs and images that can spring up anew any time anywhere, independently of historical tradition or migration."[140]

Jung perceived individuals as being embedded in a collective psychology and individuation as the process by which the individual develops a distinct personality, differentiating themselves from the collective. At the same time Jung sees the existence of the individual as "presupposing a collective relationship."[141]

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[138] Jung, *Psychological Types*, 421.

[139] Jung, *Psychological Types,* 484.

[140] Jung, *Psychological Types*, 484.

[141] Jung, *Psychological Types,* 448.

As a result, "the process of individuation must lead to more intense and broader collective relationships."[142] Here again, we can see the two different ways of participating in collective consciousness: one where we have not individuated into a differentiated personality from the collective, participating in group behavior or mass-mindedness without awareness and one where we have developed our own personality that leads to "more intense and broader collective relationships." Jung viewed analysis as a primary method for supporting the process of individuation.

The work of Henry Reed, a Jungian analyst, brings the focus back to the experience of shared consciousness, bringing it out of unconscious experience into conscious awareness.[143] Stemming from his work in the therapeutic setting, Reed developed a workshop that highlights the kind of inter-subjective sharing that Reed himself experienced in his relationship with his therapeutic clients. In the workshop, participants, sitting in pairs, first mirrored each other's hand movements to create a sense of connection and focus between them. Then, with their eyes closed, they sat quietly facing each other for five minutes focusing on their own internal experience. Reed instructed participants to pay attention both to any sensations in their bodies and to the thoughts and images that were arising in their minds. After five minutes of silence the participants opened their eyes and then shared their experiences with each other. Often they found that their minds had created very similar imaginal scenes, such as playing on a playground, even if

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[142] Jung, *Psychological Types*, 448.

[143] Reed, "Close Encounters in the Liminal Zone."

the details were somewhat different. Others found they experienced sensations in their bodies that turned out to be in areas where the partnering participant had some disturbance in their health. Reed describes the space between the participants as the *liminal zone*, a space that "belongs to neither one of the parties individually but to them both."[144] The methods used in this workshop bring attention to the degree that we share experience. Reed describes this as a state of merger and notes that we always exist in this state, though we normally do not bring our attention to it. His workshop demonstrates that by sitting in a space of quiet and simply noting what is going on in our minds and bodies we can become aware of our immersion in shared experience and shared consciousness. This study offers an explanation of how collective consciousness forms in a group through shared information. It also supports Bohm's emphasis on proprioception (paying attention to one's internal sensations) in the process of Dialogue groups. In emphasizing proprioception, Bohm was attempting to make the field effect of shared or collective consciousness explicate, bringing it more to the forefront of one's awareness.[145] The liminal zone contributes to collective consciousness, whether it is at the forefront of our awareness or not.

Shared consciousness has also been explored in the work stemming from group therapy, notably in work coming out of the Tavistock Institute in Great Britain. Group therapy at the Tavistock Institute was developed after World War

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[144] Reed, 82.

[145] Bohm, *On Dialogue.*

II as a result of the great number of soldiers returning from the war with difficulties re-immersing in normal society.[146] This resulted in the development of Tavistock self-study groups as the Institute worked to increase its understanding of group behavior. In their study of group behavior, psychologists and psychiatrists, working with the Tavistock group self-study method, became aware of the degree that participants were drawn into a group field, seeming to merge with others and no longer maintaining their own distinctiveness or agency. Individual participants fit into roles that played out dynamics at the group level. In groups charged with specific tasks these dynamics interfered with the process of getting the task accomplished.[147]

Wilfred Bion, one of the early members of the Tavistock Institute, identified two types of groups: the basic assumption or sentient group and the work group. Any given group might be on a continuum between the two types. The basic assumption group would be a collective that is unconsciously pressuring participants into roles, where participants "find themselves caught up in 'emotional drives of obscure origin'"[148] These drives of 'obscure origin' are what Bohmian Dialogue groups and the development of perception through recognition of the liminal zone in Reed's work strive to bring into awareness. A work group is defined as a group that comes together to perform a task, where the

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[146] Trist, "Preface" in *The Socio-Psychological Perspective.*

[147] Colman and Bexton, *Group Relations Reader.*

[148] Colman and Bexton, 35.

members "cooperate as separate and discrete individuals."[149] This distinction recognizes the difference between a merged collective consciousness that exerts pressures towards homogeneity, and one where distinctions are valued and encouraged. While Bion felt that true work groups were rare, he saw the importance of recognizing our immersion in collective consciousness in an effort to have more individual agency within the collective field.

Tavistock self-study groups were designed to study their own dynamics as they occurred in order to bring into awareness the processes that drive the group behavior. By becoming conscious of these dynamics, the individual participant can exert more agency within the group process, rather than being unconsciously driven by the group field. This group field effect was recognized and the importance of individuating from the group field was explored in the various papers published in the first edition of *The Group Relations Reader.*[150] The emphasis of this work was on the negative aspects of the subconscious pressures exerted by the collective field on the individual participant, causing them to behave in ways that they might not outside of the group setting. With this in mind, the importance of individuation from the group field through the process of recognizing how the field effect was manifesting in the individual participants became one of the goals of Tavistock self-study groups.

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[149] Colman and Bexton, 23.

[150] Colman and Bexton, 23.

Drawing from my own experience, a recent situation at an institute related to a faculty member claiming discrimination exemplifies the implicit pressures to conformity that can arise in collective consciousness. Several students of the faculty member composed a letter of support for her position that was posted on social media. In that letter they wrote "the students" of the faculty member and then stated a position. I think that it is important to pay attention to phrasing—always—but especially when the issue is around accepting and acknowledging diverse voices. The implication in the phrase "the students" is that all the students in this group are on the same page. As a former student in a cohort program, I know that this is probably not the case, though differing voices might not be as vociferous as those that are making the statement. It would make for a more accurate statement to say "some students of" as opposed to "the students." When this kind of generalized claim is made, those who do hold differing opinions are turned away by the claim. This is an example of a collective consciousness that exerts pressure toward homogeneity and shuts out diversity.

My research into collective consciousness has heightened my awareness of the above phenomenon and its inherent unhealthiness. This kind of subtle (or not so subtle) unacknowledged pressure for conformity makes for a less flexible and less generative collective consciousness.

The pressure towards undifferentiated unity created by a group field effect, and its consequences, is explored in the political science realm by the Yale psychologist, Irving Janis. In his work, *The Victims of Groupthink,* Janis takes a close look at the group dynamics at play in small groups of highly placed

individuals tasked with making government policy decisions that had major consequences. He examines the dynamics of each of these small groups in light of decisions that led to such fiascos as Pearl Harbor, Bay of Pigs, and the escalation of the Vietnam War. Janis speculates on why intelligent, thoughtful men made such disastrous decisions, and postulates a kind of group mind pressure that allowed the players to ignore and block out warning signals, their own qualms, and differing opinions. One can read his descriptions of the dynamics of these insulated groups as a powerful field effect coming into play. Of note is the pressure for cohesiveness in group decisions that resulted in fiascos—the pressure for unity without consideration of differing viewpoints.

For contrast, Janis examines cases where small groups of high level decision-makers made effective decisions that avoided potential fiascos, such as the Cuban missile crisis and the Marshall plan.[151] In these cases he observes that there was less pressure for conformity in the group and differing points of view were encouraged and explored by the group. While still functioning as a coherent group, individual and differing contributions were recognized and valued. These groups that did not succumb to the pressure of undifferentiated unity led to more positive outcomes to difficult political challenges. In the terms used by the Tavistock Institute, the groups that were "victims of groupthink" behaved as basic assumption groups, responding to unacknowledged "emotional drives of obscure

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[151] Janis, *Victims of GroupThink.*

origin." [152] Those groups that recognized the importance of embracing internal diversity had more successful outcomes to their decision-making, functioning as a work group, and cooperating as separate and discrete individuals. In such groups the collective consciousness benefits from the differentiation and diversity within the group.

Both the work of the Tavistock Institute and the work of Janis return to the concerns of Durkheim, which were briefly explored in Chapter 1.[153] The basic assumption group with its emotional drives of obscure origin impacting the members and the groupthink of decision-makers involved in exacerbating fiascos bear echoes of mechanical solidarity. The work group of the Tavistock Institute and Janis's examples of effective decision-making groups have the markings of organic solidarity, where individuation is valued within the collective consciousness.

Building on the notion of the importance of distinction within the group field for effective group functioning and process, group psychotherapists Susan Gantt and Yvonne Agazarian have created a group therapeutic process that they feel both develops and takes advantage of the more positive aspects of group-mind in the therapeutic setting.[154] They describe a particular process, utilized in their group therapy practice, of breaking a larger group down into smaller

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[152] Janis; Colman and Bexton, 35.

[153] Colman and Bexton; Janis.

[154] Gantt and Agazarian, "Developing the Group Mind Through Functional Subgrouping."

subgroups to explore the dynamics that are occurring in the group. Dynamics, such as scapegoating or emphasizing one member as a "patient" and others as "helpers," are identified. The subgroups are formed by patients according to the dynamic with which they feel most closely aligned. The particular dynamic is then explored in more depth with others of like mind. The process is that of first differentiating the various experiences in the group, creating smaller homogenous groups, and then reintegrating the larger group with the similarities and differences acknowledged and explored. Rather than allowing the dynamics of the group to create a group mind at a subconscious level, and having the group impacted by the "emotional drives of obscure origin," the dynamics and experiences of the group members are brought explicitly into awareness. They are examined first in the subgroups of like minds where the participants can explore sameness and homogeneity of experience. The subgroups then reform the larger whole in a way that allows the differences and similarities to be highlighted and embraced by the group. This process makes explicit the dynamics that are occurring within the group field or consciousness.

The theories from biology, sociology, and psychology explored in this chapter all deal explicitly with collective behavior and dynamics, even if the term collective consciousness is not identified as such. While Lipton examines collective behavior on a different scale, that of cells and organs, he also makes the point of the advantages of differentiation in a collective. The work of Reed offers a model that takes advantage of proprioception as a way of revealing "emotional drives of obscure origin," similar to that utilized in Bohmian Dialogue. Pribram

and Bradley's studies on social collectives resonate with Sheldrake's theory of morphic fields and shared information.[155] All of these theories and studies are concerned with collective behavior and consciousness. Several of them emphasize the difference between a collective that exerts pressure towards uniformity and one that embraces differences within it.

[155] Lipton; Reed; Bohm, *On Dialogue*; Pribram and Bradley; Sheldrake.

Chapter 6:

Conclusions

The preceding chapters have used a variety of lenses to explore the concept and phenomenon of collective consciousness. One of the notable findings is that the perception of collective consciousness, and the acceptance or rejection of the reality of its existence, is founded in how consciousness itself is understood. Chapter 1 distinguished two differing ways the term *consciousness* is utilized—psychological and philosophical. Theories that are grounded in psychological notions of consciousness (i.e., those that look at consciousness from the viewpoint of the various states of consciousness) are less likely to accept the phenomenon of collective consciousness. Many of the brain-based theories of consciousness fall into this category. Theories that do not exclusively place the location of consciousness in the brain are more apt to fall into the philosophical category of consciousness.[156] These theories are more easily applied to the understanding of collective consciousness than brain-based theories that assume the necessity for locality and proximity.

Chapter 4 examined a number of current theories of consciousness and assessed as to whether the theories fell into the psychological or philosophical category as well as whether they were brain-based or more encompassing in their attribution of consciousness. The Orch OR theory of Penrose and Hameroff locates consciousness in quantum processes in the brain, though Penrose and

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[156] Bohm and Hiley; Teilhard de Chardin.

Hameroff do acknowledge that the microtubules, where they locate this process, exist throughout the body. Ho's theory of quantum coherence is more expansive in that it attributes consciousness to a process of global coherence that occurs not only in the brain but also throughout the body.[157]

Field theories of consciousness, such as those of McFadden and Pockett, do not at first glance seem to support the notion of collective consciousness.[158] This is based on the fact that the electromagnetic fields of the brain and the body are perceived to be too weak to extend beyond the body, thereby having no effect beyond the individual. The assumption here is that collective consciousness can only exist through some kind of physical connection through the mechanism that is perceived to produce or correlate with consciousness. It is possible that the instruments used to register these fields are not nuanced enough to detect fields as they weaken with distance. Quantum processes underlying these fields may also have nonlocal effects that create connections between individuals, contributing to collective consciousness.

The work of the HeartMath Institute and the study produced by Morris support the idea of an electromagnetic field generated by the heart that expands beyond the individual and has significant effects between individuals and in

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[157] Hameroff and Penrose; Ho.

[158] McFadden, "Synchronous Firing and Its Influence on the Brain's Electromagnetic Field: Evidence for an Electromagnetic Theory of Consciousness" ; McFadden, "The Conscious Electromagnetic Field Theory: The Hard Problem Made Easy."; Pockett.

groups.[159] Morris was explicitly looking at the collective effect attributed to an electromagnetic field.

Systems theories tend to be grounded in the broader philosophical notion of consciousness, one where consciousness refers to the context that contains the contents or differing states of consciousness. Here, whether theorists give credence to the notion of collective consciousness depends on the underlying assumptions that they make about what constitutes consciousness. Tononi and Koch assume that if there is a larger coherent consciousness it will subsume the consciousness of the organs or organisms that constitute it in such a way that they do not have individual experience and thereby are not conscious in any way. Because individual humans each have their own consciousness, Tononi and Koch refute the idea of a collective consciousness.[160] Without this assumption that the subsumed consciousness cannot retain its own experience, their Integrated Information Theory can be extrapolated to embrace the notion of collective consciousness in that the more complex relationships between the participants of a group can allow for a higher level of integration of information.

The systems theory of the development of life of Capra and Luisi identifies consciousness with self-awareness. As it is unclear whether there is any degree of self-awareness in collective consciousness, they would not give the notion of collective consciousness credence. On the other hand they do make note

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[159] McCraty; Morris.

[160] Tononi and Koch.

of Bateson's perception of mind as a characteristic of all living systems and that Bateson himself extends this notion of mind to collectives such as social systems and ecosystems.[161] If life and consciousness are to be considered emergent properties of more complex systems, whether collective consciousness exists is dependent on whether one views collectives as aggregates whose constituents are simply grouped by proximity or whether they create the more complex relationships of the constituents of an organism.

Collectives as Organisms

The perception and/or analogy of groups and organizations as organisms or as organic is pervasive across disciplines. In this exploration, it first appears in Durkheim's use of the term *organic solidarity* to refer to a collective consciousness that embraces differences rather than a homogenous one that he refers to as *mechanical*. In the process philosophy of Whitehead, groups behave as organisms, taking the form of societies of actual occasions that are hierarchical and self-sustaining.[162] In the quote that opens Chapter 3 of this dissertation we see Teilhard de Chardin referring to the creation of familiar objects such as a Leica camera or an airplane as presupposing "a complex reflective organism" that is not "the work of man but mankind."[163] The collective is perceived as a "single

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[161] Capra and Luisi, 253.

[162] Whitehead.

[163] Teilhard de Chardin, *Activation of Energy,* 37.

agent," that consists of many participants working as an organism in the production of familiar objects.

The work of biologist Bruce Lipton starts with perceiving individual cells as acting as organisms that group hierarchically into collectives that then form organs, which again interact in complex ways to constitute more complex multi-cellular individual beings.[164] In social psychology, McDougall makes reference to societies that "become an organized system of forces which have a life of its own."[165] All of these references reveal an intuition that collectives can be very similar to organisms in that they can form an integrated system that is self-sustaining even while its individual members change. They perceive at least some forms of social groupings as organisms rather than aggregates.

Aggregate versus Organism: Two Ways of Viewing Collective Consciousness

There are two ways the concept of aggregate versus organism can be used to illustrate the concept of collective consciousness, and illuminate the differing types of collective consciousness. The first is the idea that a grouping of humans is an aggregate that does not form the more complex relationships of an organism. In the abstract of the article on ITT, "Here, There, and Everywhere," Tononi and Koch compare groups of individuals with "heaps of sand," assuming that they have the same kind of the less complex relationship as a pile of sand and therefore predict that groups of individuals will not have collective consciousness. As with

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[164] Lipton.

[165] McDougall, *The Group Mind,* loc. 365 of 6510.

Teilhard de Chardin's description of minerals, [166]each constituent has its own degree of radial energy but the collective is not centrated in such a way that it forms a more complex consciousness. Yet, humans in groups tend to form more complex and hierarchical relationships that generate a life of their own, as is explored in the sociological studies of Bradley.[167]

Another way of viewing this distinction is that it can illuminate the difference between mob consciousness and a more sophisticated form of collective consciousness that does not devolve into groupthink. This distinction of collective consciousness stemming from either aggregates or the more complex interrelationships of organisms then becomes applicable to the perception of there being two very different types of collective consciousness. Aggregates do not have complex internal relationships. There is homogeneity in the grouping. Organisms have more differentiation amongst the members of the group. A thread that has run through many of the works examined in this exploration is the effect of homogeneity versus diversity in the functioning of collective consciousness.

The degree to which this distinction has shown up across disciplines came as somewhat of a surprise to me. This work began as an exploration of the ways different disciplines could illuminate the phenomenon of collective consciousness. Gradually, as I searched the literature it became clear that the distinction of diverse versus homogenous collective consciousnesses is pervasive

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[166] Teihard de Chardin, *Activation of Energy.*

[167] Bradley; Pribram and Bradley.

across disciplines. This finding is significant as it emphasizes the importance of enhancing our awareness of our participation in these collectives. The fact that it occurs across disciplines suggests that this differentiation is intrinsic to the nature of reality.

The distinction first appears with Durkheim's distinction between *mechanical* and *organic* solidarity. As noted in Chapter 1, the titles of two of his chapters in his work, *The Division of Labor in Society,* make the difference between these two types of solidarity clear: "Mechanical Solidarity through Likeness" and "Organic Solidarity through the Division of Labor." The first group is bonded by sameness, homogeneity. The second has more complex relationships benefiting from the diversity within the group.

The benefits of diversity and division of labor within an organism are also noted by Lipton in his descriptions of the cellular structure of organisms in his work *The Biology of Belief*. Diversity allows larger groups of cells to organize into more complex organisms. A group of similar cells can form a mass but there needs to be differentiation amongst the cells resulting in a division of labor in order for a more complex organism to form. Here again we see the similarities between the internal structure of a single organism and that of a collective that constitutes a collective consciousness. Likeness constrains the sophistication of a collective whether it is constituted of single cells or collections of beings.

Jung highlights this with his concerns about the mob consciousness he observed during the Second World War, referring to it as "collective

possession."[168] This resonates with Bion's observation of "emotional drives of obscure origin"[169] that affect individuals' behavior within group settings. Sri Aurobindo's description of Supermind illustrates the converse of this: "The law of supermind is unity fulfilled in diversity."[170] He also emphasized that the individual should not subordinate or merge with the collectivity. The qualities of the individual are important to its unification with the collective.

Janis coined the term *groupthink* to describe groups that discouraged individuality and pressured members to all be on the same page even when individuals within the group could have offered perspectives that might have led to better outcomes on the world stage.[171] He also described situations with better outcomes where differing points of view allowed for the collective to make more successful decisions.

Turning to Gebser's structures of consciousness, the same theme of there being two different types of collective consciousness emerges.[172] In the archaic structure of consciousness, the unity is a merged, undifferentiated structure. The successive structures of consciousness show increased distinction and separation

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[168] Jung, *The Undiscovered Self,* 2–3.

[169] Coleman and Bexton*,* 35.

[170] Sri Aurobindo, *The Future Evolution of Man*, 99.

[171] Janis.

[172] Gebser.

from the merged whole with the integral structure of consciousness reintegrating the distinctions into a unity that recognizes the differentiations within it.

Becoming Aware

It has become clear through this investigation that we can participate in two very different sorts of collective consciousness. Because of this, it becomes even more important to recognize our participation and to exercise choice in the way that we participate. What are the ways that we can enhance our awareness?

The first would be to simply acknowledge that collective consciousness exists and that we are affected by and affect the consciousness as a whole of any group in which we participate. This can allow us to be more sensitive to Bion's "emotional drives of obscure origin" and choose whether to participate in mob behavior and groupthink or to maintain enough individuality within the group to allow it to be a more integral consciousness. This investigation has revealed the importance of asserting our own individuality and uniqueness within the collective. Each individual's own perspective enriches the collective consciousness.

The work of Reed and the dialogue process created by Bohm emphasize the importance of proprioception in developing the awareness of our participation in collective consciousness.[173] Both Reed and Bohm direct participants to pay attention to the sensations within their bodies as they arise within the dyadic or group setting. Pausing to notice, to feel into one's current experience, allows one

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[173] Reed; Bohm, *On Dialogue.*

to sense what may be appearing in Reed's "liminal zone," the space in between where shared experience lies. It illuminates what might be going on at the collective level of process.

The work of Gantt and Agazarian takes a different approach.[174] Starting with a group as a whole, they have the group break down in to smaller, self-similar subgroupings that explore their shared experience in a more homogenous manner. The larger group then reforms recognizing both the similarities and the differences that occur within the large group. By first dividing into subgroups that identify with differing dynamics, the process allows the varying experiences of the members of the group to be expressed without the pressure to all "be on the same page."

Jung offers the process of individuation, of the individual consciously bringing into awareness the unconscious processes, both individual and collective, that influence our personality and the way we relate to the world.[175] He sees analysis as the primary method for this process but one can also explore one's relationship to the collective unconscious through journaling, dream exploration and active imagination.

Each of the processes described above have the potential to increase our awareness of our participation in collective consciousness. Any process within a group setting that allows participants to pause, to sense into their proprioception

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[174] Gantt and Agazarian.

[175] Jung, *Psychological Types.*

and experience in the moment without the necessity of response or reaction can begin to open a window into the collective experience. In Bohm's terms, this allows you to be more open to the implicate order, to the underlying order of reality where wholeness exists.[176]

Other processes that have this potential are meditation in group settings, ecstatic dance and other improvisational dance processes in group settings, Tavistock groups that study their own internal group dynamics, and Authentic Movement in a group, where the emphasis is on following the flow of one's internal experience. Each of these methods gives the participant the opportunity to pause and focus in on their experience in the moment.

In her book, *Offerings from the Conscious Body*, Janet Adler speaks directly to the phenomenon of collective consciousness as it is experienced through Authentic Movement. Movers and witnesses convene first in dyads, then triads and quartets. Adler speaks to the desire to be part of a collective and the importance of being aware of our participation: "Small groups, like a family, organically form as the longing to be part of something larger than oneself emerges. . . . It means we are becoming more conscious of this longing, more able to be in dialogic relationship to it."[177] She goes on to identify the two-way flow in this experience of collective consciousness through movement as *collective body*, "the individual body and the collective body overlap, becoming interdependent as

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[176] Bohm, *On Dialogue*; Bohm, *Wholeness and the Implicate Order.*

[177] Adler, 95.

we learn to know ourselves as part of a whole." [178] Here again is recognition of our participation in collective consciousness, with it affecting us as we affect it. Adler expresses the need for individuation as part of the process of becoming aware of collective consciousness: "the embodiment of collective consciousness can only become manifest because of the embodiment of personal consciousness."[179] Through her work with Authentic Movement, gradually increasing the number of movers and witnesses that participate, Adler found that participants began to become aware of their movement as a collective. Because of the focus of sensing into one's experience in the body, this form taps into the proprioception of the collective. The participant develops "more awareness of the complexities of her own inner experience," thereby becoming aware of how the collective is manifesting in her or his personal experience.[180] This process can heighten one's awareness of the collective body, of the collective consciousness that develops within group settings.

The development of this awareness is enhanced by sensing into one's own experience in the moment whether it be through movement, meditation, or a group process where one is focused on one's current experience as in Tavistock self-study groups and Bohm's Dialogue process.

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[178] Adler, 95.

[179] Adler, 109.

[180] Adler, 95.

Final Thoughts

This exploration has wandered through a variety of different disciplines to discover differing explanations as to how collective consciousness takes form and manifests. Collective consciousness is a phenomenon that affects all of us. And it affects us at different scales, from the unity of Teilhard de Chardin's noosphere,[181] through national identity, culture, ethnic groups, on down through organizations, families, to the cells and organs that constitute the collective that manifests as our personal self. It is ever present in our lives. Because it can take the negative form of mob behavior or groupthink as well as a more integral and positive form of collective, it is imperative to recognize the phenomenon and to choose how we interact with and within it. We live in an increasingly globally oriented world and our connectedness with each other and with our environment is becoming more apparent. As we confront the various challenges in the world around us, the way we participate in collective consciousness becomes vitally important. In speaking of individuation Jung writes, "only a society that can preserve its internal cohesion and collective values, while at the same time granting the individual the greatest possible freedom, has any prospect of enduring vitality."[182] The various methods mentioned above can help us bring our embeddedness in collective consciousness into awareness. The hope is to develop the ability to participate in a more sophisticated and "enlightened"

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[181] Teilhard de Chardin, *The Human Phenomenon.*

[182] Jung, *Psychological Types*, 448.

collective consciousness. Only here might we imagine with Thich Nat Hanh that "The next Buddha may be a Sangha."

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