ON TRANSCENDING SELF-BOUNDARIES AND THE AWARENESS OF TIME: A DARWINIAN NEURO-PSYCHOANALYTIC VIEW OF SPIRITUAL EXPERIENCE

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Abstract

This essay traces two stories: the author's dualistic background and subsequent ontological epiphanies, and the profound changes in psychoanalytic thought leading to increasing reconciliation with a natural science outlook. It focuses on recent advances in the understanding of subjective experience arising from the growing re-biologizing of psychoanalysis. It cites two instances of self-immersion in group life: one military and the other religious. Self-immersion in daily life is illustrated by a discussion of Zen meditation.

It suggests ways of understanding and amending Freud's resort to metaphor in his metapsychological theories of self and subjectivity. In combination with a Zen Buddhist outlook – and 'inlook'-- it examines some of the resulting ontological changes in patients' and analysts' subjectivities that allow for novel considerations of spirituality and religion, including reconsiderations of the awareness of time in daily life. Stemming from a discussion of 'ontic expectation', a perspective of 'evolutionary reductionism' is offered in the long-standing philosophical and public debate over mind-body dualism. These ideas are illustrated in a personal spiritual experience.

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Buddha, Darwin, and Freud: Three revolutionaries who awakened their world

Let me respectfully remind you,
Life and death are of supreme importance.
Time swiftly passes by and opportunity is lost.
Each of us should strive to awaken—awaken!
Take heed. Do not squander your life! Meditation gatha, Zen Center of Los Angeles (author's underline

Siddhartha Gautama, the historical Buddha, awakened his world by proclaiming the absence of individual souls or selves. The naturalist Charles Darwin awakened his world by proving the irrelevance of a purported Designer in the development and continuation of species over millennia of time. The physician and neuropathologist Sigmund Freud awakened his world to the influence from early life experiences of unconscious timeless psychological forces that ultimately determine normal and abnormal behavior.

Despite the arguments of these world startlers, many or most people today feel certain of an authorial self and of a divine greater Self who governs individual behavior and inscribes in time the ongoing history of the world. In fact, most people would claim ignorance of any of these three incendiary revolutionaries. The roots of this ignorance constitute the study domains of theology, philosophy, natural and social sciences,

anthropology and sociology, as well as, in recent decades, psychology, psychoanalysis, and neuroscience.

The purpose of this contribution is to focus on what has been called subjectivity – specifically, *subjective experience* – which can be considered as the final common path by which humans make sense of their surrounding worlds in order to prevail in future time as survivors and reproducers. The most recent findings of scientists who are studying the brain, philosophers who are examining the structures of being and meaning that pattern human subjective experience, and clinicians who try to reduce levels of human suffering occasioned by dysfunctional thought and behavior are increasingly revealing that, to an individual human being , all experience -- all reality -- is ultimately subjective.

Natural science teaches us that all encephalized animals have developed brains primarily as survival organs that receive, store and process information from both outer and inner worlds. The senses provide information that is processed through ever-changing, often *ad hoc*, neuronal assemblies. The memory systems, never totally discarding any single affect-imbued memory, are recruited for conditional storage of inputs with emotional encryption and mostly unconscious retrieval, and for ultimate motor system action. All of these processes take place on what seem to be the minutest of time scales – dozens or hundreds of milliseconds. Decisions are made and behaviors initiated milliseconds before awareness (Wegner 2002).We can arguably assume from this new information that

subjective experience is not necessarily conscious. *In point of fact it is mainly unconscious.*

It could not be otherwise if we are to survive as individuals and members of our species. Driving down a road with gaze prudently focused on what lies ahead and – in the absence of automatic transmissions – non-consciously shifting gears and applying brakes according to non-consciously received sensory input from a straining engine or the approach of stopped traffic, a large hurtling mass suddenly enters our lateral field of vision. We swerve, de-clutch, apply brakes milliseconds before we become aware of pounding heart, panting breath, sweaty palms, and, of course, of the hurtling truck or boulder threatening to strike us forcefully with potentially deadly results. Neither we nor our car have been damaged or destroyed, and we sigh with relief.

My argument is that our sense of relief is a partial reward for the fact that our forebears over many past millennia have successfully met selective pressures which favor the non-conscious responses we have just observed in ourselves. Such a realization is far from common in contemporary life: a more expectable reflection would be to attribute our narrow escape either to luck or to some form of divine intervention. In this connection, I shall be exploring, among other questions, whether the eliminative materialism embodied in evolutionary biology allows for a deistic interpretation of the ongoing miracle of natural selection rather than the alleged certainty of atheism.

A brief note on ontology

A gentle warning to the reader about the term 'ontology', used frequently in this paper but all too infrequently in the psychoanalytic literature. It refers to the basic presuppositions and assumptions about the expectable outer world in which the organism must navigate in order to survive personally and genomically. I borrow this term from philosophers of mind because it conveys both outlook and 'inlook' (bodily states), and because there is no single word in the English language that translates the German term *Weltanschauung,* which Freud had occasion to address in his writings (e.g.1933). Even *Weltanschauung* might not capture this neuropsychological function, in view of its most common use—Freud's as well -- as the world view of a group rather than that of the subjective and neural processes in a single individual.

In addition, new neuroscientific understandings provide an evolutionary justification for examining the ontological dimensions of behavior. Innervations in the brain have evolved to be flexibly predictive or anticipatory, and readiness to behave adaptively must rely on unconscious algorithmic suppositions, or premises, to efficiently appraise and process environmental, including bodily, sensory inputs.

Confessions of a recovering Cartesian: my own awakening

My own scientific, medical, and early psychoanalytic education was rooted in Cartesian subject-object dualism; subsequent experiences have radically changed my ontology. I was originally exposed to a strong educational dose of early and mid 20th Century diagnostic and therapeutic medicine and psychiatry. These disciplines were taught and

modeled as the *dernier cri* of applied scientific knowledge, reflecting a fundamental Enlightenment ontology dating from early 18th Century Europe. . (My earlier exposure as an undergraduate to relativity theory failed to mitigate my Newtonianism) The biology I studied in high school and college acknowledged evolutionary theory, but generally confined the target of natural selection to variations in morphology. It was not until after graduation from medical school that I became aware that phenotypic change resulting from Darwinian processes was behavioral as well as morphological.

That key supposition in all of my earlier scientific education was that reason and systematic thinking are best served if subject and object are understood as separate by nature, along with a belief that the sick person's suffering could be healed by the more or less impersonal application of codified diagnostic criteria, specified remedies, and clearly defined techniques. That, in retrospect, was a 'squeaky clean' approach to medical therapeutics that, with the obvious exception of its appropriate application to infectious disease and sterile technique, falls short of recognizing the healing effects of a holistic, intersubjective and co-subjective dimension of patient-doctor interaction. Freshman courses on the 'art of doctoring' have only recently been introduced in major medical schools such as my own at UCLA. But my Cartesian ontology resisted replacement for many reasons, some to be discussed below.

Much of my psychoanalytic training was classically Freudian, and therefore quite dualistic. Armed with a strong sense of skepticism that was shared with five fellow analytic students from the UCLA junior psychiatry faculty, I was nevertheless able to

absorb a clinical attitude of unselfconscious immersion in the therapeutic process which has continued to this day. A long-standing devotion to critical inquiry and subsequent clinical and teaching experiences have led me to realize that truly competent analysts talk in one of many different theoretical lines of talk, but nevertheless walk a very similar clinical walk. This impression has helped me to refrain from divisive criticism of those humane, well-trained, and experienced therapists who, in contrast to my own basic eclecticism, declare strong allegiance to one of a variety of schools of analytic theory. In recent years, I have begun to realize the applicability of complexity theory (Thelen & Smith 1994, Miller 1999) to my psychoanalytic understandings of child cognitive and affective development, of pathogenesis, and of theory of therapeutic technique (see also Nahum 1994). But, in order to strike a contrast with my self-immersion in clinical work, I must now turn to two dramatic examples of self immersion in groups that I have encountered and have tried to understand.

Self-surrender in the US Marine Corps

Reared to experience my world through the ontological lens of subject-object dichotomy, and schooled in the valorizing of individuation and autonomy, one of my earliest learning experiences in the limitations of these ideals was in an unlikely psychiatric assignment: serving as a Navy doctor with the US Marines. My exposure to the subjective ontology of the Marines startled me, to say the least. While at the Marine Recruit Depot in San Diego, I was at first horrified at the harsh hazing of young new recruits by tough, loud, and profane drill sergeants. I had judged the recruits as mentally healthy, sincere and naive young men eager to serve their flag and their country in an elite combat organization.

(The army, during the last popular US war – WW II -- had placed me in uniform for my medical school training as one of a student company under the leadership of two laughably officious supply officers).

Out of curiosity and concern, I watched, listened to, and questioned several Drill Instructors about what they hoped to accomplish by demoralizing these fine young men, just having submitted to their mandated close-cropped haircuts. I learned that their close-order drills, shouting in unison, and their total submission to their tormentors was deliberately intended to break down their sense of a separate self. A growing pride in dissolving their individual identities and assuming a new generic group self-identity was a major factor in their combat success. They were merged into a band of combat brothers who found it natural to protectively cover their buddies in a fire fight.

However, they were decidedly not mechanized zombies. Their innate creativity and resourcefulness remained at their disposal, and, on certain occasions, they would enjoy, in their own circles, covert mocking of the Marine Corps with crude expressions and gestures. In short, they remained individual human beings with a disciplined but still full palette of emotional expression and appropriate oppositional attitudes to their superiors typical of all young men of their day, however wholesome and devoted when on duty. For new Marines, it was an identity trade-off that helped me understand the comment of a Navy psychologist just back from an advanced medical field station in a combat area that he felt comfortable whenever there was at least one Marine between him and the enemy; even the cooks and kitchen helpers were superbly disciplined and accurate riflemen.

It was an epiphany for me, a New York City born and bred political liberal and professional healer, to curb my initial distaste for such harsh treatment of fresh young recruits – and in fact for a war in Korea of doubtful necessity at that time -- and to learn that this very process of stripping these young initiates of their separate identities was the best guarantee of their individual and group survival in combat. I found myself proud, but slightly ashamed, of wearing the uniform of a Marine captain (with a brass medical oak leaf on my shirt collar) which I alternated with my Navy garb. This bit of narcissistic display was dualistic to the core, while at the same time enacting my desire to merge with a unique organization. The 'urge to merge' was alive in me, despite the destructive mission of that 'greater power'. I consoled myself by remembering that I was a healer above all.

Self-surrender in religion-based polygyny: return of the silverbacks

A more contemporary, and far less wholesome, experience in my more recent life narrative is a contrasting example of self-immersion in a group: the exploitation of some girls and young women who trade off the opportunities (and uncertainties) of ordinary social life in favor of self-immersion in a time-reversing religious practice and group life that seems nothing short of perverse to any psychoanalyst. News has recently emerged of a polygamous religious group whose early adolescent and young adult female members have been willing to submerge their individual identities in order to be the unattractively dressed and coiffed multiple child-wives of a group of domineering men determined to segregate themselves and their many offspring from the outer "sinful" contemporary

world. Oppositional attitudes and behavior are reportedly rare in these girls and women. I regard this type of self-sacrificial self-immersion as pathological and as far more destructive than life in any US Marine platoon, if only because of its impact on their unfortunate offspring.

For these people, this life choice was an alternative to lives as single, barely post-pubertal girls, albeit in fundamentalist two-parent Christian households. As children growing up in a conventionally pair-bonded family with a polarized sin-and-salvation ontology, these girls were reared to be frightened at the purported likelihood of sin (and divine retribution) in contemporary secular society. They felt it safer to choose self-immersion in a religious group under a charismatic paternalistic leader to the awesome prospect of living out their own lives as sexual and probably reproductive females in everyday society that evolves over time. Ironically, their fundamentalistic Christian upbringing, even by pair-bonded parents, left them drastically unprepared for sex and pregnancy shortly after menarche. The trade-off seems clear: sacrifice of their freedom to navigate what most people, most developmentalists, and most psychoanalytic clinicians would call the average expectable, ever-evolving, sacred plus profane, social environment.

The preferable alternative is a protected life of prayer and total obedience, in concert with one or more additional girl-women, to men whose dominant reproductive behavior is reminiscent of gorilla "silverbacks" in central Africa. Young male products of these polygynous unions are exiled, depriving them of competitively courting women their age and of the satisfactions and disappointments of conventional family life. An added note

from animal behavior studies: silverback gorillas are far less manipulative and more honestly competitive. They are larger and more powerful than lesser males, who, along with females, cluster around them in bands for protection. When younger males reach sexual maturity, they either challenge the silverback or slink away in hope of future couplings elsewhere.

While it is tempting to discuss the mixed effects upon human welfare of fundamentally divisive monotheistic ontologies, I will forego that inclination for another occasion. Instead, I choose to continue my focus on what I have termed "polarization ennui" (Brickman 1998) and the need for more expansive decapsulating subjective experience.

Resuming my story of anti-Cartesian "conversion", I returned to civilian life in the mid-1950s and took on an appointment in full-time psychiatric academia .Directing an outpatient psychiatry clinic, I began my psychoanalytic training, taught residents, treated patients, and began program research in community psychiatry. Largely out of frustration after 17 years of creating and defending an innovative metropolitan mental health program for Los Angeles, I immersed myself in a long and serious study of Zen meditation. The purpose was to seek release from an overly-strong self-identification with my program, with all of the privileges and 'perks' of a public figure -- of a distinctive regnant self. Under the guidance of two teachers, I meditated and chanted with other members of the *sangha*, and studied riddles called *koans* which are designed to jolt Westerners away from their customary dualistic ways of thinking. I arrived at a point when I was able to practice *shikan-taza*, or 'just sitting', leading to intermittent

attainment of a new ontological framework for my subjectivity: life immersed in the 'suchness' of Zen-modulated experience. Since this experience was life-changing for me, I shall now explore the subject in some detail.

The core of the Buddha's teaching and the 'dailiness' of Zen subjectivity

> *What we are today, comes from the thoughts of yesterday,*
> *and our present thoughts build the life of tomorrow:*
> *our life is the creation of our mind* . (The Dhammapada, Verses 1-2)

Legend has it that Gautama Buddha was a Nepalese prince born in 563 B.C.E. who married and spent his first 25 years in luxuriant comfort. When he became aware of the suffering of beings beyond his palace walls, he forsook his family and became a mendicant monk. He repeatedly sought and then departed from a succession of priestly mentors, chiefly because he could not accept their notions of an immaterial soul. He gathered a small following, meditated intensively and ascetically for many years, and finally awakened to the ontic realization that change over time is the essence of all existence, and that meditation yielded no subjective evidence for a permanent soul or self. The illusion of a separate self, he came to realize, was created by persistent cravings for possessions, beliefs, and other attributes of the material world. He proceeded to preach what he considered to flow naturally from those insights, and his stated principles for living a good life will not be repeated here. Although he did not specifically confirm either the existence or absence of a supreme deity, his followers quoted him as saying that change over time was the essence of life, and belief in a supernatural being was not essential to his teachings. He is also said to have implored his followers to avoid building

a religion based on his teachings. (A trip to Southeast Asia, however, will give unmistakable evidence of prayer at Buddhist temples) Ultimately, meditation and its subjective realizations lie at the heart of the Buddha's praxis according to Zen.

It is difficult to deny that Zen meditation is a spiritual practice, which Wikipedia defines as follows (partial quote): *"Spirituality may include belief in supernatural powers, as in religion, but the emphasis is on experience. What is referred to as "religion" and what is referred to as "spirituality" are often the same. In recent years, "spirituality" has often carried connotations of the believer's faith being more personal, less dogmatic, more open to new ideas and myriad influences, and more pluralistic than the faiths of established religions.*

The embedded ontology of Zen spirituality

Zen, a minimalist distillate of Buddhism and Taoism, offers a meditative path centered fundamentally on ordinary life, otherwise known as 'the spirituality of the commonplace'. Contra Jung, the earliest psychoanalytic pioneer with an interest in Zen, it does not primarily consist in an internal focus on the "collective unconscious." (Jung's misunderstanding of Zen was noted by Hisamatsu in a published dialogue (Jung and Hisamatsu, 1968).

As mentioned above, the Zen meditative state yields an experience and a consequent ontological insight into a major cause of common suffering: the universal tendency to cling to objects, persons and polarized attitudes in order to preserve the common but

mistaken belief in an unchangeably demarcated self, a self devoted to maintaining its enduring singularity regardless of circumstance, context and the passage of time. The deluded belief in a fully polarized self is said to result in common suffering because it generates fruitless attempts to 'freeze frame' the world, a world subject to a time frame of endless change—to endless cycles of birth, decay, and death. Zen ontology tends to deny the possibility of a totally isolated self, referring to each sentient being as interconnected with all others in a "Web of Indra".

In the case of Zen meditative practice, the surrender of a separate sense of self is not primarily in favor of identifying with a group as I have described above, but rather with one's own social (and physical) surround. This principle is in full accord with the view of evolutionary psychologists that humans are primarily social animals fundamentally motivated to survive. In Zen meditative experience, it is the *boundaries* of the self that undergo decapsulation in the sense of increased permeability. As my sense of self became more flexible, I began to explore some further connections with and between neurobiology and psychoanalysis.

The sense of self-as-agency, while depolarized, tends to go off center-stage, but never permanently disappears. This is neurobiologically confirmed in the work of Edelman, on what he denoted as "neural Darwinism" (1992 pp. 81-97). He depicted neural networks as competing for selection as behavioral innervation enablers through a process of neuronal group selection which reflects ultimate adaptational priority. In Edelman's view, recursive neural circuits mark the enabled behaviors as originating from a non-

homuncular center of subjective experience, corresponding to what is commonly thought of as a 'self'. In line with Zen ontology, I have referred to this neural function as "selfing" (Brickman 2008 b.). That recursive circuitry can be viewed as an intermittent 'bar-coding' process which supplies key information to the organism if and when consciousness occurs and the implicit question of "who is the subject of this action?" arises. In further pursuit of the neural foundations of self-experience, we now turn to Darwin's foundational contributions.

Darwin's unsettling discovery and the re-biologizing of psychoanalysis

Without the "Modern Synthesis "of Darwin's natural selection theory with Mendel's discovery of genes (seemingly unknown to Freud, although it first came to attention at the turn of the 20th Century) the principle of "descent with modification" would have been no more than a fascinating but unexplainable mystery. But the discovery of the role of genes and the genome literally embodied Darwinism by leading to the realization that genes, with their random mutations, transform genotype into both bodily and behavioral phenotype. The disciplines of evolutionary biology and evolutionary psychology have proceeded to build an increasingly large body of empirical scientific knowledge on behavioral phenotype. Biology would be superficial without evolution; likewise for psychology. The very nature of the notion of a self comes up for debate.

The biological 'self'

In the absence of a unitary authorial self, it would seem that the only consistent aspect of self-experience—or 'selfing' function -- across contexts is *perspectival self-function*

(Brickman 1999) referring to the subjective experience of being at the geographic center of one's personal world. The consistent sense of self-function could be modulated by means of large functional clusters of neuronal groups which assemble themselves flexibly and adaptively to form mutually interactive "dynamic cores" of high complexity (Tononi and Edelman 1998). As mentioned above, complexity, or chaos, theory appears applicable to the study of these dynamic cores. But, as the authors I have cited argue, central sentience is not central authorship in the sense of consciously willing one's behavior.

Innately imprinted neural systems reflect all of the naturally conserved social behavior propensities that tend to modify extreme self-interest in the interest of relational competence. These patterns include kin altruism, reciprocal altruism, and the virtuous social acts of companionship, cooperation, and reciprocity. Social behaviors based on deception and self-deception, often lead to exploitation, seduction and repulsion, combative sexual rivalry, and—most often in groups—tribalism and territoriality. Our hunter-gatherer ancestors were under selective pressure to live cooperative social lives in order to assure personal and reproductive survival, according to comparative psychologists such as St.-Andrews' Andrew Whiten (1991). As major groups of *Homo sapiens sapiens* migrated out of Africa and began to manage herd animals and croplands in Asia Minor at the inception of the Holocene era ten or fifteen thousand years ago, cooperative behavior was naturally selected without loss of the prevailing aggressive and competitive behaviors depicted by Tennyson in 1849 as "nature red in tooth and claw".

Deriving from those ancient roots of sociality, a quest for consensuality is embedded in much of contemporary human discourse. This wish appears to be a significant motive for self-transcendence. We often seek authentication of our individuated view of reality, giving rise to such inchoate questions as. "Do you have the same or similar impressions/experiences as my own? Do I 'read' your feelings accurately? Do you read mine? Do we agree on matters of weather/politics/ the state of civil life/ the appearance and behavior of others?—of each other?" I suggest that this wish for consensuality reflecting an inherent fear of disconnected, solipsistic existence in an ultimately unknowable world may be a behavioral effect of the closed-system biology of the brain. As organisms existing within a cellular envelope (Brickman 2008b) we emerge from the envelope of the womb seeking relationships which hopefully will protect us against the dread of solitary existence. Meaning-making becomes increasingly vital to survival.

The epistemic roots of psychoanalysis

The neurally encoded 'selfing' nature of subjectivity impels the individual to make sense adaptively of subjective experience—including one's own fantasies, thoughts, and bodily sensations—in the course of encounters with others. Such neural encodings also establish and maintain the psychoanalytically addressed dynamic unconscious, a realm of mentation that arguably has been naturally selected. Dynamic unconscious function can be seen as an adaptive self-healing process re-working implicit memories of traumatic experiences in early life by generating fantasies, inchoate thoughts, dreams, and often neurotic behaviors. Self-healing aspects of dynamic unconscious processes are frequently the source of creativity as well.

In agreement with many others, I have been arguing that a disembodied psychoanalysis without foundations in evolutionary biology and psychology is a seriously flawed, almost supernatural, theory (see Grunbaum 1986). In the absence of empirically confirmed grounding in natural science during its first century of history, many thoughtful and creative contributors, starting with Freud himself, resorted to a rich and varied cascade of metaphors to denote unconscious mental functioning, and it is likely that most (but not all) contemporary analysts continue to base their theorizing on those metaphors. Since the actual "isness" of reality is ungraspable to us all, we often use metaphors to describe our life experiences, especially phenomena we don't fully understand. Recent advances in cognitive and affective neuroscience suggest that interstellar spaces separate signifier and signified (deSaussure 1983) in many if not most century-old psychoanalytic metaphors.

The danger of militant metaphorizing to the profession's reputation as a science, however, is evident in the UCSD neuroscientist Ramachandran's reference (2004) to "the notoriously lax intellectual standards" that guide analytic thought. Despite increased findings in brain science, there remains much evidence of what I consider the *absolutism of concretized metaphorizing* in a majority of analytic circles. Ingrained and metaphorically-reinforced explanatory ontologies die hard when not grounded in the neurobiological realities of living organisms. John Bowlby, the first truly evolutionary psychoanalyst, learned this lesson when he was strongly and widely criticized by many members of the British Psychoanalytic Association in the 1970's for his "radical" non-

metaphorical writings on attachment, separation, and loss. Today, he is considered the major avatar of contemporary neuro-psychoanalysis.

Freud's ambivalence about the Enlightenment and scientific objectivity

*The ego **is** first and foremost a bodily ego (Freud, 1923/1955, p. 26).*

As a physician and neuropathologist, Freud, thoroughly steeped in the valorization of rationality consistent with his Enlightenment-infused scientific and humanistic education in Vienna, is generally but somewhat ironically acknowledged as the discoverer of the unconscious. He metaphorically described *the* unconscious as the source of intentionality (drives) arising from instinctual—primarily sexual and aggressive – forces seeking gratification. A second metaphorical intrapsychic entity, *the* super-ego, was a source of inhibition of the instinctual forces. He also referred to an *ego* that devised psychological defenses against the acknowledgement and enactment of unacceptable instinctual drives. The metaphorical *ego* was proposed as the intrapsychic representation of what he considered an a priori outer reality. His view of the human psyche was in terms of a life-long struggle among the three metaphorical intrapsychic entities. Conventional psychoanalytic thinking hardly takes a back seat to the host of metaphors – gods, angels, devils, heaven, hell, resurrection, reincarnation, to name only a few – embedded in many religious beliefs.

Freud attempted to biologize his theory in "The Project for a Scientific Psychology" (1895), but the rather crude localizationist theories of neurologists of his day led him to promote his theories as a "pure" psychology (Solms & Saling 1986). However, he never

abandoned a deep conviction that mentation and behavior, unconscious and otherwise, ultimately arise from biological bedrock (Freud 1930). It has become common knowledge among analysts, however, that in defining that bedrock in terms of instinctual drives, his concept of biology was outdated by virtue of his innocence of present-day biology as irreducibly evolutionary and not adequately describable in such concretizing metaphorical terms.

So very human in his ambivalence, Freud gave evidence of reservations about the Enlightenment-inspired enthronement of rational thought. This can be illustrated by his counterpoising emphasis on the almost irresistible power of "the" irrational unconscious. If he were alive today, we could expect him to be astonished by the many recent empirical studies that highlight the pervasiveness of unconscious mentation, well beyond a psychodynamic unconscious. The more comprehensive understanding of unconscious mentation chiefly reflects biology of the brain: evolutionarily honed neural circuitry and plasticity evolved to process information and originate behavior favorable to prospects for the individual's personal and genetic survival. The "dynamic unconscious" of conflict inaccessible to awareness is not questioned if meant as process rather than as concretized substance, but even then it seems to be a lesser subset of what I have termed the "ontological unconscious" (Brickman 1998), which in turn should also be conceptualized as process rather than entity. The thoughts, fantasies, and behavioral proclivities in the ontological unconscious seem predominantly non-conflictual in most humans for reasons I shall try to explicate below.

Now at a hopefully ripe old age, I am relatively at peace in a world of paradox. One of my own post-Enlightenment criteria for the state of mental health achievable through psychoanalysis and meditation is the capacity to accept -- and even embrace -- ambiguity. My argument is that this is mainly possible if one is able to flexibly move in and out of self-encapsulation. The late Yale psychoanalyst, Hans Loewald, highlighted this point in his writings.

A neuro-psychoanalytic view of Loewald's writings on decapsulation.

. In one of his classical papers, "Ego and Reality" (1980 a.), Loewald stated:

> *If we look closely at people, we can see that it is not merely a question of survival of former stages of ego-reality integration, but that people shift considerably, from day to day, at different periods of their lives, in different moods and situations, from one such level to other levels. In fact, it would seem that the more alive people are (although not necessarily more stable), the broader their range of ego-reality levels is. Perhaps the so-called fully developed, mature ego is not one that has become fixated at the presumably highest or latest stage of development, having left the others behind it, but is an ego that integrates its reality in such a way that the earlier and deeper levels of ego-reality integration remain alive as dynamic sources of higher organization (p. 20).*

Still writing in the grammar of Freud's now largely outdated structural theory, Loewald seemed to imply that experiences that Freud described as "primary narcissism" were not to be regarded as maladaptive in mature adults. Starting about twenty years after the publication of this paper, cognitive neuroscience, with the indispensable aid of brain imaging, has demonstrated that emotionally significant early life experiences,

subsequently engraved in procedural memory, are frequently if only briefly 'visited' by the widely dispersed and constantly re-configuring neural assemblies that occur in the brain 24 hours daily. These memories, inaccessible to voluntary conscious recall, can be seen to help shape dream experience and much creative activity as well.

The increasingly wide recognition that brain circuitry is configured prenatally to enable humans to survive as social animals casts some doubt on Freud's term "primary narcissism". The basic conception of this term, as Freud himself described it (Freud1914) was of an undifferentiated subjective state in which the infant feels at one with the mother (see also Freud's concept of an "oceanic feeling' in his discussion with Romain Rolland reported in "Civilization and its Discontents" [Freud 1930, pp.64-73], where Freud declared the absence of such feelings in his own personal recollections).

Primary process experiences in healthy adult life according to Loewald

The vaunted implicit objective of the psychoanalytic cure, qua resumption of normal psychosocial development, is the dissolution of clinging to infantile inner representations ("objects") in favor of full and robust autonomy. According to classical Freudian doctrine, id is replaced by ego, sexuality is integrated with object love, and thought and fantasy thrive by the secondary, or reality, principle.

However, a healthy well-balanced life, according to Loewald, is open to primary process experiences. In ‘The waning of the Oedipus Complex” (1980 b) he stated that in addition to valuing secondary process thought and action,

a released influence of primary process thinking on many spheres of life, for good and ill, is undeniable, unsettling our notions of normality and changing our concept, experience, and organization of reality itself” (p.401)

Loewald and his more flexible conceptualizations (1980 pp.138-147) improved on Freud’s well-known contentions about religion– an improvement more compatible with the complex and constantly changing nature of survival-vectored neural networks in the brain. He proceeded beyond religion as an illusion, and beyond Freud's view that religion arises from a child's need for an omnipotent parent to help cope with the exigencies of life.

Loewald, functioning as a ‘transitional object’ in the monistic trend in psychoanalysis, believed that Freud's rationalistic prejudice against religion led him to paint himself into a corner. He held that Freud could not permit examination of those aspects of religious experience that are neither defensive nor object-related. He claimed that Freud neglected the temporal component allied with Roland's oceanic feeling, the associated feeling of "eternity." It is this concept that Loewald elaborated as a significant basic element in religious convictions. However, his concept of eternity is a very special, personal one and he carefully dissected it away from usual references to unending time in religious contexts. He defined it rather as the absence of time or the suspension of time in subjective experience.. Perhaps significantly he illustrated this with observations of the

infant who apparently functions without experiencing time. Once time scales do appear we are dealing with the organizing aspects of secondary processes and no longer with the timelessness of primary-process thinking.

The "abiding moment"

Loewald (1978) also called attention to familiar experiences of time suspension—emotional states of exceptional intensity, ecstatic states, the effects of certain drugs, orgasmic experiences. He called forth the philosophical term *nunc stans* -- the abiding moment -- as a common subjective experience, which he described as the collapsing together of past experiences into one instant or experience. Loewald spoke of these *nunc stans* states as instances of the timelessness of the unconscious or primary process. They are the familiar instances in which one can lose oneself in the contemplation of an artistic composition or in the midst of sexual passion. Past and present are merged. All is now. He carefully tried to distinguish this from conventional concepts, such as everlastingness, which are attempts of secondary-process mentation to explain primary-process phenomena. It is a difficult concept to grasp, and Loewald carefully tried to make the distinction clear. "Past, present, and future present themselves in psychic life not primarily as one preceding or following the other, but as modes of time which determine and shape each other, which differentiate out of and articulate a pure now" (p.143-144). Loewald (pp.8-9) also expressed some reservations about Freud's paternalistic bias in his writings about religion, yet did not propose any substitute. His acquaintance with the inherent decapsulating experience in Zen meditation spiritual practice is unknown to me.

My argument is that, in view of the basically innate relational ontology of infants as social animals, the anticipatory nature of innervation in the brain prepares the neonate for intimate interaction with first one other human organism, the mother, and then many others. This anticipatory innervation must conceivably exist by the last trimester of pregnancy when the sensorimotor apparatus of the fetus is impacted by sounds and motions within and outside of the mother's body. Within the first hour of being placed at the breast, the infant instinctively roots for the nipple, starts sucking, and reciprocal glances of mutual recognition flit between mother and infant. The serene pleasure and bodily satisfaction of this primary unitive social interaction yields a state of oxytocin-induced bliss poorly captured by the term "primary narcissism" which implies a one-person state of self-concern.

Two clinical approaches based on Darwinian neuro-psychoanalysis

As the educational and professional base of clinical psychoanalysts has broadened, we have been seeing a gradual movement in psychoanalytic general and technical theory away from the positivistic, hierarchical model derived from classical physician-patient interaction in which the doctor-as-expert engages the patient-as-supplicant in a therapeutic relationship. Such an interaction not only fosters more regression in the patient, but does not foster the appropriate working atmosphere for true tending social exchange at deeper levels. The actual process of change fostered by the analytic clinical relationship has been examined by many investigators, and emphasis will be placed here on the findings and reports of two investigative clinical teams.

The Boston Change Process Study Group (BCPSG), under the leadership of the psychiatric analysts and child developmentalists Louis Sander and Donald Stern, share the view that data from the burgeoning field of recent developmental studies as well as principles of complexity theory can be used to understand and model change processes in psychodynamic therapeutic interaction. For example, they have attempted to define and further explore the common characteristics of a range of analytic processes informed by different theoretical assumptions. In their own style of clinical psychoanalytic inquiry, they seek clinical access to *implicit relational knowing*, which reflects early ontological learning about relationships encoded in implicit , or procedural, memory.

Focusing strongly on the neurobiologically confirmed findings that the earliest anguished memories are embedded in implicit memory and thereby inaccessible to recall, this group has developed a clinical approach which is largely directed to the inevitable transference-induced clinical material from both sides of the clinical partnership, the procedurally encoded "hows" of life in contrasted to the "whys" sought by conventional one-person therapies that dredge explicit memory and providing cognitive insight.

To quote from one of their influential papers:

> *It is increasingly apparent that "something more" than interpretation is needed to bring about change in psychoanalytic treatment. Drawing on clinical and developmental observations, we propose that interactional processes from birth onward give rise to a form of procedural knowledge regarding how to do things with intimate others, knowledge we call implicit relational knowing. This knowing is distinct from conscious verbalizable knowledge and from the dynamic unconscious. The implicit relational*

> *knowing of patient and therapist intersect to create an intersubjective field that includes* reasonably accurate sensings of each other's ways of being with others, *sensings we call the "real relationship". (Lyons-Ruth at al. 1998)* (Emphases by this author).

The mutative effect of this approach is to provide new procedural learning experiences in therapeutic interaction without the necessity of interpretive interventions. While the relationship, in common with all forms of tending professional services, is necessarily asymmetrical, therapists frequently find changes in their own life narratives running apace with those of the nominal patient. There is little doubt that this process also occurs in other forms of psychoanalytic treatment, but in most others it is either ignored or downplayed. This approach is certainly depth-psychological in nature, but is relieved of the more or less standard psychoanalyst's therapeutic baggage transfer referred to by Freud as "where there was id there shall ego be" (Freud 1923).

Learning, Memory, and ontic expectancy: the Darwinian neuro-psychoanalytic significance of BCPSG findings

There are new alternatives to interpretation of defenses against repressed drive-derived instinctual forces which Freud advocated by emphasizing cognitive (ego) insight. The findings of authors in the BCPG suggest that the ameliorative effects of the psychoanalytic clinical interaction do not necessarily require insight. Instead, they conceive of mutative change deriving from transferentially-flavored relational interaction. To understand why such changes can occur without resort to conscious cognitive processing, we can turn to Learning and Memory (L&M), intentionally

capitalized because it is a recognized discrete field of neuroscientific research (see Kandel et al 2000 pp.127-1246). This is an occasion to point out that the very basis of Freudian psychoanalytic theory postulates that present-day experience is deeply influenced by earlier, mostly unconscious, memories and memory traces (Ansermet & Magistretti 2004) The time dimension of all psychoanalytic theory and practice involves repeating, remembering (ego psychology), or re-fashioning (the BCPSG model) of past experience with the aim of altering the patient's subjective premises about selfing in the relational world shaped by past experience. With new analytic approaches consistent with L&M, the pivotal question now appears to be whether we can safely eliminate recollection and verbal reconstruction in our analytic thinking and technique in favor of re-learning and thereby helping revise the patient's basic assumptions about their world through transferential experience.

From an L&M viewpoint, the neural innervation assemblies that process early relational experience have been naturally selected to be stored in procedural memory. These memories are not subject to conscious recall, again for a reason explainable through evolutionary processes. As previously mentioned, the "knowledge" stored in procedural memory equips the developing organism to implement the "hows" of daily life in an environment of opportunity and danger so as to maximize survival possibilities. Conscious processes such as decision making would, for reasons of neural processing time (Libet et al. 1983, Kinsbourne 1998, Brickman 2008b), encumber rapidity of response especially when affect-laden characteristics of the original memories would predict re-emergent feelings of hurt, guilt, shame, and rage.

An organism prevails in life and in reproductive results to the extent that its responses to predicaments in daily life are ultimately efficient in furthering its survival. To a major extent, the genomes of social animals like *Homo sapiens* persist in successive generations proportionately to the organisms' success in cooperation and competition in a social world of both players by the rules and freeloaders. As John Bowlby pointed out (op.cit.), the major social evolution of modern humans took place over 100,000 years ago in the forests and savannahs of Africa, an era that he termed the Environment of Evolutionary Adaptedness (EEA).

The role of 'ontic expectancy'

Two of Lyons-Ruth's terms which I have emphasized reveal the Darwinian neuro-psychoanalytic nature of the BCPSG's ontology. One is the notion of "reasonably accurate sensings of each other's ways of being with others". The other expression is "the relational anticipations of each partner". As I will elaborate further, both expressions instantiate what I have termed *ontic expectancy*, a survival-oriented neuropsychological function which unconsciously surveys, analyzes, and assesses features of the social and physical environment.

This is (to use a metaphor) a kind of brain-generated 'radar' function that predictively organizes and energizes candidate behavioral patterns that would further individual and genomic survival. Several investigators (E.g. Arnold 1960, LeDoux 1996) have written reports of 'emotional appraisal' that approach but do not entirely coincide with the

function I am describing. A common feature of these radar-like functions is their operation outside of consciousness. Also, with the now widely-accepted agreement that there exists no homuncular or magisterial agent in the brain, these functions are products of competitive neural patternings rather than instances of a "Cartesian theater" (Dennett 2003).

Attachment studies and a new Darwinian neuro-psychoanalytic approach

Another instance of new analytic approaches benefittting from natural science perspectives – in this case, evolutionary biology – is the work done by the psychoanalytic groups in London (University College) and Houston (Baylor Medical School's Menninger Dept. of Psychiatry) under the leadership of the psychologist-psychoanalyst Peter Fonagy. As a result of the research of Bowlby (1944, Ainsworth 1967), and others, a robust new approach to development -- attachment theory --was developed. This theoretical approach reflects Bowlby's observations (1982) that infant mammals seek closeness to their mothers not for the primary purpose of feeding but to guarantee a secure psycho- emotional base for exploration of their new extra-uterine social and material worlds.

Careful observation of human infants and toddlers has made it possible to identify the lasting (procedurally innervated) attitudinal and behavioral patterns resulting from different experiences of maternal insufficiency and emotional deprivation in early infancy. The nature of early attachment experience has been observed to affect behavior in adult life – particularly when a new mother who herself has suffered insecure

attachment interacts with her own infant (Belsky 1999). Again, all of these observed patterns are not only influential in day to day social interaction, but seem to be passed on transgenerationally. They persist because they are inscribed in procedural memory, which as I have mentioned above, unconsciously prescribes the "hows" of social behavior outside of the immediate family as well as within the nuclear family circle. In other words, what is repeated transgenerationally is each successive mother's subjective ontology and each successive child's ontic expectancy. Withdrawing and dismissive behaviors are not necessarily the products of identification; they are better understood as action patterns unconsciously selected to avert further trauma.

Fonagy and his groups have ventured to state that a valid goal for psychoanalysis and dynamic therapy is the restoration of Theory of Mind, defined as the capacity to apprehend the intentions of others. In this connection, a volume entitled "Mentalizing in Clinical Practice" has been recently published (Allen, Fonagy & Bateman 2008) This emphasis on mentalization implants these perspectives and clinical approaches solidly within the sphere of psychoanalysis as natural science – referred to in this presentation as Darwinian neuro-psychoanalysis. We have presumably passed beyond Freud's original theory of drives as vectored primarily toward gratification, and, fortified by the brain's socially vectored neural processes, have begun to confirm an updated and more empirically sound version of Freud's persisting belief in a biological foundation for psychoanalytic theory.

The problematics of self-polarizing analytic cures

Over the long and multi-hued history of psychoanalysis, dating from the waning years of the 19th Century, the consensus view of the analytic cure has valorized individuation and autonomy (Mahler 1972). Largely as an aspect of scientific objectivism, analytic patients were consciously and instinctively guided by their analysts toward strengthening of "the ego", meaning a capacity to follow an a priori "reality principle" that would mandate deferral of instinctual gratification in favor of this more "real" compass for adjusting to the exigencies of daily life. While some analysts (e.g. Hartmann 1958 and Erikson 1964) identified the importance of adaptation, serious recognition of humans as fundamentally social animals did not widely prevail in earlier psychoanalytic circles.

Loewald's modifications of individuation theory were exemplified in his notion of a "new object"—again, a metaphor -- to be internalized as a crucial ingredient of mutative change in the analytic process. There is little doubt that the more recent contemporary therapeutic approaches reported by the BCPSG group include "new object" explanations. This would be understood by these clinicians as instances of new procedural learning that reflect extinction of old learning and re-population and internalization of new mother-child relational configurations in the transference.

The subjective experience of deep intimacy is surely unitive in character, but in the light of recent neuroscientific findings it is more likely to lessen or otherwise compromise boundary sensation rather than totally erase it in favor of what is generally meant by the word "narcissism". For these reasons, the term "primary attachment" seems to capture more accurately the fundamentally relational nature of this state of mind. As the child

grows and develops, its subjective experience of the extrauterine world is further formed through more complex sensorimotor impressions in its interactions with the lullabies, stroking, holding, physical play, and rocking with its primary caregiver. These interactions configure the early attachment experiences which in turn form the neural and psychological foundations for a lifetime of social interaction.

Zen meditation as an antidote for "ordinary unhappiness"

In marked contrast to the new neuro-psychoanalytic perspectives described above, let us consider Freud's ontological statement to a hypothetical patient (Breuer and Freud, 1893-1895, p. 305) was that "much would be gained if we succeed in transforming your hysterical misery into common unhappiness". It has been suggested (Brickman 1998) that Zen meditation could serve as a possible "postgraduate course" for those ex-analysands who find themselves in such an unenviable state. Because of new neurobiologically-informed advances in psychoanalytic theory and technique during the past decade, referred to earlier, there is a diminishing likelihood of such an end-state. This is probably due to synaptic plasticity and the lasting effects on behavior of newly configured neural circuitry – a less likely outcome for those who have undergone therapies emphasizing mastery of drives and cognitive insight. Nevertheless, it might be useful to more fully describe the subjective *Weltanschauung* provided by Zen meditation.

For this purpose, I will attempt to boil down the colorfully diverse collection of beliefs and practices common to Buddhist ontology to the 'bare bones' of Zen meditation, which is considered to yield a personal subjective experience of *anatta,* the feeling of having no

singular self. At once, a unique feature of the acquisition of Zen ontology becomes apparent: although described in teachings and scriptures, it is primarily acquired *empirically* rather than through received wisdom.

The applications of such a self-dissolution are almost unlimited in daily life. In meditating 'off the cushion', one becomes immersed in the tasks and actions at hand in the course of navigating through the social and physical surround. Life becomes experienced as living "in the transitive mode"(Brickman 1998)—walking, driving, working, talking, thinking -- just doing and being, with no awareness of a distinctive subject of those behaviors, the so-called self. Recent neurobiological studies are in accord with this type of experience: there is no demonstrable evidence of a homuncular self represented by any identifiable neural centers or processes. This has been discussed above. And, according to the contemporary philosopher of mind, Thomas Metzinger, careful philosophical inquiry reveals that "no selves exist in the world" (2004 p.3). The Nobel physicist-philosopher Erwin Schrödinger intuited such a realization thirty-five years ago when he questioned the existence of a "pontifical neuron" in the brain (Schrödinger 1983)

Is Buddhist 'spirituality of the commonplace' authentically spiritual?

But one may ask: are all merger experiences spiritual? If a painter reports that the painting "painted itself", or a carpenter reports that the doorframe assembled itself, is this in any way a spiritual experience? The answer would have to be "yes and no", since the separate self seems to fade away in reports of religiously-inspired spiritual experience as

well. The negative facet of the answer might be that in intentional spiritual experience conscious thought and emotional content is more specifically geared to universal and timeless themes, frequently with feelings of awe. But the Zen Buddhist claim to provide through meditation an appreciation of the 'spirituality of the commonplace' seems to argue differently. When reflected upon, however, it yields a somewhat less spectacular but no less authentic feeling of merger. There is also the awe at "How miraculous: I cut wood, I carry water!" (Old Zen parable).

Loss of awareness of time in decapsulated states

One characteristic of a state of polarized individuation is an awareness of the passage of time. It is possible to 'lose oneself' in work, wherein awareness of the passage of time disappears in the course of self-absorption. The loss of time-sense while self-absorbed illustrates Loewald's contention that experiences of primary narcissism can be part of healthy functioning since, according to Freud (1915), the unconscious is timeless.

An inevitable quantum of de-differentiation is an aspect of any ongoing reciprocal dyadic relationship. The Latin roots of the word "commitment" connote putting together: in this case, a commingling of otherwise exclusive autonomies. Time awareness seems diminished in a great range of self-immersion, not least of which is the realm of 'oceanic experience'.

I suggest that Freud's confession to Rolland, discussed above, that he himself had not experienced an oceanic feeling reflected his Enlightenment-inspired obsessive valorizing

of rationality. We must remember that Freud fainted rather easily in moments of duress (Ego should totally replace Id). In fact, Freud's resolute clinging to subject-object dualism contributed, along with his own narcissism, to his sharp distaste for many of Jung's less seemingly scientific ideas, such as those of the animus, anima, archetypes, and a collective unconscious. Jung's rich metaphors were no less scientific than Freud's; the issue seemed to be more a matter of personal than truly scientific disagreements (McGuire 1974). Prominent among the disagreements that separated the two thinkers were on the matters of spirituality and religion.

A grammatical metaphor for Zen subjectivity

Because the Zen experience is notoriously resistant to description in words, the existential concept of ordinary life as meditation can perhaps be better understood if a grammatical metaphor is employed (Brickman 1998). Arguably, the grammatical structure of language is necessarily ontological, in view of its multiple missions in the social environment (clarification, deception, performative action) One's sense of self can be grammatically represented in three basic ways: a) as *nominative* in the sense of the subject of action; b) as *predicative* in the sense of the object of action; and, counter-intuitively in Western thought, c) as *verbal* in the sense of *being* the action. The Zen meditative state of life-as-immersion blurs subject-object boundaries by yielding an experience of existence in the mode of the intransitive verb (being, walking, working, etc), exerting primacy over both subject and object. Hans Loewald, still within the constraints of classical Freudian ego psychology, has provided us with an opportunity to accept the advantages of self-dissolution and merger experience without labeling them as

psychopathological, thereby "allowing" psychoanalysts to give Zen meditation serious consideration.

A final point: As indicated above, I have found it clinically useful to think of psychoanalytic interaction as joint meditation. This attitude is consistent with the "going along" perspective employed with the BCPSG group (Stern 2004 p. 77). Providing a specific intersubjective arena for self-decentering, it attempts to implement complexity theory by allowing for spontaneous, often unanticipated, "moments of meeting" (Stern et al. 1998) arising within the analytic process. Although chiefly object relational in nature, it can serve as a partial, but important, contribution to an ontological model for the extra-analytic life of the analysand (and as a reinforcement of the analyst's self-boundary permeability).

Fear of death and the timelessness of the Zen meditative ontology

Religious eschatologies, both Western and Eastern, focus extensively on notions of eternal life. In doing so, many offer a supernatural disembodied future that can be seen as averting the ultimate separation anxiety which defines death in the expectations of most humans. Awareness of the passage of time is in effect premonitory of one's death. Primary process experiences suspend awareness of time, as do dreams, temporarily lessening that final separation dread. The ontology of the Zen meditative state and its self-dissolution in the present moments of ordinary life also reduces awareness of passing time. This form of meditative life can be learned with or without the superstructure of

Buddhist lore, some of which – paradoxically, in my view -- continues to teach reincarnation in a manner similar to Hindu belief.

This suggests an intriguing question: is one of the effects of the analytic process an internalization by the patient of the analyst's ontology? Quite aside from long-standing apocryphal stories within analytic circles proposing internalization of the analyst's epistemic perspective (Freudian patients dream Freudian dreams, Jungian patients dream Jungian dreams, etc.), what I am asking is whether the identification process in psychotherapy based on depth psychology includes an unwitting (?) philosophical indoctrination as well. I suspect this is true, and may even be at the core of the self-transformation that occurs in successful treatment outcomes. If so, yet another question seems to follow: is the deepest mutative factor in depth psychotherapy really a philosophical one which, far from being intellectual, reflects non-conscious biological re-learning and memory at the procedural level?

Further thought about polarization ennui suggests that full and irreversible individuation produces its *ennui* by paradoxically reinforcing death anxiety in the supposedly 'fully analyzed' individual. Loewald's term *nunc stans* captures the "why" of needs for depolarization. While lack of awareness of the passage of time does not contravene the inevitability of death, it can have the salutary effect of putting death in its proper ontological – and biological -- place after living a fully-engaged life.

Consider that separation anxiety underlies most desolated states of mind that are addressed by psychoanalytic psychotherapy. It then seems ironic that dismissing needs for depolarization as psychopathology can eventually bring about the very subjective ontology that the therapeutic process is intended to forestall. My conclusion is that encapsulation ennui is a foretaste of the ultimate dread of separation by death itself, of the total and final erasure of existence to which the eschatological beliefs of most religions are addressed. Eternal life and reincarnation offer a compelling alternative ontology for those whose subjective experience is encapsulated. These considerations seem to argue for relational analytic therapies in which co-constructed life narratives can allow for depolarizing experience, and quite possibly a drastic ontological overhaul. In view of this conclusion, the irony of monotheistic and other fundamentally discriminative religious creeds offering eternal life as a denial of that final separation is tempting to explore, but awaits another occasion.

The case for evolutionary reductionism and biologically relevant deism

The Nobelist psychiatrist and neurobiologist Eric Kandel unapologetically locates his scientific findings within biological reductionism (Kandel et al 2000, Kandel 2005,). He nevertheless proclaims the necessity for psychoanalysis *qua* natural science as vital to reconciliation with neurobiology. Since psychoanalysis is indeed gradually re-biologizing itself, can it go so far as embracing reductionism?

The Christian theologian Nancey Murphy writes with admirable clarity about the problems of reductionism in the reconciliation of religion and cognitive neuroscience.

Despite her own flexibility, she reports from polling of her lecture audiences that an unexpected majority subscribes to the trichotomist view of soul, spirit and body, many are dualists, and few are monists (Murphy 2003 p.52). My reaction is that those statistics should not be surprising because of the relevance of Freud's views on the regressive aspects of religious belief and mine on the cardinal role of death anxiety in the seeking of supernatural and death-transcending ontologies. It is also not surprising that, on the other hand, many scholarly theologians and philosophers seek reconciliation of religion and neuroscience. I suggest that serious consideration of a Darwinian neuro-psychoanalytic perspective would contribute to reconciliation between those scholars of religion and a probable majority of religious believers.

In that connection, Murphy's embrace of brain science findings seems to be impeded by her strong reservations about reductionism. Again, the possibility of solving her intellectual – and perhaps spiritual – impasse with the help of an updated natural science-grounded psychoanalytic theory should be considered. My own view is that a mistaken physicalist view of "pure" biological reductionism would indeed seem mechanistic. On the other hand, as noted above, "Nothing in biology makes sense except in the light of evolution" according to the evolutionary biologist and Russian Orthodox Christian Theodosius Dobzhansky (1973).

My point is that subscribing to the basically Darwinian natural selection foundation of biology, with its rich storehouse of knowledge about behavioral phenotype, provides a more vital and dynamic perspective on reductionism. Perhaps reductionism is far less

repugnant to some if it is understood as 'evolutionary reductionism'. The further theological implications of this viewpoint remain to be explored. Perhaps some sort of reconciliation could be achieved with a combined reductionistic and deistic notion that the miracle of natural selection by a process of non-teleological elimination of random maladaptive mutations may allow for a founding creative force for some who find a personal deity to be indispensable. The award-winning Harvard evolutionary biologist E.O. Wilson, a former Protestant evangelist, seems to agree (Wilson 1998).

A personal deistic experience during a three month hospitalization

In the presence of overwhelming natural forces, the need for a personal divinity is understandable. "*O God, thy sea is so large and my boat is so small!*" intoned many an ancient mariner, and, allegedly, there were "no atheists in the foxholes". My scientific education seemed to argue for atheism, but the absolutism of that perspective did not appeal. From early undergraduate days, my frequent hiking and camping in the mountains afforded me a feeling of awe at the workings of what many regard as Mother Nature. I also developed a keen intellectual interest in spirituality, but I never gave way to belief in supernatural causes, even in those critical dark days when encountering death was both a problem and a solution.

Such an encounter occurred three years ago near the end of a three month hospitalization for removal of a benign brain tumor followed by subsequent abdominal surgery (removal of my large intestine) for an intractably severe post-surgical infection. As I got weaker and more alienated, despite the consolations of love and support from dear ones, I found myself seeking more reasons to stay alive. Several rabbis, ministers and priests visited me

with no apparent benefit. Out of a need to get in touch with a more basic ontological, a more spiritual, dimension, I attempted Zen meditation in the time-honored form of following the breath. I soon turned away from it because, mistakenly, I felt it would lead to passivity and uncritical acceptance of dying. However, I also realized that periodic meditation, although central to Zen, could be deferred in favor of the deeply remembered *kensho* experience of universal connectedness that is at the core of Buddhism, and that had actually been flavoring my work with patients. So, the question was how could I feel connected with, and part of, something timeless and bigger than myself in the long hours between visits with my loved ones? I worship no divinity even in the rough seas of a prolonged hospitalization, but a thousand miles from the nearest land in a small boat, my spirituality did come to the surface of consciousness.

Always seeking farther shores, I sailed to Hawaii 40 years ago as skipper and navigator of our 36-foot teak-hulled ketch, the *Sea Dragon.* My brother was first mate, my daughter was cook and watch mate, my son was boatswain,, and there were two other teenagers in the crew. It was a merry voyage in late June, as our little vessel rolled, pitched, and pirouetted in the trade winds with 6 to 8-foot regular cresting seas seeming to push us along. One early evening, Marianne went below to cook and serve dinner. I remained at the helm, alone on deck. As it grew darker, I felt lonely , longing to join my happy crew seated at the teak table below, chatting in the warm glow of the kerosene lamp under the skylight. I concentrated instead on our compass course, and the trim of the sails relative to the wind. Quite unexpectedly, I felt a shiver of realization of how I, and we, were in

synchrony with the timeless interactive clockwork of galactic forces, converging on our little ship by means of wind, ocean current, and wave. The loneliness began to subside.

Our planet wobbles in its rotation, so that any fixed point on its surface undergoes changes not only of day and night but also of the *times* of day and night according to, and responsible for, the changing seasons. Prompted by the action of the sun, the ocean currents distribute warm and cold water all over the globe, and high and low air pressures range over land and sea. The trade winds, blowing from the northeast in the northern hemisphere and from the southeast in the southern hemisphere, reflect both the rotation of the earth and the flow of wind from high to low pressure. Each roll of the boat as the seas passed under us was a reminder of myself as a cog in an infinite assemblage of cosmic gears. These include the random processes of Darwinian natural selection affecting the biomass of this planet. (Of possible interest to psychoanalytically oriented professionals is the likelihood that the largely unconscious mental life of humans and the synaptic plasticity that enables brain and behavior changes to result from psychotherapy are an outgrowth of these Darwinian processes).

The "ancient mariners" of our past sought out the trade winds for thousands of years because they pushed those sailing ships toward their intended destinations. I felt a common bond with them. It helped because Sea Dragon was actually a smaller-scale replica of a late 18th Century whaler. Another source of wonder on that voyage flowed from Marianne and I taking the 4 to 8 watch, AM and PM, feeling awe and wonder at the darkening of sea and sky at dusk and the faint hues of growing light in early mornings.

How many of us have the privilege to behold the subtle changes of light at dusk and dawn for over 16 days? The sea, always changing in character and hue every few hours, was fundamentally the same. *Plus ca change plus c'est la meme chose,* mirroring the basic Zen life principle, can be a way of describing the ocean as well.

You can see how much, and in what ways, I have felt in touch directly with those timeless planetary and cosmic forces, producing feelings of awe and deep calm. While temporarily deprived of direct human company, I was free to experience myself as tapped into galactic processes—Sun and Earth processes. At night, of course, certain navigational stars acted as my guiding beacons—cosmic influences beyond Sun and Earth, galactic connections that confirmed my place in the universe via sextant and compass.. Recollecting that trip revived an ontological and spiritual link to a realization that, as part of the universe, dying would not be disappearing. Dying would be entering the next stage of a recycling process with essentially random results, but still within the cosmic 'family'. Living, on the other hand, would spare loved ones a lot of pain, but also would be more fun! Feeling truly free to choose, I chose recovery and life. As I write this, I am not unmindful of what a more or less standard psychoanalytic view of this experience would be: the frightened infantile core of myself in the comforting arms of higher parental power, with likely oedipal overtones. While this may be so, and may in fact be the basic psychodynamic of all spiritual experience, it is too reductionistic for me as an ultimate explanation.

Reaching the threshold of dying may universally remind one of what has been significant and meaningful in one's life in addition to one's family, friends, students, and patients. The elements are intrinsically neither favorable nor hostile, although the ocean is always an occasion for some death anxiety: large ships have gone to the bottom with all hands in the many centuries prior to contemporary electronic weather services and communications, and rogue waves over 100 feet high still suddenly appear. Yet, the total aesthetic and spiritual involvement in navigating a small vessel over ocean waters is radically different from sitting in a car admiring a mountain range. It is a matter of witnessing nature as compared with directly and totally *living* in nature --- a truly unitive experience as well as one of mastery. Perhaps "mastery in the presence of mystery" captures this experience.

Summary

I have addressed the interface between depth psychology (psychoanalysis) and spiritual experience by identifying three revolutionary thinkers who have historically enriched our understandings of human subjectivity.: Buddha, Darwin, and Freud. Beginning with the story of my own discomfort with the traditional mind-body dualism that informed my scientific, medical, and psychoanalytic education, I traced an intellectual and experiential journey leading .to a more relativistic, intersubjectivist, and monistic approach to human subjectivity and suffering. A decades-long practice of Zen meditation yielded an appreciation of "the spirituality of the commonplace" in which the sense of a separate autonomous self, valorized by Freudian orthodoxy, is effaced. In that connection, I

reviewed the writings of the late Yale psychoanalyst Hans Loewald about non-pathological self-dissolution, and then turned to an extensive study of the perspectives on animal and human behavior of evolutionary biology and psychology, which do not pivot on selfhood.

These studies have helped me to understand experiences of self dissolution in two wholly disparate groups, one military and one religious. Both of these phenomena have influenced me to further expand on my initial critical attitude toward the theoretical and philosophical underpinnings of my identity as a psychoanalytic clinician and teacher. I attempt in this paper to propose a tripartite reconciliation of psychoanalysis, the ontological plane of philosophy of mind, and the anticipatory nature of neural innervation in the brain by identifying 'ontic expectancy' as a crucial element in intersubjectively oriented clinical work that captures a pivotal ingredient of psychoanalytic clinical process. In addition, I propose the notion of 'evolutionary reductionism' as consistent with some deistic approaches to religious belief. A personal spiritual experience is described as an example of such an approach.

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