The Logic of the Sacred in Bateson and Peirce

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Abstract: By performing an abduction of Bateson and Peirce, we come to understand the logic of the sacred as a semiotic and phenomenological communicative phenomenon. First, I compare and contrast their ideas concerning ontology, epistemology, and logic. Next, I articulate how both theorists construct their epistemologies within a triadic frame of relations that successfully accounts for a communicative logic that activates the integration of body and Mind. Finally, I bring Bateson's triadic relations of aesthetics, consciousness (mental process), and the sacred in line with Peirce's existential semiotic categories of Firstness, Secondness, and Thirdness. We discover the sacred is constituted within a communicative logic that is abductive. As such, I argue that Bateson's epistemology of the sacred becomes more accessible as a postmodern philosophy when viewed as a condition of phenomenological semiosis.

1. Introduction

In his evolving epistemological project concerning the necessary unity between mind and nature, Gregory Bateson makes the issue of "the sacred", or the mental "pattern which connects" a central problematic, especially during his later years (Bateson and Bateson, 1987). He is convinced that by investigating the "interwoven regularities . . . and necessities of communication and logic" we open up new meanings for words like god and the sacred (Bateson and Bateson, 1987: 142). He terms his epistemological inquiry a "science of the mind" (1972: xv) and is sure "that the communicative fabric of the living world is ordered, pervasive, and determinant even to the point where one might say of it, that is what men have meant by God" (Bateson and Bateson, 1987: 151). Bateson is confident that the texture of the sacred is more deeply entwined within both the nature of the cultural world and our cultural understanding of the structure and

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processes of the natural world. Given his framework, how might we understand Bateson's notion of the epistemology of the sacred? How, we must ask, is the process of knowing sacred? Furthermore, how are both knowing and sacrality connected to mind and nature; connected, in other words, to the mental and physical realms of human existence?

A few decades earlier, philosopher of American pragmatism and semiotician Charles Sanders Peirce also grapples with similar ideas about the delicate intertwining of nature and culture as he seeks to develop what he calls a logic or "law of mind," (Colapietro, 1989: 46). His scientific investigations are framed in "the spirit of joy in learning about ourselves and in becoming acquainted with the glories of God". Unlike Bateson, Peirce is a religious man (Calapietro, 1989). As I shall argue, these two philosophers, although they hold widely different beliefs about God and religion, share much in common concerning a logical stance for investigating how the body and mind operate as an integrative, recursive communication system. While Bateson theorizes his communicational logic as a structural and processual "ecology of ideas" based upon the sacred interactions between an aesthetic conception of human agency and consciousness, Peirce conceives the workings of Mind to be comprised from another triadic relation. Peirce's science is based in semiotics, i.e., the study of Sign processes as a communicational logic, whose phenomenological (bodily) elements he identifies as Sign, Object, and Interpretant.[1] These elements or categories of being, according to Peirce, constitute the semiotic process by which we come to grasp and know the world around us as a phenomenological logic.[2] Regardless of their different points of departure, Bateson from the physicality of biological organisms and Peirce from the mentality of cultural significations, I contend their philosophic paths necessarily cross at an "interface" (Bateson and Bateson, 1987) that constitutes a heuristic matrix between them. Exploring them together, we find that both men recognize the possibilities that exist for the human condition if we can properly understand the communicational logic that operates at the interface between mind and nature. Explicitly, Bateson appreciates an ineffable "power" or sacrality that operates integratively at this interface as part of a larger matrix of mental process. The sacred, after all, as he suggests, provides the very "staff of life" (1991: 270) of which we are only a part. Although more implicit, Peirce recognizes that the boundary conditions imposed by Signs are "the very definition of thought" (Deledalle, 2000: 14) from which all life springs. Drawing from both theorists, I aim to

1. See Gerard Deledalle (2000) for an insightful discussion of Peirce's categories.
2. See specifically chapter six in the J. Buchler's (1955) *Philosophical Writings of Peirce* for a discussion of Peircian phenomenology.

explore how we come, aesthetically, to know sacred existence. I interpret this communicational logic as the accomplishment of a phenomenological act of semiosis; i.e., as a function of relational Sign interpretations that existentially engage us with the world (Eicher-Catt, 1996). As we shall see, what we think of as the mysterious, non-visible, non-material (or supernatural) nature of sacrality is actualized and realized through a repetitive triadic relations of Signs as a communicative logic; i.e., as an expressive/perceptive embodied human activity (Lanigan, 2000).

By juxtaposing Peirce and Bateson, I use an abductive logic (Peirce, 1955a: 150) that Bateson, himself, frequently finds heuristic in his process of theory building (1979: 142). As Bateson argues (1979: 21), by bringing "two sources of information together to give insight of a sort different from either source separately", abduction, or metaphorical thinking, proves beneficial to theory building. Peirce, of course, agrees but extends this idea further. For Peirce, abduction or the hypothesis generating logic "is the only logical operation which introduces any new idea; for induction does nothing but determine a value, and deduction merely evolves the necessary consequences of a pure hypothesis" (Deledalle, 2000: 8). Thus, for Peirce, abduction is not only the basic logic that we use to differentiate figure and ground but it ignites the very spark of ingenuity and life that makes life worth living. Consequently, thinking metaphorically using Peirce's abduction, we come to a better understanding of Bateson's claim of a logic of the sacred within his epistemological framework. I contend that using abduction reveals how we come to know the sacred at the existential yet semiotically-induced boundary condition between figure and ground. As a result, Bateson's epistemology of the sacred becomes more accessible as a postmodern philosophy when viewed as instantiating a Sign condition. We see that his epistemology fosters pragmatic insight concerning the relations between aesthetic perceiving and mental process that supports the characteriological growth of human beings, in particular, and scientific inquiry in general.

I begin my inquiry by comparing their theoretical positions on how we come to know. This discussion provides a broad description of their foundational ideas concerning ontology, epistemology, and logic. Here, we see how the issue of "relationship" as a precursor for knowing and understanding existence figures prominently in their work. Because relationship is not accomplished in isolation, i.e., it is a figure-to-ground semiotic experience, the centrality of information transfer and communication (Sign functions to Peirce's way of thinking) become leading problematics in their writings. For either of them, however, the importance of relationship is not thoroughly realized without due attention being paid to the *existential issues* concerning the body's relationship to Mind.

Next, I compare their ideas at a more concrete level. We find that both theorists construct their developing epistemologies within a triadic frame of relations that successfully accounts for a communicational logic that activates the integration of body and Mind within everyday existence.

I conclude my comparisons by "shifting" recursively (Bateson, 1979) to a higher level of theoretical abstraction where Bateson's triadic relations of aesthetics, consciousness (mental process), and the sacred (Bateson and Bateson, 1987) are understood as a logic by way of Peirce's (1955c) existential semiotic categories of Firstness, Secondness, and Thirdness. It is here that the full products and processes of knowing the logic of the sacred are revealed. I begin my analysis by providing some context for the theories they both pursued on the essential integration of mind and body as a communicative logic.

2. Clarifying Theoretical Positions

2.1 Bateson's Ecology of Mind

Bateson's rationale for his theoretical move to the epistemology of the sacred is premised upon a disdain for the modern scientific epistemology that favors Cartesian dualisms. Although his career begins in anthropology, he quickly moves to systems theory and cybernetics. Here he studies how systems (cultures) maintain steady states, adapt, and change (evolve or dissolve) as part of an ecology comprised of "ideas" and information exchange. He identifies this process as an ecology in order to highlight the fact that "ideas are interdependent, interacting, that ideas live and die. The ideas that die do so because they don't fit with the others. You've got the sort of complicated, living, struggling, cooperating tangle like what you'll find on any mountainside with the trees, various plants and animals that live there" (Bateson, 1991: 265).

As Bateson's work progresses, however, he is certain that the early models of cybernetics are too mechanistic to apply to humans as systems. As he explains, mechanistic models, as exemplified by early system theorists, are built from a linear model of causality that explains the apparent reversibility found within physical and/or materialist systems. For Bateson, these linear models need to be discarded if we are to properly flesh out the complex interrelationship between mind and nature, body and mind, intellect and heart, person and culture. He is persuaded that "behavior is not organized around fixed paths which passively react to external stimuli. Instead, any movement occurs through some form of mutual causal coordination" (Harries-Jones, 1995: 37). As such, environments and systems are not independent realities existing in mere reciprocal acts of causation, but this sense of mutual connectedness "gives rise to causal sequences in which 'selves' (or organisms) both create the systems they are in and transform

them" (Harries-Jones, 1995: 37). He theorizes that the larger "pattern which connects" mind and nature must, therefore, be "mental", because once a pattern in nature or culture is established (through the process of discrimination and/or learning), it contributes to its own determination (positively or negatively) and hence to its evolution or disintegration (Bateson, 1972). Therefore, he advocates for models of interaction that emphasize mutual causality between systems and systems/environments, models that acknowledge the important recursivity inherent within both human and natural systems (Harries-Jones, 1995). Recursion, to Bateson, is a way of explaining how systems integrate change while maintaining continuity. Consequently, Bateson spends the latter part of his academic career searching for a way to theoretically ground his earlier work in cybernetics with a deeper understanding of this inter-connectedness of all life or what he comes to identify as the sacrality of all knowing and existence (Bateson and Bateson, 1987). He moves steadily towards his developing epistemology of the sacred, professing that it offers a way of thinking about mind *and* nature as an ecological system that successfully replaces mechanistic metaphors of understanding with more aesthetic ones. It offers, in other words, a greater sense and appreciation for the ecology of mind and nature as an axiological yet communicative process or logic. Furthermore, there is something essential about the products and process of knowing itself, he theorizes, that is also sacred.

Unfortunately, because of these later ideas, over the last couple of decades I believe Bateson has been dismissed by some communication researchers as a misguided modernist, over sentimentalizing and romanticizing the sacred in an effort to recover a traditional metaphysics of existence. Rhetorician John Campbell, for example, in his review of the 1981 collection of essays written to celebrate the legacy of Bateson, *Rigor and Imagination*, is not convinced that Bateson's epistemology and his subsequent followers are successful at rotating far enough away from a positivist axis. As Campbell describes, Bateson and others "appear to suffer from post-positivist hypnotic suggestion" that proves, in the end, to be unproductive (1982: 85). If we take such a critique of Bateson's later work as representative of mainstream ideas within the communication discipline, we are not surprised by the steady decrease in the number of communication researchers who refer directly to his work (with the articles in this special issue serving as exceptions, of course). Compared to the sustained interest he still receives in cultural anthropology and psychology, the small number of references to Bateson's ideas in communication research is staggering; especially given his earlier work in cybernetics, schizophrenia, the double-bind theory, and the pragmatics of communication (Wazlawick et al., 1967), all of which made a major theoretical impact on our discipline during the 1960s and 1970s. Did Bateson

take a wrong turn toward the end of his life in his pursuit of the epistemology of the sacred? Was this theoretical turn merely an old theoretician's flailing attempt to find a modernist unity that merely re-instantiates Enlightenment thinking? Is there anything of value in Bateson's later writings on the sacred that sheds light on the process and event we call communication?

Rather than viewing Bateson as a modernist, I argue that his later work reflects many aspects of current postmodern projects that seek to interrogate both our sense of life as fragmented while also exposing the possibility of unified discursive formations (ideologies) that powerfully shape our ways of thinking and being in the world. Most importantly, Bateson contributes substantially to discussions in which exploring a new "epistemology of the sacred" sheds light on postmodern issues understood as communication problematics. Specifically, Bateson's epistemology seeks to: 1) problematize the value-laden structure and processes of language and discourse and their contributions to "distorted" communicative experience; 2) explore the body's relationship to the world of "mental process" so as to account for an existential lived-body relation in the world with others; and 3) critically interrogate the epistemologies we use to describe the "reality" of our existence so as to account for how that reality is logically constructed. Overall in his scientific exploration of the Mind, Bateson aims to "develop a strategy to understand the freedoms and rigidities of living systems" (Harries-Jones, 1995: 231). This leads Bateson to his explorations of circular causality, i.e., recursivity and reflexivity as aspects of mental process, a process that encompasses more than mere conscious purpose.

I concur with cultural anthropologist, Peter Harries-Jones (1995) who believes that, instead of representing a positivist framework, Bateson signifies a substantial theoretical break from modernist trappings. Respected rhetorician Stephen Toulmin agrees. Toulmin argues that Bateson is significant because "he has acted as a prophet of "postmodern' science" (1981: 365). By arguing against the dualisms propagated by modernist thinking, Bateson outlines a method of science that seeks to expose the "torn" fabric of our existence and scientific endeavors and the "gaps in the weave" (Bateson and Bateson, 1987: 151) that substantially shape our on-going personal and philosophic pursuits. Subsequently, he recognizes the observer in what's observed, i.e., the vital aspect of reflexivity that distinguishes postmodern thought from Enlightenment thinking. And, through his concept of recursivity, he dispels the traditional objectivist appeal to formal logic and the overuse of mechanistic, linear causality to describe human behavior. Instead, Bateson argues for the institution of new metaphors within a rigorous science (like "the sacred," for example) that, according to Toulmin (1981), fully appreciates the necessary combinatory or conjunctive aspects of

person and world, mind and nature, and consciousness and experience as communicative phenomena.

2.2 Peirce's Theory of Sign Action

To clarify my semiotic position, I follow Lanigan's reading of Peirce (1988, 1992, 2000). Consequently, I interpret Peirce as, foremost, a phenomenological semiotician, i.e., a semiotician who interprets "semiosis" or Sign actions by way of an experiencing body-subject (Merleau-Ponty, 1962). Peirce (1955c) recognizes that phenomenology or *phaneroscopy*, as he originally labels it, is an important aspect of inquiry in that it attempts to account for how we observe and describe phenomena (or ideas) as they present themselves to us. He classifies the formal characteristics of these phenomena according to three "modes of being" (Peirce, 1955c: 75) that observe the Self/Other/World relations or perceptively "take them in" (*capta* according to phenomenologists). As we shall see, these modes of being are not distinct from one another but relational aspects of semiosis, i.e., the process of beings interacting with and interpreting signs (phenomena).

I argue that Peirce honors the same tenets of Mind as Bateson does, particularly if we frame Peirce's pursuit of existential relations as an ecology as well. Floyd Merrell agrees. As he suggests, Peirce, in his theory of the triadic modes of being, is attempting to expose, like Bateson (1972), how "the whole of nature, ourselves included, is of the nature of mind" (Merrell, 2000: 75). However, where Bateson focuses on the biological embodiment of the Mind as an evolving matrix of information interchange and communication, Peirce emphasizes the embeddedness of Mind within communication systems of cultural signification that are embodied. Both investigate the ways in which "habits" or patterns of ideas/behavior are embodied configurations of sign actions (Peirce, 1955c). Although Bateson does not speak about habits in terms of sign actions, he does indicate that they are formed as a "result [of] an economy of mental process whereby the habitual response can be immediately produced without expenditure of effort upon those internal or external trials and errors" (Bateson, 1991: 101). To both theorists habits are not conceived as static although they can be counter productive. Peirce recognizes the creative potential within Mind's structure and process that keeps it dynamic. Peirce allocates to the human Mind three distinct "powers" that, when existentially activated through semiosis, possibilizes human subjectivity (Colapietro, 1989). He theorizes that Mind needs the ability to: 1) feel, 2) act, and 3) learn, in order to activate its existential agency, or as Bateson would say, participate in its evolving ecology. I argue that these three components demonstrate the circular causal aspects of Bateson's ecology of Mind as a reflexive, recursive process or logic. In addition, these three aspects

of Mind correspond to Peirce's existential categories of Firstness, Secondnesss, and Thirdness, respectively (1955c) that are detailed below.

In brief, feeling is the power of consciousness (understood phenomenologically) and affectability in humans. It is, as existential phenomenologist Merleau-Ponty (1962b: 154) describes, the spontaneous "spark" in existence that ignites our initial engagement with the world, with the world of "ideas," the world made up of phenomena. To Peirce's way of thinking, feeling initiates engagement with the world by posing a Sign (phenomenon) that a participating consciousness attends to. Or, as Bateson describes it, this experience of affectability poses a bridge between system/environment that "sparks" our initial attraction (Bateson, 1991: 300). Bateson explains that, "feelings are highly abstract principles not mere bodily visceral reactions" (1972: 320). Here, I interpret Bateson as acknowledging that feeling is a part of consciousness that exists at a higher level than mere conscious purpose, and that this level of consciousness prompts our initial engagement with or grasping of the world. So, for Peirce, the spark is not one ignited by objective perception, will, and/or thought, but by its "pure" affectability (Peirce, 1955c: 79).

The second component of Mind, to act, emphasizes the ability of an organism to modify/and affect the world. Living organisms re-act to Signs (phenomena) perceived—objects, events, people, etc.—"news of difference that makes a difference" (Bateson, 1972) that necessarily problematizes experience. Mind initiates this discriminatory process of perception through the relationship of Firstness (feeling/consciousness) and Secondness (acting/re-acting/experience) as a figure-to-ground relationship. Thus, the relationship between the two establishes an "event" (Bateson, 1979) which is perceptible within conscious experience (Peirce, 1955c: 88).

The third aspect of Mind, learning, corresponds to Peirce's category of Thirdness and thus initiates the "proper significant effects" (Peirce, 1955c: 76) of the relationships established between Firstness (present) and Secondness (past). Learning allows us a certain latitude from which predictions of future experiences can be realized or as Peirce says "it is that which is what it is by virtue of imparting a quality to reactions in the future" (Peirce, 1955c: 91). As Peirce describes it, learning is the process of acquiring "habits" for dealing with the future through a proper unity of consciousness (Firstness) and action (Secondness). This framework of perceptual relations is, in essence, an aspect of Bateson's ecology of Mind. At this juncture Bateson, of course, interprets the workings of Thirdness as a recognition of the distinctions between messages, codes, meta-communication, etc., i.e., learning how to learn "habits" or patterns of responses, hopefully that do not make errors in the logical typing of exchanged

information (Bateson, 1972). Overall, Peirce believes this ecological process of Firstness, Secondness, and Thirdness manifests in observations of phenomena or "that we can directly observe them in elements of whatever is at any time before the mind in any way" (Peirce, 1955c: 75).

For both Bateson and Peirce, therefore, the concept of the human Mind is an integration of feeling, acting, and learning—an integration of body/mind and system/environment as an ecological system that is "logically" derived and that is temporally realized. In this sense, "Mind is," as Peirce describes, "a sign-creator" (Colapietro, 1989: 89) and not the mere product of Signs, the latter surely being antithetical to Bateson's ideas. Mind is the means by which the realizations and the actualizations of culture and the physical world are joined. Above all, for Peirce, Mind is embodied in the daily communicative practices of human beings; for "although the mind as a source of signs has its roots in the workings of the body, the body as a mechanism for reactions has its fruits in the creations of the mind" (Colapietro, 1989: 89).

2.3 Theoretical Insights

Now, as we continue our theoretical juxtaposition of Bateson and Peirce, I am fully aware of Bateson's suspicion of our capacity to "symbolize," or our capacity to use language and discourse to represent the world.[3] As I see it, his main argument is a structural one and mirrors the mantra of general semantics: "the map is not the territory" (Korzybski, 1949). According to Bateson, because language uses a subject-predicate syntax, it makes us think about the "things" of the world rather than the underlying relationships that actually organize our life-worlds. I contend, however, that because Bateson problematizes language, discourse, and communication within his developing theory of "mental process," he shares a philosophical kinship with Peirce about the role language and discourse plays in human affairs and scientific inquiry.[4] Both theorists understand that the acts of presentation and re-presentation of ideas and their circulation within a matrix of patterned or habitualized ideas are the very stuff of life with which we need to be concerned if we intend to understand human existence as an

3. The irony of my argument in this paper, reading Bateson through Peircian semiotics, will not go unnoticed by those most familiar with Bateson's work. Although Bateson refutes our capacity to symbolize because of its power to "cut things up" (Harries-Jones, 1995: 302) in acts of representation, I hope to show that, while symbolic language certainly accomplishes this feat, a contrary "language of relationships" (Bateson, 1979) that Bateson promotes is also inherent within a broader semiotic (Peirce, 1955a) triadic relations of Firstness, Secondness, and Thirdness. As I hope to prove, semiosis, understood as embodied relations of Signs, becomes essential to Bateson's epistemology rather than counter to it.

4. Researcher Paul Ryan, who had opportunities to converse with Bateson, agrees on this point. See his article in this issue entitled: "Bateson, Peirce and the Three-Person Solution."

evolving logic or "ecology of mind." Like Bateson, Peirce wants us to understand that the pragmatics of language and discourse are not merely about the acts of representation. Such a connotation leads to error and denial of our agential qualities as perceiving/expressive; i.e., logical, communicative beings. Instead, Peirce is ultimately concerned with the *mediation* of person, Sign, and world in much the same fashion as Bateson is concerned with the *pattern which connects* the ecological concepts of mind and nature. Even though Bateson erroneously thinks that semiotics, or the study of Signs, defines Signs or Sign systems as solely the expression of minds in a functionalist, representational way, the two theorists are actually exploring the same concepts; i.e., the interrelationship between person, mind, and nature, and the existential and discursive logics by which we come to know the world. By interpreting Bateson through an explication of Peirce, I believe we come to a broader understanding of Bateson's arguments as evolving premises that align, although unwittingly, with well-informed semiotic and phenomenological communicative understandings.

We begin to understand that Bateson and Peirce share much in common epistemologically, particularly when it comes to outlining a living pragmatics of existence that does not repress the importance of systems of information/communication exchange. As Harries-Jones indicates (1995: 123), "Bateson was not opposed to pragmatisms but to a 'pragmatics' of communication that reduced communication to a tool and casts embodiment of meaning as merely 'a physical trace in the body—a sensation'". Unfortunately, his former colleagues Watzlawick, Beaven, and Jackson (1967) did just that, according to Harries-Jones, when they focused on communication as a behavioral trait while leaving out the structure and system relationships that are necessary codifications for a pragmatic event to occur (Ruesch and Bateson, 1987).

Aligning Bateson with Peirce, we see how both theorists are developing similar theories about the "Law of Mind" (Peirce, 1955c) and the "Science of Mind" (Bateson, 1972). Although Bateson thinks that "the rules of relationship between items of mental or ideational life are not unbreakable 'laws' of nature nor even absolute recipes of logic" (Bateson and Bateson, 1987: 158), he is, unquestionably, attempting to expose the same underlying pattern or "algorithm" or logic of mental process that Peirce also seeks. Foremost, Peirce promotes an understanding of existence and Mind through a study of Signs/phenomena and Sign actions as cultural instantiations and re-instantiations of embodied intersubjectivities. Bateson advances a notion of Mind and "mental process" by way of an organism's existential embodiment of events of information exchange that eventually develops into cultural patternings and ideological configurations (mutual chains of causation). Both recognize, however, that all living organisms

exist enmeshed in either, "a 'semiotic web'" (Colapietro, 1989: 28) or a "communication matrix" (Bateson, 1972) that radically shapes existence through mental, yet embodied processes at higher and higher levels of abstraction. After all, for Peirce as well as Bateson, the concept of "thought [i.e., "the development of signs" as Peirce would have it] is not necessarily connected with a brain". Thought or mental process, for Bateson, is of a higher logical order than mere actions of conscious purpose and thus contributes to an overall "patterning" or regularity within existence. Peirce says, and Bateson readily agrees, that thought "appears in the work of bees, of crystals, and throughout the purely physical world" (Colapietro, 1989: 19). As such, "The mind", for Peirce, "is always a sign in the process of development" (Colapietro, 1989: 54) through a system of triadic relations. Accordingly, the Mind is both sign creator and a Sign. It is recursive. The Mind, for Bateson, is the systematic world of mental ideas that exists in aesthetic relationship with "the pattern which connects" beyond what conscious intentionality or "purposive behavior" knows.

Because any relationship is not accomplished in isolation, the centrality of information transfer and communication (sign functions to Peirce's way of thinking) become problematic to be pursued in their developing epistemologies. We see how the issue of "relationship" as a precursor for knowing and understanding existence figures prominently in their work. However, relationship is not accomplished for either of them without due attention being paid to the *existential issues* concerning the body's relationship to Mind as an evolving ecological system. Thus, one of the driving questions of scientific inquiry for both Peirce and Bateson is: what are "patterns", (in Bateson's case) or "Signs", (in Peirce's case) for? In other words, what do signs/patterns of experience teach us about the world from which an existential pragmatics of mental process "naturally" evolves? I believe both theoreticians are concerned with the notion of human agency (both mental and biological) and the pragmatics of existence exercised as a communicative logic within a multi-leveled, ever-evolving system of existential relatedness.

3. The Triadic Relations of Living "Things"— Bringing Bateson and Peirce into Closer Relation

As Harries-Jones describes, Bateson's visions of the sacred unity are built upon a triad of relations that includes, at a higher order of abstraction, an appeal to aesthetics (as axiological responses to the world), a theoretical re-working of Mind (or mental process) and consciousness, and the idea of the sacred as the "pattern which connects" the two (1995). Now, Bateson construes the sacred as a "sort of surface, or topology, on which both terms, beauty [aesthetics] and consciousness,

could be mapped" (Harries-Jones, 1995: 212). Thus, Bateson calls the sacred a "meta-pattern" because it mediates between the physical and the mental as it establishes regularities within mental process while at the same time it operates in and through them. Repeatedly he asserts that an organism's mental process, i.e., its reflexiveness and recursiveness, were endemic to its ultimate negotiation of this triadic relation and, ultimately, to its very survival. Even for "unconscious" living organisms such as bees (although manifested in decidedly different ways) he thought that their existence demonstrated this triadic relation and so their continuing survival within the "natural world" was premised upon this inherent sacred pattern which connects.

As a semiotician, Peirce also bases his understanding of existence upon a triadic relation accomplished through "semiosis" or Sign actions that, within this context particularly, need to be understood as both phenomenologically and semiotically conceived as an operating communicative logic. Sign actions are perceived by Peirce to be "an experience which everyone has at every moment of life" (Delledalle, 2000: 18). Thus, semiosis is engendered by this embodied or phenomenological triadic relation among the Sign (Firstness), Object (Secondness), and Interpretant (Thirdness). As explicated below, each of these relations correlate in multi-layered ways to generate Bateson's theoretical understandings of a logic of the sacred; i.e., how we come to know, appreciate, and, hopefully, preserve the sacred as an ecological praxis.

3.1 The "Readiness to Receive" Information as the Semiotic Phenomenological Category of Firstness

As we begin to assess the triadic relations inherent in both Peirce and Bateson's work, our key question becomes: what does the apposition of Peirce and Bateson on this topic reveal about the epistemology of the sacred? In order to understand the high level of abstraction at which Bateson is operating when speaking about the triadic relations established by aesthetics, mental process and consciousness, and the sacrality of existence, we need first to review the seeds of these ideas at a more concrete level. Refer to Figure 1 for a diagram of these triadic comparisons.

Bateson uses the metaphor of "matrix" or "womb" (after its Latin etymology signifying, "to give birth") to capture how an axiological relationship is structurally developed between a system and its environment, along many axes or "planes" of existence (1979). The feminine idea of "womb" is Bateson's way of recognizing the importance that contextual cues play in this relational process by initiating, materializing, and shaping relations, provided that "news of difference" or ideas within the system remain "open" to recursion (adaptation and change through

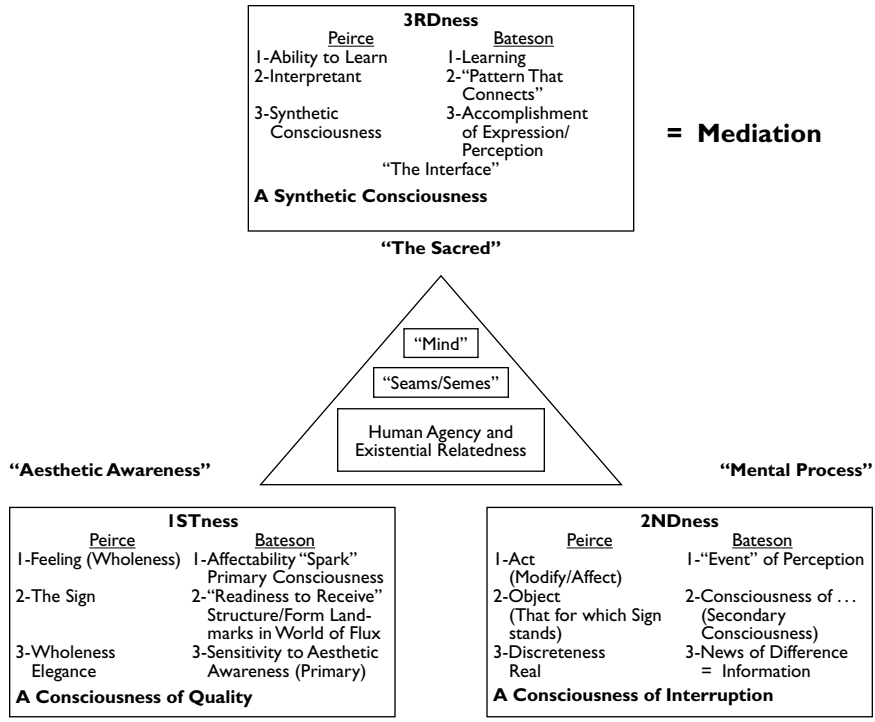

Figure 1: Comparisons of Semiosis (Sign Action) and the Ecology of Mind

a formal continuity). According to Bateson, then, relations are established within this womb by the very Form or Structure that inheres within it—in its qualitative wholeness. For Bateson, this wholeness is, in itself, an aesthetic quality because it represents the elegance of Form and function, unity of differing levels of sensuousness. He describes this quality as "the beautiful". Bateson also refers to this qualitative wholeness as a mental activity that constitutes "primary consciousness" (1979: 32), because it transpires at a level of consciousness that is normally inaccessible to a living organism's perceptual awareness. In the case of humans, phenomenologists identify this level of awareness as experiencing a phenomenon *sui generis*—in its state of originary existence—before its full "capture" by the wedding of consciousness and experience (that, of course, subsequently textures it with socio-cultural significance).[5]

5. Although this category of existence sounds as though we are able to separate Firstness from the next category, Secondness, so as to take in the world in its concreteness, in reality this is not so. Both Bateson and Peirce concur that our perceptions of the world are filtered by our "interior 'imagining' of that which we see" (Harries-Jones, 1995: 201) or that we operate "not only as users of signs but also as . . . processes and products of semiosis" (Colapietro, 1989: 47).

To allow for any system/environment interchange to effectively transform and/or change within the constraints posed by the interchange, however, requires what Bateson calls "calibration". Thus, the Structure or Forms within the system/environment relationship automatically "calibrate" its capacity to receive "news of difference", or "ideas", as Bateson defines it. Now, Bateson explains Structure in a number of ways. He calls it a "threshold which define[s] the limit of fluctuation. . . of a given system" (Bateson and Bateson, 1987: 121). He also says he uses Structure "to refer to constraints which characterize systems and define their functioning" and calls Structure "landmarks in the world of flux" (Bateson and Bateson, 1987: 151). At any rate, Structure "is a component in the fabric of the organism that builds up a defined state of readiness—a quantity of 'tension'—to be triggered by some external event, or by some external condition that can be made into an event" of communication (Bateson and Bateson, 1987: 120). So, inherent within living Forms is a Structural "readiness to receive" news of difference that makes a difference or information (Bateson and Bateson, 1987: 120). Bateson is also quick to remind us that Structure/Form is "always a somewhat flattened, abstracted version of 'truth' . . . [even though] structure is all that we can know" (1987: 161.) Thus, Structure is not "true" in the sense that it "is always *at one remove from its referent*" (1987: 161). More importantly, "however much structure is added, however minutely detailed our specifications, there are always gaps" (1987: 162). That is, inherent is this womb-like Structure/Form, that helps to shape the capacity of the system/environment interface to respond in adaptive or maladaptive (pathological) ways, are discontinuities that contribute to its recursive potential. Otherwise, biological organisms could not have a say in their own determination.

In comparison, at this level of explication Peirce uses the metaphor of "mother" (Colapietro, 1989: 5) to represent this originary aspect of any "thing" (Form or Structure as Bateson would have it) in its unique Beingness or qualitative wholeness. Again the feminine form is invoked, this time by Peirce to signify that this originary thing or "Sign," as he calls it, is inherently "ready to receive" news of difference or information (Bateson). As Peirce understands it, any Sign "has roots and bears fruits" (Colapietro, 1989: 22). While Signs are certainly historical, they also have the capacity to instantiate new and different subsequent Sign relations (Bateson's sense of recursion). Therefore, a Sign is, according to Peirce, "anything that is grounded and is growing" (Colapietro, 1989: 22). In Peirce's most quoted definition on the semiotic relations of existence, he says a Sign "is something which stands to somebody for something in some respect or capacity" (1955c: 99). Furthermore, Peirce stipulates that our process of perceiving Signs "means we must cultivate those dispositions that enable us to regard anything

whatsoever as an *invitation for interpretation*" (Colapietro, 1989: 23). We must, as Bateson would have it, display a "readiness to receive" information based upon our relationship to it. Thus, Peirce identifies any "Sign" (phenomenon) as the semiotic phenomenological category of "Firstness" to mark this originary quality within a field (environment) of experience.

I argue that Peirce's category of "Sign" corresponds to Bateson's notions of Form and Structure as he qualifies them within a system/environment relationship; both Structure and/or Form function as a Sign—*sui generis*—to those who perceive it as such. Signs are "landmarks" or represent a "threshold" upon which subsequent interpretations and meanings are constituted. Moreover, Peirce and Bateson see this aspect of system/environment relatedness as a *necessary* ingredient in understanding the instantiation of mental process, i.e., its logic, by which we come to "capture", know, and appreciate the world. From a purely phenomenological standpoint, I also contend that Bateson and Peirce recognize the *embodiment* of "ideas" or the organism's "readiness to receive" news of difference as an essential aspect of any living system. For Bateson, this readiness assumes the form of a *question* that is embodied within the Structure/Form. For Peirce, this capacity for questioning assumes the form of Sign.[6] Regardless which term we favor—Structure or Sign, both theories are attempting to possibilize the constitution of a *relationship* as a primary epistemological concept. Relationship serves as the very "ground" by which we will fully perceive, experience, know, and understand anything we encounter. Bateson repeatedly reminds us of this important point, especially with his example of our hand; it is not insightful, as he says, to see it in terms of five fingers but the product of four evolving relationships. For Bateson, as an "information idea," Structure is altogether a relational concept and "has no separate existence" outside the world of mental process (Bateson and Bateson, 1987: 161).

3.2 Consciousness/Awareness as the Semiotic Phenomenological Category of Secondness

The concept of consciousness proves to be more challenging to unravel given the differences between how it is perceived by phenomenologists, some semioticians, and those psychologists involved in the mental health system (of which Bateson

6. Harries-Jones points out that Bateson is against a notion of embodiment from a physical or organic perspective. Such a perspective, according to Bateson, celebrates the body at the expense of mental process. Unlike some who interpret phenomenological thinking of embodiment as a means by which language and discourse engenders the gestural enactments of the body, I follow Merleau-Ponty's notion of embodiment as "incarnate mind" (Merleau-Ponty, 1962), and interpret Bateson as doing likewise. The distinction is between body perceived as a "tool" of cultural significations and the body as the very means by which significations come to be.

was once a part). Bateson, in particular, is careful to distinguish between what he means by consciousness and what he means by "mental process" or Mind, although he stipulates that consciousness is an aspect of Mind (Harries-Jones, 1995). For Bateson, consciousness is an awareness of how information moves in a communication system (Bateson and Bateson, 1997: 100). Typically, he separates consciousness into several levels to mark distinctions between those that are readily "accessible" to an organism's awareness and those that are not. Eventually in his epistemology, the term consciousness is reserved by Bateson to represent the actions of living organisms promoted by conscious intent or purpose. He often spoke of this as a "secondary process" of Mind or "prose" consciousness (Bateson, 1979, 1991). Unfortunately, if a reader was to take his ideas at this level as representative of his theory of consciousness, his ideas appear to hail back to a subjectivism, if not reminiscent of Husserl's (1962) early work, then surely correlative of a superficial notion of what phenomenologists identify as "intentionality". Consciousness as secondary process is typically defined by Bateson as merely subjective thought, i.e., thought that is manipulated within a Self, akin to William James's perspective, according to Colapietro's interpretation of his work (Colapietro, 1989: 62). Definitely, Bateson does not share sentiments with phenomenologists at this level of his theory of consciousness. After all, existential phenomenologists frame the concept of intentionality more broadly to encompass all awareness (consciousness) that is directed outward toward the world through a body-subject (Merleau-Ponty, 1962).

On the other hand, it does appear that Bateson's notions of the "unconscious" realm, "primary process", the "non-purposive components of Mind", or what he deems "poetic/metaphoric consciousness", however, begin to speak to what phenomenologists call the primordial, pre-logical, or pre-objective aspect of consciousness (Merleau-Ponty, 1962). At this level of his theory, moreover, Bateson does adequately account for an "active" consciousness (conceived as a phenomenological intentionality), even though its actions are typically inaccessible to human review. Unfortunately, he fails to adequately develop these ideas before his death.[7]

At any rate, Bateson is fond of problematizing "conscious purpose" because he sees in this action of secondary consciousness all the selfishness, ambition, and greed that pathological conscious intent often assumes and for which all psychologists pay heed during therapy. "There is plenty of evidence", he contends, "for the assertion that conscious purpose may distort spontaneity and, alas, plenty

7. Bateson did theorize that consciousness, as he understood it as subjective intent, was a "pattern of communication that is always going to be selective" (Harries-Jones, 1995: 215), a point that applies in my subsequent discussion on Secondness.

of pathways of internal communication by which such messages and injunctions may travel" (Bateson and Bateson, 1987: 90). Non-conscious purpose, on the other hand, offers his theory an aesthetic balance, even though he thinks these ideas make little impact on Western theories of epistemology, in general (Harries-Jones, 1995). Non-conscious purpose opens up the possibility of "perceiving for perceiving's sake" (Hospers, 1967: 36), i.e., aesthetic appreciation. In addition, he thinks we place too much emphasis on only the psychology of the conscious mind when attempting to understand its ecology rather than interrogating its wider products, processes, and implications. On this point, Peirce and Bateson definitely agree. Both offer similar systematic critiques of psychologism—or the doctrine that makes the laws of logic dependent upon the facts of psychology per se (Colapietro, 1989: 50). Bateson is quick to caution us not to theorize only a "private" autonomous conception of subjectivity or the Self (1972: 318) as the ground for its ecology. To do so commits "sacrilege" against the multi-layered communication matrix, according to Bateson, since it promotes a reductionist view of the Self, a Self disconnected from its environment. Similarly, Peirce often says, "the study of signs is not a branch of psychology. . . . An understanding of the nature and varieties of semiosis does not rest upon a detailed understanding of the particular workings of the human mind; rather the reverse is true" (Colapietro, 1989: 50). For Peirce, an understanding of the human and Mind rests upon a detailed understanding of the Structure and Process of existential semiosis. For Bateson, an understanding of the human and Mind rests upon a thorough understanding of the multi-layered system/environment interface as a communication dynamic (Structure and Process).

As I see it, Bateson's mantra (1972) that "perceiving difference is what makes a difference" corresponds closely with Peirce's phenomenological semiotic category of being he calls Secondness. (See Figure 1.) For Peirce, Secondness activates a phenomenological discreteness in perception, produced by the semiotic relation between "Sign" (Firstness as Peirce defines it) and "Object" (Secondness). The Object within Peirce's triadic relation is "that for which the sign stands" (Peirce, 1955b: 99). Supporting Bateson's ideas, Peirce's word Object should not be construed as merely making "things" out of worldly relations, however. As Peirce theorizes, Secondness is an existential process of creating an Object for meaning by way of a digital logic that necessarily shapes our expression/perception of any Sign as necessarily distinct and different. This explains why Peirce's metaphor for this phenomenological relation is "impregnator" (Colapietro, 1989: 57), again using, like Bateson, a gendered connotation to express ideas. So for Peirce, this essential category of being acknowledges that we come to know the world, as Bateson also contends, only by way of differences and differences that

make a difference. Thus, it is only upon the experience of Secondness that any Sign becomes "real" to a perceiving subject as an Object of possible meaning. In this sense, Secondness or the Object perceived/expressed is both immanent (immediate) and transcendent (dynamical) to the expressing/perceiving subject.[8] Bateson interprets this relation by emphasizing the fact that these distinctions of difference are activated in and through a context by way of a figure-to-ground gestalt. Peirce concurs. When he speaks about the Object's relation to Sign, Peirce defines the Object as "an item within a context—a field" whose evolving meaning is shaped by the Structure (Signs) and Processes inherent within the field. Thus, information is the accomplishment of Secondness. Central for both theorists is the notion that perceiving differences occur as an "event" of communication (Peirce, 1955c: 88; Bateson, 1972, 1979).

Understandably, through the relations of Firstness and Secondness a notion of Self as different from Other (Object) begins to emerge, although its full potential as an expressive/perceptive Being is not satisfied without the activation of Thirdness (explicated below). As discussed earlier, for both Peirce and Bateson, the notion of Self is not construed in an autonomous way either, in its corporality or its mentality. To the contrary, an emerging Self inheres within the "incarnate mind" (Merleau-Ponty, 1962) activated through the process of semiosis as an ecology of mind. Or, as Bateson is favored to say, a Self emerges by way of the necessary unity of body and mind at the system/environment interface. Peirce admonishes us that by adopting a view of the Self in isolation, we commit a, "metaphysics of wickedness" (Colapietro, 1989: 75), a phrase, I believe, that Bateson would condone. On the essential integration of Mind and body, Colapietro (1989: xix) explains Peirce's intent; for Peirce "the repudiation of the Cartesian starting point means the recovery of flesh-and-blood actors who are continuously defining themselves through their give-and-take relationships with both the natural world and each other. Here is the difference which makes a difference". Peirce goes on to say that, "The body is not principally something in which the self is located; rather it is the most immediate medium through which the self expresses [and perceives]. Precisely because it is the most immediate medium that the human subject uses, the use of all other media are mediated by this medium" (Colapietro, 1989: 39). This correlates to Bateson's notion of mental process within the system/environment interface that both problematizes and possibilizes embodied existence as a physicality or corporeality.

Thus, for Peirce, adhering only to a Self as "the private is, for many practical purposes, synonymous with the erroneous" (Colapietro, 1989: 73). For Bateson,

8. Peirce further divided this category into icon, index, and symbol, depending upon the relationship of the Sign to its Object (1955: 104).

of course, this "error" of reasoning, along with others that foster impressions of dualisms, are indicative of a developing pathology within a system/environment ecology (1972: 310). As Bateson contends, one of the ways pathological thinking arises is when we commit an error of reasoning by mistakenly substituting one level of Self "power/will" over a greater power—thereby creating a dualist impression between the mental and the physical (1972: 313) aspects of existence. Both theorists agree, therefore, that a Self as we know it signifies the characteriological growth (or decay) of an organism which is partially shaped by the mind/body continuity as it plays out within the context of the Firstness/Secondness relationship. Both also agree that a Self, as a system, operates by trial and error [in terms of reactions and responses] and yet has creative characteristics through its inherent capability to transform differences" (Bateson, 1972: 317), i.e., its recursivity.[9]

3.3 The "Pattern which Connects" as the Semiotic Phenomenological Category of Thirdness

Adopting the phenomenological perspective that the body operates as an "incarnate mind" (Merleau-Ponty, 1962) helps us to understand why self-correction, control, and learning figure prominently in both theorists' work.[10] For the difference that makes a difference within the ecology of Mind/body initiates a "response-ability" that must be accommodated or resisted within the system/environment interchange in order for the organism to be "survival worthy" (Bateson, 1972). Thus both theorists agree that a Self acts as a "nexus of propositions" (Harries-Jones, 1995: 314) that fosters adaptation and/or change as necessarily communicative products and processes, i.e., a logic. This leads us to the final existential yet semiotic relation identified by Peirce as Thirdness.

In Peirce's study of semiosis as a triadic relation he correlates his last existential category of Thirdness with the notion of Interpretant. According to Peirce, the Interpretant *mediates* the relationship established between Secondness and Firstness, between an Object and a Sign. Thus, the Interpretant is the means within the triadic relation that brings the full impact of the Sign condition on some experiencing Other. Thirdness is how meaning is actualized (Peirce, 1955c). Bateson's account of "the pattern which connects" is similar to Peirce's notion of Thirdness; it is, in other words, the accomplishment or final (although not

9. For Bateson, these transformations of differences result in "patterns" of difference. Semiotically speaking, these transformations of differences result in codes and code conditions.

10. According to Colapietro, the central doctrine of Peirce's later writings takes up the issue of "self-control". See Colapietro 1989: 65. The issue of an organism's self-regulation and control as part of a system/environment interchange are, of course, essential elements in Bateson's ecology of mind. See Bateson 1972: 309-339.

finite) "product" of the perceptive/expressive ecological process inherent within communicative systems. (See Figure 1.) With the category of Thirdness, we come to understand that the organism operationalizes its ability to make "habits" (to Peirce's way of thinking) or "learn" (to Bateson's way of phrasing it) as means of adaptive or maladaptive coping to environmental exigencies. In Peirce's words, the Interpretant is "the proper significant effects of signs" (Colapietro, 1989: 13). For Peirce, actions and reactions become habitual through repetitive semiotic chains as organisms learn patterned effects that seem to fix within their context of living. With the concept of Thirdness, therefore, the full expression/perception dialectic of a "body-subject" engaged in the "semiotic web" or "communication matrix" is fully accomplished, although never complete.[11] Both theorists understand, therefore, the triadic relations of existence as a repetitive, infinite process or logic.

In terms of the Self, Colapietro (1989: 35) also indicates that, "Peirce's notion of Interpretant offers a way of illuminating the interpreter and utterer of signs both as distinctively semiotic phenomena and as existentially situated subjects". Thirdness emphasizes Peirce's concern with the phenomenon of synechism, i.e., "the tendency to regard everything as continuous" (Colapietro, 1989: 68), and so he connects or "mediates" the category of Firstness and Secondness with Thirdness. As he remarks (Colapietro, 1989: 64), "continuity or Thirdness does not entail the rejection of discreteness or Secondness," but rather serves, in Bateson's words, as the "pattern which connects" (Bateson, 1979) the two categories. Thirdness offers a further comparison of the relationship of Firstness and Secondness with Thirdness and, as such, operates at a higher level of abstraction. This is true for Bateson's concept of the "pattern which connects" as well, especially when he identifies its ability to serve as a "meta-pattern". Thus, Bateson claims a *power* resides within the complex matrix of systems that produces healthy complementary functions or unhealthy symmetrical ones or, vice versa (Bateson, 1972: 332). For both theorists, the distinctions between power, force, and control, however, are important in regard to an evolving Self/agency within a system/environment interchange. Neither theorist correlates force as part of mental process or Mind, as they envision it. Peirce, in particular, equates force with Whitehead's reading and regards it as conscious intent to do violence through blind/will (Colapietro, 1989: 120). Bateson agrees when he states that force correlates with physical

11. Peirce explains this as infinite semiosis, when the process of sign actions (Firstness, Secondness, and Thirdness) repeat themselves in multi-faceted and multi-layered ways to produce the complex matrix of both cultural and "personal" meanings. Similarly, Bateson argues for the dynamical element of any ecological system, i.e., its ability to reflexively and recursively form and transform information and meanings into higher levels of abstraction and knowing.

conscious purpose when the intent is to do violence or harm (1987). Thus, Bateson relegates the idea of force or "energy" specifically to actions/reactions of physical matter—not to the fundamental workings of the world of mental process that operates according to differences.

The notion of power, therefore, is central in both of their writings on mental process and emphasizes their shared exploration of how living organisms learn self-correction or self-control within a communicative or semiotic matrix but also how the system/environment interface sustains itself through a communicational logic. Peirce equates the learning of self-control to power, framed in terms of learning persuasive premises or rhetorical appeals that are grounded in traditional logics. Bateson's concerns with self-correction, control, and regulation lead him to look at power as a necessary ingredient within the system/environment interface where change is actualized as an ecology. Power, in this sense, is the ability to recognize differences that make a difference and to respond accordingly. Furthermore, he attempts to explain how change occurs by distinguishing between purposive behavior (a direct communicative act of control by an organism) and non-purposive behavior (a powerful communicative act as part of an aesthetic sentiment integrated within a given communication matrix). It appears that, in his later writings, Bateson is unwittingly most concerned with both Peirce's category of Secondness (the actions of distinction/difference) as a way we come to experience and know the world and his category of Thirdness (Continuity). With his ideas on the "pattern which connects", Bateson is admonishing us to appreciate the complicated, interconnected weaving of mind/body existence at a higher level of awareness than we normally pursue. Only then, he thinks, can we continue to learn and grow as a healthy species and society. This speaks, of course, to his notions of reflexivity and recursivity, as pivotal ecological moments in the system/environment's capacity for growth.

Peirce agrees. The metaphor he uses for Thirdness or Interpretant is "progeny," thinking that this signifies the potential for growth and continuity inherent within his notion of the semiotic web. Above all, Peirce's notion of the Interpretant "provides us with a way of incorporating the subject within the study of signs" (Colapietro, 1989: 43) and thus, with Thirdness, the continuing development of Self is fully realized. It is because of this focus on the person that Peirce emphasizes that actions and patterns of actions (habits) function as Interpretants of signs. "Habits emerge", he says, "out of the struggles of organisms with their environments" (Colapietro, 1989: 58). In this way, persons and signs reciprocally "educate" each other as learning is fostered at the interface between system/environment. In other words, through semiosis (the triadic relations of Firstness, Secondness, and Thirdness) the patterns

of Sign actions are existentially created by the uniqueness of a given Person, Sign, World relationship. Bateson understands this recursive semiotic phenomenological process by claiming that an organism "learns" the rules of engagement (the contextual cues) when it recognizes redundant patterns and Forms within "news of difference" by shifting from concrete to more abstract levels of recognition. Accordingly, the individual or organism responds, either to regulate (produce more redundancy), transform (produce news of difference that makes a difference), or adapt (makes structural changes) at the system/environment interface. For Bateson, a system's "rationality," therefore, is achieved by responding to news of difference in ways that are not pathological, i.e., do not produce schismogenesis (Bateson, 1979). Peirce claims that the "rational mind" is demonstrated by "the capacity to exert self-control over some of its inferences" (Colapietro, 1989: 109). So, to put it in Bateson's terminology, Peirce thinks a system does not demonstrate rationality if its interchange within itself or with the environment becomes runaway. Both Peirce and Bateson, at this level of inquiry, recognize how organisms learn self-control, self-correction, and learn how to learn through a reflexive and recursive process of the Mind. The Mind, for both of them, is both mental and physical and entails a communicative logic.

It must be emphasized that while Thirdness or the Interpretant *mediates* Secondness and Firstness, it does not accomplish this relation without the possibility of employing varying degrees of creative "imagination" within the communicative matrix or semiotic web. It is within "the pattern which connects", after all, that Bateson recovers a sense of vision and imagination for his agential organisms (Harries-Jones, 1995). In the case of humans, recognizing the significance of narrative, myth, metaphorical thinking, and parables in our comprehension of the world, Bateson is unwittingly emphasizing how Secondness (comparison) fosters imaginative potential in Thirdness. There is a multitude of ways, of course, that the organism can choose to respond based upon its axiology or system of judgment. Bateson thinks this potentiality enables the organism (the Self) to adapt, change, and/or grow. Similarly, Peirce remarks, "the human imagination of the inward domain is what gives rise to learning self-control" (Colapietro, 1989: 109). Bateson often refers to this comparative process (between Firstness and Secondness and Secondness and Thirdness, etc.) as "double vision or description" (Bateson and Bateson, 1987) and found this concept especially heuristic. "The concept of difference enters *twice* into understanding the process of perception", he says, "first, there must be a difference latent or implicit in the territory, and secondly, that difference must be converted into an *event* within the perceiving system—i.e., the difference must overcome a threshold" (Bateson and Bateson, 1987: 122). Perception is

a possibilizing process he thought, i.e., an imaginative process that transpires at the interface or boundary between system and environment that allows for insight (transformations of perception) through comparison. "The effects of difference", he is quick to indicate, "are to be regarded as transforms" Bateson 1979: 109) that realize and actualize creativity.[12] When the encounter with a Sign is another human being, we begin to appreciate the inter-textuality of Peirce's triadic relations and the complexity of Bateson's reflexivity and recursivity within the communication matrix as they come to bear on outcomes in human relations. Mutual loops of effect and cause develop complex systems of differences and communicative dynamics, complete with reflexivity and recursivity as active components. Ultimately, with Peirce's triadic relations, we find the "mutual circuits of causation" of existential communicative experience that Bateson seeks so earnestly to expose (1972, 1979).

While both Peirce and Bateson explicitly frame their scientific inquiries of Mind in terms of triadic relations, they are also very aware that the constitution of relations, in and of themselves, is a boundary-spanning activity. We bring some "thing" into relation with another "thing" precisely because there is a perceived *gap*, a discontinuity between the two that necessarily entails a *boundary* between them. Peirce thinks that the very nature of any Sign's appearance (its Firstness) automatically forms such a boundary "condition" for us from which we begin the existential process of semiosis or Sign perception/interpretation. That is, for Peirce, any Sign as an artifact of experience sets up inclusionary and exclusionary rules by its "natural" history within the semiotic web that both possibilize and constrain its subsequent meaning constitution (as an aspect of Thirdness). Bateson, as a system's theorist, is also well aware that the Form/Structure of any system/ environment within his ecological framework exists because of the inclusionary and exclusionary function of the necessary boundary that mediates the two. He writes extensively about the "interface" and later about "scanning the interface" as an essential route for the accomplishment of this perception (Bateson and Bateson, 1987, Bateson, 1991). However, to fully understand the communication dynamics of boundaries within both of their theories of Mind and, consequently, to illuminate how we come to know the communicational logic of the sacred, we must "shift" to a higher level of abstraction in our discussion. This brings us to Bateson's triadic relation of aesthetics, consciousness (Mental Process), and the sacred as his way of capturing an operating logic of knowing, i.e., how these three relations set in motion a new epistemology that will expose a sacred unity (Bateson, 1991).

12. Within semiotic theory we identify these transforms as digital and/or analogical coding.

4. The Logic of Aesthetics, Consciousness (Mental Process), and the Sacred

Elsewhere (Eicher-Catt, 2006), I explore in detail Bateson's operational logic as he moves closer to developing his epistemology of the sacred. Herein, I only briefly summarize this discussion. My purpose is to show that, at this level of theoretical development, Bateson is continuing to articulate how ever-evolving recursive loops of knowing and understanding are activated within the logic of the sacred. These recursive loops are, again, manifestations of Peirce's relational categories of Firstness, Secondness, and Thirdness, although they are modes of being operating at even higher levels of abstraction.

At this level of theoretical speculation, Bateson begins by proposing an attitude or sentiment towards the Other (be it person or scientific inquiry) that espouses an aesthetic, i.e., a "perceiving for perceiving's sake" (Hospers, 1967: 36) in which life's Structures and Processes can be recognized as aesthetic performances and accomplishments. This proposed way of perceiving the world is not to be confused with a cognitive focus that merely reduces objects (Signs) to self-serving frames of reference. Aesthetic appreciation, for Bateson, is at once an unconscious and unaware experience fueled by primary not secondary consciousness, as he defines them. That is, it is an awareness that is non-purposive. Thus, he understands that "Aesthetic attention [toward the world] is always to the phenomenal object, not to the physical object" (Hospers, 1967: 38). The aesthetic experience is constituted by an appreciation for the internal/external, structure/process amalgamation of the object (Sign) perceived that gleans its originary "neatness, elegance, and economy of means" (Hospers, 1967: 38).[13] (As a phenomenological semiotician, Peirce, of course, categorizes this state of appreciation and beingness as Firstness.) See Figure 1.

Employing Peircian terms, we are able to aesthetically appreciate or value life, Bateson thinks, because of those aspects of originary Firstness which problematize the immanence and transcendence of human experience *simultaneously*. Any*thing* deemed *sacred* is, after all, that which we hold dear (immanence) because it is that which is recognized as also untouchable, unspeakable (transcendence). This mental process entails, of course, an implicit appreciation (as an aspect of primary process) of the *boundary* or *interface* that necessarily exists between the two. To respond to life through aesthetic perception means it is necessary, according to Bateson, not only to recognize, non-purposively, that a boundary between system and environment exists, but to appreciate the existence of the boundary for the potentiality of information exchange and communication it

13. He recognizes, especially in all religious doctrines and sacramental activities, an ability to evoke in participants this broader appreciation for a perception of the world's aesthetic beauty.

provides. Hence, this primary "conscious" experience of the boundary invokes an aesthetic. It is "wonder in face of the world", as phenomenologists contend.[14]

Second, on the topic of consciousness or mental process, Bateson, like Peirce, is trying to explicate mental process as a systematic experience of informational and communicational checks and balances, self-corrections, growth, and decay at any system/environment interface (Ruesch and Bateson, 1987). Bateson's notion of the Mind thus displays a rich texture or "matrix", as he says, that seeks to account for all the "communication regularities of the biosphere" (Bateson and Bateson, 1979: 142) that comprise various multi-leveled systems of thought. Bateson's theories of Mind, in other words, seek to explore what Peirce calls "psychical truths", or the workings of the Mind in general" (Colapietro, 1989: 51). Thus, for Bateson, Mind or mental process is of a higher logical type or level of abstraction than his other notions of consciousness framed as conscious intent or secondary process. Similarly, Peirce theorizes his three modes of semiotic yet existential being as "categories of consciousness" (1955c: 95) where Firstness is a consciousness of quality, Secondness is depicted as a consciousness of interruption into the field of consciousness, and Thirdness as synthetic consciousness, binding all three together. (See Figure 1.) As Peirce remarks, "the action of thought is all the time going on, not merely in that part of consciousness which thrusts itself on the attention . . . but also in the deeply shaded [or hidden] parts" (cited in Colapietro, 1989: 40). To Bateson's way of thinking, Mind, as a complex matrix of ideas and ideas about ideas, illuminates how ideas (news of difference) move within the system/environment interface to allow for the Form-ation of pattern, purpose, and organization within every living organism. (Bringing these elements into contiguous relation does, of course, constitute Secondness according to Peirce's categories of existence.) Thus Peirce also allows for the accomplishment of Secondness from both secondary conscious purpose and "unconscious" primary consciousness. The meeting place or *interface* at which scientific inquiry or human relations encounter "news of difference", i.e., information, or Secondness, is best understood as yet another existential boundary condition exposed by the unique relationship established between aesthetic experience (Firstness) and mental process (Secondness). As Bateson asserts, the coupling aspect at the boundary (its aspect of discreteness/Secondness) recognizes its recursive capabilities, i.e., "boundaries of any interface are scanned as we meet them and are themselves changed as we alter our relations to them" (Harries-Jones, 1995: 264). Above all, Bateson's evolving epistemology as mental process acknowledges the necessary unity of primary and secondary consciousness or mental process as well as the bound-

14. This phrase is credited to phenomenologist Eugene Fink.

ary conditions from which that unity is ultimately derived. Therefore, Peirce and Bateson theorize Mind as both immanent and transcendent experiences of consciousness.

Both also assign to Mind an imaginative or creative function by recognizing its reflexive and recursive capabilities. Given the above, we see that Bateson's mental process and Peirce's concept of Mind align closely with a phenomenological and semiotic understanding of human relations within a system/environment interface. The relationships between the two reveal what both theorists define as their *Mind-in-action*. This Mind exists, of course, to enliven everyday cultural experiences as well as scientific investigations more broadly.

As Bateson's investigations of science and human communicative action reveals, the recursive and reflexive elements of the relations between aesthetic awareness (Firstness) and mental process (Secondness) are mediated by "the pattern which connects", what Bateson comes to call *the sacred* (Thirdness). Essential to this overall communication process (identified by Peirce as both phenomenological and semiotic) is an understanding of Structure or Forms (Signs to Peirce's way of thinking) that, by their very nature, instantiate boundary conditions between the relations, i.e., the conditions of human perception/expression that engender these relations. As Harries-Jones indicates, in Bateson's posthumous publication *Angels Fear*, written with his daughter, Mary Catherine Bateson, he identifies how boundaries are essential for setting the "outer limits" between living systems and non-living systems, acknowledging Jung's distinctions between *creatura* and *pleroma* in his, Seven Sermons of the Dead (1965). Bateson is also well aware that "wherever a distinction is drawn which separates a unity, as with the figure of *creatura* on the ground of *pleroma*, the distinction will always require a '*third position*' from which the separation of figure from ground can be contemplated" (Harries-Jones, 1995: 97, my italics). At this level of theoretical abstraction, Bateson identifies this third position as *the sacred*.[15] (See Figure 1.)

Now, to understand *the sacred* as Bateson defines it, involves an acknowledgment of the role boundaries play within any system/environment interface. Bateson envisions boundaries as Harries-Jones describes (1995: 99, my italics), as creating "gap[s] in a continuum which is otherwise perceptually undifferentiated. The 'gap' then becomes a locus for contrast, this is for perceiving a difference and creating a distinction between figure and ground. *Once the boundary*

15. Boundaries are, of course, the very means by which any "ordering of relations" abides at any level of human existence or scientific inquiry more generally. Peirce also recognizes the existence of these implicit boundaries when he identifies his three categories of Mind and the distinctions between them.

is perceived, the distinctions in its levels and the characteristics of the 'gap' can be spoken about". Bateson contends, therefore, that these gaps are needed in order to maintain the possibility of *the sacred*. Moreover, Bateson theorizes these gaps within his multi-leveled communicative matrix as primarily the absence of communication or "noncommunication" (Bateson and Bateson, 1987: 80). In typical nomenclature, we call this act silence. As I suggest (Eicher-Catt, 2006), it is beneficial for us to acknowledge that the silence to which Bateson refers marks the very accomplishment of communication between interlocutors (Thayer, 1997). This is especially true if we accept the theoretical premise that information exchange is motivated by a need to reduce uncertainty (Berger and Calabrese, 1975). Communication is accomplished, therefore, at the moment when mutual signification is phenomenologically achieved between interlocutors within any Sign-to-Object-to-Interpretant relationship. At the same time, however, it is a mutuality in silence that must lack any self-consciousness or purpose. Or, in Bateson's terminology, this interface of Structure and Process signals the achievement of "balance" between a system and its environment which emphasizes the boundary or unity between the two. Accordingly, Bateson claims that silence marks the experience of "approaching holy ground" (Bateson and Bateson, 1987: 81) and that "a lack of self-consciousness is right in the center of this business of noncommunication" (1987: 86). Silence, understood in this way, thus manifests the gaps that in turn engenders unevenly distributed information among the interacting parts (1987: 85). On a human level, the result of this experience of uneven distribution of information takes the phenomenological forms of an "unknowing," "secrecy," and/or "mystery" that *the sacred* always seems to conjure.

Moreover, as we weave various fabrics of human existence within this triadic relations of aesthetics, mental process, and the sacred it is no wonder that the operating communicative logic requires "seams" (Eicher-Catt, 2006) to secure both the Structure and the Process. Now, the kinship between the word "seam" and the Greek word for Sign, "semeion" or in its shortened derivative, "seme," (pronounced "seam") is not coincidental. "Seme" is translated in a number of ways, the most relevant being as a Sign, boundary, or divine message, as in the 'signs and tokens' of the God of the Old Testament, such as the rainbow (Wilden, 1987: 142–143). Hence, a seam/"seme" or presence of a Sign, in other words, acknowledges a *divine* phenomenological boundary that exists between continuity and discontinuity, between mind and nature, between aesthetic awareness and mental process. Understanding this process of boundary recognition, through Sign instantiation, is the very Process and ultimate Structure of what Bateson describes metaphorically as *the sacred*.

As is typical of Bateson's evolving epistemology, a fuller appreciation of *the sacred* is not achieved, however, through conscious purpose or an awareness of the boundary that is, in any sense, goal directed. To the contrary, such self-conscious boundary awareness possibilizes only secular discourse, as Bateson understands it, or a discourse at the everyday level of existence. Rather, it is in the silent *Process* of stitching across the gaps and creating the Structural element of a seam/seme that, for Bateson, begins to expose the phenomenological possibilities inherent within *the sacred*. It is, in other words, recognizing within an aesthetic awareness discontinuity as a possible continuity and vice versa. Thus, the "pattern which connects" is mediated by the relationships between *form* (pattern/Sign/seme) and *process* (action/stitching/expression/perception) as phenomenological semiosis of the speaking/perceiving person. In an everyday sense, these "ideas" or developing epistemologies can be revelations; however, they are only produced when we effectively participate in our own determination and evolution at the existential boundary condition presented by a Sign. The accomplishment of this communicational logic induces both positive, i.e., "pure and holy" consequences, and negative, i.e., "impure and unholy" seams/semes, depending upon our level of awareness and responses at the existential boundary.

5. Conclusion

Therefore, from a Communicological perspective (Lanigan, 2000, Catt, 2002, Eicher-Catt, 2001), coming to know and understand *the sacred* is a momentary acknowledgment of the experiential gaps between semiotic relations and the phenomenological experience of those relations as a "pattern which connects". After all, we must come to know that gaps exist before we can attempt to sew them. Coming to know *the sacred* is, in other words, the aesthetic experience of actually phenomenologically "traversing" the existential boundary by stitching semiotic seams through the gaps by way of our operating communicational logic. Coming to know and understand *the sacred* is aesthetically perceiving the boundary as a Sign (Peirce, 1955c) for "perceiving's sake"; in other words, recognizing the fact that the gap and the instantiation of the Sign that follows is beautiful because it possibilizes any system/environment interchange. As we phenomenological come to know *the sacred*, the momentary experience of feeling the problematized boundary is, ironically, a sense of one-ness, of being part of a greater whole, of tapping into a creative power that surpasses what any one individual agency can contrive. Semiotically and phenomenologically it is the simultaneous experience of immanence and transcendence, of feeling at one while also feeling only a part of something greater. We are "empty" while being full. It

is the experience of mystery when we realize that we are able to grasp only one small piece of the larger fabric of existence that will remain eternally unknown, beyond our complete incorporation.

Another look at Bateson's later work, and especially his *epistemology of the sacred*, proves timely, I believe, at this juncture in postmodern theorizing. In a philosophical climate that appears in many ways to have all but dismissed an aesthetic for life in general and scientific inquiry, in particular, it behooves researchers to take a closer look at Bateson's attempts to cover new epistemological ground. The need for us to fully explicate how a system/environment interchange becomes "survival-worthy", or how we generate successful negotiations among particular relations of domination and physical forces, are all the more necessary within a postmodern condition fraught with ambiguity. Although some researchers may contend otherwise, Bateson is not representative of modernist notions, reminiscent of appeals to only inductive and hypothetical-deductive models of logic. He is, instead, a critical experientialist (Lanigan, 1992); he successfully combines, in other words, eidetic exploration (mental) with empirical reality (nature) in a semiotic phenomenology of the embodied organism. He seeks to recapture the generative power inherent within an abductive logic. As such, he moves us closer as human beings to an understanding of the important existential nexus point, where personal and cultural experiences intersect by way of a communicational logic.

As I have demonstrated, at all levels of thought—from the most basic to the most complex—Bateson's triadic conceptualization of existential relations closely mirrors Peirce's philosophy. Throughout his long career as an anthropologist and communication researcher, Bateson seeks to articulate how we come to know and understand *the sacred* as a recursive, phenomenological, and semiotic logic activated within the parameters of an evolving ecology among the modes of being Peirce identifies as Firstness, Secondness, and Thirdness.

Bateson is correct to accentuate the interface or gap within this ecological process. The gap is, indeed, the seam/Sign where we might find/create "holy ground". Any Sign, however, does not construct *the sacred* as something static to which we can easily refer and preserve (Bateson and Bateson, 1987: 149), although our many rituals attempt to symbolically do just that. Rather, as we repeatedly experience, it is the very nature of *the sacred* to be illusive. Instead, as one who is concerned with the healthy balance between any ecological system and its environment, Bateson encourages us to appreciate any boundary condition; for at that precious interface, with the subsequent engendering of Signs that follow, we necessarily constitute the communicative *relationships* from which *the sacred* might sufficiently emerge as a new pattern/form.

Accordingly, we begin to see that any boundary and its conditions of activation, constitution, and transformation, semiotically and phenomenologically produce the human mental process of repetitious Sign actions (semiosis to Peirce) that Bateson sought so earnestly to expose as his "ecology of Mind". Reading Bateson alongside Peirce, we understand that Bateson's notion of *sacred unity* is a call for all of us to establish new boundaries for personal and scientific thought that necessarily expose the appositions of experience, consciousness, and communication that condition the very possibility of difference—of new and ever-evolving information and knowledge within the realm of Mind and nature. As such, we become better human beings within our worlds. We become able to recognize the logic of the sacred operating, or "weaving" if you will, within all human existence.

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