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**METAPHORS OF TRANSCENDENCE:
A MULTIDISCIPLINARY EXAMINATION OF TWO MODELS OF
TRANSPERSONAL DEVELOPMENT.**

by

ARIEL FUENZALIDA, B. A.

A thesis submitted to the faculty of Graduate Studies and Research
in partial fulfillment of
the requirements for the degree of

Master of Arts

Department of Religious Studies

Carleton University
Ottawa, Ontario
November 21st, 1997.
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EXAMINATION OF TWO MODELS OF TRANSPERSONAL DEVELOPMENT**

submitted by Ariel Fuenzalida, B.A.
in partial fulfilment of the requirements for the degree of
Master of Arts

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November 21, 1992
date

ABSTRACT

Ken Wilber's "spectrum model" of human development and Michael Washburn's "dynamic-dialectical" paradigm are evaluated through a multidisciplinary examination of contemporary empirical and phenomenological research. Research dealing with different aspects of ontogenetic and phylogenetic evolution (e.g., pre- & perinatal brain development and the evolution of the hominid brain), alternate states of consciousness research (e.g., the psychobiology of meditation and shamanic states of consciousness), as well as research dealing with the differential diagnosis of psychotic experiences and mystical experiences is presented with the hopes of giving some empirical grounding to either of these two opposing theories of transpersonal human development. The conclusions reached fall in favor of Wilber's general hierarchical model of development.

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The field of transpersonal psychology finds its origins in the midst of the turbulent American countercultural revolution of the 1960's where it arises and distinguishes itself, as a separate discipline, from the humanistic psychology movement, or "third force" in psychology. Humanistic psychology attempted to counterbalance the dominant thinking in psychology brought about by psychoanalysis and behaviorism (the first and second forces respectively) by directing its attention to psychological health instead of psychopathology. By implication, humanistic psychology extended "an openness to all aspects of human nature and human beings: behavior, cognition, and affect as well as transcendent experience" (Valle 1989: 257). The "human potential movement," as it became characterized in popular culture, was established, in great part, by such luminaries as Abraham Maslow, Carl Rogers, Rollo May, Anthony Sutich and Viktor Frankl, to name a few. "From a historical-philosophical perspective, the humanistic movement was, and continues to be, both a reaction to and an attempted completion of the world-views or approaches within more mainstream, traditional psychology" (Valle 1989: 257).

Despite its openness, however, there remained some resistance to ideas that attempted to extend human nature far beyond the ordinary confines of the individual ego-self. This resistance prompted Anthony Sutich, the founding editor of the *Journal of Humanistic Psychology*, to start an informal study group dedicated to "transhumanistic" issues¹. This small group would prove to be the impetus for the emergence of the "fourth force" in psychology, which would come to be called transpersonal psychology.

¹ The term *transhumanistic* was used by Julian Huxley in his book of essays entitled "New bottles for new wine" (1957).

Maslow's 1967 lecture entitled "The Farther Reaches of Human Nature," is considered the first *public* presentation of the fourth force (Maslow: 1969; Sutich: 1976). It is during this lecture that Maslow raises the notion that "optimal states" and "optimal values" extend well beyond our conventional notions of time, space, form, and most importantly ego-self boundaries. By extending the scope of inquiry into transcendent, mystical, and peak experiences, the long sought after bridge between the opposing views of modern science and the mystical and spiritual traditions began to be erected.

The opening up of this new realm of inquiry spawned the official birth, in 1968, of transpersonal psychology, with Maslow, Sutich, and Stanislav Grof as its main proponents and theoreticians. The Transpersonal Institute and the Association for Transpersonal Psychology were established with the intent of exploring the relationship between altered states of consciousness and spirituality to psychology. In 1969, Sutich edited the first issue of the *Journal of Transpersonal Psychology*, whose original mission statement was concerned with

...the publication of theoretical and applied research, original contributions, *empirical* papers, articles and studies in meta-needs, ultimate values, unitive consciousness, peak experience, ecstasy, mystical experience, B-values, essence, bliss, awe, wonder, self-actualization, ultimate meaning, transcendence of the self, spirit, sacralization of everyday life, oneness, cosmic awareness, cosmic play, individual and species wide synergy, maximal interpersonal encounter, transcendental phenomena; maximal sensory awareness, responsiveness and expression; and related concepts, experiences and activities. As a statement of purpose, this formulation is to be understood as subject to *optional* individual or group interpretation, either wholly or in part, with regard to the acceptance of its content as essentially naturalistic, theistic, supernaturalistic, or any other designated classification (JTP: 1(1), italics theirs).

Immediately following its appearance, the Menninger Foundation sponsored the first Council Grove Conference dedicated to research on biofeedback, psychedelics, yoga, and meditation. The interest generated by the journal and conferences led to the founding of numerous transpersonally oriented institutions and associations such as the Institute of Noetic Sciences (established in 1973), the Institute of Transpersonal Psychology (established in 1976), the California Institute of Integral Studies (established in 1974), and the International Transpersonal Psychology Association, founded by Grof in 1973.

Transpersonal psychology (and the human potential movement) has gone through three very distinct “waves” (Walsh & Vaughan: 1993; Schwartz: 1995). The initial wave tended to focus on the peak experience, the weekend workshop, the marathon encounter group, etc.² Esalen Institute, cofounded by Michael Murphy and Richard Price, was the focal point of these pursuits. When the limitations of the “quick fix” started to become apparent, the emphasis on the peak experience gave way to the second wave, which focused on the “plateau experience”. While the peak experience was a useful wake-up call, its preliminary effects tended to fade quickly. It became obvious that a genuine transformation requires time, work, and effort. The second wave propelled people to take up transformative practices such as Zen, yoga, extended dream work, prolonged body work, or sustained psychotherapy. In short, the weekend workshop gave way to a sustained practice. Even this, however, had its limitations. Each of these sustained practices exercised only one of the many faculties of the human organism (e.g. awareness, dreams, emotional openness, insight, physical skill, etc.) inevitably creating

² One of the common slogans that aptly summarizes this initial wave of sensory-dominated explosiveness was “lose your mind and come to your senses”.

an unbalanced constitution for the individual. In other words, while one developmental line may be highly developed, the other lines of development remained immature. Thus the second wave gave way to the third wave, which is just now beginning: the wave of integral practice.

Closely linked to transpersonal psychology, the discipline of transpersonal anthropology emerged as an organized field of study in the mid-1970's (Laughlin: 1994). While both disciplines share a common interest in transpersonal experiences, transpersonal anthropology distinguishes itself from transpersonal psychology by directing its efforts into "the investigation of the *relationship* between consciousness and culture, altered states of mind research, and the inquiry into the integration of mind, culture and personality" (Campbell & Staniford 1978: 28, italics mine). In other words, transpersonal anthropology is the cross-cultural study of transpersonal experiences. In an attempt to counter the extreme forms of cultural relativism spawned by postmodern thought, the Biogenetic Structural approach of Charles Laughlin, John McManus, and Eugene d'Aquili (1990) emphasizes the importance of a neurophenomenological approach to transpersonal experiences. In doing so, this perspective "combines a direct exploration of transpersonal experience with a grounding in the neuroendocrinological processes mediating consciousness," in order to uncover "the underlying, universal structures that produce those experiences" (Laughlin 1994: 9).

Ken Wilber, arguably the most influential theoretician in the field, has been a powerful beacon contributing greatly to the advancement of transpersonal thought. The appearance of his spectrum model of consciousness in 1977 supplied transpersonal psychology with an overarching paradigm; which united the seemingly disparate and

contradictory material from contemporary psychology and comparative religion --both East and West-- into a mandalic map of consciousness. Besides Jung's depth-psychological model, Wilber's spectrum of consciousness has, by and large, dominated the field³. Michael Washburn's Dynamic-Dialectical paradigm arises as an alternative to Wilber's spectrum model of human development. Its appearance in 1988 gives the field of transpersonal psychology, for the first time, a viable alternative. As a consequence, the opportunity to evaluate some of the field's main assumptions concerning such issues as regression, the nature of psychological development, the pre/trans fallacy, etc. It is this sort of critical examination, debate, and evaluation that spurs a field to grow and establish itself as a force to be reckoned with. It is my belief that the outcome of this debate will have crucial consequences for the future of transpersonal psychology.

In what follows, I will attempt to examine both of these models of transpersonal development in light of research findings from the neurosciences. In the first chapter, I will briefly outline Wilber's and Washburn's models of human development and point out the main areas of disagreement. In the second chapter, I will present empirical and phenomenological research dealing with different aspects of ontogenetic and phylogenetic evolution (e.g., pre- and perinatal brain development and the evolution of the hominid brain), alternate states of consciousness research (e.g., the psychobiology of meditation and shamanic states of consciousness), as well as research dealing with the differential diagnosis of psychotic experiences and mystical experiences. In the third

³ In addition to Wilber and Washburn, two other transpersonal theorists should be mentioned. Stanislov Grof's cartography of the psyche (1975, 1985, 1988) has greatly expanded the understanding of the human unconscious and its transpersonal potentialities. David M. Levin (1985, 1988, 1989) is a transpersonal philosopher who derives his "phenomenology of embodiment" from the hermeneutical and phenomenological work of Heidegger and Merleau-Ponty.

chapter, I will briefly examine the implications of this research and apply it to the Wilber-Washburn debate with the hopes of acquiring some support for either of these theories.

My underlying thesis concerns itself with the *application* of the idea that structure and function cannot be separated. Following this reasoning, I will assume that there is a correlation between the neurophysiological *organization* of the brain and the subjective experiences *mediated* by these underlying neural structures⁴. In other words, the Wilber-Washburn debate can be examined in light of evidence derived from the neurosciences, as long as we keep in mind that structure and function cannot be separated, and hence one cannot be *reduced* to the other.

⁴ This idea comes, in large part, from Biogenetic Structural Theory (Laughlin et al: 1990) and the neurophenomenological work of Maturana and Varela (1987).

CHAPTER ONE:**TWO MODELS OF TRANSPERSONAL DEVELOPMENT**

“Except for those few who individually choose the path of transcendence, it is quite true that history is, and will remain, the chronicle of men and women born too soon.”

- Ken Wilber

“Integration is an inherited destiny belonging to the human race as a whole.”

- Michael Washburn

Ken Wilber's Spectrum Model of Development

Within the developing field of Transpersonal psychology, Ken Wilber has established himself as one of its most influential thinkers and theoreticians. The extraordinary scope and scholarship of his writings, coupled with the multidisciplinary synthesis he has created, has led some people to conclude that, “the modern world actually has three choices: Aristotle, Nietzsche or Ken Wilber” (Crittenden 1997: viii). Wilber’s metanarrative is heavily influenced by structurally oriented psychology (e.g., the cognitive-developmental theory of Jean Piaget, Kohlberg’s theory of moral development, etc.), the hierarchically oriented metaphysics of the Eastern traditions (especially the Buddhist and Vedantic traditions), the communicative action theory of Jurgen Habermas, and the perennial and neoperennial philosophy (e.g., Plotinus, Aurobindo, Hegel, Schelling, Teilhard de Chardin, Radhakrishnan, etc.).

In his first book, “*The Spectrum of Consciousness*” (1977), Wilber employs the metaphor of the spectrum of light to suggest that consciousness can be understood as a spectrum comprised of levels and/or states that correspond to the different structures of the unconscious. Furthermore, he proposed “that *each of the differing schools of psychotherapy --East and West-- are primarily addressing different levels of the spectrum*” (Wilber 1977: 27, italics his). The different schools of psychotherapy can, therefore, be seen as being partially correct and complementary instead of as antagonistic and contradictory.

After having developed this infrastructure for his model of the psyche, he went on and applied it, with certain modifications, to developmental psychology (Wilber: 1980, Wilber et al: 1986), anthropology/human evolution (Wilber: 1981/1986), sociology

(Wilber: 1983b), epistemology (Wilber: 1983a, 1993a), ontology (Wilber: 1993b), the relationship between physics and mysticism (Wilber: 1982, 1984), art (Wilber: 1996b, 1997), literature (Wilber: 1997), and most recently, to “everything”⁵ (Wilber: 1995a, 1996a). In what follows, I will attempt to give a brief overview of Wilber’s thought regarding his developmental and evolutionary models.

Wilber and the *Philosophia Perennis*

Upon studying the world’s great mystical traditions, one is struck by the fact that, at their very core, they seem to share some of the same fundamental principles. Generally speaking, these principles recognize an immemorial and universal underlying dimension of the world and the self that is similar if not identical with “divine” Reality. Aldous Huxley, among others, came to this conclusion and, following Leibniz, referred to the core teachings of the great wisdom traditions as the *philosophia perennis* (i.e. perennial philosophy) (Huxley:1945/1994). Throughout history, many of the greatest philosophers and scientists have also based their ideas on some of these same principles. It is with this in mind that the philosopher Arthur Lovejoy contends that the perennial philosophy “has, in one form or another, been the dominant official philosophy of the larger part of civilized mankind through most of its history” (Lovejoy 1936/1964: 26).

The idea of the *Great Chain of Being* is one of the central components of the perennial philosophy. According to the great chain, reality does not manifest itself as one uniform and distinct substance. Instead, reality is composed of a continuum of different dimensions, levels, or grades (Lovejoy: 1936/1964). At the lowest end of this continuum

⁵ By using the term “everything”, I am specifically referring to Wilber’s book entitled *A Brief History of Everything* (1996a), which is the simplified version of his massive 800 page work entitled *Sex, Ecology,*

lies the most dense and least conscious levels of reality (i.e. matter), while at the other extreme, lies the most subtle and most conscious levels of reality (i.e. Spirit)⁶. Joining these extremes is a range of dimensions or levels seamlessly connecting the entire continuum. The simplest version of this chain is: matter, body, mind, soul, spirit.

The work of Ken Wilber is an attempt to reestablish, within a modern context, our severed connection with the perennial philosophy. In attempting to do so, Wilber's "spectrum of consciousness" becomes a contemporary version of the idea of the Great Chain of Being. In fact, at the very heart of Wilber's worldview, we hear the echoes of the Great Chain telling us that reality is multilayered. The multidimensional nature of reality expresses itself in the different dimensions, or levels, of existence, which come to form an ontological hierarchy. According to Wilber, the different levels within this hierarchy correspond to the different basic structures of consciousness (i.e. the different bands of the spectrum).

As individual development unfolds, there is a sequential process of identification with each of the different levels of the hierarchy⁷. Each structural level enables the individual to identify with that particular dimension, or level, of reality. At the level of body, for example, there is a strict identification with the physical body. All other dimensions (i.e. mind, soul, spirit) are considered alien, dangerous or non-existent. Development, for Wilber, is understood as the progressive movement up this Chain of Being, whereby consciousness becomes increasingly free of the boundaries imposed by each of the levels with which it had previously identified. The higher up the chain one

Spirituality: The Spirit of Evolution (1995a). In these works Wilber attempts to trace evolution --physical, biological and human-- within the context of the perennial philosophy.

⁶ "Spirit", while being the highest level is also the "ground of being" for the entire continuum. I will expand on this idea later.

proceeds, the freer consciousness becomes, until the eventual re-union and “remembrance of spirit-as-spirit” (Wilber 1996c: 14).

For Wilber, this re-union and remembrance necessarily presupposes a prior ontological and cosmological “Oneness.” Following the perennial philosophy, as represented by Sri Aurobindo, Coomaraswamy, the Lankavatara sutra, and the Bardo Thodol (to name a few), he interprets the relation between the manifest universe (i.e. matter) and Spirit as consisting “of two major ‘movements’: evolution and involution” (Wilber 1980: 160). Evolution is the ascending movement from the lower to the higher (i.e. from matter, to body, to mind, to soul, to spirit), as we have briefly seen. Involution,⁸ on the other hand, is the exact opposite. It is the movement from the higher to the lower (i.e. from spirit, to soul, to mind, to body, to matter).

Involution is the ultimate act of pure creativity, whereby the manifest world arises through the “self-emptying” of Spirit. In other words, involution is the movement “down” the Great Chain of Being, which culminates in the illusory disguise of “spirit-as-matter,” which takes form as the material world. This extreme point of ontological alienation is “the *lowest form of Spirit in its return to Spirit*” (Wilber 1983a: 203, italics

⁷ I will expand on this idea as we proceed.

⁸ Wilber differentiates between four types of involution: 1) *Cosmological involution* is the “creative” descent, or fall (in Christian terminology), of Spirit into matter, or simply manifestation; 2) *Ontological involution*, as described in the Bardo Thodol, deals with the various stages of the afterlife state wherein “the soul, having been immersed directly in Spirit, then begins to flee Spirit and descend into lower and denser realms eventuating in isolated and alienated rebirth in a physical body” (Wilber 1990: 124); 3) *Microgenetic involution* is the “fall” as experienced in each and every moment. “At the beginning of *this* and every moment, each individual *is* God as the Clear Light; but by the *end* of this moment -- in a flash, in the twinkling of an eye -- he winds up as an isolated ego” (Wilber 1980: 175, italics his); and 4) “*Tantric involution* deals with cosmic prana, breath, or Kundalini. “With every inhalation you are said to breath spirit into your bodily being, where you feel separation and isolation; that is, with every breath you incarnate as a separate body, as a separate-self sense. But with every exhalation you release the separate-self sense back to infinity” (Wilber 1990: 125-126). In what follows, I will be employing the first two definitions of the term involution interchangeably.

his). However, this “self-alienated Spirit” holds *within it all* of the higher structures “enfolded as *undifferentiated potential*” (Wilber 1980: 161, italics his).

For Wilber, this process applies to both ontogeny and phylogeny because “the infant and the primitive share at least a few general characteristics, even though radically different in context” (Wilber 1981/1986: 25). Consequently, since ontogeny recapitulates phylogeny (at least to a certain degree), the various structures of consciousness that have arisen throughout the course of human evolution correspond to the same structures of consciousness that emerge throughout the process of ontogenetic development. Therefore, ontogenetic and phylogenetic evolution is, for Wilber, the process of unfolding these previously enfolded potentials (Wilber: 1980, 1981). “At the end of evolution, *all* of the structures enfolded in the ground-unconscious have emerged in consciousness, which drains the ground-unconscious and leaves only...Consciousness as such” (Wilber 1980: 161-162, italics his).⁹

The Nature of Hierarchy

In recent times, severe criticisms have been leveled at any theory espousing any notion of hierarchy¹⁰. Since this concept is central to Wilber’s model, he has had to rescue it from being solely and mistakenly associated with political orders of power

⁹ One of the useful implications of adopting the ontogeny recapitulates phylogeny thesis concerns the possibility of foreseeing the future course of human evolution, by observing the structures of consciousness that emerge in the ontogenetic development of individuals that have surpassed the “average mode of consciousness” (e.g., sages, saints, mystics, etc.). “If the overall hypothesis is correct, then what we see in the stages of present-day meditation is the same thing we saw in the stages of the historical evolution of the *advanced tip* of consciousness: we see the unfolding of the higher levels of the Great Chain of Being. And *therefore* we also see the probable *future stages* of the evolution of the *average mode* of consciousness, consciousness on the whole. In simplistic terms, we see humanity’s future” (Wilber 1981/1986: 321, italics his).

¹⁰ It should be noted that the etymological meaning of the word “hierarchy” is derived from the Greek *hieros* meaning “sacred” and *arche* meaning “order”. Hence, hierarchy literally means “sacred order”. It is this meaning that Wilber is interested in rescuing.

which have employed it for social oppression, domination, marginalization and injustice. To accomplish this, he draws on Arthur Koestler's notion of a 'holon'¹¹ to make a clear distinction between natural and pathological, or dominator, hierarchies. The former, he points out, form the backbone of developmental psychology and the 'new systems sciences' (i.e. systems theory¹²). One of the central notions that systems theories hold in common is the claim that wholeness without hierarchy is impossible. This means that within any developmental sequence, what was considered a whole during one part of the sequence becomes a part of a larger more complex whole during a later stage of that same sequence. Wilber's favorite example of this natural hierarchical unfolding comes from writing. He states: "A letter is part of a whole word which is part of a whole sentence, which is part of a whole paragraph, and so on" (Wilber 1993b: 215).

The evolutionary movement up the hierarchy proceeds by a process of 'inclusion', which serves to define and establish which stage/s (i.e. holons) are 'higher' along the developmental sequence¹³. As one stage gives way to the next 'higher' stage, the capacities, functions, and patterns of the previous stage are included within the unique structure of the new, more encompassing stage. The new stage *preserves and includes*

¹¹ A holon is something which being a 'whole' in one context is simultaneously a 'part' in another context. In the sentence, "John is playing ball", for example, the word 'ball' is a whole with respect to the letters that compose it, but it is simultaneously a part with respect to the entire sentence. The term 'holon' is derived from the Greek "*holos*" meaning whole and the suffix "*on*" refers to a particle or part. Literally then, holon = whole/part (Koestler: 1967/1978: 48).

¹² Wilber uses the general term 'systems theory' to include such diverse fields as cybernetics, nonequilibrium thermodynamics, autopoietic systems theory, catastrophe theory, dynamic systems theory, chaos theory, etc. (Wilber: 1995a, 1996a).

¹³ The process of establishing the hierarchical order of holons is not arbitrary, for Wilber. He contends that there is a "vertical" dimension to evolution which governs the emergence of complexity. The more *fundamental* a holon is, the *less depth* it contains because it serves as a necessary component for the subsequent existence of "higher", more complex holons. Due to its lack of depth, however, it is less *significant* to the Kosmos, because it embraces so little of it. "On the other hand, the greater the depth, or...wholeness of a holon, then the *less fundamental* it is because fewer other holons depend on it for their own existence...But by the same token, the less fundamental, the more significant: the *more*

the crucial elements of the previous stages while, at the same time, transcending and contributing something ‘extra’ to the overall whole¹⁴. It is only in this sense that a stage can be said to be ‘higher’ than any other stage. With reference to our previous example, it can be said that paragraphs *include* sentences, which *include* words, which *include* letters (but not vice versa) and all of them are equally important and necessary. When hierarchy is used within the context of the perennial philosophy, we should come to understand it as a “ranking of orders of events *according to their holistic capacity*” (Wilber 1993b: 215, italics his).

A second important point with regard to natural hierarchies concerns their asymmetrical nature. The irreversibility of the arrow of time asserts that a developmental process cannot occur in the reverse order. For example, you cannot have a sentence without words, or an organism without cells. This process of hierarchization, Wilber points out, is common to all developmental and evolutionary sequences (Wilber 1995a: 19). Hierarchization, therefore, necessarily implies a sequential unfolding of stages, levels, or phases of development.

In other words, growth occurs in *stages*, and stages, of course, are *ranked* in both a logical and chronological order. The *more holistic* patterns appear *later* in development because they have to await the emergence of the parts that they will then integrate or unify, just as whole sentences emerge only *after* whole words.
(Wilber 1995a: 20, italics his)

This stagelike unfolding clearly implies that, within a developmental sequence, a stage of development **cannot** be skipped, or jumped, over. A higher stage cannot arise unless the

significant...because more of the universe is reflected or embraced in that particular wholeness” (Wilber 1995a: 63, italics his).

basic structures of the stage below it have already emerged and been sufficiently established.

There is, however, a fair amount of inter-level influence operating within a hierarchy. A higher level can exert a certain degree of control and influence over a lower level, through 'top-down' or 'downward causation'. Deciding to stand up to change the channel on your television would be an example of downward causation because a higher-order structure, your mind in this case, influenced your physical organism (which is composed of organs, cells, molecules, atoms, etc.), a lower-order structure, to act. Similarly, a lower level can influence a higher level through 'bottom-up' or 'upward causation'. Seeing visions after ingesting a psychotropic substance is an example of upward causation because the introduction of a chemical substance into your organism changes the chemical balance your system is used to and, consequently, influences your mind to perceive visions.

Because upward and downward causation operates *between* levels of a hierarchy, there exists the possibility of repression, overdomination, and alienation of lower and/or higher stages. When this occurs, we have a hierarchy gone pathologically askew. At the root of a pathological hierarchy lies an overly dominant holon which assumes it is a whole when, in fact, it is a whole/part. The overdomination of one holon, over all other holons, causes a communication breakdown *between* levels and the stages of the great chain above this level collapse under the power of the pathologically dominant holon. A second type of pathology that may arise deals with the mechanisms *within* a level. What

¹⁴ This progressive unfolding of "increasing orders of wholeness" is what Koestler termed *holarchy* (Koestler: 1967/1978). Wilber adopts this term and uses it as a synonym for hierarchy. I will henceforth use both terms interchangeably.

Wilber calls a pathological heterarchy¹⁵ consists of the blurring, or fusion, of a holon with its environment. The holon assumes it is only a part when, in fact, it is a whole/part. The ensuing situation causes a loss of value and identity whereby all distinctions of depth come crashing down into a homogenized sea of blandness.

In other words, in pathological *hierarchy*, one holon assumes agentic dominance to the detriment of all...[I]n pathological *heterarchy*, individual holons lose their distinctive value and identity in a communal fusion and meltdown. This holon... becomes only *instrumental* to some other use; it is merely a strand in the web; it has no intrinsic value.
(Wilber 1995a: 23, italics his)

The Three Main Components of the Spectrum

Wilber maintains that there are three central components to his overall spectrum model of consciousness. They are: 1) the basic structures of consciousness, 2) the transitional structures of consciousness, and 3) the self-system (or self). The distinctions he draws between the basic and transitional structures of the psyche are of paramount importance because “they underscore two fundamentally different types or sequences of human growth and development” (Wilber 1981: 36). Whereas some structures remain in existence throughout the course of development, others pass away and are forever replaced (barring extreme pathology). Wilber argues that the notion of transcendence actually hinges on distinguishing between these two patterns of ontogenetic development (Wilber 1997: 142). Hence, as we proceed, this distinction will become increasingly elaborated.

¹⁵ The elements within any given stage are governed by heterarchy. Heterarchy refers to the establishment of an egalitarian and pluralistic governance by all the involved parties. When normal heterarchy ensues, this egalitarian interplay contributes to the overall integrity and health of that particular stage (Wilber: 1995a).

As we have already suggested, the basic, enduring, or deep, structures of consciousness are, in effect, the contemporary equivalents to the levels composing the Great Chain¹⁶. Therefore, all of what has just been said concerning holons, hierarchies, and the Great Chain also applies to the basic structures of consciousness. What is of crucial importance, however, is that the lower levels *mediate* the emergence and development of the higher levels (Wilber: 1981/1986). Furthermore, once the lower levels emerge, they tend to *remain in existence* even though they are subsumed, incorporated and transcended by developmentally higher levels of the chain. Piaget's four major stages, or structures, of cognitive development (i.e. sensorimotor, preoperational thinking, concrete operational thinking, and formal operational thinking) are examples of basic structures of consciousness.

Wilber sees his spectrum model of consciousness as a type of "master template" that covers the three great domains of prepersonal, personal, and transpersonal¹⁷. This master template was formulated through a structural comparison and analysis of the major schools of psychology and religion, both East and West. His overall spectrum model contains as many as 17 basic structures (Wilber: 1980), but he usually condenses and simplifies his template to the following ten basic structures of consciousness (Wilber et al: 1986):

¹⁶ "The basic structures of consciousness are essentially the traditional Great Hierarchy of Being" (Wilber 1997: 140).

¹⁷ Echoing the great wisdom traditions, Wilber maintains that humans are capable of accessing three general realms of being and knowing: the sensory (body), the mental (mind), and the spiritual (spirit) (Wilber: 1983a). Throughout the various disciplines, numerous names have arisen to refer to these three realms -- prerational, rational, transrational; pre-egoic, egoic, trans-egoic; subconscious, self-conscious, super-conscious; prepersonal, personal, transpersonal; etc. The general idea underlying this tripartite division comes from Hegel which holds that 'all phenomena develop'. Thus, "the structures of consciousness are not just given at the start they can only be conceived as ones that have *developed*" (Wilber 1982a: 68).

1. **Sensoriphysical** -- This level comprises the physical substratum of the organism (i.e. matter) and incorporates such functions as perception and sensation. The correlation's to this level are: Piaget's sensorimotor level; Aurobindo's physical-sensory level; the first three Buddhist skandhas, etc.
2. **Phantasmic-emotional** -- This level comprises the emotional-sexual domain. Simple mental images begin to emerge and consequently tend to predominate the mind. The correlation's to this level are: Vedanta's pranamayakosa; the fourth Buddhist skandha; prana; libido; bioenergy; élan vital, etc.
3. **Representational mind (Rep-mind)** -- There are two stages to this level. The emergence and development of symbols (2-4 years) and later that of concepts (4-7 years). The correlation's are: Piaget's preoperational thinking; Aurobindo's "will-mind"; the third chakra in Yoga psychology, etc.
4. **Rule/Role mind** -- This is the first structure of consciousness that can take the role of the other, as well as perform rule operations (i.e. multiplication, division, class inclusion, etc.). The correlation's are: Piaget's concrete operational thinking; Aurobindo's "sense-mind"; Yoga's fourth chakra, etc.
5. **Formal-Reflexive mind** -- This is the first structure of consciousness capable of thinking about thinking, and hypothetico-deductive reasoning ('if A then B'). The correlation's are: Piaget's formal operational thinking; Aurobindo's "reasoning mind"; Yoga's fifth chakra, etc.
6. **Vision-Logic** -- The first structure of consciousness capable of "higher order synthesizing" (i.e. the ability to establish networks of relationships between ideas,

concepts and models). This is the last structure within the personal domain. The correlation's are: Aurobindo's "higher mind".

7. **Psychic** -- The first of the transpersonal or contemplative levels. The individual's personal concerns and perspectives give way to the greater universal concerns and perspectives. This level is characterized by the opening of the "third eye" in Yoga psychology. The correlation's are: Aurobindo's "illuminated mind"; the preliminary stages of Hindu and Buddhist meditation.
8. **Subtle** -- The home of the Platonic Forms, archetypes and personal deities, such as the Gnostic demiurge, the yidam in Mahayana Buddhism, and the istadeva in Hinduism. The correlation's are: Theravada Buddhism's four jhanas with form; Aurobindo's "intuitive mind"; Kabbalah's geburah and chesed; Hinduism's savikalpa samadhi; etc.
9. **Causal** -- "The causal level is said to be the unmanifest source or transcendental ground of all the lesser structures: the Abyss (Gnosticism), the Void (Mahayana), the Formless (Vedanta)" (Wilber et al 1986: 73). The correlation's are: Aurobindo's "Overmind"; Hinduism's nirvikalpa samadhi; Zen's eighth ox-herding picture; Theravada's jhana samadhi; etc.
10. **Ultimate** -- The Ultimate is not a level per se, but is the condition or "Suchness" of all levels. The total completion and integration of manifest Form with unmanifest Formlessness. The correlation's are: Aurobindo's "Supermind"; Atman-Brahman (Hinduism); Zen's "One Mind"; etc.

Echoing the Buddhist notion of the five skandhas, Wilber points out that the basic structures of consciousness are inherently "selfless" or "devoid of self" (Wilber 1981:

41). In other words, if you closely inspect the basic structures, you would be unable to say “the self or ego is there.” As we will see, each new level reconstitutes the sense of self. The self is not an actually existing entity, but is rather a subjective experience accompanying the different levels of the spectrum.

The self-system is the component that actually mediates between the basic and transitional structures of consciousness. The self ¹⁸ is the locus of a number of different characteristics which, for Wilber, include: 1) *Organization* -- The self-system actively organizes psychological reality and endows the “I” with a frame of reference; 2) *Identification* -- In organizing psychological reality, the self-system creates the identity which we come to experience as “I/me”, as opposed to “not-I/me”; 3) *Defense* -- Through the process of identification, the self-system creates defense mechanisms, in order to protect and preserve what it identifies with; 4) *Will* -- The self-system is the locus of choice, but only within the parameters of the level it presently inhabits; 5) *Metabolism* -- The self-system holds the task of “metabolizing,” or processing, the experiences it confronts at each of the developmental levels; and 6) *Navigation* -- The self-system has a number of choices to make as it navigates along the developmental lines. It can choose to stay at the present level, or it can release itself from the present level (i.e. move up or down the great chain). Furthermore, Wilber contends that there are four “directional pulls” that the self faces. *Between* levels the self is faced with ascent and progression or descent and regression. *On* a given level it must choose between preservation,

¹⁸ Wilber divides the “self” into what he calls the “proximate self”, which is the subjective self experienced as “I”, the “anterior self”, which is subjectively experienced as “I-I” (i.e. the intuition of the Witness or Silent Watcher in meditation), and the “distal self”, which is the objective self experienced as “me/mine” (Wilber 1997: 318, note 6).

integration and consolidation (Eros) or negation, differentiation and separation (Thanatos).

As development ensues and the basic structures chronologically unfold, the self begins to identify with each of the successive levels¹⁹ (up to a certain point). At each level the self must preserve²⁰, consolidate and integrate all the essential aspects of that level, before it can successfully negate²¹, differentiate and separate from its present level, and ascend to the next higher level. In order to accomplish this task, the self must negotiate a developmental “fulcrum” of self-differentiation and structuralization (Wilber et al: 1986), which if successfully navigated “establishes a new, important and very different *type of self boundary*” (Wilber 1995a: 584 note 3, italics his). This process of identifying with a new self boundary actually generates a level specific set of transitional structures of consciousness.²²

At each fulcrum,²³ the self undergoes a 1-2-3 process of: 1) merger/fusion/embeddedness, 2) differentiation/transcendence, and 3) incorporation/integration. Therefore, the self starts out embedded in, or exclusively identified with, a basic structure of consciousness (sub-phase 1 of the fulcrum). As healthy development unfolds, the self then differentiates from, and transcends, its present

¹⁹ Identifying with a level literally means becoming a physical self, in the case of the sensoriphsical level, or an emotional-body self, in the case of the phantasmic-emotional level, and so on. This will become increasingly clear as we proceed.

²⁰ The self-system walks a very fine line in its phase-specific task of preservation. If the task is misnavigated, normal or healthy preservation can become pathological and turn into fixation. Fixation, or morbid preservation, occurs when the self-system refuses to dis-identify with a particular level, leaving no room for the emergence of the next higher level (Wilber et al 1986: 82).

²¹ Much like the task of preservation, negation, if misnavigated, can become pathological and turn into repression, dissociation, or splitting. While normal or healthy negation serves to differentiate between self and object, *within* a level, and helps the process of separation and transcendence *between* levels; morbid negation consists of a premature differentiation and dis-identification from the components of a level *before* proper integration and consolidation have taken place (Wilber et al 1986: 82).

²² “As the self ‘steps up’ each higher rung in the ladder, it *generates* a set of transition-replacement structures” (Wilber 1981: 41-42, italics his).

structure (sub-phase 2 of the fulcrum), so that it may subsequently incorporate and integrate the lower structure into the next higher structure of consciousness (sub-phase 3 of the fulcrum).

With the above in mind, we can see that growth, or ascent, for Wilber, necessarily implies “death”, since the self must eventually negate and release itself from its previous exclusive identification. Once the self has “died” to its present level, it experiences a “rebirth” at the next, more encompassing level before the process begins all over again. In so doing, the self-system becomes the most important component of Wilber’s model because “it is the vehicle of development, growth and transcendence” (Wilber 1981: 42).

The transitional, or exclusivity, structures that the self-system generates are temporary in nature and hence tend to be dissolved, negated, discarded or replaced by each ensuing level of development. In other words, transitional structures are not subsumed and incorporated in the developmental process, as are basic structures. In fact, each basic structure functions to support its own set of transitional structures which endow the self-system with a particular perspective on reality.

Wilber frequently uses the analogy of the ladder to demonstrate how these three components interact (Wilber et al: 1986). If we take a ladder with ten rungs, each rung of the ladder is analogous to a basic structure of consciousness²⁴. The self-system is the climber of the ladder that generates a specific perspective of reality, depending on which rung it is standing on. These “perspectives” are the transitional structures of consciousness. With each succeeding rung, the self-system generates a new, more

²³ There are as many developmental fulcrums as there are stages.

²⁴ The tenth and Ultimate level is both a rung on the ladder as well as the wood from which the entire ladder is made.

encompassing, picture of reality. The exclusive identification of the self-system²⁵ with a basic structure generates a corresponding worldview (c.f. Gebser), moral stage (c.f. Kohlberg, Gilligan), self-identity (c.f. Loevinger), self-needs (c.f. Maslow), etc. Upon reaching the final rung, the self-system steps off the ladder into radical emptiness and, in so doing, realizes that the ladder and the climber are One.

In the case of the Rep-mind (level 3), the self identifies with preoperational thought (symbols and concepts) which supports and generates a set of safety needs (Maslow), a protective self-sense (Loevinger), a conventional moral stance (Kohlberg), a mythical worldview (Gebser), etc. In time, however, the locus of identification will switch to the next higher level (the Rule/role mind in this case) and a totally new set of transitional structures will be generated by the self-system, while the previous basic structures are integrated into this more encompassing level. The self, however, always has access to symbols and concepts (i.e. the previous basic structure) but the conventional moral stance, the mythical worldview, etc., will be totally replaced and discarded.

The self's ability to access basic structures is not limited to the ones it has previously transcended. Under special circumstances (i.e. psychotropic drugs, intense meditation, holotropic breathwork, spiritual emergency, etc.) the self can have a "peek" at what the higher structures have to offer (since the higher is enfolded in the lower). In this sense, the self is not a static entity limited to its present level, but is rather, as Wilber says, "all over the place" (Wilber: 1995a, 1996c, 1997).

²⁵ To be specific, it is the "proximate self" (i.e. the subjective experience of "I") that exclusively identifies with a basic structure and consequently generates the level specific transitional structures (Wilber 1997: 318, note 6).

The Four Phases of Wilber's Thought

The development of Wilber's thought has undergone four distinct phases. In each of these phases, his model undergoes a theoretical change and/or refinement which implicitly or explicitly constitutes a critique of his previous stance and, in extension, a critique of those who hold positions similar to the ones he abandoned. His prolific writing output (15 or so books and numerous articles in the span of 20 some years) makes it increasingly difficult to establish a "solid" model, as he is constantly refining it, like all the other great dynamic thinkers, such as Jung, Piaget, etc., have done. Numerous individuals have criticized Wilber's thought without taking this into consideration and consequently end up attacking an abandoned aspect or position of his overall thought. Thus, I feel it important to briefly outline the four major phases he has gone through in the course of expounding his thought.

WILBER-I: The Romantic View

The first phase of Wilber's thought is remarkably similar to Jungian thought. In fact, he "began writing two books that were to prove this Jungian schema" (Wilber 1990: 116). Wilber was interested in proving the connection between what the mystical traditions -- both East and West -- maintained about the ultimate state of subject-object unity (e.g. Ultimate Wholeness, Atman-Brahman, One-Mind, etc.) with what the western psychoanalytic and Jungian views maintained concerning the initial state of neonatal fusion (i.e. infantile cosmic consciousness). The oceanic fusion of self and other that is experienced in the neonatal state is seen as evidence supporting the claims of the sought after *unio mystica* of the mystical traditions. For Wilber,

the infant's earliest "identity" is literally with the cosmos itself -- a type of immature "cosmic consciousness." He cannot distinguish his world from his actions upon it; nor differentiate self from other, subject from object, inside from outside...and thus, as Jung constantly emphasized, lives in a transpersonal and supra-individual world. But as the infant learns to construct an irreducible barrier between self and other...he forfeits his loving and blissful at-one-ness with the cosmos and centers his identity instead on his *personal organism*. He shifts from a Supreme Identity with the All to a personal identity confined to the boundaries of his skin (Wilber 1979a: 123, italics his).

Consequently, the goal of development becomes the conscious recovery of the initial unconscious wholeness experienced in the primal state of neonatal fusion.²⁶ In fact, what the mystic seeks is this long lost union, that was experienced as an infant.

Wilber's developmental scheme is almost identical to Jung's: The neonate begins life in a primal state of oneness. This oneness or wholeness, however, is an unconscious identification with the Self (in the Jungian sense), which the neonate is ignorant of. Realization of this oneness necessarily requires consciousness. Therefore, unconscious unity is renounced in an attempt to later recover it consciously. In so doing, the Self creates, through "primal repression", an isolated ego and world (differentiation) which can subsequently reunite in a conscious fashion. This conscious realization of oneness is the goal of development. In other words, the overall developmental sequence moves from an unconscious transpersonal union (unconscious Heaven or Paradise), to a consciously differentiated and alienated personal self or ego (conscious Hell), to a conscious transpersonal re-union (conscious Heaven) (Wilber: 1982a).

²⁶ At this phase, Wilber's thought is not only in line with the Jungian developmental scheme, but also with Norman O. Brown's existential-psychoanalytic approach. Compare Wilber's quote with the following quote by N.O. Brown: "Freud says not only that the human ego-feeling once embraced the whole world, but also that Eros drives the ego to recover that feeling: 'The development of the ego consists in a departure from primal narcissism and results in a vigorous attempt to recover it.' In primal narcissism the self is at one with a world of love and pleasure, hence the ultimate aim of the human ego is to reinstate what Freud calls 'limitless narcissism' and find itself once more at one with the whole world in love and pleasure" (N.O. Brown 1959/1977: 46).

WILBER-II: Differentiating Pre and Trans

The developmental model presented in "*The Atman Project*" (1980) and "*Up From Eden*" (1981/1986) marks the emergence of a radical shift in Wilber's thought²⁷. From this point on, his model will have irreconcilable differences with the Jungian model of development, which he had formerly sought to prove. The main point of contention deals with the nature of the primal neonatal state of fusion. Wilber comes to strongly disagree "with the characterization of the pre-egoic state (the actual womb and neonatal state) as a state of unconscious unity with Self, the *same* unity recaptured by the trans-egoic states in mystical awareness" (Wilber 1990: 116, italics his). Whereas the majority of the transpersonal theoreticians conceive this state to be a type of unconscious "infantile cosmic consciousness", Wilber rejects this claim and instead interprets this neonatal fusion as structurally, ontologically, and ontogenetically distinct from the ultimate transpersonal state of Oneness that the majority of the mystical traditions describe and seek.

That early fusion state, which everybody from Freud to Jung to Brown had taken as a state of "oneness with the whole world in love and pleasure," is nothing but an identity with the very lowest levels of the Great Chain, especially the material level...The infant is not "one with the whole." For starters, the infant is not one with the mental world, the social world, the subtle world, the symbolic world, or the linguistic world because none of those yet exist or have yet emerged. Infants are not one with those levels; they are perfectly ignorant of them. What they are basically one with, or fused with, is just the material environment and the biological mother (Wilber 1982a: 72-73).

²⁷ The article "*A Developmental View of Consciousness*" (1979b) marks the first appearance of Wilber-II. "*The Atman Project*" (1980) is his first full-length exposition of the ontogenetic model of development and "*Up From Eden*" (1981/1986) is his first full-length exposition of the phylogenetic model of evolution.

By not equating the neonatal fusion state (which is a prepersonal state) with a transpersonal state of Unity, Wilber begins to view the general dynamic of development as consisting of a progressive *unilinear* movement towards “Atman-consciousness” (Wilber: 1980). The shift from a somewhat “circular” model to a “linear” model changes the actual *form* of development. Whereas, in the previous model (Wilber-I), development consisted of a deprivation (i.e. primal repression) and subsequent return and *recovery* of an ontogenetically prior and higher state; the present model sees development as a successive stage-like process of differentiation, transcendence, and integration. Each higher level is said to “transcend but include” its previous level. In the process, an ontogenetically new structure emerges.

This developmental process, however, is still an attempt to *recover* “something”, and this “something” is Atman-consciousness. The recovery, remembrance, or rediscovery of this Atman-consciousness is not a recovery of a previous ontogenetic or phylogenetic state²⁸ “which was prior in time, but the ultimate Atmic state, which is prior in depth. The union with Atman is still a re-union, but it is a joining again not with a particular state in time but *with that which is prior to time*” (Wilber 1982a: 76, italics mine). The teleological nature of this movement is explicitly revealed in his formulations of involution and evolution (which we previously discussed). As a consequence of this teleological impetus to recover Atman-consciousness, history becomes, for Wilber, the

²⁸ Phylogenetically, Wilber sees that, “the Eden myths confused prepersonal ignorance with transpersonal bliss, so that when men and women finally evolved up and out of Eden, it was mistaken for a Fall down from heaven. Now men and women have fallen from Heaven...but that is a fall not in history but in the timeless present from which all things issue...But the theologians and mythologers confused these two falls, and hence imagined that there existed in the actual historic past a transpersonal Heaven on Earth, whereas what preceded people was not transpersonal souls but prepersonal apes...It was paradisaical in a crude sense because protohumans, being pre-egoic, had no capacity for self-reflexive thought, and thus no capacity for real anxiety, doubt, or despair” (Wilber 1982a: 71).

unfolding of various structures of human consciousness. “History, in this sense, is a slow and tortuous path to transcendence” (Wilber 1981: 7).

Theoretically, the fact that both the neonatal fusion state (i.e. prepersonal) and the mystical state of Oneness (i.e. transpersonal), lack a subject and object causes people to equate them and treat them as similar structures. For Wilber, distinguishing between these two poles is of crucial importance because the failure to do so causes an unjustified reduction of the higher to the lower (e.g. Freud and his treatment of religion), or an unwarranted elevation of the lower to the higher (e.g. Wilber-I, Jung, N.O.Brown, Campbell, etc.). Wilber named this confusion the “pre/trans fallacy” (Wilber: 1983a). Simply stated,

(s)ince development moves from prepersonal to personal to transpersonal, and *since* both prepersonal and transpersonal are, in their own ways, nonpersonal, *then* prepersonal and transpersonal tend to appear similar, even identical, to the untutored eye. In other words, people tend to confuse prepersonal and transpersonal dimensions” (Wilber 1983a: 205, italics his).

With this distinction at the heart of his model, the overall developmental sequence would become a movement from undifferentiated pre-egoic ignorance (unconscious Hell), to a consciously differentiated and alienated personal ego (conscious Hell), to a conscious transpersonal union (conscious Heaven) (Wilber: 1980, 1981/1986, 1982a, 1990, 1997).

WILBER-III: Structures, Levels, and Lines

The appearance, in 1981, of the article entitled “*Ontogenetic development: Two fundamental patterns,*” marks the emergence of the third phase of Wilber’s thought. This phase constitutes an overall critique and refinement of Aurobindo, Chaudhuri, and the perennial philosophy, which includes Wilber-II (Wilber 1997: 338, note 5). The intended

aim is to “update” and bring them in line with the findings of developmental psychology. The refinements include a distinction between basic and transitional structures of consciousness; an outline of the six major characteristics of the self-system; and an explicit differentiation of the various “*developmental lines that unfold through those basic levels*” (Wilber 1996c: 25, italics his). The developmental model that I laid out in the first half of this chapter outlines the first two aspects of Wilber-III. I will now briefly address the third aspect concerning the different developmental lines.

The unilinear development that was presented in Wilber-II is what Wilber attempts to abandon because it does not distinguish carefully enough between what is preserved and what is negated in the course of ontogenetic and phylogenetic evolution. Hence, he draws a distinction between basic and transitional structures of consciousness. The basic structures are a type of “central skeleton”, or infrastructure, through which various developmental lines ensue. These lines constitute *separate* enduring and transitional structures, which include such things as cognitive capacity, sense of space, sense of time, motivation, self sense, moral sense, conative capacity, affect, object relations, interpersonal capacity, worldview, creativity, psychosexual, specific talents (musical, artistic, athletic), etc. (Wilber: 1990, 1995a, 1996c, 1997).

“These various developmental lines apparently can evolve in a somewhat independent manner, although some developmental lines seem to be prerequisites for others” (Wilber 1990: 119-120). An individual may, for example, have attained a very high level of cognitive development but at the same time have a low level of emotional development and a medium level of interpersonal development. This suggests that these developmental lines are, at times, in tension with each other. This tension, however,

revolves around the common axis, or central skeleton, of consciousness (i.e. the Great Chain) which the self-system uses in order to unite these “quasi-independent” lines of development.

The levels of the spectrum constitute the stages or *waves* of developmental unfolding, the various lines are the different *streams* that move through those waves, and the self-system is that which attempts to juggle and balance those quasi-independent streams with their cascading waves of development (Wilber 1996c: 26, italics his).

For Wilber, this “consciousness axis” is not strictly equivalent to the line of cognitive development, as he previously thought (Wilber-II). In fact, “the basic structures do not define the other lines of development, nor in any way account for them” (Wilber 1997: 348, note 5). According to the evidence at hand²⁹, cognitive development can only be said to be necessary but not sufficient for other modes of development (i.e. moral, interpersonal, artistic, etc.).

This leads us to ask the question: What is the relation between spiritual and psychological development? According to Wilber, the answer to this question depends on how we define the word “spiritual”. If we define “spiritual” as the “farthest reaches of human nature” (i.e. transverbal, transegoic, transmental, etc.) then “spirituality” cannot arise until the lower structures of psychological development have sufficiently solidified and set the stage for the higher “spiritual” levels to emerge. Hence, “spirituality” becomes the upper most levels of each line of development. On the other hand, if we define “spirituality” as a quasi-independent developmental process, “then clearly it can develop alongside, or behind, or parallel with developments in the other lines, affective, interpersonal, moral, and so on” (Wilber 1997: 216).

In this sense, spirituality cannot be defined by using terms appropriate to other lines of development (e.g. defining spirituality as universal love and compassion would imply the first definition of spirituality as the “farthest reaches”, since universal love and compassion appear in the highest levels of the affective and moral lines of development). With this in mind, Wilber follows a Tillichian approach by defining “spiritual” or “spirituality” as the “line of development in which the subject holds its *ultimate concern*...regardless of its content” (Wilber 1997: 221, italics his)³⁰. This effectively opens the door for a dual notion of spirituality embedded within Wilber’s holarchical model of development.

WILBER-IV: The Four Corners of the Kosmos

After a marked absence, due to his wife’s tragic illness and death, Wilber has recently jumped back into the scene with what he has called his “first mature work”. The magnum opus “*Sex, Ecology, Spirituality*” (1995a), offers a grand synthesis of such diverse fields as environmental ethics, ecology, systems theory, multiculturalism, gender studies, mysticism, psychology, anthropology, sociology, etc. The overall aim of his metanarrative is to offer a further critique and refinement of the perennial philosophy by tracing the course of physical, biological, and human evolution as expressed in the four-quadrants of the Kosmos.³¹

Wilber claims that the great

²⁹ Wilber is basing this claim, in great part, on the research carried out by Howard Gardner (1983).

³⁰ Wilber conceives the progressive unfolding of this developmental line as moving from egocentric concern (preconventional), to sociocentric concern (conventional), to worldcentric concern (postconventional), to bodhisattvic concern (post-postconventional).

³¹ Since I cannot do justice to all of the nuances of Wilber-IV in this extremely brief overview, I will concentrate on presenting a rudimentary sketch of his “four quadrants” model, in the hopes of introducing certain notions and distinctions that are crucial for the intended purpose of this thesis.

weakness of the great traditions is that they did not clearly recognize that the various levels of interior consciousness have correlates in the other quadrants. In other words, it is not simply, as the great traditions assume, that human beings have different levels -- body, mind, soul, and spirit, for example -- but *also* that *each* of those levels has four aspects -- intentional, behavioral, cultural, and social. And this multidimensional grid -- not simply "all-level" but "all-level, all-quadrant" -- opens up the study of human beings in a rather dramatic and unprecedented fashion (Wilber 1995b: 128, *italics his*).

Wilber introduces his "four quadrants" model by pointing out that knowledge quests have generally adopted one of two possible starting points in their search for "truth". On the one hand, there are those who begin with the assumption that only the physical or empirical world is fundamental. "Truth" is understood to be out there, somewhere in the physical world, waiting to be discovered. In this way, all knowledge systems are fathomed, as Richard Rorty has pointed out, to be "mirrors of nature". All subsequent "truth claims" must be carefully anchored to empirical, objective, and quantifiable observations of this physical world.³²

On the other hand, there are those who begin with the assumption that the immediacy of consciousness is the most fundamental and hence anything said about the physical world is, as Francisco Varela maintains, "said by someone." This assumption does not deny the "reality" of the empirical world, but rather maintains that "empirical" and "objective" data are secondary products of our direct and immediate experience of the physical world. The objective and empirical world is, in a sense, "constructed" by the primary fact of immediate experience and what the individual brings to that experience.³³

³² For example, in psychology this position presents itself as classical and cognitive behaviorism (Watson, Skinner, Jackendoff, etc.); in sociology as classical positivism (Auguste Comte) and structural-functionalism (Talcot Parsons, Niklas Luhmann, etc.); in philosophy as the Anglo-Saxon tradition (G.E. Moore, Russell, early Wittgenstein, etc.).

³³ For example, in psychology this position presents itself as the various schools of depth psychology (Freud, Jung, Grof, etc.); in sociology and anthropology as the various schools of hermeneutics and

These approaches attempt to investigate the structures in the subject that contribute to the construction of the world.

The obvious conflict between these approaches can be generally viewed as a conflict between objectivity vs. subjectivity, or exterior vs. interior. Wilber suggests that both of these approaches have something crucial and important to contribute. The difficulty, however, is in honoring their vastly different truth claims without one approach being reduced to the other.

Wilber maintains that these two approaches can be further subdivided into individual and collective domains of inquiry. This implies that the phenomena of any knowledge quest can be approached in an exterior and interior fashion, and also as an individual and as a member of a collective. The existence of these four large camps leads Wilber to postulate his “four quadrants” model. These four camps cover the four possible quadrants of the Kosmos³⁴. The Upper Left, or intentional, quadrant is devoted to exploring the interior of the individual (e.g. Wilber’s spectrum of consciousness, Freud, Jung, Piaget, the Buddha, etc.). The Upper Right, or behavioral, quadrant is devoted to the exploration of the exterior of the individual (e.g. behaviorism, neurology, biology, etc.). The Lower Left, or cultural, quadrant is devoted to exploring the interior of the collective (i.e., cosmological and axiological systems of shared meaning investigated through interpretive approaches such as those of Kuhn, Gebser, Weber, Gadamer, etc.). The Lower Right, or social, quadrant is devoted to the exploration of the

semiotics (Geertz, Douglas, Taylor, etc.); in philosophy as the various Continental approaches (Derrida, Foucault, Habermas, Gadamer, etc.).

³⁴ Wilber re-introduces the Pythagorean term “Kosmos” because he feels that our modern use of the term “cosmos” has strayed from its original meaning. For the Pythagoreans, “Kosmos was the patterned nature or process of all domains of existence, from matter to math to theos, and not merely the physical universe which is usually what both ‘cosmos’ and ‘universe’ mean today” (Wilber 1995a: 38). For Wilber, the Kosmos effectively contains the cosmos, the bios, the nous and the theos.

exterior of the collective (i.e., objective and functional approaches to the social domains as studied by Marx, Lenski, Comte, Systems Theory, etc.).

Since these differing camps are essentially in search of “Truth,”³⁵ they have independently constructed methodologies to verify their “truth claims.” As we have seen, by beginning with fundamentally different assumptions their “truth claims” will be vastly different, precisely because they are studying different aspects of the Kosmos. Both the Upper and Lower Right quadrants (i.e. behavioral and social) use empirical and objective methods of inquiry and describe their findings in “it” language through the epistemological use of propositional truth claims. Propositional and representational approaches attempt to establish a *match* between their truth claims and their objective observations of “reality”. In other words, the functional fit between the map and the territory produces “objective truth”.

The Upper Left quadrant (i.e. intentional) employs “I” language to communicate experiential and subjective inner states. The issue here is not whether the claim matches objective reality but rather does the claim truthfully report the individuals subjective experience. As depth psychology has taught us, an individual might be lying to themselves. Hence, an accurate and faithful *interpretation* of an individuals inner condition leads one to question whether the direct subjective experience matches the meaning given to that experience. The Lower Left quadrant (i.e. cultural) employs “we” language and attempts “to understand how *subjects* fit together in acts of *mutual understanding*” (Wilber 1997: 16, italics his). Individuals within a culture share an intersubjective space of meaning (i.e. worldviews) that allows communication to occur.

The validity claims employed in this quadrant deal with justness, intersubjective mesh, and mutual understanding.

The insights gleaned from each of these four quadrants are important and essential. Wilber argues that we must strive to recognize and uphold the insights from each of these quadrants precisely because each holon possesses all four of these dimensions. Therefore, “none of the four quadrants can be privileged” (Wilber 1995a: 129). The result of privileging one or two of these quadrants is ignorance, polarity, and reductionism. When all phenomena come to be seen through the eyes of the Upper Left quadrant, for example, we end up with *gross reductionism*, which “reduces all the higher-order structures...to atomic and subatomic particles. The result is purely materialistic, mechanistic (usually), atomistic (always)” (Wilber 1995a: 130). Other types of reductionism include *subtle reductionism*³⁵, cultural constructivism³⁷, and aesthetic reductionism³⁸.

The integral vision that Wilber presents is an attempt

to include the moment of truth in each of these approaches --
from empiricism to constructivism to relativism to aestheticism --

³⁵ For Wilber, “Truth, in the broadest possible sense, means being *attuned* with the real...[and there are] various ways that we can check our attunement with the Kosmos. Various ways to see if we are in touch with truth or falsity” (Wilber 1996a: 105, italics his).

³⁶ “Subtle reductionism simply reduces every event in the Left Hand to its corresponding aspect in the Right Hand. That is, subtle reductionism reduces them to its, Mind is reduced to brain; praxis is reduced to techne; interiors are reduced to bits of digital its; depth is reduced to endless surfaces roaming a flat and faded system; levels of quality are reduced to levels of quantity; dialogical interpretation is reduced to monological gaze -- in short, the multidimensional universe is rudely reduced to flatland” (Wilber 1997: 21).

³⁷ Cultural constructivism reduces all quadrants to the Lower Left. The extreme version of this outlook claims “that there is no such thing as objective *truth* at all, because our ideas are simply *constructed* according to various *interests* -- usually power, but also various ‘isms’ and various ideologies (sexism, racism, specieism, colonialism, etc.) (Wilber 1997: 25, italics his).

³⁸ Aesthetic reductionism reduces all quadrants to the Upper Left quadrant. The extreme version of this position claims that “whatever you happen to like, that is the final arbiter of truth. All objective, interobjective, and intersubjective truths are cheerfully reduced to subjective inclinations” (Wilber 1997: 28).

but, in stripping them of their claims to be the only type of truth in existence, releases them from their contradictions – and places them, as it were, into a genuine rainbow coalition (Wilber 1997: 29).

This model effectively opens the door for a genuine multidisciplinary dialogue. We can, for example, speak about specific brain wave patterns present in certain types of meditative practices without reducing the meditators phenomenological experiences to being solely products of these brain waves. In honoring each one of these dimensions we take a step in acknowledging more of the Kosmos.

Michael Washburn's Dynamic-Dialectical Paradigm

The appearance of Michael Washburn's dynamic-dialectical paradigm (1988) fostered a much needed dialogue and critical evaluation of Ken Wilber's spectrum model of human development. Washburn's rigorous and insightful elucidation of his model enables it to seriously stand out as a viable alternative to Wilber's transpersonal model, which has dominated the transpersonal field since the mid 1970's. Washburn's transpersonal theory approaches the subject of human development, primarily from a psychodynamic and phenomenological orientation. His psychodynamic foundations draw heavily upon Jungian depth psychology and psychoanalytic object relations theory (i.e., Winnicott, Klein, Kohut, Mahler, etc.). Washburn manages to achieve a complementarity of these two strange bed fellows by placing their otherwise contradictory positions within a developmental framework, which effectively integrates their key ideas. His phenomenological orientation finds its roots in existential-phenomenological philosophy (most notably the philosophy of Kierkegaard, Nietzsche, and Sartre) and psychospiritually oriented religions (i.e., alchemy, Tantric Buddhism, Hindu yoga, and especially western ascetical and mystical theology). The overall

outcome of Washburn's ambitious formulation is a psychologically and phenomenologically rich account and synthesis of experiences, claims, and insights of psychospiritual processes of transformation, experienced throughout the course of human development.

The Bipolar Structure of the Psyche

Following, in great part, the classical psychoanalytic and Jungian structural models of the psyche, Washburn divides the psyche into two very distinct and opposing poles³⁹: the egoic, or mental egoic pole and the nonegoic, or physiodynamic pole. The egoic pole, as the name clearly implies, is the seat of the ego and all of its related functions (i.e. rational cognition, reflexive self-awareness, self-control, volition, discursive thought, reality testing, etc.) as well as the locus of personal experiences. On the other hand, the nonegoic pole is the seat of, what Washburn calls, the *Dynamic Ground*.⁴⁰ The Dynamic Ground is the *single* "source of all dynamic, biophysical, instinctual, and affective potentials, and it is the point of origin of creatively spawned images and symbolic meanings as well" (Washburn 1988: 11). This Ground also houses individual and collective (i.e. phylogenetic) memories, complexes, and archetypes.⁴¹ In its entirety, according to Washburn, the bipolar constitution of the psyche inherently

³⁹ Although the classical Freudian model of the psyche is based on a tripartite division (id-ego-superego), Washburn makes the case that the Freudian psyche is implicitly and structurally bipolar, since the superego is a subsystem of the ego (Washburn 1995: 11). In doing so, the Freudian ego is clearly equivalent to Washburn's egoic pole, while the id (with some qualifications) corresponds to the nonegoic pole. Similarly, the Jungian dynamic between the ego and the collective unconscious corresponds to Washburn's egoic and nonegoic poles, respectively (Washburn 1995: 12-13).

⁴⁰ In what follows, I will use the terms Dynamic Ground and Ground interchangeably.

⁴¹ The spiritual import of the Dynamic Ground is of central importance to Washburn. In fact, he "introduced the expression *Dynamic Ground* to designate the source of spiritual power" (Washburn 1994: 314, italics his).

encompasses the basic dualities of life: mind and body, logic and creativity, form and dynamism, thought and feeling, etc. (Washburn 1995: 11).

Washburn, following the work of Arthur Deikman (1971), contends that the egoic pole of the psyche possesses a *bimodal* structure of consciousness. This bimodality enables the ego to engage or operate in an *active* or a *receptive* mode of being. In doing so, the ego adopts a certain status with respect to its relationship to the nonegoic pole. When the ego actively exercises its egoic functions (active mode) it asserts its semi-autonomous individuality. When, on the other hand, it “opens” itself to nonegoic potentials (receptive mode), it surrenders its status as a semi-autonomous existent and “allows” the potentials of the Dynamic Ground to influence its subsequent course of action⁴². The ensuing bipolar dialectic governs the entire triphasic developmental process through which an unfolding self emerges.

The Bipolar Dialectic

According to Washburn, development consists of the dialectical interplay between the egoic and physiodynamic poles of the psyche. In what follows, I will briefly trace the main elements of this bipolar dialectical interplay and delineate how they manifest themselves in the course of human development.

⁴² For Washburn, the ego “can indeed be open to the nonegoic pole without loss of its own functions, but only if it is first both fully developed and harmoniously rooted in the nonegoic pole” (Washburn 1995: 15). As we will see, this harmonious relationship only develops in the transpersonal phases of development, after the ego has been regenerated by the power of the Dynamic Ground as spirit.

Original Embedment & the Pre-egoic Phase

At the outset of this bipolar dialectic, the egoic pole is minimally active because “the infant is *minimally* differentiated and object related and *mostly* absorbed, immersed, and embedded [in the Dynamic Ground]” (Washburn 1995: 48, italics his). This primal state of absorption is an intrapsychic reality for the neonate and hence, at this point in time, the ego, or “ego germ” as Neumann calls it, can only be said to exist “as a potentiality for further development” (Washburn 1995: 15). Washburn calls this initial ego-Ground merger *original embedment*, which he further characterizes as,

a condition of dynamic plenitude. It is a state that is overflowing with upwelling energy. The newborn is bathed in the “water of life,” which rises from the Ground and flows freely through the newborn’s body (Washburn 1995: 48).

The upwelling energy coarsing through the neonate’s body affects it in a twofold manner. First of all, it potentiates, amplifies, and intensifies the newborn’s experiences, and secondly, the power of the Ground periodically entrances the newborn into states of self-contained absorption. Washburn sees these absorptive states as being “psychologically analogous to the intrauterine state. It is a womb outside the womb, a state sustained and suspended in a psychic ‘amniotic’ fluid” (Washburn 1995: 49).

The newborn is, in a certain sense, caught between two drastically different worlds. On the one hand, it is psychically immersed in a condition of dynamic plenitude which is subjectively experienced as self-sufficing. While on the other hand, it is utterly and completely dependent on its primary caregiver for all of its physical needs and wants. The actual source of both of these experiences are very different but since the infant is, as yet, unaware and unable to distinguish between inner and outer realities, it

indistinguishably coalesces and fuses the inner nonegoic content and the outer caregiving object of its experience into one singular reality. In so doing, the infant comes to associate the primary caregiver as being imbued with the powers and potentials of the Dynamic Ground, and vice versa.

As we will see, this primary association is extremely significant because the “object that emerges in this way is not just the caregiver: it is the archetypal Great Mother” (Washburn 1994: 40)⁴³. This monolithic archetype becomes the infant’s principle object of experience.⁴⁴ “This object is not just an impersonal power (the Dynamic Ground); nor is it ‘merely’ a human person (the primary caregiver). It is rather at once both and neither” (Washburn 1995: 51). This primal condition of original embedment marks the newborn’s initial blissful state of undifferentiated unity with the Great Mother.⁴⁵

As the egoic pole of the psyche begins to differentiate itself from the nonegoic pole, there ensues a bipolar dialectical interplay. This interplay is by no means balanced or harmonious⁴⁶. In fact, “the three stages of triphasic development reflect reversals in which [each] psychic pole has ascendancy, it follows that the transitions between these stages are developmental intervals during which these reversals occur” (Washburn 1995: 18).

⁴³ The anthropologist Charles Laughlin develops a very similar argument in his “Womb=Woman=World” (1990) article.

⁴⁴ “This object is the Great *Mother* because, historically, the primary caregiver has been female; and it is the *Great Mother* because it is not just the primary caregiver but rather the primary caregiver as numinously charged and magnified by the Dynamic Ground” (Washburn 1995: 51, italics his).

⁴⁵ This state is interpersonally experienced through the primary caregiver’s embrace and intrapsychically experienced through the blissful immersion in the Dynamic Ground.

⁴⁶ According to the dynamic-dialectical paradigm, the two psychic poles “are harmoniously related only at the very beginning and end of human development, in the first year and a half of the preegoic (or body-egoic) stage and in the transegoic stage of development” (Washburn 1995: 16).

For the very reason that the newborn experiences a flow of upwelling energy running through its body, it begins to possess an initial sense of self that is ultimately grounded in the body. Undefined somatic feeling states and physical sensations constitute the preliminary boundaries and demarcations of the infant's emerging ego, which at this point in development is nothing more than a *body ego*. With time, however, the body ego's somatic existence becomes more articulated and delineated through its exploration and consequent mastery of its motor, affective, and perceptual capabilities. "These aspects of embodied existence constitute what the fledgling ego *is*. The newly emerged ego relates to the body *as* self and not at all as an object *for* self. The body's life is the ego's own life" (Washburn 1995: 50, italics his). The emergence of this fledgling body ego is very precarious because its weak boundaries are periodically dissolved by the power of the Ground, resulting in the reembedment and fusion of the body ego with the Dynamic Ground.

Since the infant has subjectively merged his/her inner and outer experiences into one reality, the periodic return to original embedment constitutes a relationship of partial fusion with the Ground and the primary caregiver. The ego's attempt to disengage from the physiodynamic pole is at once an attempt to create a semi-autonomous egoic structure and also the beginnings of a progressive articulation of the complex relationship between the body ego and the primary caregiver (i.e. the Great Mother). The body ego and the Great Mother are, to a great extent, internally connected. In fact, the Great Mother serves as the sustaining source and center of gravity of the body ego's life. It is *from* the Great Mother (as Ground) that the body ego emerges and it is *to* the Great Mother's blissful embrace that the body ego periodically returns.

As the body ego matures, the Great Mother becomes an object of ambivalence. Sometime in the second half of the second year of life, this feeling of ambivalence becomes so strong that the body ego actively splits the Great Mother into two independent and antagonistic halves: the Good Mother and the Terrible Mother.⁴⁷ This splitting arises because the Great Mother sometimes satisfies and at other times frustrates and restricts the needs and desires of the body ego. When its needs and desires are satisfied, the body ego perceives the Great Mother in its positive guise as the Good Mother, but when its needs and desires are frustrated, the negative guise of the Great Mother appears as the Terrible Mother.

The outer bidirectional dimension of the Great Mother is archetypally depicted through images of good and evil fairies, witches, guardians, animals, etc. The good archetypal manifestations are portrayed as being wise, graceful, protecting, and kind, while the evil manifestations are characteristically ugly, deceiving, and harmful. The inner dimension of the Great Mother is archetypally expressed in terms of friendly or hostile elemental forces (i.e. water, fire, earth, wind). These elemental forces are metaphorical expressions for describing the movement of the power of the Ground. These forces can be experienced as either soothing, gentle, and life-sustaining or as rampantly destructive and violent.

Because she [the Great Mother] is both bidirectional and bivalent, the Great Mother assumes virtually an infinite number of forms. She is a person, power, creature, friend, and foe. She is a multifaceted living presence embodying a complex array of archetypal images. She is, in short, a profusion of diverse and

⁴⁷ For Washburn, the Great Mother possesses a complex double duality. Following an object relations approach, the inner-outer axis of the Great Mother system is labeled the *bidirectional* axis, while the positive-negative axis is labeled the *bivalent* axis (Washburn 1995: 55-56). The ambivalence that the bivalent axis causes is the source of the split in the Great Mother.

conflicting manifestations (Washburn 1995: 58).

Whereas before, the body ego eagerly returned to the blissful absorption of original embedment, it now attempts to actively fight for its fledgling autonomy and independence because it fears being destroyed and overwhelmed by these forces. Hence, the body ego rescues its semi-autonomous existence by avoiding the temporary loss of self that occurs in this unwanted return to the Ground. The body ego, however, cannot go at it alone, because it is still physically dependent on the caregiver. The contradictory nature of this phase of development is exhibited through the body ego's demands for the loving and intimate attention of the caregiver, but upon receiving and being overwhelmed by the affect, striking out against the caregiver, in an attempt to re-assert its independence.

The body ego is hopelessly in pursuit of the impossible goal of being intimate with the Good Mother while at the same time being independent of the Terrible Mother. This goal is impossible to achieve and must eventually be given up, if growth and normal development are to ensue.

There is no middle ground. The body ego can either yield to the Great Mother and thereby submit to continued reembedment and consequent loss of autonomy, responsibility, mind, and will, or it can separate itself from the Great Mother and thereby perpetrate a repression that forfeits intimacy, the body, dynamism, feeling, and creative imagination (Washburn 1995: 74).

The body ego must therefore relinquish and sever its symbiotic union with the Great Mother in the interests of development.⁴⁸ The choice is one of regression versus repression.

⁴⁸ For Washburn, the oedipal conflict plays a crucial role in the unfolding of this process. In contrast to the classical psychoanalytic and existentialist interpretations of the Oedipus complex (Norman O. Brown:

Since the Dynamic Ground (inner) and the primary caregiver (outer) have been coalesced into one monolithic reality by the body ego, the ramifications of choosing to repress the alluring power of the Great Mother are twofold. On the one hand, it must intrapsychically commit the act of *primal repression* and on the other, it must interpersonally commit the act of *primal alienation*. Primal repression and primal alienation are the inner and outer aspects of one and the same act.⁴⁹ According to Washburn, “primal repression insulates the body ego from the Dynamic Ground by creating a countercaustic barrier that contains, and thereby quiets, the power of the Ground” (Washburn 1995: 63). This repressive barrier submerges the physiodynamic potentials of the Ground into unconsciousness, creating in its wake the illusion of a totally independent egoic pole.

The interpersonal act of primal alienation manifests itself as a separation of the young child with its primary caregiver. This separation is accomplished through the physical tensing and armoring of the body. The child’s rigid stance is a physical attempt to block the powerful infusions that previously coarsed throughout its body. This act effectively “closes the ego to the Ground by transforming the body from a vehicle receptive to the free upflow of the power of the Ground into an instrument that opposes the power of the Ground” (Washburn 1995: 65). By repressing itself from the body, the

1959/1977, Ernest Becker: 1973), Washburn views the primary conflict as revolving around the issues of intimacy and independence. The body ego desires to be an *independent intimate* of the Great Mother, but the incompatibility of its desires leaves the body ego striving towards a seemingly impossible goal. It eventually dawns upon the body ego that the father enjoys the type of relationship with the mother that it is striving for. The body ego, therefore, attempts to “*assume the father’s role of independent intimate of the mother*” (Washburn 1995: 70, italics his). The child (as body ego) cannot possibly beat the father and must eventually surrender its project by relinquishing all hopes of intimacy with the mother. “In other words, the child...must concede half of its fundamental project; it must forfeit intimacy and pursue independence as its exclusive goal” (Washburn 1995: 71-72). In conceding to the father, the child relinquishes its symbiotic union with the Great Mother and completely commits itself to primal repression.

⁴⁹ “It is at once an interpersonal and intrapsychic act, involving both a withdrawal from outer affections and a containment of inner power and potentials” (Washburn 1995: 64).

child no longer identifies with a body-based existence. The body becomes an object that consequently loses its underlying instinctual dynamism and the ego “takes up residence in the psychic space associated with the head. It becomes a mental ego” (Washburn 1995: 66).

The Egoic Phase

The developmental transition from the body-egoic to the mental-egoic stage is marked by the act of primal repression.⁵⁰ Primal repression functions like a barrier which effectively isolates the egoic pole from the powerful influences of the Ground. In the process, however, the nonegoic pole becomes dissociated and submerged into unconsciousness, consequently leading the ego⁵¹ to erroneously perceive the physiodynamic potentials of the nonegoic pole as “other”. By breaking its ties to nonegoic psychic resources and potentials, the ego manages to gain an illusory independence. In assuming this independent stance, the ego adopts the posture of a seemingly “self-subsistent mental self that is the exclusive owner and controller of psychic life” (Washburn 1995: 24). The dualistic infrastructure that arises during the mental egoic stage erroneously equates the egoic pole with self/I and the nonegoic pole with not-self/I. For Washburn, this egoic ascendancy is a necessary progression in the developmental process.

Before a full blown “Cartesian ego” arises, however, the child must undergo a series of cognitive shifts with regards to the locus of its egoic existence. During the latency period, as the mental egoic phase of development emerges, the child, under the

⁵⁰ In what follows, I will, following Washburn, employ the term “primal repression” to refer to both the intrapsychic act of repression (i.e., primal repression proper) and the interpersonal act of repression (i.e., primal alienation proper).

sway of concrete operational thought, begins to think of itself in terms of a rudimentary head-body dualism. Whereas before, the child localized its being throughout its entire body (i.e., the body ego), its identity is now restricted to some inward location in its head.⁵² This initial identification is later displaced and the child comes to conceive of itself in terms of a brain-body dualism, localizing its existence to “something” in the brain. It is only with the onslaught of adolescence and the initial cognitive emergence of formal operational thinking, that the individual comes to reflectively think of him/herself as a purely incorporeal and psychomental subject: a true Cartesian ego (“I think therefore I am”).

This self-reflective stance serves as a source of certainty and anxiety for the adolescent child. On the one hand, the mental ego is absolutely certain of its existence (*cogito ergo sum*), but on the other, it feels anxiety due to its inability to directly intuit itself. “The mental ego of adolescence is therefore a self-certain *absence*, an ego certain *that* it exists but completely unsure of *what*, if anything, it is” (Washburn 1995: 25, italics his). This predicament inevitably leads the mental ego to pursue an “identity project”.⁵³ At this point in time, the mental-egoic stage of development is underway and for most people it will become virtually coextensive with life itself.

The dualistic nature of this developmental process begins on a positive note. By establishing ego independence and ego development, the ego attains the freedom to forge

⁵¹ In what follows, I will use the terms “ego” and “mental ego” interchangeably.

⁵² John Broughton’s research (1978, 1980, 1982) has shown that, according to the concrete operational child, the locus of its being, or self, is bound to some material *thing* or *substance* inside the head.

⁵³ Following psychoanalytic theory, Washburn sees the commitments to a primary other and to a primary social function as the main events marking the transition from adolescence to early adulthood. These commitments make up the identity project by endowing the individual with a *sense* of being someone (“I am Kelly’s husband”) and a *sense* of making a contribution to society (“I am a teacher”). “The anxiety of nothingness motivates the identity project as an ontological project: a quest for being. And the anxiety of guilt motivates the identity project as a moral project: a quest for justification” (Washburn 1995: 105).

an identity, pursue goals and relationships, and master ego functions. All of these endeavors are undertaken by the mental ego as an attempt to confer upon its existence a sense of worldly being.

As time goes on and the individual approaches midlife, the now mature mental ego begins to experience the negative side of the initial act of primal repression, which takes the form of existential bouts of alienation, meaninglessness, despair, depression, and guilt. At first, the mental ego attempts to actively ward off these negative feelings of anxiety, by vigorously pursuing the identity project it had set out for itself. This project manifests itself in a number of different ways (i.e. making money, becoming successful, engaging in restless diversion, making more friends, etc.) which ultimately prove to be empty and unsatisfying. The core of the problem does not rest in the success or failure of the individual's particular goals but rather "stems from the impossibility of the mental ego's basic project in the world: the identity project" (Washburn 1995: 117). The mental ego's ontological attempt to establish a separate existence through the identity project is inevitably flawed because the

assumption that it is a Cartesian subject completely independent of physiodynamic life is false. It is false because the mental ego, as a specific developmental expression of the egoic pole of the psyche, remains one end of a bipole. Even in its stance of independence, the mental ego remains internally connected to and dependent for its very being upon the nonegoic pole of the psyche. Consequently, despite its seeming self-sufficiency, the mental ego is vulnerable to feeling unwhole, to sensing that it is somehow out of touch with a deep and vital part of itself (Washburn 1995: 25).

What had allowed the mental ego to successfully emerge and establish itself has now become a developmental barrier to be overcome. Primal repression and primal alienation

have now become obstacles in the ego's attempt to achieve ontological existence. The sense of being and rootedness that the ego yearns for can only be met by re-establishing the ego's severed relationship to the Ground.

Regression in the Service of Transcendence

The egoic-nonegoic dualism that permeated the entire mental egoic phase of development begins to give way at around mid-life or later. At this stage the mental ego begins to undergo an enantiodromia or reversal with respect to its relationship with the nonegoic pole of the psyche. For Washburn, this developmental movement "is a two-stage process, consisting of a preliminary stage of withdrawal and an ensuing stage of regression proper" (Washburn 1995: 172). The first stage of this phase of the developmental process begins prior to the lifting of primal repression. In fact, it is this phase of withdrawal that sets the stage for the total dissolution of this psychic barrier. As we have briefly seen, the mental ego's realization that it cannot satisfy its deepest desires *through* worldly affairs (i.e. the identity project) leads the mental ego to become disillusioned *with* the world. This first stage has been variously described in the existentialist's writings as feelings of despair, guilt, meaninglessness, nothingness, anomie, and alienation. When experienced in combination, however, these separate feeling states become symptoms of "existential vacuum" (Frankl), "existential neurosis" (Maddi), or schizoid symptoms of a "divided self" (R.D.Laing).

Alienation involuntarily follows from disillusionment while the mental ego gradually begins to withdraw from the world. Furthermore, these feelings of alienation inevitably lead the mental ego to experience the world as barren, empty, "plastic", purposeless, and ultimately fleeting and out of reach. In short, the world has undergone

derealization and become totally alien. The actual world has not changed, it is simply the mental ego's *perceptions* of the world that have been drastically altered. In turn, the mental ego becomes increasingly apathetic and confused, as it slowly dies to the world. "The mental ego does not give up the world; rather, the world simply slips away, becoming distant and unreal" (Washburn 1995:175). Alienation suspends the identity project and relieves the mental ego from its futile strivings for value and being.

This suspension, however, causes the mental ego to lose its last foothold *in* the world and ultimately tosses the mental ego into a Kierkegaardian state of "fear and trembling", inevitably leading the mental ego to suffer the despair of "sickness unto death". Despair indicates that alienation has run its full course and that the mental ego has reached the nadir or "zero point" of its fight for existence. The mental ego is on the verge of finally facing and embracing what it fled all along: its "nothingness" and "guilt".

In doing so, the mental ego undergoes a deep inner opening: it relinquishes its last defense and bares itself to powers from beyond. Or in our terms, it lets go the false support of primal repression and thereby opens itself to the Dynamic Ground. This inner opening, if and when it occurs, marks the end of the first stage of regression in the service of transcendence and the beginning of the second (Washburn 1995: 187-188).

The regressive phase of this two stage process is a necessary requirement for Washburn, "because the physiodynamic pole of the psyche is originally lost via repression, it can only be restored via regression" (Washburn 1995: 171). Strictly speaking however, this regression is not, according to Washburn, a retrograde movement to some earlier or more archaic mode of functioning. Nor does this regression serve to fortify and consolidate the ego's command within consciousness. Rather, this regression is a radical attempt to undermine the ego's supremacy within consciousness, by

submitting it to the awesome powers of the Ground and eventually turning the ego into a “servant of spirit”. It is for this reason that Washburn conceives of this regressive episode as a *regression in the service of transcendence*.

Due to the dissolution of primal repression, the physiocodynamic potentials that were formerly submerged and barricaded into unconsciousness begin to draw the ego towards the source of nonegoic life, in an attempt to reclaim it. This situation forces an encounter between the ego and the prepersonal unconscious⁵⁴. The mental ego is fearful but the allure of the Ground propels the ego to undergo a *regressus ad originem*, ultimately returning the ego “to the deepest inner source of its being” (Washburn 1995: 21). The reopening of the nonegoic pole exposes the ego to the sheer power of the Dynamic Ground and its associated potentials.

The difficulties and problems that arise in this second stage deal primarily with issues of possession. The mental ego, having lost its supremacy within consciousness, is now assaulted by the forces of the Dynamic Ground which attempt to take possession of it. This overwhelming assault by seemingly transcendent and alien powers propels the mental ego into a state of dread. While in this state, the mental ego becomes entranced by the sheer power of the Ground, which makes it susceptible to experience inert vacant states of blankness (i.e., black holes in psychic space as Wilson Van Dusen has described

⁵⁴ In Washburn’s model of the psyche, the prepersonal unconscious is composed of three principle levels or layers. The most basic level is the Dynamic Ground which, as we have seen, is the actual source and sustainer of all psychic power (libido, energy, spirit). In the second level lies the realm of the instinctual-archetypal unconscious. This level houses phylogenetic (i.e., collective human instincts and patterns) and ontogenetic (i.e., “universal patterns of imaginal production associated with the ontogenesis of the ego and its life long interaction with the Dynamic Ground” (Washburn 1995: 120)) unconscious memories, patterns, and instincts. In the third level lies the realm of the body unconscious which includes such nonegoic potentials and modes of experiences as polymorphous sensuality, numinosity, autosymbolic-protoconceptual cognition, amplified experiences, etc. The body unconscious is created during the act of primal repression wherein this entire realm is subsumed into unconsciousness.

them).⁵⁵ Consequently, the world is perceived as being increasingly strange and surreal by the entranced mental ego and, when the mental ego comes out of these vacant states, it finds itself in a general condition of estrangement.

This re-engagement with nonegoic life is actively experienced by the individual as a period of extreme existential difficulty which typically precedes or follows spiritual awakening. These experiences have been described by religious traditions throughout the world in a number of different ways: the dark night of the soul (St. John of the Cross), the great doubt (Zen), the state of self-accusing (Islam), the descent into the underworld or hell, shamanic illness, Zen sickness, the ten corruptions (Buddhism), the spiritual desert or wilderness, the diabolical phenomena or makyo of Zen, etc. All of these descriptions are attempting to capture the radically new realm of experience that the ego has been propelled into, through its return to the Ground.

The ultimate purpose of regression in the service of transcendence is to thoroughly reorganize the psychic apparatus. By re-awakening the repressed physiodynamic potentials of the Dynamic Ground, the egoic and nonegoic poles of the psyche cease being dualistically separated so that a harmonious relationship can subsequently ensue. This radical structural transformation, if successful, leads to the integration of the two psychic poles. The success of this mission is not guaranteed, however, and if the mental ego is destroyed in the process “regression in the service of transcendence aborts and degenerates into regression pure and simple” (Washburn 1995: 201). The possibility of this outcome is the ultimate risk upon undertaking this journey

⁵⁵ The ego is sucked into these “psychic blackholes” when there are interruptions in the internal dialogue. Since the mental ego does not have the false support of primal repression to stand on, these periods are not experienced as restful states of serene stillness; but rather as periods of trancelike blankness which propel the mental ego into the dreadful unknown.

and the success or failure of this journey determines whether one ends up in psychotic hell or mystical bliss.

Both the psychotic and the mystic have been cast upon the sea of the prepersonal unconscious. The difference is that the mystic's ego is seaworthy, whereas the psychotic's is not. Accordingly, whereas the psychotic capsizes and loses touch with reality, the mystic is able to survive the voyage to the other side of the sea, finding thereby safe Ground from which integration can be achieved (Washburn 1995: 201).

If the mental ego is seaworthy, the regenerative phase of development takes over. If not, the mental ego can be totally destroyed or partially damaged and therefore relegated to the unintegrated life of psychosis (depending of how much damage it suffered).

Regeneration in Spirit

The surreal and violently dangerous process of discharging formerly submerged physicyodynamic potentials eventually comes to an end when the ego reaches the deepest and most potent levels of the unconscious. At this point, the deconstructive phase of regression in the service of transcendence gives way, allowing a period of healing reconstruction to ensue. Metaphorically speaking, upon reaching the other side, the once violent waters become transformed into life-giving springs for the seaworthy ego. Washburn refers to this positive psychospiritual reconstructive phase; *regeneration in spirit*. It is only with the emergence of this phase that "the conflict between the two psychic poles begin to abate and do the prospects of the ego begin to brighten" (Washburn 1995: 206). This regenerative phase is characterized by the process of psychic renewal which consists of three general features⁵⁶: 1) the calming of

⁵⁶ Washburn also sees this regenerative process as consisting of a number of more specific features which include; the taming of the instincts; reinhabiting the body; harnessing the creative process; the personalization of spiritual power; the reenchantment of the world; awe; ecstasy; blessedness; and bliss.

physicodynamic potentials; 2) the purging of mental egoic resistances; and 3) the mending of the psychic fissure (Washburn 1995: 205).

The culmination of the ego's descent into the prepersonal unconscious signals the ego's release from the gravitational pull of the Ground. The ego has, in a sense, hit rock bottom and has nowhere to go. At this point, the ego and the Ground re-establish their connection, but this time the ego is aware that it is rooted *in* the Ground (i.e. the Ground is the source and sustainer of its being) and the nonegoic pole has supremacy over the egoic pole. This reversal subsequently causes the violent surges of physicodynamic potentials to diminish in scope and magnitude. "This decrease in violence occurs in part because the most highly charged of nonegoic potentials have by this time fully reasserted themselves, and in part because nonegoic potentials, in reasserting themselves, gradually lose, and do not regain, their repressively accumulated energy" (Washburn 1995: 207).

The power of the Ground, however, continues to intrude and wound the ego, as long as the ego maintains any type of resistance toward the Ground. As the ego becomes increasingly receptive to the Ground, these occasional negative upwellings gradually become transformed into positive influences.

For example, (1) the body, which had been a field of newly awakened, disturbing yet engrossing sensations, becomes eventually the basis of the ego's own polymorphously sensual life; (2) the autosymbolic process, which had been a fabricator of frightening or tempting images, becomes eventually a fashioner of creative visions; and (3) the sexual and aggressive drives, which had been sources of disruptive impulses, become eventually sources of feelings that enrich and fortify experience (Washburn 1995: 208).

The purgative dimension of regeneration in spirit enables the psyche to become free of egoic resistances ultimately transforming it into the "unobstructed vehicle of

spirit” (Washburn 1995: 209). The expressive unfolding of spirit progressively leads the ego from states of agony to states of ecstasy, finally delivering the egoic structure into an utterly new realm of expression, which is individually depicted through spiritual modes of being. The psychic fissure that was formerly created through the erection of primal repression becomes slowly mended in this regenerative process and the dual psychic structures that predominated throughout the egoic phase of development begin to harmoniously reunite. As time goes by, the harmonious interactions between the ego and the Ground become progressively coordinated and the partnership that develops allows “the psyche at last [to become] a true two-in-one, a perfected bipolar system” (Washburn 1995: 212).

Integration

Washburn’s dynamic-dialectical paradigm foresees the culmination of human ontogenetic development as heading towards the transcendence of dualism. In other words, the telos of human development lies in the perfected stage of integration. “Integration is not something that appears suddenly at the end of the regeneration process; it is rather the final realization of that process” (Washburn 1995: 230). Structurally, this stage arises through the reconciliation, union, and integration of both psychic poles.⁵⁷

In being integrated, the two poles of the psyche retain their distinct natures as opposite poles of a bipolar psyche. In doing so, however, they are no longer alienated from each other, as they were during the mental-egoic period. Nor are they in collision with each other, as they were during regression

⁵⁷ This integrative union is not by any means a unity of equals. The nonegoic pole, being the source and sustainer of the ego, has primacy over the egoic pole. “The egoic pole is an instrument of the nonegoic pole; the ego is a servant of the power of the Ground as spirit” (Washburn 1995: 22).

in the service of transcendence. Nor are they even in cooperative interaction with each other, as they were during regeneration in spirit. Rather, the two poles are here completely wedded to each other as a single life (Washburn 1995:212).

Through this integrative merger, the two poles of the psyche become a *coincidentia oppositorum*. This condition enables egoic functions and nonegoic potentials to operate harmoniously through a higher unity of opposites. It is not only the ego that unites with the Ground but also the specific functions and potentials of each of these poles that fuse together and, in the process, transcend their respective capabilities. The greater and lesser coincidences of opposites that occur at this stage (i.e., mind and body, thought and feeling, logic and creativity, civilization and instinct, etc.) forge the way for the overall transcendence of duality, which results in a fully integrated psychic structure. The fully integrated individual refuses to live life from the “outside in”, as he/she did during the mental-egoic stage, but rather lives “life from the ‘inside out,’ spontaneously following the promptings of their deepest inner nature” (Washburn 1995: 248). According to Washburn, it is only at this stage that the process of becoming human ends and the authentic and genuine act of living a fully human life begins.

The Main Points of Disagreement

Having given a brief overview of the main aspects and components of Ken Wilber’s and Michael Washburn’s transpersonal models of human development, we are now in a position to highlight some of the major points of disagreement between both models. While both paradigms see human development as unfolding along triphasic lines of development (pre-egoic, egoic, transegoic), their respective conceptions of the psyche,

which underlie this developmental movement, are drastically different. Consequently, they diverge considerably in their interpretations of the developmental process.

In what follows, I will highlight five of the main points of disagreement between these models (as noted by Washburn: 1990, and Wilber: 1990): 1) progressive vs. regressive transcendence; 2) two-selves vs. no-self; 3) immanent vs. transcendent development; 4) self-expansion vs. self-transformation; and 5) repression of the Ground vs. repression of traumas. While the majority of these issues are not amenable to empirical investigation, since they rest on philosophical and/or paradigmatic assumptions inherent to the models themselves, the first point of disagreement (at least one of the issues directly related to it) is amenable to empirical investigation and refutation. It is precisely this issue that will preoccupy us throughout the remaining chapters of this work.

Progressive vs. Regressive Transcendence

According to Washburn, Wilber's spectrum model of development generally holds that ontogenetic development is "a straight ascent to higher levels, it sees the transcendence of the ego in particular as a purely progressive affair" (Washburn 1990: 90). The developmental emergence of transegoic levels *do not* necessitate or presuppose a return to pre-egoic levels, unless a developmental malformation (i.e., a pathology) has occurred at those lower levels. Regression, in other words, is the exception to the rule. In contrast, Washburn's dynamic-dialectical paradigm interprets the developmental transition from egoic to transegoic levels as "a going back on the way to a going beyond, a regressive return to the pre-egoic in preparation for a regenerating ascent to the transegoic" (Washburn 1995: 41). According to this view, regression *is* an inherent phase of the developmental process.

Washburn's statement (above) reflects one of the most common charges against Wilber's developmental model concerning its apparent structural and linear rigidity.⁵⁸ Wilber, however, contends that this charge is largely based on a misunderstanding of his developmental model which arises when one overemphasizes the importance of the basic structures to the detriment (and neglect) of the transitional structures and the self-system. According to Wilber, "only the basic structures are linear in any fairly strict sense, in that they emerge in a sequence that cannot be significantly bypassed or reversed" (Wilber 1996c: 11). For Wilber, the main principles governing the basic structures of consciousness are no different than the ones governing organic and holistic systems. Following Ilya Prigogine's work with dissipative structures, Wilber sees the basic structures developmentally unfolding in a series of "irreversible stages of increasing inclusiveness and envelopment" (Wilber 1996c: 12).

This, however, is only one part of the story, since it only applies to the basic structures. As we have seen, the self-system is, according to Wilber, the most important component of his model because it is "where the action is" and there is absolutely nothing linear about the self-system. In fact, the self-system

can jump ahead, regress, spiral, go sideways, or otherwise dialectically spin on its heels. Precisely because the basic structures themselves have no inherent self-sense, the self can identify with any of them. And, in my model, each time the self does so, it will generate a set of transitional structures...This means that, on the long view, there will be a discernible progression of the self's development from narrower to wider, from shallower to deeper...Nonetheless, in the short view, the self's journey is altogether tumultuous, much more of a roller coaster than a linear ladder (Wilber 1996c: 12).

⁵⁸ Washburn: "Developmental movement for Wilber...is a unidirectional movement of upward growth; it is a rung-by-rung climbing of the ladder of being" (Washburn 1990: 87-88).

As a consequence of the self-system's tumultuous journey, the transitional structures of consciousness tend to be unstable and non-linear as well.

Theoretically, the major point of contention between Wilber and Washburn revolves around the issue of a "U-turn". Specifically, where along the evolutionary process do we "reverse" our "fall from grace"? For Washburn, as we have seen, this reversal occurs when the mental ego's feelings of alienation are at its peak (during the culmination of the egoic phase of development). The mental ego, facing its own overwhelming alienation, feels nostalgia towards the faint memories it has of the blissful states of plenitude it experienced during original embedment. This nostalgia propels the ego to undertake a regressive journey towards origins, in an attempt to recapture this paradise lost. This goal, however, can only arise by reclaiming previously repressed potentials. Potentials that were present and active during the pre-egoic phase of development. This *regressus ad originem* ultimately aims at re-establishing the severed connection between the ego and the Dynamic Ground and finally rooting the mature ego (as servant to spirit) in the source of its being. "The real point of nostalgia for paradise, then, is not to return to a state of egoless absorption in the Dynamic Ground but rather to achieve a state in which the ego, fully developed, is rooted in the Ground" (Washburn 1995: 50). The U-turn toward origins, undertaken by the ego at mid-life, has the potential, according to Washburn, to transform the psyche into a developed and integrated bipolar system.

Wilber argues, on the other hand, that Washburn's placement of the U-turn is utterly mistaken because he

...seems to have no understanding of involution [and is therefore]

...forced to put the U-turn...smack in the middle of the evolutionary arc, smack in the middle of ongoing development...Nothing like what Washburn postulates -- development abruptly reversing its stages in midcourse -- even remotely happens to any other known evolutionary or developmental sequences (Wilber 1990: 127).

If we recall, Wilber feels that we have, in fact, fallen from a previous state of union with Spirit but this fall occurred prior *to* time and not, as Washburn contends, prior *in* time. The involutionary process traces this “fall from grace” and it is only when spirit hits rock bottom, by expressing itself as matter (i.e., spirit-as-matter), that this process reverses itself and the grueling ascent commences. The point where involution gives way to evolution is where the U-turn should be placed, according to Wilber. Spirit-as-matter is the height of *actual alienation*, whereas the transitional phase between the egoic and transegoic stages is the height of actually *being aware* of this alienation.

The developmental movement from prepersonal to personal awakens the individual from his/her previous state of slumbering. This waking-up rudely confronts the individual, for the first time, with their own alienation, an alienation that they were actually born into, but unaware of. Following this logic, Wilber interprets Washburn’s position as being fundamentally based on the confusion between the “awareness of alienation” and actual “ontological alienation” proper.

In short, for Washburn [the transition from egoic to transegoic] ...is the height of actual alienation from Self and Ground; for me, it is halfway towards Self and Ground (and for the first time, painfully aware of its predicament). And this return is certainly not purchased by regression and retreat, but by continued growth and development (Wilber 1990:128).

By implication, Washburn's placement of the U-turn halfway through ontogenetic development, causes the dynamic-dialectical paradigm to commit the pre/trans fallacy, according to Wilber.

Two Selves in One vs. No Self

Wilber and Washburn hold two very different conceptions of "self", which are intimately rooted in their respective developmental models. For Wilber, as we have seen, the self, or self-system, unfolds through the process of identifying with a structural level of development (i.e., basic structures of consciousness). Since each basic structure of consciousness is inherently devoid of self, a new, more encompassing self emerges, as each new and higher level is identified with. This process ultimately culminates in the all-inclusive embrace of spirit-as-spirit. At this stage, one's true essence radically coincides with being itself (i.e. Thou art that). Taking an eastern standpoint, the self, for Wilber, is an illusion that must be transcended.

Having said this, however, I would like to point out that there is an enormous semantic confusion surrounding this entire issue. By saying there is no self, Wilber (and Buddhist thought in large part) is not saying that there is no self-awareness (or subject) at the transegoic levels of development. What is radically transcended and deconstructed is *the exclusive identity* with an individual bodymind. It is only in this sense that there is no self for Wilber. In other words, the self is *not* an inherently existing *entity*, but rather "an *inherent functional capacity* of the psyche, which, when identified with basic structures, generates various transitional stages" (Wilber 1997: 149, italics mine). The self, as a functional capacity that relates to the conventional world must necessarily remain in existence but the self, as an exclusive identity is replaced and transcended. Hence, the

semantic confusion arises when we don't differentiate between these two meanings of self (or ego, for that matter).

Washburn, on the other hand, sees not one but two actually existing selves, each structurally and constitutionally embedded in each one of the two psychic poles. To be more specific, each pole does not only contain a self but rather "each of the two psychic poles *is in a sense a self*" (Washburn 1995:22, italics mine). The small-s self of the egoic pole is, for Washburn, an incomplete self since it is only one pole of a bipolar structure. The only illusory thing about the mental ego is that it takes itself to be a self-subsistent and independent entity, when in fact "the mental ego is inherently linked to the nonegoic pole of the psyche" (Washburn 1995: 43). In being the ego's source and sustainer, the nonegoic pole is the mental ego's missing piece (an incredibly big piece at that). The nonegoic pole is the ego's deeper, primordial self: the big-S Self. Integration is therefore a condition of higher unity, wherein "the individual self or ego remains present...[in] a state of integrated duality" (Washburn 1990: 102). Upon attaining this integration, the ego is radically transformed but *not* eliminated. "The ego continues to exist as an *individuated subject*, but it no longer fancies itself to be an *independent substance*" (Washburn 1990: 102, italics his). This relational or reconciliatory aspect of self-transcendence is most frequently expressed in the notion of the *hieros gamos* (the sacred marriage).⁵⁹

Immanent vs. Transcendent Development

According to Wilber, ontogenetic and phylogenetic evolution consists of the progressive unfolding of previously enfolded potentials (Wilber: 1980). The

developmental process is a re-membering of, or re-union with, these potentials. These potentials, however, have never been actualized in previous developmental stages, because it would mean that they were prior *in* time, when in fact, they are prior *to* time. In other words, development involves a progressive disclosure of immanent potentials. In the process of manifesting themselves, these structures or potentials reveal to consciousness more encompassing dimensions of reality. Essentially, we need to awaken to the fact that we are all sleeping Buddhas.

Washburn, on the other hand, sees human development as consisting of a spiraling movement involving “a reencounter with psychic and spiritual potentials which once, at the very outset of development, were active within consciousness” (Washburn 1990: 95). These once active psychic and spiritual potentials were repressed and alienated from consciousness through the act of primal repression. Upon re-encountering them, however, these potentials *appear* totally alien, transcendent, or “other,” because they had once been excluded from consciousness. In returning to consciousness, these formerly repressed and dissociated forces and potentials take “the appearance of a resurgence of influences deriving from a foreign domain” (Washburn 1990: 97). This violent return of the repressed inevitably seems like a transcendent incursion attempting to destroy the ego.

Self-expansion vs. Self-transformation

In Wilber’s spectrum model of development, the basic principle of “transcend and include” theoretically enables each structural level to functionally subsume the levels

⁵⁹ The notion of the sacred marriage is found in Christianity (the wedding of the soul with Christ), alchemy (the hermaphrodite), kundalini yoga (the union of Shiva and Shakti), and in the various systems of tantra.

beneath it,⁶⁰ until the self-system ultimately identifies with the All. The self-system, for Wilber, progressively identifies, or expands its boundaries to include or embrace more of the Kosmos, until all boundaries are transcended and all differences between ones true Self (Atman) and being itself (Brahman) coincide.

The dynamic-dialectical paradigm conceives of this process quite differently. Washburn sees the higher echelons of this developmental process as leading towards “a transformative interaction between the egoic self and transcendent, nonegoic forces” (Washburn 1990: 99). By regressively returning to the Ground, the ego re-encounters formerly repressed, alienated, and dissociated physiodynamic potentials, which violently confront, regenerate, and ultimately transform the ego into a servant of spirit. In the upper reaches of the transegoic levels, the ego and Ground become fused in a harmonious union wherein “the two psychic poles function as one and the two selves that correspond to these poles are joined as one” (Washburn 1995: 26). This integrative union is conceived by Washburn as a *coincidentia oppositorum*.

Repression of the Ground vs. Repression of Traumas in the Pre-egoic Phase

Wilber and Washburn are in total disagreement regarding the nature of what is being repressed or dissociated in the pre-egoic stages of development. According to Washburn, as we have seen, the act of primal repression effectively cuts the ego off from any *direct* influences of the Ground “by repressing the nonegoic pole and banishing physiodynamic potentials from consciousness” (Washburn 1995: 16). The repression and forceful withdrawal of the Dynamic Ground from consciousness necessarily means

⁶⁰ This, of course, only applies to basic structures and not transitional structures.

the loss of certain pre-egoic capacities for the infant, which must be recaptured eventually by a mature ego, if transegoic development is to ensue.⁶¹ Regression, for Washburn, is therefore a prerequisite for transcendence (since it is only regression that can lift the repression).

For Wilber, on the other hand, repression is one of many defense mechanisms which have their locus in the self-system. Since the pre-egoic period covers the first four fulcrums of development⁶², they are, for Wilber, “the essential etiological fulcrums for some truly severe pathologies (psychotic, borderline, neurotic)” (Wilber 1997: 147). This developmental period is crucial because it sets the foundation for future development and if any specific aspect of consciousness⁶³ is dissociated, for whatever reason, the self-system treats it as a threat and consequently represses it. When this situation arises, these dissociated

components act as *lesions in awareness* that then tend to sabotage consciousness with symptomatic expressions (i.e., various pathologies). The self cannot genuinely disembody and transcend these alienated aspects of its own being, because they are now hidden and sealed off -- they remain as pockets of unconscious attachment, unconscious identification, unconscious embeddedness, unconscious intentionality -- they are not “died to” and “let go of.” They are “little subjects” that refuse to be differentiated, transcended, and *thereby genuinely integrated*, and instead carry on terrorist activities from the basement, from the locus of their unconscious attachment and fixation. This is self-alienation, repression, and pathology (Wilber 1997: 147, italics his).

At this point, normal development has given way to pathological development and the only way to correct the situation is to regress to the level where the malformation took

⁶¹ “The spiral conception stipulates that this reversal, this U-turn towards origins, is a necessary preparation for or precondition of transcendence” (Washburn 1990: 88).

⁶² Fulcrum-0, the pre- and perinatal period; fulcrum-1, the first 18 months, roughly; fulcrum-2, 18 months to 3 years of age, roughly; and fulcrum-3, 3 to 6 years of age, roughly.

place and properly integrate the deviant holon into the overall system. “Thus, regression in service of ego is sometimes a prerequisite for transcendence of ego, but it is not the actual mechanism of transpersonal growth itself” (Wilber 1997: 148).

⁶³ These “specific aspects of consciousness” can be components of *either* the transitional or the basic structures of consciousness.

CHAPTER TWO:**EMPIRICAL AND PHENOMENOLOGICAL RESEARCH**

“The gods did not reveal, from the beginning,
All things to us, but in the course of time,
Through seeking we may learn, and know things better,
But as for certain truth, no man has known it,
Nor will he know it, neither of the gods,
Nor yet of all the things of which I speak,
And even if by chance he were to utter
The final truth, he would himself not know it,
For all is but a woven web of guesses.”

- Xenophanes

The developmental models of both Wilber and Washburn are attempts, whether directly or indirectly, to develop a unified theory of the evolution of human consciousness. The infrastructures underlying these models are based on an understanding of the psyche which ultimately reflects (like any theory) implicit and paradigmatic assumptions of reality, or as Wilber would say, the Kosmos. Methodologically, they attempt to understand the different developmental phases of ontogenesis by incorporating and weaving otherwise contradictory and antagonistic approaches into one unified or meta theory. Wilber's metaphor of the "spectrum of consciousness" explicitly gets at this point. Therefore, it would seem futile to attempt a critical evaluation of these developmental models by approaching the topic from only one overarching perspective, which limits reality to only one ontological level of existence. With this in mind, I will employ the biogenetic structural *rule of minimal inclusion*⁶⁴ in critically evaluating these two models of human development from an interdisciplinary perspective. Thus allowing pertinent evidence from various disparate fields of inquiry to enter into our domain of discourse.

The field of transpersonal psychology and its adherents have been variously criticized for being "unscientific", mystically oriented, a group of academic "new agers" whose ideas are based on irrational beliefs concerning divine beings (Ellis & Yeager: 1989), and most importantly, out of touch with "modern" scientific thought. In my

⁶⁴ The rule of minimal inclusion states that: "*Any explanation of behavior must take into account any and all levels of systematic organization efficiently present in the interaction between the system operating and the environment of that system*" (Rubenstein, Laughlin, & McManus 1984: 93, italics theirs). The application of this rule requires a "structural merger" and "reduction" of theories that are aimed at different levels of systematic organization into one conceptually relevant and unified theory which envelops and incorporates the findings of each of the theories subsumed. "The data, insights, and theories from all levels of systematic organization contributing to the resolution of the problem at hand may and must be incorporated into a single, coherent analysis" (Rubenstein et al. 1984: 93-94).

opinion, this last criticism should be taken seriously because a field of inquiry cannot flourish and develop if it is out of touch with the findings in associated disciplines. For one thing, transpersonal psychology cannot ignore the developments in the neurosciences, like many other disciplines have done. It is with this in mind that I bring in evidence from evolutionary biology, the neurosciences, paleoneurology, pre- and perinatal psychology, clinical psychology, and neuroanthropology, to critically evaluate Wilber's and Washburn's models of human development.

The Evolution of Brain and Consciousness

It is quite easy to see that physical organisms (i.e., our bodies) have evolved over time. The examination of fossil records, the examination of homological features in physiology, and comparative serological studies give empirical evidence for this conclusion. It is quite a different matter when we attempt to apply the same principles to the evolution of human consciousness, without reducing it to a mere epiphenomena of matter, as so many theories have done. This however is only the case when we accept the insidious mind-body dualism that permeates the majority of western thought. Biogenetic structuralism espouses a *structural monist* approach which sees mind and body as "two imperfect ways of perceiving and knowing the same unknown totality we may call 'being'" (Laughlin et al 1990: 11). It is this approach that I will implicitly rely on since it enables us to freely speak of brain and consciousness without reducing one to the other (Laughlin & d'Aquili: 1974, Laughlin et al: 1990).

Stephen J. Gould, one of the most prominent neo-Darwinian thinkers in modern evolutionary biology, has expressed the view that ontogenesis *is*, in a sense, phylogenesis

(Gould: 1977). The process that is being played out in the phylogenetic evolution of the hominid brain (i.e., the development of its neural structures) is, to a degree, *the same process* that unfolds in the ontogenetic development of each individual's brain. To better understand this process and its implications, a few words should be said concerning the role of structure and function within development.

According to modern biology and neo-Darwinian theory, structure and function are understood as being two aspects of the *same* process. We can only make sense of structure because of the function it carries out. In other words, all structures have functional corollaries. This, however, does not imply that a structure is always causally prior to a function. "When we relate specific experiences to conditions within the brain, we can describe only *correlations* not cause-and-effect relations" (Nelson 1994: 100, *italics his*). It is therefore impossible (and theoretically foolish) to separate structure from function and vice versa.

In applying this scenario to the evolution of the brain, we can see that it too cannot be separated from its own functioning. Every thought we have, every sensation we react to, every emotion we feel has an appropriate structural correlation produced to a large extent by neural cells in the brain and the nervous system⁶⁵ (Maturana & Varela: 1987; Laughlin, McManus & d'Aquili: 1990). According to biogenetic structural theory, consciousness does not evolve, it is the brain (i.e., as structure) that evolves. "The crux of the matter may be put in two ways: 1) it is not consciousness, but rather the nervous system that has evolved; and 2) it is not consciousness per se, but rather the intentional organization of consciousness that has evolved" (Laughlin et al 1990: 121). The

⁶⁵ In the following, I will employ the term brain to refer to both the nervous system and the actual brain itself, unless otherwise stated.

evolution of the brain can, in this sense, be seen as the functional unfolding of consciousness. Always keeping in mind, however, that one cannot be reduced to the other.

Phylogenetic Evolution

The field of paleoneurology is dedicated to the study of the brains of fossilized creatures. Most of the evidence it gathers for the evolution of human consciousness suggests a process of encephalization. Encephalization is the process that describes the brain's tendency to increase in size during its evolutionary development, relative to overall body size. Endocranial casts (or endocasts) constructed from the inside of fossilized skulls show evidence of this process. It should be noted that the determining factor pointing towards the increasing complexity of the brain in the evolutionary process is the proportionate increase of brain size to body size (that is, the *ratio* of brain size to body size). In other words, as species move along the phylogenetic scale, there is a marked tendency of the brain to increase in size *relative* to body size, suggesting an advancement in the complexity of the brain (Jerison: 1985).

By studying the hominid fossil records, paleoneurologists have estimated the brain size of *Australopithecus*, which lived one and half to 5 million years ago, to average about 450 cubic centimeters in volume (Blumenberg 1983: 590). *Homo habilis*, which lived as early as two million years ago, shows a notable increase in encephalization with a brain averaging 660 cc. in volume (Blumenberg 1983: 590). Furthermore, endocasts indicate the appearance of frontal lobe gyri and sulci suggesting the presence of some type of speech. *Homo erectus* lived over a million years ago and shows a greater increase in brain size to body size with a brain averaging 942 cc. in volume (Blumenberg 1983:

590). The appearance of *Homo sapiens*, around 200,000 years ago, shows a brain size averaging about 1350 cc. in volume (Beals et al.: 1984), with a relatively small increase in body size. According to Jerison, the general conclusion that can be drawn from this scenario shows that the,

behavior capacities developed in adaptations correlated with encephalization are most likely to be related to sensory/perceptual and cognitive information processing, since that is the only kind of processing known to require very large amounts of neural tissue. The capacities are, therefore, likely to be related to the reality constructed by the species (Jerison 1985: 28).

The accumulated evidence from the fields of paleoneurology and comparative neurophysiology suggests the following conclusion: over time, the patterned changes in structure give rise to appropriate patterned changes in function (Laughlin & d'Aquili: 1974).

The enhanced cortical evolution of the brain, evidenced in *Homo Sapiens sapiens*, brings with it a remarkable increase of functions mediated by those areas. The development of the parietal region in both hemispheres mediates images in the right lobe (Sperry: 1982) and the construction of concepts in the left lobe (Luria: 1973). The temporal region has been correlated with the specialized function of recognizing faces, as well as being a crucial structure in the evolution of hominid social organization (Allman: 1982). The occipital lobe mediates vision, which has become one of our most developed senses, while the cerebellum is responsible for the emergence of fine motor movement, which is integral for the manufacturing and use of tools. The frontal lobes have shown the most remarkable evolutionary advance. Among many of its functions, the frontal lobes are intimately related in the ordering of perceptual and cognitive events in space-

time, which seems to be a prerequisite for the emergence of abstract causal thought (d'Aquili & Laughlin: 1975).

It should be noted, however, that the brain develops *as a unit*, functionally evolving in the service of adaptation. Hence, the brain always evolves as a totality. As the organism interacts with the environment, a modification in the connections between the neural pathways occurs, leading to greater and more efficient entrainments, which serve to increase the probability of the organisms survival.

The Triune Brain

According to Paul D. Maclean (1973, 1990), the ontogenetic development of the brain follows, in large part, the same phylogenetic evolution shown by the rest of the embryonic body. His seminal research at the National Institute of Mental Health, in Bethesda, Maryland, points to this conclusion, since he has found that the various parts, or structures, composing the overall nervous system, have evolved at different rates. Phylogenetically, the human brain has developed, in sequential order from the most primitive to the most recent, as a *functional hierarchy*⁶⁶. For Maclean, evolutionarily older structures take up residence in the lower organizational eschalons of the overall neurological system, whereby development proceeds by preserving and building onto the brain structures of its evolutionary forebears.

Perhaps the most revealing thing about the study of man's brain is that he has inherited the structure and organization of three basic types which, for simplification, I refer to as reptilian, old mammalian,

⁶⁶ The phylogenetically older parts of the nervous system tend to appear and develop first in ontogenesis. As newer structures emerge and subsume older structures, there seems to be an overall re-organization of the entire neurological system, which inevitably changes the older structures, to a degree. Hence, these older structures cannot be considered to have the exact same organization as those of our ancestors.

and new mammalian. It cannot be over-emphasized that these three basic brains show great differences in structure and chemistry. Yet all three must intermesh and function together as a *triune* brain (Maclean 1990: 7, *italics his*).

Each of these three evolutionary strata are quite anatomically and neurologically unique. Each possesses a number of functions ranging from its own sense of time and space to their own sense of subjectivity and intelligence (Maclean: 1973, 1990). In fact, they are, *to a degree*, three “small minds” which combine to form one triune brain that operates as a whole. The first of these structures to appear phylogenetically and ontogenetically is the reptilian complex, or R-complex⁶⁷, as Maclean calls it. In humans, the R-complex is fully developed *in utero* and hence begins to function first. This structure of the brain serves the same purposes in humans as it does in reptiles (hence the name): preservation of the individual and species through the regulation of genetically inherited behavioral and instinctual patterns (i.e., get food while not becoming food). The unconscious regulatory functions of digestion, respiration, and metabolism, to name a few, are mediated and maintained through the archaic structures of the reptilian brain.

As the evolutionary process ensued, and the therapsids evolved into mammals, modifications and structural additions subsumed and incorporated the R-complex to create a new group of structures that are collectively referred to as the limbic system, or as Maclean calls it, the paleomammalian brain⁶⁸. The appearance of these limbic structures, approximately 100 million years ago, brings forth the mediation of such activities as procreation, searching and gathering, fighting, self-defense, eating and

⁶⁷ The R-complex structurally comprises the upper spinal cord, the basal ganglia, the diencephalon or thalamus-hypothalamus, and portions of the mesencephalon or midbrain (Maclean 1973: 35-36).

⁶⁸ The paleomammalian brain encompasses the amygdala, the hippocampus, the parahippocampal gyrus, the septum, the cingulate gyrus, the thalamic nuclei and other related structures in the brain (Maclean 1973: chapters 17-18).

drinking, emotions (i.e., joy, fear, sadness, terror, empathy, etc.), and hormonal regulations, to name a few. The limbic system, while still concerned with individual and species survival, now also functions to mediate messages from both the outer environment and the inner world of subjectivity. Sensations of pleasure and pain begin to provide the emotional bases for motivated behavior (i.e., seek pleasure and avoid pain).

As the evolutionary development of the brain advances through the phylogenetic line, we see the third strata of this process emerge in the brains of advanced mammals, as a thin layer of convoluted cortical tissue that hierarchically subsumed and incorporated the older parts of the brain (Maclean: 1973, 1990). The neocortex, or new mammalian brain as Maclean refers to it, is composed of the telencephalon⁶⁹, or neocortical structures, which are also referred to as the “gray matter” of the brain. Within the mammalian line, the neocortex achieves its greatest expansion in primates and reaches its apogee in the hominid line, culminating in complexity with *Homo Sapiens sapiens*. The cortical structures of the neocortex are what make higher cognitive functions possible (i.e., language, self-awareness, self-reflection, awareness of mortality, true empathy, etc.). Other notable functions include; enhanced memory and the refinement and extension of motor and sensory functions. The augmentation of sensory functions increases ones ability to receive and process external stimuli, which therefore directs a greater amount of attention to events in the external world.

The overall trend in the evolutionary development of the brain seems to follow a progressive hierarchization, according to Maclean, wherein neuronal activity increases in progressively higher brain centers. “It would therefore seem that in the complex

⁶⁹ The telencephalon is composed of the two cortical hemispheres of the brain and the corpus callosum which serves as the connecting link between these two hemispheres.

organization of the old and new structures under consideration we possess ‘a neural ladder, a visionary ladder, for ascending from the most primitive sexual feeling to the highest level of altruistic sentiments’” (Maclean 1990: 60). We should note, however, that even within each level of this functional hierarchy there are hierarchies of function at work, which makes the overall picture much more complex than the triune model conveys. The main idea concerning the hierarchical development of the brain that I am attempting to convey, still applies in those more complex neurocognitive models (for examples of more complex hierarchical models of the brain see, Powers: 1973; Carver & Scheier: 1981; Klopff: 1982).

Pre- & Perinatal Brain Development

“Medicine and psychology have confused brain with mind. Preoccupation with the immaturity of the physical brain at birth has delayed discovery of the true mental competence of newborns” (Chamberlain 1988: 21-22). Over the past 30 years, sufficient evidence has been accumulated, within the realm of pre- and perinatal psychology⁷⁰, to conclude that the cognitive and perceptual capabilities of the fetus and neonate are, by far, much more complex than was once thought. The overall spectrum of research findings in this area, by far, exceeds the main thrust of this thesis. Therefore, I will only briefly highlight the pertinent research findings, hoping to provide a general picture of the evidence relevant to the issue at hand.

In the area of prenatal psychology and neurophysiology, a growing body of empirical research has amassed sufficient evidence to warrant the claim that as soon as

⁷⁰ The interdisciplinary field of pre- and perinatal psychology includes diverse aspects of cognitive psychology, developmental psychology, clinical psychology, psychobiology, social psychobiology and developmental neuropsychology (to name the most prominent).

the requisite cortical and subcortical structures are in place⁷¹, a *kind* of consciousness is present in the fetus⁷² (Laughlin: 1989; Chamberlain: 1987; Verny & Kelly: 1982). This does not imply that the prenatal infant needs to be *completely* cortical in order for experience, learning, intentionality and consciousness to arise⁷³. What needs to be present in the nascent nervous system, however, is a “presiding cybernetically active neural network” (Laughlin 1989: 136), which would effectively place the emergence of fetal cortical consciousness within the last trimester of gestation. Chamberlain (1987), after examining over 200 empirical studies, has found sufficient evidence for the existence of pre- and perinatal consciousness deriving from at least three areas: 1) physical sensitivity and initiative, 2) emotional involvement and expression, and 3) mental activity.

Prenatal neurophysiological development⁷⁴ sees the beginnings of the nervous system in the third week of gestation, while the commencement of the differentiation of organic brain structures (i.e., mesencephalon, diencephalon, telencephalon, etc.) and the autonomic nervous system appears in the fourth week of gestation (Larroche: 1966). By the eighth week, when the “embryo” stage gives way to the “fetal” stage, we see the

⁷¹ At the beginning of the 19th week of gestation, the cortical layers begin to form in the fetal brain. The 20th week sees the beginnings of cortical dendritic branching and synapsing and by the 28th week of gestation, the neural circuits are nearly as complex as those of a newborn (Laughlin: 1989). By the 32nd week, fetal EEG's show primary and secondary cortical response to peripheral sensory stimulation and a distinct sleep/wake pattern appears (Verny & Kelly: 1982; Restak: 1986).

⁷² We should note that the consciousness of the prenatal fetus is by no means the same as that of an adult or even a neonate, for that matter. According to Doty (1975: 797-798), adult consciousness is largely cortical in organization which makes it quite distinct from the consciousness present in the pre- and perinatal child. Consciousness, like everything else, develops and is determined to a large extent by the organization of the individual organisms nervous system (Maturana & Varela: 1987) and cognized environment (Laughlin: 1989; Laughlin et al: 1990). Furthermore, the developmental process unfolds through the “structural coupling” (to use Maturana & Varela's term) of the individual organism and its environment (Maturana & Varela: 1987; Laughlin et al: 1990; Nunez: 1997).

⁷³ The organizational development of consciousness continues well into the later teens (or older) when we see the emergence of the “higher cognitive functions” mediated through the development of the prefrontal areas of the neocortex (Becker, Isaac & Hynd: 1987).

appearance of sub-cortical synapses. In the tenth week the main parts of the brain are differentiated and by the 12th week all parts of the brain are present (except the sulci) (Larroche: 1966). At this point in time, the fetus shows clear signs of movement (i.e., grasping , sucking, etc.) (Chamberlain: 1983). Behavioral signs of aversion to noxious stimuli appear by the 19th week (Verny & Kelly: 1982). Cortical and dendritic branching and synapse formation is initiated in the 20th week. By the 24th week, the main mass of cortical cells are in place and no more cortical cells will be produced after the 26th week (Larroche: 1966). By the 28th week, the neural circuits are almost as complex as those of a newborn, indicating the possible presence of awareness (Chamberlain: 1983). In the 35th week, the fetal cortical cells are identical to those of a newborn, with the exception that they have less dendritic branching (Banks & Salapatek: 1983). Furthermore, the somatosensory, gustatory, vestibular, auditory and visual systems become functional *during* gestation (Gottlieb: 1971, 1976) and the cerebral cortex, which furnishes the substrate for perceptual and cognitive functions, is in place and operating before birth (Weiskrantz: 1988).

Regarding prenatal psychological development, the literature (although controversial) supports the notion that a rudimentary type of ego development is occurring *in utero* (Grof: 1975, 1985, 1988; Verny & Kelly: 1982; Janov: 1983; Gabriel & Gabriel: 1992; Wade: 1996). Observations of embryonic behavior typically show that the fetus is capable of *emotional* responses when exposed to pleasant or aversive situations (Verny & Kelly: 1982). At first, these emotional responses are bodily based physiological reflexes (and not mentally derived responses) triggered by physicochemical

⁷⁴ The ontogenetic neurophysiological development of the brain follows, to a large degree, the phylogenetic evolution described in the previous section dealing with the triune brain.

stimulation from changes in the mother's hormonal balance. When the hormonal balance of the womb is disturbed by toxicity (i.e., the mother smoking, drinking alcohol, or ingesting drugs), illness, accident, loud external noises, or emotional distress, the fetal state of oceanic symbiosis is painfully interrupted and the fetus is violently expelled from his/her oceanic state of embeddedness (Connolly & Cullin: 1983; Carlson & LaBarba: 1979; Verny & Kelly: 1982). Over time, these experiences aggregate and each subsequent "wave of maternal hormones jolts him out of the blankness that is his normal state in the womb, and into a kind of receptivity" (Verny & Kelly 1982: 44).

This receptivity serves as a primitive "concrete response" to aversive intrauterine conditions which are experienced and retained by the fetus (in memory) through the release of the mother's adrenocorticotrophic hormone (ACTH).⁷⁵ By the sixth or seventh month, when the cortical framework is largely in place, the fetus possesses a rudimentary ability to discriminate amongst different types of hormonal changes and subsequently "make sense" of them and carry out appropriate responses which are mostly physiological/emotional in nature (i.e. primitive forms of rage, depression, anxiety, etc.) (Verny & Kelly: 1982). The physiological/emotional responses available to the fetus

⁷⁵ ACTH has been found to be a critical substance in memory retention. Interestingly enough, ACTH is released during negative experiences of distress. For pregnant women, however, the ACTH floods the fetus enabling it to record the event. If negative events occur in the early stages of gestation (before the central nervous system is sufficiently formed) researchers hypothesize that a type of "cellular memory" is at work which is largely based on RNA, neuropeptides, or some other biochemical process (Buchheimer: 1987; Rossi: 1990; Achterberg: 1994). According to Buchheimer (1987), cellular memory is stored in specific physiological structures throughout the entire body which helps retain specific memory patterns (or engrams) that can be reactivated under appropriate conditions. Precognitive, prelogical, and preverbal events are stored in this way. The clinical work of Grof (1975, 1985, 1988) and Janov (1972, 1983) dealing with the recollection of birth and perinatal somatic states gives further support to the cellular memory hypothesis. Furthermore, work done with hypnosis has shown that adults can correctly describe their head and shoulder positioning at birth (Cheek: 1974), as well as reproduce seven movement patterns (i.e. Babinski reflex) that are supposed to be irretrievably lost with neurological maturity (Raikov: 1980). Grof has further observed that experimentally regressed adults (through psychotropic drugs and holotropic breathwork) exhibit age appropriate Babinski reflexes (Grof & Bennett: 1992).

show a significant degree of control over the actual pregnancy, since the placenta is considered an “organ” of the fetus and not the mother.

It is the fetus who guarantees the endocrine success of pregnancy and induces all manner of changes in maternal physiology to make her a suitable host...who determines the duration of the pregnancy, ...who decides which way he will lie in pregnancy and which way he will present in labor (Liley 1972: 100).

Observations such as these⁷⁶, concerning the receptivity and responses of the fetus, lead to the conclusion that a sense of self *distinct* from the mother is present *in utero*.⁷⁷ Developmentally, these sets of responses, which are largely physiological at first, foster the neurological maturation requisite for increasingly complicated tasks later on.

What began as a blunt, displeasing feeling he could only distinguish as uncomfortable, over the months grows into something quite different. It becomes an emotion, acquires a source (his mother), prompts his thoughts about that source's intentions toward him, forces him to conjure up ways of dealing with those intentions, and creates a string of memories that can be referred to later (Verny & Kelly 1982: 64).

If the prenatal research is correct in asserting that the fetus begins the process of ego differentiation *in utero*, why does the neonate appear to go through this same process of differentiation after birth, as the developmental literature contends? The answer to this would appear to reside in the actual experience of birth.

The experience of birth is one of the most dramatic events in the course of every individual's life. Beginning with the theoretical work of Otto Rank (1929) there is now a

⁷⁶ Ultrasound observations concerning amniocentesis (the process wherein fluid is removed from the womb by guiding a needle into the uterus) have shown that fetuses (as early as 10 weeks) typically retreat from the needle when it is inserted, while older fetuses have gone as far as attacking the needle (Birnholtz et al.: 1978; Baker: 1978). Other studies dealing with twins have shown them engaged in acts of “social interaction”, such as kissing, stroking, rubbing, kicking, and hitting each other, while in the womb (Piontelli: 1992). Piontelli cautiously suggests that such behavior may imply that an identification with a bodily self distinct from the mother, as well as the other twin, is present *in utero*.

considerable body of literature ranging from pediatric (Brazelton & Als: 1979; Sanders-Phillip, Strauss & Gutberlet: 1988; Rose: 1981) to clinical (Chamberlain: 1983, 1987, 1989; Cheek: 1974; Grof: 1975, 1985, 1988; Janov: 1972, 1983; Laing: 1982; Verny: 1987) to ethnographic (Neumann: 1963; Eliade: 1958; Laughlin: 1989, 1990) which suggests that the birth process leaves lasting “imprints” on the individual, whether positive, negative, or traumatic, ultimately influencing their subsequent psychological development. Birth is therefore the most extreme form of anxiety (Rank: 1929). If we apply psychoanalytic theory to this situation, the birth trauma, like any trauma, is dissociated or repressed by the neonate allowing the oceanic feeling to resume after birth⁷⁸. This psychological defense mechanism, however, not only represses the trauma but also the egoic development that had occurred *in utero*, which must then be repeated once again after birth.

Some research supports the notion that birth memories are lost or repressed due to the actual physiological process of birth. Oxytocin is the principle hormone responsible for inducing uterine contractions. When contractions begin, the womb is flooded with oxytocin, which is thought to be one of the causes of infantile amnesia (Catano & Catano: 1987; Verny & Kelly: 1982). Animal research has also shown that infantile amnesia is not unique to humans but occurs in a number of other species as well (Spear: 1979). The psychological environment of birth and the ease and rapidity of birth have also been shown to have an influence on the degree of trauma experienced (Newton: 1970). A

⁷⁷ “Because the fetus is mature enough by the second trimester, I believe the unborn’s ego begins to function sometime in that period” (Verny & Kelly 1982: 63-64).

⁷⁸ Freud introduced the concept of “infantile amnesia” in his *Three Essays on the Theory of Sexuality* (1953), but it was only applied to infantile experiences from birth to about six or seven years of age. Freud believed infantile amnesia was needed to repress memories dealing with early sexual impulses which led to speculations concerning a direct connection between infantile amnesia and hysterical amnesia.

comfortable and supportive social climate contributes to an easier labor; as they make the process of birth less frightening and more natural.

At birth, the neonate's brain weighs approximately 300-350 grams but due to its extremely dramatic rate of growth during early infancy, it will manage to reach, by four years of age, 80% of its adult weight of 1250-1500 grams (Spree et al. 1984: 29). Since we have already seen that by the seventh month of gestation the prenatal infant already possesses almost all of the neural cells an individual will ever have throughout its entire life, this dramatic developmental upsurge occurring to the brain involves, in large part, an intense period (after birth) of dendritic branching and synapsing (Banks & Salapatek: 1983), the growth of intercellular connections between neural cells (Greenbough: 1987), the growth of glial (i.e., support) cells (Bronson: 1982), the selection and elimination of intercellular connections (Changeux: 1985, Bronson: 1982, Purves: 1988), and the myelinization of certain types of fibers (Yakovlev & Lecours: 1967).

With the postpartum neurophysiological increase in dendritic branching and synapse formation, we also witness a concomitant development of psychological functions. Studies have shown that the perinatal infant is able to recognize the mother's voice immediately after birth (Busnel & Granier-Deferre: 1983). A few days after birth, the neonate shows the ability to imitate and discriminate facial expressions (Meltzoff & Moore: 1983), as well as demonstrate positive and aversive gustatory responses through facial expressions (Steiner: 1979).

By the first week, the neonate recognizes and prefers the mother's smell over and above all other smells (McFarlan: 1975). At birth, the neonate's cerebral hemispheres are anatomically asymmetrical (Witelson & Pallie: 1973) and by the 22nd day (at the latest)

the child shows the typical adult pattern of lateral asymmetry for speech and non-speech sounds (Entus: 1977). Electrophysiological data have shown that the neonate's response to speech sounds is greater in the left hemisphere than it is for non-speech sounds (Molfese: 1977). Furthermore, Eisenberg (1975) has demonstrated that neonate's prefer female voices over male voices and human speech sounds to sounds made by non-human objects.

By the sixth week (and maybe as early as birth), the infant shows evidence for the capacity to visually perceive the spatial structure of objects (Cook: 1987) and by the fifth month, the infant demonstrates evidence of object permanence (Spelke & Kestenbaum: 1986). Some researchers suggest that the development of object perception begins at, or just after, birth and that the neonate is actually perceiving the world from a single mechanism, or "object concept," which it uses as an exploratory tool to investigate its immediate surroundings (Stein & Spelke: 1988). Other researchers, such as Gibson (1969), Banks (1988), and Leslie (1988) to name a few, have suggested

that perhaps by late intrauterine life, by birth, or certainly by four months of age the child is equipped with innate higher perceptual and cognitive structures that anticipate a three-dimensional and temporal/causal world that becomes fulfilled and refined in actual perceptual experience as it arises in the sensory system (Laughlin 1989: 151).

All of this seems to point in the direction that the neonate is already prepared to actively engage in the exploration of its environment. Furthermore, this empirical evidence suggests that William James' characterization of the neonate's world as a "blooming buzzing confusion" is neurologically unfounded. In fact, *"there exists no stage of development, prenatal or perinatal, in which the cognized environment of the*

child is in chaos” (Laughlin 1989: 148, italics his). The available pre- and perinatal research suggests that

not only is the world of physical objects “already there” to the neonatal perception at, or before birth, so too is the world of socially significant objects and interactions -- objects that include speech sounds, interactive gestures, emotional expressions and faces, and especially the face, gestures, emotional expressions, smell, physical touch, breasts and voice of its mother (Laughlin 1989: 153).

Overall, it would seem that the newborn is an active participant in the creation of its experience rather than a passive slate upon which “objective reality” is imprinted.

Psychoses or Transcendence?

Throughout the ages, psychotic and religious or mystical experiences have been assumed to be intimately related. The Hebrew Bible, for instance, employed the term *shiggayon* to denote madness as well as to describe the “impulsive speech” and behavior of prophets (Rosen 1968: 36)⁷⁹. Many Sumero-Babylonian texts also make a similar association by referring to a priest who recites or interprets oracles in a “state of frenzy” as a *mahhu* which consequently serves as the root of the word *mahhutu* meaning “derangement” (Rosen 1968: 51). Among the Greeks, Socrates has stated that “the greatest of goods come to us through madness, provided that it is bestowed by divine gift” (Plato’s *Phaedrus*: 244).

Under the present sway of the positivistic-materialistic paradigm, this delicate relationship has become one-sided. Consequently a mystical experience has come to be pathologized and seen as a sure sign of a psychotic condition. Any individual undergoing such an experience might find themselves at risk of being hospitalized (Lukoff &

Everestt: 1985). The psychoanalytic tradition has interpreted the explicit cultivation of these experiences as a type of psychological regression. For example, the psychoanalyst Franz Alexander has called Buddhist meditation a “narcissistic masochistic affair” and he interprets Buddhist self-absorption as “a libidinal, narcissistic turning of the urge for knowing inward, a sort of artificial schizophrenia with complete withdrawal of libidinal interest from the outside world” (1931: 130). Even within a mainstream religious community we find a disdain, trepidation and misunderstanding of such experiences. “If a member of a typical congregation were to have a profound religious experience, its minister would very likely send him or her to a psychiatrist for medical treatment” (Grof 1985: 335).

The extreme monophasic nature of western industrial cultures inevitably leads it to interpret *any* alteration of consciousness as maladaptive and unhealthy. It consequently deems any knowledge or insights gained from such non-ordinary phases of consciousness as irrational and any unusual sensory occurrences experienced in such states are labeled “hallucinations,” ultimately having no basis in “reality”. Therapeutically, the biomedical model, as espoused in psychiatry and the behavioral-cognitive model, as espoused in psychology, aim to diminish (if not eliminate) the importance (and existence) of subjective experiences, since they are deemed “unscientific” and objectively unverifiable. In short, the positivistic-materialistic paradigm interprets *all* subjective deviations from conventional reality as nothing more than a disorder of the brain, ultimately excluding the existence of higher (or more adaptive) states of consciousness.

⁷⁹ According to Rosen (1968), prophets were usually described as “raving” in the Hebrew Bible. Hence, “to act like a prophet” meant behaving in an uncontrolled manner.

In doing so, the positivistic-materialistic paradigm theoretically limits the evolutionary process in nature by relegating it to the material realm only, ultimately assuming that humans have reached the zenith of the evolutionary climb with the emergence of egoic functions and rationality. As Foucault observed, reason, in its arrogance, has divorced itself from madness and the creative dialogue that they had forged over the centuries has dissipated and “the language of psychiatry [has become]...a monologue of reason *about* madness” (1965: xi, italics his). On the other hand, however, the possibility of psychosis is quite real and excruciatingly painful and the suffering experienced during such episodes are far from being “divinely blissful” and religious. Both experiences seem to be equally real, all that is needed is their acknowledgment within a more encompassing paradigm.

Psychotic Experience

The *Diagnostic and Statistical Manual of Mental Disorders (4th edition)* (DSM-IV, APA: 1994) is the standard diagnostic guide employed in hospitals and mental health centers across the U.S. and Canada. The essential features for diagnosing an individual with schizophrenia, according to the DSM-IV criteria include the presence of positive symptoms such as delusions, hallucinations, disorganized speech, grossly disorganized or catatonic behavior and/or the presence of negative symptoms such as alogia, avolition, flattened affect, etc.⁸⁰ These symptoms must be further associated with marked social or occupational dysfunction, such as disturbances in interpersonal relations or self-care, and

⁸⁰ Two (or more) of these symptoms should be present during a period of at least 1 month in order to meet the *first* criteria for a diagnosis of schizophrenia to be considered. However, if the delusions are extremely bizarre or the hallucinations consist of 2 or more voices conversing with each other or one voice commenting on the individual's thoughts and behaviors, then that is sufficient to fulfill the requirements for criteria A of the DSM-IV.

must persist for at least 6 months. Likewise, for a diagnosis of brief psychotic disorder to be given, these same positive and negative symptoms must be present but with a rapid onset and last at least 1 day and no more than 1 month. In both of these conditions, great emphasis is given to the presence of delusions and hallucinations and their bizarre content. It is this emphasis that has more often than not, forced the label of schizophrenic or psychotic on the experiences of shamans, mystics, Buddhist meditators, etc.

Recent research has uncovered evidence pointing to malfunctions in the neocortex of schizophrenics and psychotics. Neurologists researching the living brains of schizophrenic individuals through the use of Positron Emission Tomography (PET) have found that these individuals are unable to “switch on” their frontal lobes when asked to perform certain tasks specifically designed to activate this area (Early: 1993; Andreason 1994). The PET revealed an abnormality in blood flow confined to an area of the left globus pallidus (Early: 1993). This condition has been called “hypo-frontality” and has been found to be more pronounced in the left side of the frontal lobes of schizophrenics possibly accounting for the loss of linear logic. Another study has

found a fourfold delay in information transfer across the corpus callosum in chronic schizophrenics. The static producing interference is especially prominent in frontal areas, where right and left hemispheres share information about symbols, abstract meanings, and sequences of cause and effect -- exactly those capacities most impaired in schizophrenic ASCs (Nelson 1994: 110).

A series of EEG studies have also shown significant differences between schizophrenic EEGs and those of normal subjects. Merrin & Floyd (1996, 1997) observed an asymmetrical effect of alpha power which favored the right side in parietal leads of schizophrenics with positive symptoms. Furthermore, their findings suggest that

negative symptoms are associated with decreased alpha power and less alpha coherence between hemispheres, as well as between right parietal and frontal regions. Many other studies have also found abnormal desynchronization of left temporal activity suggestive of left hemisphere over-activity in schizophrenics (Norman et al: 1997; Koles et al: 1994; Gruzelier et al: 1993). This research appears to suggest that disruptions in the connection between left frontal and temporal areas of the brain play a central role in schizophrenia.

In a study using computerized lexical content analysis of 66 autobiographical accounts of schizophrenic, hallucinogenic drug states, and mystical experiences, the investigators found that the subjective experiences of the individuals in these groups were “more different from one another than alike” (Oxman et al 1988: 408). Their data suggest that the schizophrenic experience is associated with a sense of impairment, inner badness, and illness. In contrast, the hallucinogenic drug experiences suggest an emphasis on positive perceptual phenomena associated with heightened awareness and creativity, whereas the group associated with mystical accounts suggest positive experiences infused with a sense of power and certitude concerning religious or spiritual insights of universal magnitude. “Thus, whereas the language that constitutes the description of schizophrenic experience points to a devalued, negative sense of self, both of the other ‘altered states’ are associated with a vocabulary connoting a sense of self-enhancement” (Oxman et al 1988: 406).

Mystical Experience

In her classic study of mysticism, Evelyn Underhill (1955) observed that the term “mysticism” is,

One of the most abused words in the English language, it has been

used in different and often mutually exclusive senses by religion, poetry, and philosophy: has been claimed as an excuse for every kind of occultism, for dilute transcendentalism, vapid symbolism, religious or aesthetic sentimentality, and bad metaphysics. On the other hand, it has been freely employed as a term of contempt by those who have criticized these things. It is much to be hoped that it may be restored sooner or later to its old meaning, as the science or art of the spiritual life (1955: xiv).

According to the *American Heritage Dictionary*, the etymology of the word ‘mystical’ finds its origins in the Greek *muestes*, which connotes “someone who is initiated into secret rites”. This word is subsequently derived from the Greek *muein* meaning “to close the eyes or mouth”, in the sense of keeping a secret. Furthermore, the word *mu* is the Indo-European root of these Greek terms and it is usually employed for the purpose of mimicking inarticulate sounds, pointing to the sense of the ineffable. This idea of inarticulation or ineffability was noted by William James when he suggested that a mystical experience “defies expression, that no adequate report of its contents can be given in words” (1961: 300).

Despite this characteristic, scholars have attempted to define mystical experiences, inevitably leading to numerous definitions ranging along a spectrum of intensity. At one end we find Erich Neumann’s criteria stating that a genuine mystical experience “always leads to an upheaval of the total personality” (1964: 381). While at the other end we have Scharfstein’s (1973) more liberal definition of mystical experience as “everyday mysticism”. Others, in an attempt to focus the field of inquiry, like Forman (1990), have proposed to reserve the term “mystical” to describe (as Ninian Smart did) the “set of experiences or more precisely, conscious events, which are not described in terms of sensory experiences or mental images” (Forman 1990: 7). He further suggests that the set of experiences or phenomenon described in terms of sensory experiences or

mental images be called “visionary experiences”.⁸¹ In the former category we would have such experiences as described by Dogen, Eckhart, Shankara, etc., and in the latter category we would have such experiences as described by Mechtild of Magdeburg, Muhammad, Isaiah, etc.

Regardless of how it is defined, a mystical experience is first and foremost an *experience*. The person engages directly with the sacred; he/she grasps or is grasped by Truth, he/she directly knows Nirvana or intuitively God’s presence. Despite the sophistication of theological concepts or the clarity of discursive thought, a mystical experience transcends the realm of reason. “Enclose me not in cages of matter or mind; through heavenly vastness my soul does soar, unfenced by the walls of heart or deed, by walls of ethics or logic; I thirst for truth, not concepts of truth; I ride about the heavens, wholly absorbed with the truth” (Kuk 1951: 79). In what follows, I will attempt to tease out some differences between mystical experiences and psychotic experiences.

Spiritual Emergencies

The psychotic experience and the mystical experience do share some commonalities, but they are also sufficiently different and can hence be differentiated. Agosin (1991) sees psychotic and mystical experiences as sharing nine common features: 1) *intense subjective experience* (both states are totally riveted to the inner world, to the extent that the outer world only becomes relevant when it reflects the profound subjective experiences the individual is undergoing); 2) *sense of noesis* (the individual senses that something of great importance and significance is occurring to them); 3) *ineffable quality*

⁸¹ In making this distinction, Forman is following Ronald Fischer’s (1971) “cartography of ecstatic and meditative states”. Forman reserves the term “mystical” for trophotropic states and the term “visionary” for ergotropic states. I will elaborate this distinction in a latter section.

(the experience defies expression through verbal or rational modes of communication); 4) *loss of ego boundaries* (the otherwise clear boundaries between inside (I) and outside (other) are blurred); 5) *distorted sense of time* (the linear sense of time (i.e., past-present-future) becomes distorted and the present emerges as the only true and eternal reality, in a sense, time does not exist in the experience of the moment); 6) *perceptual changes* (hallucinatory phenomena, whether visual or auditory, are common, as well as heightened perceptions across all sensory modalities); 7) *intense affective experiences* (the ego feels overwhelmed by such feelings as joy, ecstasy, or terror, etc.); 8) *altered state of consciousness* (the individual enters into an ASC after an initial period of restlessness or preparation which is followed by a sudden realization); and 9) *attempts at renewal, transformation, and healing* (the individual has reached an impasse in their psychological development and a drastic transformation is its only resolution).

Agosin sees nine essential differences between psychosis and mysticism. These differences include: 1) *self-image* (mystics seek to reduce their sense of self, whereas psychotics see themselves as omnipotent and omniscient, which greatly increases their self-centeredness and importance); 2) *ego-identity* (mystics attempt to shed their identification to the ego in the hopes of finding a more expansive sense of self, the psychotic one the other hand, has never acquired a strong ego-identity and hence attempts to cling to whatever fragments it can find); 3) *serenity, peace, and tranquillity* (mystics experience states of serenity, peace, and tranquillity whereas psychotics experience states of increasing fragmentation leading to fear and a sense of lack of control); 4) *change* (the mystic welcomes change whereas psychotics are frightened by it); 5) *thought processes* (there is an underlying sense of unity and coherence to the mystical experience whereas

the psychotic experience is incoherent, fragmented and disordered); 6) *aggression and paranoia* (the mystical experience lacks elements of aggression and paranoia whereas the psychotic experience revolves around these elements); 7) *hallucinatory experiences* (the mystic will usually experience positive “visions” of light, entities, etc., whereas the psychotic experiences auditory phenomenon with negative and frightening content); 8) *duration* (the mystical experience is short-lived whereas the psychotic experience can become a chronic condition causing great pain and suffering to the individual); and 9) the *outcome* of the experience seems to be the most important factor differentiating the 2 experiences. According to Agosin, the

mystical experience leaves the individual more connected and involved in the world. The mystic expands the capacity to love and to serve...Psychosis, unfortunately, most often leaves the person more self-involved. It narrows the possibilities of connection to the world because psychotics need to protect themselves from the anxiety that the involvement in the world produces...The psychotic is involved in a struggle of self-survival and there is little psychic energy for anything else (1991: 55)

In light of such proposals, David Lukoff (1985) has argued that the “current psychiatric practice does not attempt to distinguish between psychotic episodes with growth potential and those which indicate a mental disorder” (158). In an attempt to depathologize mystical experiences and spiritual emergencies, he has argued that the DSM-III criteria for a psychotic episode actually encompasses four distinct categories which include genuine psychotic episodes, genuine mystical experiences, psychotic episode with mystical features (PEMF), and mystical experience with psychotic features (MEPF). Lukoff proposed the new diagnostic category PEMF to accommodate the co-existence of genuine mystical features with a psychotic disorder and the category MEPF

to accommodate the co-existence of psychotic features within a mystical experience. He sees the latter as a positive transformative process.

The criteria he designed to aid in identifying those individuals undergoing MEPF include: 1) the presence of a mystical experience (ecstatic mood; sense of newly acquired knowledge; perceptual alterations; delusions with mythological themes; no conceptual disorganization); 2) the presence of a minor psychotic process (disturbed reality testing, with presence of hallucinations; delusions; attention riveted to inner experience; bizarre behavior; deterioration of common levels of functioning); and 3) the experience fits the criteria for a positive outcome (A) good pre-episode functioning; B) acute onset of symptoms during a period of 3 months or less; C) stressful precipitants to the psychotic episode; and D) a positive exploratory attitude toward the experience) (1985: 170).

In recent years, a considerable amount of work has gone into establishing differential diagnostic criteria between psychopathological states and, what Stan and Christina Grof (1990) have called, “spiritual emergencies”. The Grofs define spiritual emergencies

as critical and experientially difficult stages of a profound psychological transformation that involves one’s entire being. They take the form of nonordinary states of consciousness and involve intense emotions, visions and other sensory changes, and unusual thoughts, as well as various physical manifestations. These episodes often revolve around spiritual themes; they include sequences of psychological death and rebirth, experiences that seem to be memories from previous lifetimes, feelings of oneness with the universe, encounters with various mythological beings, and other similar motifs (Grof & Grof 1990: 31).

The psychospiritual transformation brought about by a spiritual emergency propels the individual into the transpersonal realms of development. According to the Grofs (1990:

73-74), the experiences associated with psychospiritual transformations may take a variety of forms, which include:

- Episodes of unitive consciousness
- Kundalini awakening
- Near-death experiences
- Emergence of “past-life memories”
- Psychological renewal through return to the center
- Shamanic crisis
- Awakening of extrasensory perception
- Communication with spirit guides and channeling
- Experiences of close encounters with UFO’s
- Possession states

The Grofs (1990: 254-255) have observed that the experiences associated with spiritual emergencies possess certain characteristics that effectively distinguish them from mental illness. On the whole, the individual undergoing a spiritual emergency shows adequate pre-episode functioning and no history of serious psychiatric problems; demonstrates an “ability to relate and cooperate, often even during episodes of dramatic experiences that occur spontaneously or in the course of psychotherapeutic work” (1990: 255); accepts help; absence of persecutory voices, delusions, destructive or self-destructive ideas and tendencies; ability to relate experiences; ability to honor the basic rules of therapy; “awareness of the intrapsychic nature of the process [and] a satisfactory ability to distinguish between the inner and the outer” (1990: 255); ability to cooperate in things related to physical health (e.g., diet); and the individual observes and maintains basic hygienic rules.

In a similar vein, the psychiatrist John Nelson (1994) has observed several characteristics that help differentiate a spiritual emergency from a regressive psychotic episode. They include:

1) onset precipitated by a stressful life event or involvement in spiritual practice; 2) ecstatic mood, although there may be attendant anxiety; 3) only mildly disorganized thinking; 4) hallucinations of the “higher order”; 5) intact reality testing; 6) good social functioning prior to the onset of the ASC; 7) insight that something within has changed; 8) positive and exploratory attitude toward the experience as relevant to one’s life; 10) limited duration of the ASC; and 11) enhanced social and personal functioning when the episode is over (266).

From all of these criteria, it seems that the *content* of the experience is not the determining factor in differentiating regressive psychotic episodes from progressive spiritual experiences but rather the way in which the individual relates to, and integrates, the experience into his/her being that is important

The Psychobiology of Meditation

Over the past three decades, the phenomenon of meditation has generated a considerable amount of interest within the scientific community. This surge of scientific research inevitably uncovered a far more complex phenomenon than was once thought. One of the grave shortcomings of the early scientific research was its homogeneous treatment of ‘meditation’ as a single entity, when in fact there are a great variety of meditative techniques cross-culturally. This attitude overgeneralized the findings of one technique (usually TM) and extended them to all others. On the other hand, however, as the research methodology improves and the difference between techniques is acknowledged we find an ever greater amount of valuable information emerging from the scientific community. Some of these findings are relevant to our topic.⁸²

⁸² Due to the vast amount of literature on the topic, in this section, I will only be looking at the research concerning changes in cortical activity as obtained in EEG recordings. By focusing on this area only, I *do not* wish to suggest that other research findings, such as changes in metabolic and respiratory rates, skin-resistance changes, lowered heart rate and blood pressure, etc., are not important.

Numerous studies have demonstrated that meditation⁸³ produces significant increases in alpha activity (8-12 cycles per second), when measured in EEG recordings⁸⁴. This alteration in alpha activity shows an increased amplitude and a decreased frequency. For example, Anand et al. (1961), while studying four Yogis practicing Raj Yoga, found prominent and persistent alpha activity accompanied with a well-marked amplitude modulation. Wallace and colleagues (1970, 1971) observed an increase in the amplitude and regularity of alpha activity during TM as well as a significant shift toward theta activity in certain of the subjects, but not all.

One of the most important yet least understood findings in meditation research deals with the appearance of theta waves during meditation. More than 10 studies have demonstrated that meditation produces strong bursts of theta waves (4-7 cycles per second) in the frontal areas of the brain⁸⁵. Furthermore, it has been suggested that its appearance is more likely amongst advanced meditators. The classic study by Kasamatsu & Hirai (1969), for example, looked at a population of Zen meditators and found a sequence of increased alpha amplitude, decreased alpha frequency, and increased theta activity which appeared to emerge as a function of the individuals proficiency and experience in meditation. It was also observed that the production of theta waves, evidenced during the meditation session, persisted well after the session was over, even

⁸³ It should be noted, however, that these EEG changes are not unique to meditation, as Wallace (1970) has contended and that various psychospiritual practices have also been shown to produce such changes in cortical activity, although through varying methods.

⁸⁴ Gaylord et al.: 1989, Echenhofer & Coombs: 1987, Taneli & Krahne: 1987, Delmonte: 1984, Stigsby, Rodenburg, Moth, et al.: 1981, Lehrer, Schoicket, Carrington et al.: 1980, Wachsmuth, Dolce, & Offenloch: 1980, Pelletier & Peper: 1977, Elson, Hauri & Cunis: 1977, Kras: 1977, Fenwick, Donaldson, Gillis, et al.: 1977, Glueck & Stroebel: 1975, Williams & West: 1975, Woolfolk: 1975, Banquet: 1972, 1973, Wallace, Benson, & Wilson: 1971, Wallace: 1970, Kasamatsu & Hirai: 1963, 1966, 1969, Kamiya: 1968, 1969, Anand et al.: 1961, Bagchi & Wenger: 1957, Das & Gastaut: 1955.

⁸⁵ Delmonte: 1984, Hebert & Lehmann: 1977, Elson, Hauri, & Cunis: 1977, Pelletier & Peper: 1977, Fenwick, Donaldson, Gillis, et al.: 1977, Banquet & Sailhan: 1974, Ghista, Mukherji, Nandagopal, et al.:

when the eyes were open. Elson, Hauri, & Cunis (1977) observed a slowing of the EEG pattern which consisted of 50% alpha waves with a predominance of theta activity on a low-voltage mixed background among practitioners of Ananda Marga Yoga.

Herbert & Lehmann (1977) conducted a systematic investigation of theta activity in a population of TM meditators ($n = 78$) and control subjects. Their findings indicated that 27% of the meditators (and not the controls) produced bursts of theta activity occurring synchronously in all leads of which the highest voltages were recorded in the frontal channel.⁸⁶ Contrary to Kasamatsu & Hirai (1969), however, they found no correlation between the frequency of theta activity and the proficiency and experience in meditation. According to Schuman (1980), the overall picture that emerges from these EEG studies suggests the following:

first, an increase in the abundance of alpha rhythm in the EEG, with well-organized alpha activity appearing in all leads, especially frontal and central; second, an increase in the amplitude of alpha potentials; third, a decrease in the modal frequency of alpha; progressing to, fourth, the appearance of rhythmical trains of theta waves (5-7 Hz) (Schuman 1980: 338).

A handful of studies have also observed bursts of high-frequency beta waves (13-40 cycles per second) usually occurring in deep states of meditation (Peper & Ancoli: 1979; Corby, Roth, Zarcone et al.: 1978; Fenwick, Donaldson, Gillis et al.: 1977; Banquet: 1973; Kasamatsu & Hirai: 1966, 1963; Anand et al.: 1961; Das & Gastaut: 1955). Some researchers have correlated these fast wave patterns with intense subjective states of pleasure, ecstasy, and bliss, suggestive of a samadhi/mystical experience (Das &

1976, Wallace, Benson, & Wilson: 1971, Wallace: 1970, Kasamatsu & Hirai: 1966, 1963, Anand et al.: 1961, Bagchi & Wenger: 1958.

Gastaut: 1955; Banquet: 1973). One such study used a spectral analysis of TM meditators and observed the sequential unfolding of phases leading to these high-frequency beta bursts (Banquet: 1973). The spectral analysis revealed a general tendency of progression from the basic alpha rhythm; to a more pronounced higher amplitude, lower frequency alpha waves; to short bursts of high-voltage theta activity beginning in the frontal regions and then spreading to other areas of the brain until a longer, rhythmic theta wave emerged; eventually leading to rhythmic high-frequency beta activity (20 Hz)⁸⁷.

One other important trend appearing in meditation research demonstrates the synchronization and coherence of brain wave activity between left and right hemispheres and the anterior and posterior parts of the brain⁸⁸. Badawi et al., (1984) observed that spontaneous periods of respiratory suspension during TM were positively correlated with subjective experiences of 'pure consciousness', as characterized by significant increases in EEG synchronization across all leads. This EEG coherence, however, did not occur in the control group voluntarily holding their breath. These findings dispel the thesis advanced by Ornstein (1972) and others that meditation works to shift the dominant linguistic-analytic processing of the left hemisphere to that of the imaginal-gestalt processing of the right hemisphere.

⁸⁶ Stroebe & Glueck (1978: 420) hypothesize that a mantra acts as a "critical driver of synchronization." When an analysis of resonance frequencies was carried out on a sample of mantras, they gave values of 6-7 Hz which, interestingly enough, falls within the theta range.

⁸⁷ This last stage was present in only 4 of the subjects.

⁸⁸ Badawi et al.: 1984, Orme-Johnson & Hayes: 1981, Dillbeck & Bronson: 1981, Dillbeck, Orme-Johnson, & Wallace: 1981, Corby, Roth, Zarcone et al.: 1978, Bennett & Tindler: 1977, Morse, Martin, Furst et al.: 1977, Herbert & Lehmann: 1977, Banquet: 1973, 1972, Wallace, Benson, & Wilson: 1971, Wallace: 1970, Anand et al.: 1961, Das & Gastaut: 1955.

An unrelated study having implications for meditation research, has directly correlated the nasal cycle⁸⁹ with cortical activity in the cerebral hemispheres, as measured by cortical EEG (Wermtz et al: 1982). Since the relationship between cerebral hemispheres and the autonomic system is ipsilateral (i.e., same side) in nature, it is hypothesized that “greater cerebral efficiency is facilitated by greater sympathetic (excitatory) arousal on the ipsilateral side (increasing air flow) and greater parasympathetic (vegetative) arousal of the contralateral side (decreasing air flow)” (Laughlin et al 1990: 312). Keeping this in mind, we find certain yogic and Tibetan Tantric practices⁹⁰ that consciously attempt to establish an equal air flow between nostrils before undertaking certain types of meditation suggesting that hemisphere synchronization is a prerequisite for setting up certain transpersonal experiences (Laughlin et al.: 1990).

The Phenomenology & Psychobiology of Shamanic States of Consciousness

Due to the extreme monophasic nature of western-industrial culture and its allegiance to the biomedical model, Shamanic States of Consciousness (SSC) have been pathologized and the “experience of the shaman has been likened to almost every psychopathology” (Peters & Price-Williams 1980: 394), but most of all to schizophrenia (see e.g., Wissler: 1931; Kroeber: 1940; Devereux: 1961; & Silverman: 1967). There is considerable evidence, however, that this position is quite mistaken (Boyer, Klopfenetal,

⁸⁹ The nasal cycle refers to the shift in airflow between nostrils during breathing.

⁹⁰ For example, Tibetan Tantric Domo Yoga explicitly stresses that the best time to engage in this specific meditation is “when the breath flows evenly through both nostrils” (Chang 1963: 63). According to Tantric physiology, the breath naturally flows evenly only during six periods throughout a 24 hour cycle.

et al.: 1964; Boyer, Boyer, & Basehart: 1973; Murphy: 1964; Handelman: 1967; Peters: 1982; Noll: 1983; Winkelman: 1986; & Walsh: 1995).

Noll (1983) has reviewed the literature concerning the relationship between schizophrenia and shamanic journey states of consciousness and has presented a sustained argument demonstrating, through a phenomenological comparison, that the SSC cannot be diagnostically classified (using the DSM-III criteria of the APA) as schizophrenia. Walsh (1995) has extended Noll's initial findings and has further demonstrated that there exist clear phenomenological differences between shamanic and schizophrenic experiences which cannot, in any way, be regarded as identical states.

The major differences arise in the areas of concentration, control, affect, self-sense, and content (Noll: 1983; Walsh: 1995). An acute schizophrenic episode is marked by a drastic reduction of concentration accompanied by a highly aroused and agitated state of cognitive disorganization and incoherence. The individual undergoing such an episode usually experiences a loss of control, leading to an existential disintegration of the ego, characteristically tinged with unpleasant emotions of imminent collapse or death. On the other hand, the shamanic journey state is characterized by increased fluid concentration and control of the state. The shaman possesses the ability to enter and leave the alternate state of consciousness at will, as well as determine (to an extent) the type of imagery and experiences. During the journey state, the shaman retains an individual self-sense freed from the confines of the body, giving them the ability (or impression?) to travel between worlds⁹¹. The affect usually depends upon the experiences the shaman is undergoing, so they may have positive or negative associations. The content of the shamanic experience is organized and coherent and is

usually based upon the underlying cultural cosmology. Another factor differentiating the shaman and the schizophrenic deals with social functioning. A shaman is usually an outstanding member of the community displaying a high range of intellectual, artistic, and leadership skills, inevitably making a great contribution to their societies, something that can hardly be said of a schizophrenic.

As far as the underlying psychophysiological correlates of SSC go, Winkelman (1986) has observed that all of the various induction procedures used by shamans “lead to a parasympathetic dominant state characterized by the dominance of the frontal cortex by slow wave discharges emanating from the limbic system” (198). These discharges are further characterized by high voltage EEG activity originating in the hippocampal-septal area which consequently imposes the synchronous slow wave pattern on the frontal lobes.

Repetitive drumming is one such induction procedure that attempts to induce this parasympathetic condition. Shamans throughout the world have employed the sound of the drum as an auditory driver to propel them on their “ecstatic journeys”.⁹² In fact, “the repetitive sound of the drum is usually fundamental to undertaking the shamanic task” (Harner 1990: 51). The pioneering work of Andrew Neher (1961, 1962) established that repetitive drumming was a very effective auditory driver. He hypothesized that the sound of the drum is capable of producing a unique physiological reaction because a single drum beat is composed of many frequencies, capable of being transmitted along various neural pathways throughout the brain causing a larger area of the brain to be stimulated. Furthermore, since a drumbeat is mainly composed of low frequencies, a greater amount

⁹¹ This phenomena bears similarities to Out-of-body experiences and Near-death experiences.

⁹² Other shamanic methods of inducing alternate states of consciousness include psychotropic drugs, fasting, dancing, and isolation (Dobkin de Rios & Winkelman: 1989; Harner: 1990; Walsh: 1995).

of energy is capable of being transmitted to the brain without causing the pain or damage that an equivalent high frequency sound would produce in the auditory system.

While studying the guardian spirit ceremony of the Salish Indians, Jilek (1974) found that a rhythmic frequency of 4-7 beats per second predominated the drumming accompanying the ritual dances. Interestingly enough, EEG frequencies of 4-8 Hz are associated with theta waves in the brain which have been correlated with hypnagogic states of reverie and vivid dream-like imagery (Mavrematis: 1987). Maxfield has further established that the repetitive drumming “pattern most often associated with increased theta wave activity was 4 to 4 1/2 beats per second, or the typical frequency observed in shamanic work” (1994: 160). If this frequency is maintained for at least 13 to 15 minutes, we see the expected change in brain wave activity accompanied with a variety of subjective experiences which may include: loss of sense of time; sensations of flying, spiraling, dancing, etc.; temperature fluctuations; out-of-body experiences; vivid imagery; etc. (Maxfield 1994: 161-162). She also notes that:

In many instances, there is an accelerated shift in frequency increase or diminishment at minute 9, most totally for theta and alpha waves...Generally, a rapid increase or diminishment of theta and-or alpha is seen to the 15 minute point, with a gradual gain or diminishment on to the 20 minute point. This corresponds with the findings of meditation research as to the time required for optimum physiological response (Maxfield 1994: 160-161).

Both Winkelman (1986) and Wright (1994) have suggested that temporal lobe discharges are present during shamanic trance activity. For example, Wright notes that the initial shamanic initiatory crisis may be associated with an underlying neurological condition. “Temporal lobe transients and mild TLE [temporal lobe epilepsy] may provide a neurological substrate for the development of mature shamanic ASCs. The

actual control of these ictal events, through the cultivation of interictal hypersynchrony, may provide the method for entering and controlling shamanic ASCs” (1994: 171).

These TLT may actually serve to establish the new neurological organization requisite for the shamanic transformation. Since this initiatory crisis is temporary and subsequently followed by exceptional functioning, it can be interpreted as a developmental transformation which has been variously called a “regenerative process” (Pelletier & Garfield: 1976), “renewal process” (Perry: 1976), “creative illness” (Ellenberger: 1970), “metanoic voyage” (Laing: 1972), “mystical experience with psychotic features” (Lukoff: 1985), “visionary state” (Perry: 1977), “spiritual emergency” and “spiritual emergence” (Grof & Grof: 1990), etc.

The Ergotropic and Trophotropic Systems

The product of millions of years of adaptive responses to nature’s essential dilemma of acquiring food while not becoming food; the ergotropic system⁹³ subserves the “fight or flight” responses. In this vain, the ergotropic system prepares the organism to acquire objects essential for its (and its species) continued survival, such as food, water, a mate, etc., and avoid objects which threaten its survival such as predators, poisons, enemies, etc. Its principle function is the control of the moment-to-moment adaptation and responses to short range events and stimuli immediately arising in the environment. When activated, the ergotropic system directs energy away from the body’s long range developmental functions and directs it into initiating action towards either the acquisition or avoidance of the stimuli that has arisen. Physiologically, the

⁹³ Anatomically, the ergotropic system is composed of the sympathetic system, portions of the reticular activating system in the brain stem, the posterior hypothalamus, certain of the endocrine glands, the frontal cortex, and certain portions of the limbic system (Gellhorn: 1967).

“ergotropic syndrome consists of an increase in sympathetic discharges and in skeletal muscle tone and also of a diffuse cortical excitation” (Gellhorn & Kiely 1972: 399-400). This translates into a number of organic responses including dilation of the pupils, shivering, increased heart rate and blood pressure, increased muscle tension, increased respiratory rate, erection of body hair, desynchronization of cortical EEG patterns⁹⁴, constriction of the surface veins and capillaries, constriction of the throat, and decreased salivation (Gellhorn: 1967).

The trophotropic system⁹⁵ has likewise developed over millions of years and it too is a crucial component for the survival of the organism. The trophotropic system governs the regulation of all vegetative functions of the organism such as digestion, the reconstruction and growth of cells, sleep, relaxation, etc. The trophotropic system controls the somatic functions that are responsible for the long range growth and well being of the organism by maintaining optimal states of internal bodily balance. Physiologically, the “trophotropic syndrome is associated with increased parasympathetic discharges, relaxation of skeletal muscles and lessened cortical excitation” (Gellhorn & Kiely 1967: 400). This translates into a number of organic responses including constriction of the pupils, decreased heart rate and blood pressure, relaxation of the muscles, relaxation of the throat, slowing and deepening of respiration, constriction of veins and capillaries, erection of penis and clitoris, synchronization of cortical EEG patterns⁹⁶, and increased salivation (Gellhorn: 1967). The overall trophotropic response of relaxation and reduction of arousal are associated with either disinterest to events in

⁹⁴ This indicates disharmonic or discordant cortical functioning.

⁹⁵ Anatomically, the trophotropic system is composed of the parasympathetic system, portions of the reticular activating system, the anterior hypothalamus, certain of the endocrine glands, and portions of the limbic system and frontal cortex (Gellhorn: 1967).

the environment or with a dispassionate concentration attached to some object producing a comfortable listlessness to the environment.

A cursory examination of the ergotropic and trophotropic systems would point to their antagonistic relationship with respect to each other, since increased arousal in one of them produces a decrease in the activity and functioning of the other system. Physically, they are designed to inhibit and suppress the functioning of each other. Over the long term, however, the relationship between these systems can be better described as being *complimentary*, since they both serve the short and long range well being and survival of the organism. While the ergotropic system initiates the moment-to-moment adaptive responses of the organism towards its environment, the trophotropic system regulates and maintains the homeostatic balance requisite for optimal health and growth of the organism. It should be noted that the ergotropic system is designed for infrequent bursts of activity, while the trophotropic system is designed for continuous periods of relaxation which promotes growth and recuperation of the organism.

Of particular interest to our discussion is the fact that ergotropic and trophotropic activities are susceptible to conditioning (Thomas: 1968; Hofer: 1974). Further evidence suggests that ergotropic-trophotropic conditioning is established under conditions of stress in early pre- and perinatal life (Chamberlain: 1983; Grof: 1975; Thomas: 1968; Verny & Kelly: 1982). Gellhorn (1967: 110ff) has called the process of ergotropic-trophotropic conditioning *tuning* and it specifically refers to the process of homeostatically balancing ergotropic-trophotropic activities, relative to the stimulus at hand. Someone reacting with panic every time a non-threatening dog comes near them is an example of a discrete ergotropic-trophotropic tuning relative to seeing a dog. In other

⁹⁶ This indicates the harmonization of higher cortical functions.

words, the reaction of panic was somehow “learned” by the individual, possibly in early pre- and perinatal life, and was established as an “appropriate” (i.e. adaptive) response to that specific stimuli.

The term *retuning* refers to a change in the established ergotropic-trophotropic balance relative to a stimulus (Gellhorn: 1967). So, if the same person reacted in a relaxed manner upon seeing a dog, we can say that a retuning of ergotropic-trophotropic balance has occurred. Laughlin et al. (1990) describe four ways of accomplishing ergotropic-trophotropic retuning: 1) rational mediation⁹⁷; 2) heightened awareness⁹⁸; 3) abreaction⁹⁹; and 4) drivers¹⁰⁰. The first three of these methods operate from the “top down” while the fourth operates from the “bottom up”. In the former methods, a retuning of the higher cortical systems is required before the lower limbic and autonomic-endocrine systems are retuned, while the reverse is true of the latter method.

This model of neurocognitive activity seems to account for many of the diverse phenomenon uncovered in contemporary meditation research and research done with SSC. Laughlin et al. (1990) hypothesize that four categories of ergotropic-trophotropic

⁹⁷ Rational mediation refers to the rational modification of behavior through the recognition of inappropriate emotional responses to certain situations. In certain types of group therapy (e.g. Gestalt, encounter groups, etc.) established patterns of behavior, triggered by inappropriate emotional responses, are brought into awareness with the hopes that acquiring knowledge of their existence will rationally propel the individual to consciously choose different responses to the same situation.

⁹⁸ The cognitive therapy of Albert Ellis (Rational Emotive Therapy) is an example of a therapeutic technique based on heightened awareness. By increasing one’s attention to their own psychodynamic processes, one is capable of directly seeing the underlying cognitive associations leading to a particular behavioral response. By uncovering these cognitive associations you can then proceed to consciously change them by establishing new cognitive associations.

⁹⁹ The abreactive work of many therapies based on “rebirthing” techniques (e.g. Holotropic Breathwork, Primal scream therapy, etc.) attempt to alter the ergotropic-trophotropic tuning established during a traumatic event by having the individual “re-live” that event and process it differently.

¹⁰⁰ There are many types of drivers, but they all attempt to directly influence the lower autonomic systems through the use of some external stimuli (e.g. repetitive drumming, chanting, psychotropic drugs, flickering lights, etc.). When combined and used in rituals, drivers may cause the simultaneous discharge of both systems, possibly causing a radical retuning of the organism (Lex: 1979; Laughlin et al.: 1990).

events can lead to the occurrence of different types of transpersonal experiences, depending upon which system is stimulated and how it discharges:

1. *Hypertrophotropic Tuning* -- Exceptionally high stimulation and consequent arousal of the trophotropic system leads to a state of remarkable relaxation. In its most extreme form “hypertrophotropic tuning may be experienced as a sense of oceanic tranquillity and peace in which no thoughts or fantasies intrude upon consciousness and no bodily sensations are felt” (Laughlin et al. 1990: 319). Theravada Buddhist psychology labels this state *upacara samadhi* (access concentration).
2. *Hyperergotropic Tuning* -- Exceptionally high stimulation of the ergotropic system leads to a remarkable state of unperturbed arousal and excitation which is “associated with keen alertness and concentration in the absence of superfluous thought and fantasy” (Laughlin et al. 1990: 320). Continuous and rhythmic amounts of motor activity are required for a hypertrophotropic discharge to occur. Intense martial arts training can bring about this state, as well as dancing, long-distance running, swimming, etc.
3. *Hypertrophotropic Tuning with Ergotropic Eruption* -- The simultaneous discharge of *both* systems can lead the practitioner to experience states of “active bliss” and “energy rushes” which have been associated with mystical experiences. Upon entering a state of oceanic bliss, the meditator may intensify “his concentration upon the object of meditation [and experience]...absorption into the object...,an experience inevitably accompanied by the sense of a tremendous release of energy” (Laughlin et al. 1990: 320). The state of *appana samadhi* in Theravada Buddhist psychology is congruent with this experience.

4. *Hyperergotropic Tuning with Trophotropic Eruption* -- Both systems may also simultaneously discharge by way of the opposite route wherein the “practitioner may experience a trophotropic discharge in the midst of hyperergotropic tuning as a consequence of enhanced concentration and of trophotropic drivers such as rhythmic stimuli like mantra” (Laughlin et al. 1990: 320). Upwellings of ecstatic states of rapture may arise in the individual due to the generalized sense of flow that is characteristic of this experience.

The extent of methods employed to arouse the ergotropic-trophotropic syndrome ranges from the different types of meditative techniques to the various procedures employed in religious rituals throughout the world (e.g., dancing, fasting, chanting, physical ordeals, etc.) and even the contemporary phenomena of raves, to name but a few. As Erika Bourguignon (1973) has shown, humanity has an innate drive to alter their consciousness. In so doing, a profound and dramatic transformation is possible, if the individuals sustained effort has kept has kept them on the path. This is crucial because I don’t want to suggest that an individual can become a mature contemplative by simply ingesting a psychotropic substance or engaging in infrequent sessions of meditation. Rather, I want to emphasize that a sustained effort and dedication to a “path”, as Buddhism says, is a prerequisite for a transformation. As Jack Kornfield has told us: “Follow a path with heart”. In essence, “to become a mature contemplative requires nothing less than a fundamental change in the organization at the very cellular level of our being” (Laughlin 1987: 158).

Dissipative Structures

The field of thermodynamics deals mainly with the relationship between mechanical energy and heat and is thus considered the natural interface between physics and chemistry. Ilya Prigogine is one of the most important and influential theoreticians within this field. In 1977, he received the Noble prize in chemistry for his theory of *dissipative structures*. Prigogine's theory manages to build a bridge between living and non-living systems which forms the framework for establishing an entirely new dialogue between humanity and nature (i.e., the social sciences and biology), which is inextricably linked with the idea of time. Prigogine has empirically shown that it is only *closed systems*¹⁰¹ that are bound to decay into chaotic states following the second law of thermodynamics¹⁰². *Open systems*¹⁰³, on the other hand, are inherently equipped with the possibility to evolve towards states of increasing order and complexity (Prigogine: 1980; Prigogine & Stengers: 1984).

Open systems are characterized as being “far-from-equilibrium” or “near-equilibrium” complexes of organization and have been named *dissipative structures*¹⁰⁴ by Prigogine. Due to the fact that these systems are *essentially* open in nature, they must also be *essentially* connected to their environments (whatever that environment may be), which consequently enables the system to maintain a state of self-organization through an

¹⁰¹ A closed system is defined as an *isolated* system that always changes, over time, towards states of less order and greater chaos. This notion, however, is of limited theoretical value because no such systems exist in isolation.

¹⁰² In lay terms, the second law of thermodynamics states that the available energy in the universe is inevitably running down until all available energy is spent. In other words, the universe is moving from a state of maximum order to an ultimate state of disorder or chaos.

¹⁰³ An open system is defined as a system that permits “energy and matter flow across its boundaries” (Jantsch 1980: 82). This notion was pioneered by Ludwig von Bertalanffy in the 1930's and is one of the core notions of his General System Theory.

endless dynamic exchange of energy with its environment. This interactive relationship faces, at times, sudden energetic fluctuations or perturbations which dramatically reorganize the system. This reorganization can move the system towards states of increasing complexity and order or collapse the system into a lower level of organization (i.e., less complexity) and greater chaos.

The accumulation of various fluctuations and perturbations increases in strength until they are powerful enough to trigger a sudden shift in organization, inevitably sending the system as a whole into a creatively new and novel pattern. The points where these creative emergents occur are called *bifurcation points*. At each bifurcation point, the system lies in a probabilistic state with several conceivable paths leading

to the appearance of a wealth of possible new structures and organizations. When bifurcation occurs, then the stability of the existing state of the system breaks down, allowing the amplification of some small, random fluctuation to occur and to carry the system off to one of the possible, new branches of solution (Prigogine & Allen 1982: 9).

For Prigogine, these “stochastic” or random (i.e., not predictable) processes observed in dissipative structures point to the non-mechanistic nature of the universe (Prigogine & Stengers: 1984). The possible spontaneity and novelty of dissipative structures reenchant the universe by allowing anything from cells to chemical solutions to clouds to the brain to galaxies -- to recreate themselves into unforeseeable patterns.

Prigogine’s work, while dealing mainly with the analysis of dynamic chemical reactions is laid out in terms that are general enough to apply where ever we find order in complex systems; may these systems be water dropping from a faucet, the social behavior

¹⁰⁴ The term “dissipative” describes a system’s characteristic of *dissipating* entropy or chaos, as its internal structure changes towards states of higher energy and greater self-organization. The term “structure” points

of ant colonies, the development of intelligence (i.e., Piagetian cognitive development), the evolution of the brain and consciousness, the unfolding of spirituality, etc. The general principle that Prigogine has uncovered concerns the inevitability of open systems to evolve from states of low complexity and chaos to states of high complexity and order (Prigogine: 1980, Prigogine & Allen: 1982, Prigogine & Stengers: 1984).

The brain, for Prigogine, is a high-energy, self-organizing system which functions as a dissipative structure and the neural reorganization that is evidenced throughout the evolutionary development of the brain can be understood as moving from states of low to states of high complexity and order. The exchange of energy that takes place between the brain and its environment keeps the system in a constant state of flux. The destabilization of the brain occurs when its internal fluctuations are amplified to the point that a new organizational structure spontaneously emerges. According to Prigogine, as the instability of the system increases, the number of possible interactions also increases, potentially opening the door for a transformation to occur in the system¹⁰⁵ (Prigogine & Stengers: 1984). The different states of consciousness, that are induced through the various psychospiritual practices, work by destabilizing the normal waking state of consciousness and replacing it with an alternate state of consciousness (Tart: 1983), which is more conducive to directly experiencing the specific cosmology of a culture (Laughlin et al: 1990).

to the fact that a system possesses an internal organization (Prigogine and Stengers: 1984).

¹⁰⁵ When the system reaches these bifurcation points, it can close its boundaries, effectively reducing the external and internal exchanges and maintain its current level of complexity. If the fluctuations are too great, it can dissolve into a state of chaos, regressing to a state where it can maintain a less complex level of organization; or it can increase its energy exchanges, propelling the system into a higher organizational state of complexity. The transformation to a more complex level of organization must necessarily involve new neurological capacities.

CHAPTER THREE:**CONCLUSIONS**

“Today, humans have earned, through enormously hard work and labor, the privilege and the possibility of being the first cultural dinosaurs in the fragile noosphere... The noosphere is not privileged or unique in this regard. It is simply more alarming now because of its global dimension. If we violate the possibilities given us by the biosphere, then the biosphere will flick us off its back like a bunch of fleas, and be none the worse for it.”

- Ken Wilber

In the previous chapter, I attempted to present some research findings (empirical and phenomenological) from diverse fields of inquiry, in the hopes that they may lend some support to either Wilber's or Washburn's theories of transpersonal development.

I believe that these research findings lend themselves to the following general conclusions:

- The phylogenetic and ontogenetic evolution and development of the brain proceeds sequentially through the process of hierarchization. Phylogenetically, evolution proceeds by preserving and building onto the already established brain structures of its evolutionary forebears. Ontogenetically, the evolutionary older structures of the brain emerge first, followed sequentially until the most evolutionary recent structures emerge.
- Pre- and perinatal research reveals that the characterization of the neonatal state as being a state of undifferentiated fusion and adualistic embeddedness is mistaken. Ego development seems to begin *in utero* and the pre- and perinatal child is an active participant in the creation of its experience and not a passive slate upon which objective reality is imprinted.
- Psychotic and mystical experiences, while sharing certain common features, are sufficiently different, neurologically and phenomenologically, to warrant the claim that they are *distinct* states. Equating the two would either result in an unjustified reduction of the latter to the former or an equally unjustified elevation of the former to the latter. In other words, one would be committing the pre/trans fallacy.

- Cortical EEG measurements of individuals engaged in psychospiritual practices, such as meditation, shamanism, etc., reveal enhanced electrochemical organization and synchronization throughout the brain (especially in the prefrontal areas), suggestive of greater complexity and orderliness, in the Prigoginian sense. No other ontogenetic state and/or level of development replicates the orderliness of these states and/or levels (not even the neonatal period). In light of the different structural organization present in the brain, it is extremely unlikely that prepersonal and transpersonal states and/or levels mediate the same types of subjective experiences.
- Psychospiritual practices are designed (whether consciously or not) to directly influence the organization of the individuals brain and nervous system (i.e., through the ergotropic-trophotropic systems). Prolonged and disciplined practice leads to an overall neurological restructuring of the organism, bringing in its wake a more encompassing notion of 'reality'.
- The neurological restructuring that takes place, if brought on suddenly, is subjectively experienced by the individual as a 'spiritual emergency'.
- If the brain works as a dissipative structure, as Prigogine claims, then the destabilization and consequent restructuring, brought about by psychospiritual practices, can lead to states of higher complexity and order (e.g., mystical experiences), as well as states of low complexity and chaos (e.g., psychosis).

The Implications for the Wilber-Washburn Debate

The main point of contention in the Wilber-Washburn debate revolves around the issue of regression¹⁰⁶. Does transpersonal development involve a regression in the service of transcendence, as Washburn claims? Or, does transpersonal development involve the progressive integration of successively higher structures of consciousness, without regression, as Wilber contends? The neurological data provide a significant starting point in differentiating between pre-egoic and transegoic states and/or levels of development, the implications of which bear directly on the question of regression.

The Implications of Phylogenesis

An examination of the evolution of the brain, reveals that its phylogenetic development proceeded sequentially, from the most primitive to the most recent stages, as a functional hierarchy. As the different neurophysiological structures of the brain emerged within this functional hierarchy, so too did a number of possible functions¹⁰⁷. So, when Wilber makes the claim that “the Eden myths confused prepersonal ignorance with transpersonal bliss” (1982a: 71), he is implicitly¹⁰⁸ pointing to the neurophysiological fact that the organization of the brain present during the archaic-

¹⁰⁶ Since I have already outlined the main points of disagreement between Wilber and Washburn at the end of chapter 1, I will not repeat myself, but instead refer you to the section entitled “*Progressive vs. Regressive Transcendence*,” which specifically deals with the issue of regression. In the sections entitled “*Wilber-I: The Romantic View*” and “*Wilber-II: Differentiating Pre and Trans*,” I Attempted to summarize Wilber’s theoretical change of heart. These sections capture the philosophical essence of the debate.

¹⁰⁷ As we have previously seen, structure and function are two aspects of the same process which cannot be separated.

¹⁰⁸ In “*Up From Eden*” he explicitly states: “Thus physiologically, the uroboros - as the serpentine center - may be thought of as the reptilian complex (primarily) and the limbic system (secondarily). This obviously does not imply that uroboric men and women had no cerebral cortex -- only that it was not predominant” (Wilber 1981/1986: 28).

uroboric period¹⁰⁹ is structurally different when compared to the brains of *Homo sapiens*. Hence the cognized environments of protohumans cannot, in any way, be identical to the cognized environments of early *Homo sapiens*, much less present-day humans or mature contemplatives.

According to Maclean, as we have seen, the brains of protohumans were dominated, to a large degree, by the R-complex and the limbic system (i.e., paleomammalian brain). The neocortex was subservient to the demands of these two systems, at this point in time. Once the organizational structure of the brain re-organized itself to accommodate the newly emerging neocortical structures, the entire neurological apparatus (including the R-complex and limbic system) would inevitably change to a degree. These neurophysiological differences alone would lead us to believe that the cognized environments of protohumans were vastly different than those of present day humans. Therefore, the neurophysiological changes underlying the evolution of the brain and consciousness point to vast differences in structure and hence function, drastically changing the subjective experiences of individuals at pre-personal, personal, and transpersonal levels of development.

Although Washburn does not directly discuss phylogenetic development, he does state that “the move toward integration, which aims at the apex of human actualization may retrace stages from our primitive evolutionary past” (Washburn 1995: 199). This retracing would therefore be an attempt to integrate some previous aspect of consciousness which was present in protohumans but subsequently repressed in the evolutionary process. If this is the case, then the phylogenetic evolution of humanity

¹⁰⁹ For Wilber, the archaic-uroboric period begins as early as 3-6 million years ago and stretches to around 200,000 years ago (Wilber 1981/1986: 28). The pre-sapiens inhabiting this time span include

aims at recapturing the “Eden” state experienced by our ancestors. The evidence pertaining to the evolution of the hominid brain does not support this conclusion.

The Implications of the Pre- & Perinatal Research

Similarly, the neurophysiological structures of the pre- and perinatal brain are drastically different in structure and function when compared to those of an adult or a mature contemplative. If we accept that the structural organization of the brain *mediates* experience, then the theorized state of oceanic symbiosis of the neonate is quite distinct from the *unio mystica* of the mature contemplative. Establishing the similarity between the pre-personal neonatal period of embeddedness and the transpersonal state of union is crucial for Washburn’s developmental model because it is the *repression* of the Dynamic Ground, beginning at age one or two, that drives his developmental scheme. If the Dynamic Ground is not fully and completely present in the neonate prior to that point, then there is nothing to be repressed.

First of all, the contention that the neonate is embedded in a state of “undivided, boundless fullness” (Washburn 1995: 49) seems to be mistaken, according to the pre- and perinatal evidence¹¹⁰. The state of oceanic symbiosis, that is described in the developmental literature, appears to be present sometime *before* the fifth or sixth month of gestation only, at the latest. So Wilber’s statement that the child is fused with “the

Australopithecus africanus, *Homo habilis*, and *Homo erectus*.

¹¹⁰ Washburn acknowledges the neonatal evidence (but not the prenatal evidence) dispelling the notion that the neonate is a *tabula rasa*. He states that this evidence has “added many valuable insights to our understanding of infants and, in doing so, have corrected much of the exaggeration of the classical view. In correcting this exaggeration, however, the critics of the classical view have tended to overplay their hand and, in so doing, to speak as if the classical view were entirely wrong. This counterexaggeration itself needs to be corrected” (Washburn 1995: 48). In essence Washburn’s developmental model attempts “to preserve the essential core of the traditional view, the insight that the infant is *minimally* differentiated and object related and *mostly* absorbed, immersed, and embedded” (1995: 48, italics his).

material environment and the biological mother” (Wilber 1982a: 73), is only true for the prenatal child (prior to the 6th month of gestation) and not to the neonate, as he claims.

The neonate, as well as the prenatal child (in the last trimester) are equipped with the requisite neurological structures to mediate a cognized environment and explore an outer environment. Furthermore, there is evidence that the development of the ego begins *in utero*. If this is the case, as the research seems to say, then the *unio mystica* of the mature contemplative is even farther removed from the symbiotic fusion of the fetus than what Wilber claims¹¹¹. The pre- and perinatal data lead me to contend that the neurophysiological state that the mature contemplative accesses was never repressed by the neonate because, structurally at least, it was never present in the neonate to begin with. In other words, the neonate cannot be conscious of something that is not structurally mediated by its organism.

The Implications of Alternate States of Consciousness Research

The positivistic tendency to equate psychotic and mystical experiences seems to be based on a superficial understanding and investigation of mystical experiences. When examinations and comparisons of these states have been attempted, they have systematically uncovered distinct neurological and phenomenological differences between these states. Neurologically, there seem to be vast deficiencies in the brains of individuals undergoing schizophrenic episodes, which involve abnormalities in the left side of the frontal lobes. EEG studies have also observed an asymmetrical effect of alpha power favoring the right side of the parietal lobe in schizophrenics with positive symptoms. A decrease in alpha power and coherence between hemispheres and between

¹¹¹ Both Wilber and Washburn begin their narratives of human development at birth.

right parietal and frontal regions in schizophrenics with negative symptoms have also been observed. Overall, there seems to be a desynchronization and over-dominance between different regions of the brain suggesting that the brains of schizophrenics have achieved a less complex neocortical organization but a greater degree of chaos. Phenomenologically, the differences between these states are vast but the determining characteristic is the manner in which the individual *relates* to the experiences.

The different psychospiritual practices that progressively lead to mystical experiences and states, reveal a vastly different neurological and neocortical organization at work. As we have noted, EEG measurements of meditators¹¹² show a sequential progression that moves from a basic alpha rhythm, to high amplitude low-frequency alpha activity, to short bursts of high-voltage theta activity leading to rhythmical trains of theta waves throughout the brain. The synchronization and coherence of brain waves occurs between hemispheres as well as between the anterior and posterior parts of the brain. This finding would lead one to believe that psychospiritual practices, such as meditation, align and enhance the electrochemical organization throughout the brain, without assigning dominance to either hemisphere or strata. The orderliness (i.e., synchronization) observed in these states is not seen in the neonatal stage or in any of the psychotic states. Neurologically, at least, the pronounced differences in brain-wave activity between pre-egoic levels and the orderly patterns evidenced in transegoic states demonstrate the structural and organizational differences between these levels.

¹¹² I have delved into the psychobiology of meditation because Wilber (Wilber-IV to be precise) has claimed that "*all* holons do indeed possess those aspects [i.e., the intentional and behavioral domains of the individual], then meditation ought to clearly register in that empirical and physiological domain" (Wilber 1997: 256, italics his).

Similarly, the induction procedures employed by shamans to enter into SSC's typically attempt to entrain the brain (through auditory drivers for example), to the rhythm of 4- 4 1/2 beats per second, which is within the theta range. This leads to a parasympathetic dominant state (i.e., trophotropic syndrome) characterized by slow wave discharges and hypersynchrony throughout the brain, but originating in the limbic system. The initiatory crisis observed in shamans has been linked to an underlying neurological condition which may provide the shaman with the ability to control his/her entrance into the SSC. If the brain works as a dissipative structure, then the shamanic crisis may be the phenomenological experience mediated while the brain is undergoing a neurological restructuring before it settles into a new organizational state characterized by higher complexity and order. For Wilber, the shaman is historically the first individual to courageously venture into the transpersonal realms. "The true shamanistic experience was nothing less than the death and transcendence of the separate self -- the separate self that had just emerged out of archaic-uroboric times is here, for the first time in the history of the world, transcended" (Wilber 1981/1986: 75). If this is the case, then evolutionarily speaking, the shaman's brain would be more organizationally complex and orderly than the brains of his/her fellow protohumans. Neurophysiologically, the shaman was at the cutting edge of evolution.

Some Ethnographic Evidence

Eugene Thomas and colleagues (Thomas et al.,: 1993) carried out an empirical examination of Wilber's and Washburn's theories, in light of Washburn's strong claim that "regression *is* inherent to transcendence" (Washburn 1990: 91, italics his). The falsifiability of this claim served as the basis of their research. The data they collected

from the participants¹¹³ was based on participant observation and a series of personal interviews. A hermeneutical analysis of the interviews and research notes of the investigators was performed, in order to classify the spiritual maturity of the individuals. According to the investigators, two requirements had to be met in order to validate Washburn's theory. First of all, it had to be shown that the individuals comprising the sample had reached the transpersonal levels of development. Secondly, and more importantly, they must have undergone some type of transitional crisis. The first requirement was met, according to the investigators, but the second requirement was not fulfilled by the entire sample.

Our data therefore provide instances of several "white crows" that challenge Washburn's "black crow" theory -- that is, that to arrive at the transpersonal level it is necessary that there be a regressive U-turn. Our data rather support Wilber's contention that there in fact may be U-turns, or little deaths, between other stages, as well as at the time of transition from the personal to the transpersonal level, and that these U-turns may or may not be regressive in nature (Thomas et al., 1993: 78).

These findings, although preliminary, give some empirical support to Wilber's theory.

Concluding Remarks

It is my contention that the empirical observations obtained through the neurosciences, when combined with the phenomenological observations obtained in clinical psychology and psychiatry, provide enough evidence to support the claim that transpersonal states and/or levels of development have nothing but a superficial resemblance to prepersonal or pre-egoic states and/or levels of development. In making this claim, I am also led to believe that Wilber's model of transpersonal development is

¹¹³ The sample (N=20) consisted of 10 Indian respondents from Varanasi and Pondicherry, and 10 British respondents from the spiritual community of Selly Oak (a suburb of Birmingham, England). The

more congruent with the neurological evidence, especially when he stipulates that the emergence of transegoic levels do not necessitate or presuppose a regressive U-turn to pre-egoic levels. In other words, the evidence that I have presented supports Wilber's general model of development over and above that of Washburn's.

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