THE SIGNIFICANCE OF THE PRIMAL PERIOD AROUND BIRTH AND ITS RELATIONSHIP TO THE CHILD AS TRANSFORMER OF CONSCIOUSNESS

by

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CERTIFICATE OF APPROVAL

I certify that I have read THE SIGNIFICANCE OF THE PRIMAL PERIOD AROUND BIRTH AND ITS RELATIONSHIP TO THE CHILD AS TRANSFORMER OF CONSCIOUSNESS by Clare Puskarczyk, and that in my opinion this work meets the criteria for approving a dissertation submitted in partial fulfillment of the requirements for the Degree of Doctor of Philosophy in Philosophy and Religion with a concentration in Philosophy, Cosmology, and Consciousness at the California Institute of Integral Studies.

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ABSTRACT

Conventional science, a primary influence in childbirth and medical practice, child psychology, nurturing and developmental theories, and education, often ignores the significance of the primal period surrounding birth and its life-long imprinting on the infant. Instead, the mainstream scientific paradigm emphasizes genetic determinism and often disregards research that demonstrates that environment, including childbirth and nurturing practices, may actually influence gene expression. In addition, the knowledge that young children are capable of deeply intuitive, psychic, and spiritual experiences continues to be dismissed, minimized, or ignored by modern Western culture.

Research, theories, and case studies from several disciplines, including psychology, transpersonal psychology, consciousness studies, anthropology, biology, and physics challenge a limited and mechanistic view of the capabilities of fetuses, newborns, and young children and describe the participatory dynamics natural to children.

This dissertation argues that invasive and violating practices, especially during the deep imprinting process surrounding birth, results in negative

consequences not only for children, but also for the global human family and the natural world. This study asserts that children's feelings of neglect and fear or their feelings of nurturance and love activate powerful field dynamics and influence the contents of consciousness. The recognition of the actual, impressive capabilities of fetuses, newborns, and young children, and appropriate responses to the whole child, may result in a shift from humanity's present regressive evolutionary trajectory to a progressive transformation of consciousness.

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CHAPTER ONE: INTRODUCTION

Modern methods of birthing, parenting, and schooling shape and condition children to fit the prevalent culture as if children had no capacities of their own. Steven Harrison (2002) comments: "In this view, children do not have an inherent life force that deserves the respect we accord to the adult population" (3). Yet many people experience young children as highly perceptive, deeply intuitive, and capable of psychic and spiritual experiences. Such knowledge, however, is generally dismissed, minimized, or ignored. This study challenges a mechanistic view of children with theories and research found in several disciplines. It proposes the possibility of a progressive transformation of consciousness as a consequence of the adult world providing the love and safety necessary for healthy and whole fetuses, newborns, and young children.

In a variety of ways, all eight chapters emphasize the interrelationship of collective consciousness with the individual soul/psyche/emotional/chemical/ physical self. This introductory chapter is an overview of subsequent chapters and of the objectives and significance of the dissertation. The denial of the depth of consciousness of fetuses, newborns, and young children as described by this dissertation, as well as, inappropriate responses to the whole child, affect much more than the individual infant; they affect the collective consciousness of the human species and its relationship to the natural world.

Chapter Two emphasizes certain developmental issues of the fetus and newborn infant and the consequences of inadequate modern Western assumptions concerning the consciousness of fetuses, infants, and young children. These

assumptions continue to influence birthing practices, nurturing styles, and education. This dissertation calls into question unnecessary birth trauma and toxic environments, and contrasts contemporary assumptions with the awareness and expectations of infants that their needs be met.

Years of research have proven that babies are aware and suffer deeply when their expectations, or basic needs, are not met. Disharmony and violence in the lives of American children continue to escalate, as do other forms of suffering including, autism, diabetes, and eating disorders, to name a few (Chamberlain 1998; Odent 2001; Prescott 1979, 2002). Research has shown that diseases in later life can be traced to birth trauma (Chamberlain 1998; Grof 1992, Prescott 1979), and prevalent ecological destruction may be, in part, a consequence of generations of modern children's deep woundings early in life that have severed a bond with the natural world (Odent 2001; Prescott 2002).

Chapter Three explores children's states of consciousness reported in the personal accounts of adults and children, and in research commentaries documenting memories of life before birth, of the birth experience, and of past life memories (Armstrong 1988; Bowman 1998; Chamberlain 1998; Verny and Kelly 1981; Wambach 1979). Spontaneously, in light trance states that appear to be natural to children, they may remember prebirth and birth, or past lives, and perceive otherwise invisible entities, including fairies and extraterrestrials. Young children reportedly may see auras, may be gifted with psychic abilities, and may participate in the healing process. In addition to birth and past life memories, this chapter includes experiences such as those related by Thomas Armstrong (1988)

in *The Radiant Child*: "visions, intuitions, ecstasies, encounters with the supernatural, confrontations with the infinite, interactions with other levels of existence . . . " (10).

The research concerning children's nonordinary states of consciousness (Armstrong 1988; Chamberlain 1998; Hart 2003; Morse 1994; Ring 1992) has, for the most part, been ignored by mainstream Western psychologists, the medical community, educators, philosophers, and theologians. However, psychologists and researchers who have carefully listened to children have discovered deep aspects of their nature and have expressed amazement at their wisdom and spiritual dimensions (Armstrong 1988; Chamberlain 1998; Coles 1990; Gopnik, 2009; Hart 2003).

Chapter Four discusses several studies and theories that examine the role of perception, feelings, brain function, and states of consciousness in a child's participatory relationship with the natural world and beyond. Recent research reveals evidence that memories and perceptions may be, in part, field phenomena, and not necessarily located within the brain. This ongoing research may help counter the prevailing Western mainstream belief that developing brains are not capable of memory, and may expand our understanding of how young children know what they know and how they may see what is usually unseen by adults.

Describing field theories in transpersonal psychology, biology, and physics, Chapter Five develops the hypothesis that childhood is the most potent time for affecting consciousness. Parapsychology, as a field theory, offers a relevant explanation for the documented descriptions of children's psychic and

spiritual experiences and their knowledge of what cannot be known in any usual way (Radin 2006; Sheldrake 1999, 2009).

Rupert Sheldrake's (1999) hypothesis of formative causation and theory of morphic resonance help explain how species draw upon and contribute to "a collective or pooled memory" (305). Sheldrake states, "In the human realm, this kind of collective memory is closely related to C. G. Jung's 'collective consciousness'" (305). In this study, morphic resonance, parapsychology, Jung's theory of the collective unconscious, and the quantum concept of entanglement are described as field theories (Radin 2006; Sheldrake 1999, 2009). Sheldrake's theory offers a scientific description that helps support the claim that young children may transform consciousness, not at some later time in adulthood, but actively, while they are still infants and young children.

Chapter Six develops the thesis that the interaction of infants and young children with the collective may be either regressive (Metzner 1998) or progressive depending upon the degree to which children feel safe, respected, valued, and loved. This chapter contrasts regressive and progressive transformation and considers how the expectations of fetuses, newborn infants, babies, and young children may affect the future of humanity.

Inadequate and incorrect assumptions about newborns were originally questioned in the 1970s, and home births and birthing centers became popular in certain areas of the United States. Some hospitals established more holistic birthing environments, but Suzanne Arms (1996) explains: "Parents were deluded into thinking that they had more control over childbirth, but the truth is that the

basic attitudes and policies of the hospitals have stayed unchanged" (156). As new technologies were designed to mechanize and speed up the birthing process, less invasive, natural methods and environments all but disappeared from many hospitals. Recently, there has been a resurgence of interest in natural childbirths, especially water births. This study presents advantages of this birth movement, in addition to other forms of nurturance including healthy educational environments. Awareness of the true nature of young children may initiate an exploration into the significance of conscious parenting and the possibility of a new social paradigm.

Chapter Seven comments on the unfolding of a new paradigm and the resulting reactionary polarizations in need of harmonization. The relationship between PTSD and cognitive dissonance is discussed. Chapter Eight relates a possible vision that includes field dynamics—a description to envision the interaction of resonant fields.

Objectives of the Study

Within the conventional medical model, the human brain and neural systems are perceived to be the locus of intelligence and experience. The medical community, in general, unable to release the belief that the underdeveloped brains of fetuses and newborns could have meaningful experience, feel pain, smile deliberately, or remember, has subjected them to births in the most unpleasant environments including bright lights, cold, shock, noise, separation from the mother, heel lancing, circumcision, and surgery without anesthetics. Referring to birth in modern times, Stanislav Grof (1992) states the following:

> As an event that we all share, it has the potential for bringing about mass scale psychological aberrations, with perhaps hundreds of thousands of people sharing a common experience of tremendous unconscious rage. (212)

The treatment of infants by medical professionals from the time that hospital births came into vogue may be more harmful than we imagine. Many individuals who have grown up in Western culture, have become disconnected from the natural world and their own bodies. The neglect of the suffering of children may be partially a result of individual denial of painful births and childhoods (Miller 1989).

This dissertation attempts to address the suffering of fetuses, newborns, and young children and to describe and explore aspects of their consciousness. Ultimately, this study intends to establish that fetuses, newborn infants, and young children are capable of being informed by fields of consciousness associated with family, culture, and the collective unconscious, while also informing those resonant fields based upon their emotions, chemistry, and brain function. For this reason, it also contends that children have the capacity to transform consciousness progressively and warns that they may also transform collective consciousness regressively in the direction of self-destruction. The treatment of American children is the focus of the study because the United States is presently the most influential country in the world and presumably will continue to play a significant role in whether or not humanity will survive on this planet.

Significance of the Study

Academic Significance

Despite years of study of children in anthropology and psychology, David Chamberlain (1998) states, "The truth is, much of what we have traditionally believed about babies is false. They are not simple beings but complex and ageless—small creatures with unexpectedly large thoughts" (iii). Jean Liedloff (1977) contends that what has developed since Freud has been "fragmentary and infertile" intellectual theories to care for infants. Only relatively recently have prenatal and perinatal studies found a place in the academic world. Still, children have been largely ignored by Western philosophy and theology. In *The Philosophical Baby*, Alison Gopnik (2009) states that while the *1967 Encyclopedia of Philosophy* has no references to infants or babies, the current *2007 Encyclopedia of Philosophy* finally does include articles about babies. Gopnik adds:

> We used to think that babies and young children were irrational, egocentric, and amoral. Their thinking and experience were concrete, immediate, and limited. In fact, psychologists and neuroscientists have discovered that babies not only learn more, but imagine more, care more, and experience more than we would ever have thought possible. In some ways, young children are actually smarter, more imaginative, more caring, and even more conscious than adults are. (5)

According to researchers included in this dissertation, children are natural philosophical thinkers, in that they ponder the meaning of experience while asking questions of origin. They judge actions based on a moral system derived

from their own feelings and observations and develop unique world views that include a deeply personal spirituality.

It is time for academicians concerned with philosophy and religion to pay attention to these findings. Some college-level courses generally referred to as "children's studies" examine many aspects of childhood, including children's literature and Philippe Ariès' (1962) historical observations. An interdisciplinary bachelor of arts degree in children's studies was founded in 1991 at Brooklyn College, City University of New York (2011). In addition to the history of childhood, this baccalaureate program includes the human rights of children, autobiography as an inquiry into the child's self, the child's imagination, and other related courses. The Department of Childhood Studies, Rutgers University, Camden (2011), offers a master's degree program and the first doctoral program available in childhood studies.

How intriguing and informative it would be to have children themselves with their own deep thoughts and experiences included directly in such courses, whenever possible, where they are invited to offer feedback and demonstrate their perspectives and creativity. In *Children's Perspectives on Believing and Belonging*, G. Smith (2005) states:

> Within the United Nations Convention on the Rights of the Child, drawn up in 1989 and ratified by the UK in 1991, article 14 enshrines *the right of the child to freedom of thought, conscience and religion*. Our research and conversations with children convince us that such a right can be meaningful to children, and that they are capable of being religious and social actors in their own right, and of articulating views on issues that affect them, which ought to be listened to. (67)

Recently, child prodigies have come to the forefront in the media, especially as guests on television talk shows. Although the following two children are exceptional, many such children could be invited to these classes to advocate for all children in this culture. The National Foundation for Gifted Children (2011) estimates that approximately three million children, or six per cent of the elementary, junior, and high school student population in the United States, are academically gifted.

Gregory R. Smith (2006) graduated Cum Laude in 2003 from Randolph-Macon College at the age of 13 and was nominated for his first Nobel Peace prize at twelve. In addition to articles in several newspapers and magazines, *The Aquarian Theosophist* notes that Gregory has been an advocate for the Rights of the Child and asks that children be considered each country's greatest resource (6-8).

The young artist Akiane (2000) began drawing in a fashion far beyond what is usually expected of a four-year-old. At five, her paintings displayed a style and quality that have made them an international phenomenon. She also writes poetry. According to her website, Akiane's purpose is to share her love for God and to help people worldwide.

If the academic world would grasp the significance of what certain disciplines have now noted about the nature of the child, important changes could be implemented in birthing and nurturing practices, child psychology, developmental theories, and the education of children. Meaningful change that

enhances the lives of children would benefit the human species as a whole. Perhaps empathy would replace modern aggressive and dominating tendencies.

Personal Significance

More than fifty years after the fact, I am doing what I was drawn to do at the age of eight or nine: to write about who children *really* are. Many adults seemed confused about how to be with children. At that time, I imagined myself writing about what I was observing and how children should be treated. It was clear to me that such writing, by a child, would not be well-received. I sometimes heard my own thoughts as an adult voice in my head, but I knew I was not expected to speak from that place, so I did not and nearly forgot who I was even before I was sent off to school to become a mere container for thoughts that were not my own. Today, the secret world of young children is slowly surfacing.

As an adult, I have met others who remember that grown-up inner voice as part of their child consciousness which was subsequently silenced. Had I been allowed to pursue my own interests in the learning process as is possible in free and democratic schools such as Sudbury Schools, that guiding inner voice would not have been reduced to vague intuitive feelings that became too easily confused with conditioned thoughts. Years of sitting in desks, so unhealthy for growing bodies, and years wasted on meaningless information, have distorted many lives. A good and obedient student myself, I was confused by the unhappy children in my classes, especially the boys, and realized as a young adult how essential it is to follow one's heart in the learning process, impossible in the Roman Catholic and public schools where I was educated.

What I most needed to learn, what I loved to learn, would perhaps have become my life's work. Or there may have been many different paths over a lifetime to fulfill my particular passions. No longer living the child experience myself, I continue to have deep empathy for all children and for the consequences of the silencing of their voices that I have observed in American culture.

This dissertation is the result of much of what I have learned from my own experiences, from observations of a lifetime, including my presence at four births (hospital, home, and water births), the parenting of two children, and facilitating the learning process as a teacher. These experiences, and my particular responses to them, led me to begin undergraduate school in my forties. The books and research material found here, some of which have been written only recently, add relevance to, and support for, a vision of a paradigm shift in the perception of childhood and the significance of a peaceful birth and holistic education.

My experiences with older children have taught me that they are keenly interested in the new sciences. I designed and facilitated art workshops for adolescents and adults based on Leonard Shlain's *Art and Physics* (1991) in which I included some of the material that supports the thesis of this dissertation. I intend to use the internet and my abilities as an artist in both traditional and digital media to present concepts from quantum physics, new biology, consciousness studies, and deep ecology to children and young people, as well as older learners, and to help educate the public about natural childbirth and holistic education.

Societal Significance

Lloyd DeMause, founder of the discipline of psychohistory (1982), discovered the particular cultural imagery and symbolism that emerges and escalates in a country that is about to engage in war. He correlates these with parenting styles and is convinced that a change in the nurturing and emotional health of a nation can shift the direction of that nation from war to peace. This dissertation advances DeMause's perspective by including field theories and consciousness studies.

The emergence in popular culture—in books, on television, DVDs, and the internet—of the precocious Indigo and Crystal children, as they are sometimes called, offers an opportunity to learn from children who do speak in their own voices. These children have been called "system busters" (Carroll and Tober 1999). They readily and easily recognize insincerity, hypocrisy, and deception. Many of these children cannot emotionally self-regulate, generally an unrecognized result of trauma during the primal period surrounding birth. They may remain frustrated by what they observe and feel and, consequently, act out inappropriately, only to be repressed, often by prescription drugs. The founder of The National Foundation for Gifted and Creative Children, Marie Friedel (2011), reports that many gifted children are "being destroyed in the public education system" and that many of these children are "being falsely labeled with ADD as well as ADHD" (1). The need for appropriate responses cannot be overly emphasized if one comprehends the thesis behind this dissertation.

An abundance of reincarnational material points to the possibility that some children know, even prior to their birth, that they have a purpose in this lifetime. If they forget, they may be lost to fate, that is, lost to a kind of default mode of existence or the habitual resonant fields of family and culture. Alberto Villoldo (2005) contends that fate is predetermined by family, history, genes, and emotional wounds from this and previous lifetimes. Villoldo states the following:

> Destiny . . . is the purpose and calling of a life, and it can be discovered and realized. Whereas the early Greeks believed that fate was spun from a certain thread, and that once it was woven into a cloth it was irreversible, they saw destiny as a force or agency that could intervene to reweave the cloth of fate. I believe that destiny . . . requires that you become conscious of your past wounds and respond to the calling you were born with, and you can then steer the course of your own life. (14)

Are children reweavers who attune to their destiny and in that way help shift *our* destiny? Does wounding during the primal period add momentum to the unfolding fate of an unconscious humanity speeding ahead into an abyss? Society can learn a great deal about itself by attending to the lives of its infants and young children. In the last three decades, therapists and educators have noted increased levels of the violence and suicides of young children. They have also noted increasing numbers of highly insightful, precocious, and psychic children who often seem to remember a reason or purpose for their birth.

Researchers emphasize the need of an infant to be with his or her mother from the moment of birth—worn on her body, slept with at night, and nursed when hungry—until the baby initiates his or her own exploration away from the mother (Chamberlain 1998; Gerhardt 2004; Liedloff 1977; Small 1998). The typical birthing process today violates mother and child bonding. For the mother,

a powerfully fulfilling experience is often displaced by post-partum depression. Sharron Humenick (2003), professor and Department Chair of Maternal Child Nursing at Virginia Commonwealth University in Richmond, Virginia observes:

> Today, the majority of women are encouraged to choose a more passive laboring role for themselves, such as an epidural or even a cesarean birth. They are rarely presented with knowledge about the advantages of a normal birth, let alone encouraged to think of normal birth as the gold standard. Based on current practice, one can conclude that the dominant message of the American culture is that the goal of childbirth is limited to delivering intact infants in as efficient and pain-free mode as possible, with ever-increasing reliance on technology. . . . It needs to become well known that for some mothers, a well-supported active birth may create a powerful peak experience—a rush with after effects—a flow experience—that can positively change a woman's life. . . . Women seeking birthing environments for promoting ecstatic births could be a powerful force in changing the birthing culture altogether. (6-7)

For generations, multitudes of children may have unknowingly released unconscious material upon all of us because of unhappy births and childhoods. With our encouragement and love, children, the naturally resilient, forgiving, and loving beings that they are, may well shift the direction away from modernity's dark path of destruction to one of planetary regeneration.

Definition of Terms

1. Prenate: This term is sometimes found in papers, journals, and books associated with prenatal and perinatal psychology, but it is not yet considered a formal term for the unborn child. Generally *fetus* is used in place of *prenate* here, and the embryonic stage is implied in order to avoid the repetition of embryo in "embryo, fetus, newborn, and young child."

2. Non-Ordinary: States of consciousness that are termed non-ordinary by various authors may actually be trance, or theta states, normal and natural to children.
3. Collective Consciousness: The definition for Carl Jung's theory of the collective unconscious, also referred to by Jung (1983) and Rupert Sheldrake (1999) as "collective consciousness," that best expresses the meaning in this dissertation is stated succinctly by Jolande Jacobi (1973) in *The Psychology of C. G. Jung*,

> By "collective consciousness" we mean the aggregate of the traditions, conventions, customs, prejudices, rules, and norms of human collectivity which give the consciousness of the group as a whole its direction, and by which the individuals of this group consciously but quite unreflectingly live. (29-30)

Methodology and Theoretical Approaches

This dissertation is a multi-disciplinary and theoretical study that arises, in part, from engagement with research into consciousness studies and transpersonal perspectives previously focused on adults. Prenatal and perinatal psychology establishes that fetuses and newborns are consciously aware beings, but the research has yet to become mainstream and is marginalized by certain conventional scientific and medical communities. Nevertheless, more than twenty years of studies, journal articles, and books point to the consequences of unnecessary birth trauma caused by this culture's mechanistic perceptions of mothers, fetuses, and newborns. Anthropological research suggests a correlation between birth and nurturing practices and cultural peace or violence.

Studies and research into the memories of fetuses, newborns, and young children lead to the question, how do these children know what they know? Included here are documented descriptions of young children's psychic and spiritual experiences and their knowledge of what cannot be known in any usual way. Aspects of Carl Jung's theories and descriptions of the collective unconscious, of synchronicity, the radiant child archetype, psychoid states, and of reincarnation are included and are referenced by a number of the authors referred to in this dissertation to help explain a child's influence on the collective.

Rupert Sheldrake's (1995, 2009) hypothesis of morphic resonance has a relationship with Jung's concept of the collective. Expanding on Sheldrake's thesis with the inclusion of the child as central to collective consciousness, this study claims that fetuses, newborns, and young children transforms collective consciousness, not at some later time in adulthood, but actively, while they are still children.

The focus here is on children from conception through pre-adolescence. The hormonal shifts that takes place in adolescence, including a prefrontal cortex growth spurt at approximately the age of 15, place older children beyond the scope of this study.

CHAPTER TWO: FROM GREAT EXPECTATIONS TO NORMALIZED ABUSE

Introduction

The rate of increase of life-style diseases in the United States and the widespread use of anti-depressant drugs and pain medications may be indicators of the suffering of the American public, a population largely disconnected from the natural world and from considerations of deep soul. As a result, children too are suffering with manifestations of a variety of diseases of the body and psyche, including diabetes, obesity and other eating disorders, autism, and depression, reducing their life expectancy compared with that of their parents.

Pamela Belluck (2005) in a *New York Times* article "Children's Life Expectancy Being Cut Short by Obesity" states:

> Obesity is such that this generation of children could be the first basically in the history of the United States to live less healthful and shorter lives than their parents.

In addition, children are increasingly becoming addicted to street drugs and to pharmaceuticals at younger ages.

Our children are like canaries in a coal mine, warning of an evolutionary regression into self-destruction. Often, the child's most impressionable experiences, prenatally, during birth, and shortly afterwards, are highly stressful. Without the ability to emotionally self-regulate, in part due to separation from the mother at birth, many young children have become more stressed and distressed

than ever before. James Prescott (1979), one of the first researchers to correlate violence in America with separation from the mother in hospital births and with other invasive procedures during the primal period asserts, "We seem to be suffering from breakdowns in affectional bonds -- reflected in everything from rates of divorce to sexual crimes, alcoholism, and drug abuse" (1979).

Neglect of the suffering of children by the general population may be, in part, a consequence of culturally conditioned repression and an unconscious denial of painful childhood experiences. This normalized abuse first took place en masse in the United States in the 1940s with the onset of hospital births and a resulting sense of separation from the natural world and from one's own spiritual nature. Projected outward, this primal pain threatens the self, culture, and the natural world. Michel Odent (2001) in *The Scientification of Love* comments:

> It would take volumes to present a comprehensive study of the characteristics of a great number of cultures in relation to how they challenge the maternal protective instinct during the sensitive period following birth. However, a simple conclusion can be drawn from a rapid overview of the data we have at our disposal: the greater the social need for aggression and an ability to destroy life, the more intrusive the rituals and beliefs have become in the period surrounding birth. (24)

This chapter presents an overview of certain aspects of early human development and the evolutionary expectations that have been an integral part of human nature since ancient times. The minds of fetuses and newborn babies are not *tabula rasa*, as some still believe. These tiny babies have knowledge and language, they learn readily, and they are ripe for the imprinting that functions as a lens through which life's meanings will present themselves.

The first part of the chapter draws attention to the beginnings of the life of a child, to the development and expectations of an infant, the infant's intimate relationship with his or her mother, and to the sense of deprivation that may result from modern birth and nurturing styles.

The second part suggests that much of the conditioning that conflicts with the innate expectations of mother and child can be attributed to scientism's promotion of technological and medicalized birth as well as a materialistic approach to life, including a belief in genetic determinism that clouds the perception of the significance of the primal period. This period is generally accepted as the time from early fetal development through the first year of life (Odent 2001).

Part three explores some of the abuses that have become a normal part of children's lives and is limited to a few examples from a multitude of disorders related to birth, nutrition, and a violent lifestyle. Unnatural substances and artificial techniques replace nature's perfected designs and chemistries. As a result, babies today are exposed to procedures and toxic substances that are life-threatening.

Biological Development and Expectations of the Child

In his quest to discover the deep nature of the fetus and newborn child and of the mother-child bond, David Chamberlain (1998) found that a woman's intuition is so precise that some mothers are aware of the very moment of conception. Ten weeks later, all of the necessary physical structures of the developing fetus are in place. Research on the phenomenon of mother and unborn

child dreaming together points to a subtle emotional dialogue that is essential for both. At 14 weeks, a fetus may respond to any invasive disturbance. At about 18 to 20 weeks, the sense of taste is well developed, and the ability to hear is in place.

Bruce Lipton (2005) attests to the significance of the environment of a child prior to birth. He argues that a negative environment can lead to dysfunction and to disease later in life. Lipton describes conditions within the womb as well as the external environment perceived by the mother that help or hinder the healthy development of her child. A fetus experiences the mother's environment *with* her—emotionally, chemically, and energetically. Stress hormones enter the mother's bloodstream and are experienced as fight-or-flight responses by her and her unborn child.

An unhappy mother is communicating her perceptions to the child within her, and the fetus is growing accordingly. If she is stressed, the forming fetus becomes agitated while the lower brain, brainstem, receives hormonal fight-or-flight responses. Lipton (2005) explains, "Adrenal stress hormones constrict the blood vessels in the forebrain reducing its ability to function," thus repressing the activity of the volitional prefrontal cortex (150). The cerebral cortex, therefore, develops more slowly, and the tiny body is more prone to stress. High doses of adrenaline prenatally, over a long period, may help explain the inability to process adrenaline in some hyperactive children.

According to Candice Pert's (2003) research at the National Institute of Mental Health, prior to the myelination of the newborn's cortex and as early as

the first trimester, there is evidence of memory associated with the brainstem. Lipton (2005) explains, "The fetal and infant nervous system has vast sensory and learning capabilities and a kind of memory that neuroscientists call implicit memory" (156). It is clear that fetuses and newborns perceive and think because they have been shown to be excellent learners. David Chamberlain (1998) suggests that we might think of the brain as a "biocomputer used by the mind" (186). Brain health is extremely important because the mind may have limited expression if the brain is not functioning well.

When a mother drinks alcohol or smokes, the infant can taste these substances in the amniotic fluid, and the fetuses' refusal to ingest the fluid results in low birth weight. During the last months, the precious colostrum is being prepared. It is the protective substance of immunity in the mother's breasts that many hospital-born babies never receive.

Birth and the Newborn Infant

At about 40 weeks, the unborn infant sends hormonal signals that commence the birthing process, but in hospitals, births are often induced. Mother's are generally given chemicals that may create a stressful situation resulting in a caesarean birth. Caesarean sections have increased to nearly one in three births, 31.8 percent in 2007, according to the National Center for Health Statistics (2010). Verny and Kelly (1981) explain: "Surgical delivery deprives a child of the physical and psychological pleasures a vaginally born infant experiences" assuming a natural or orgasmic childbirth (121). They state that these children may have difficulty with the concept of space and often

demonstrate a great need for physical contact. Decades ago, Ashley Montagu (1971) recognized disadvantages due to "the failure of adequate cutaneous stimulation" in caesarean-delivered births (57).

A *New York Times* article by Julie Scelfo (2008), "Baby, You're Home," reports that many women are uncomfortable with the idea of hospital births because of their inability to be in charge of the process and because of the 50 per cent increase in Caesarean sections between 1996 and 2006 (1). Scelfo quotes Élan V. McAllister, founder of Choices in Childbirth:

> "In your home you're able to move around and be in the tub or in the shower. You're able to eat and behave in a natural, more normal way. If you believe birth is not a medical emergency, it is the ideal place because it's the place you can really let go and follow what your body wants you to do." (1)

Scelfo (2008) explains that since 1975, the American College of Obstetricians and Gynecologist's official policy has been opposed to home births and that in 2008 the American Medical Association adopted a similar stance. Steven Stack, a board member of the AMA asserts, "Serious complications can arise with little or no warning even among women with low-risk pregnancies" (quoted in Scelfo, 4).

Although there are several DVDs available promoting home births and water births, one in particular caught the attention of the American Medical Association. Scelfo (2008) states that the documentary, "The Business of Being Born," produced by actress Ricki Lake, has become popular among expectant parents including a number of professionals such as "lawyers and bankers" (1).

The American Medical Association House of Delegates responded with Resolution 205 (A-08):

> Whereas, There has been much attention in the media by celebrities having home deliveries, with recent Today Show headings such as "Ricki Lake takes on baby birthing industry: Actress and former talk show host shares her at-home delivery in new film" . . . RESOLVED, That our American Medical Association support the recent American College of Obstetricians and Gynecologists (ACOG) statement that "the safest setting for labor, delivery, and the immediate post-partum period is in the hospital, or a birthing center within a hospital complex, that meets standards jointly outlined by the American Academy of Pediatrics (AAP) and ACOG, or in a freestanding birthing center that meets the standards of the Accreditation Association for Ambulatory Health Care, The Joint Commission, or the American Association of Birth Centers (New HOD Policy). (American Medical Association, 2008)

What is not admitted is that many complications that arise during hospital births result from interference in the birthing process. Michel Odent (2001) maintains:

> Any stimulation of the mother's neocortex – talking to her rationally, surrounding her with bright lights, making her feel observed, insecure or otherwise stimulating her release of adrenalin – tends to inhibit the birth process. (35)

In contrast, Scelfo (2008) reports that the United Kingdom Department of Health has a "national choice guarantee" to ensure that women can choose their own home, a birthing center, or a hospital birth and have access to a midwife.

The Royal College of Midwives (RCM) and the Royal College of Obstetricians and Gynaecologists (RCOG) support home birth for women with uncomplicated pregnancies and acknowledge in their 2007 statement: "There is no reason why home birth should not be offered to women at low risk of complications and it may confer considerable benefits for them and their families" (1). The RCM and the RCOG statement continues:

> There is ample evidence showing that labouring at home increases a woman's likelihood of a birth that is both satisfying and safe . . . Furthermore, the studies into women's descriptions of home birth experiences have produced qualitative data on increased sense of control, empowerment and self esteem, and an overwhelming preference for home birth. (2007, 1-2)

In addition, the RCM and the RCOG state:

> The observational data available show lower intervention rates and higher maternal satisfaction with planned home birth compared with hospital birth. Overall, the literature shows that women have less pain at home and use less pharmacological pain relief, have lower levels of intervention, more autonomy and increased satisfaction. . . . UK maternity policies recognise that, for the majority of women, pregnancy and childbirth are normal life events and that promoting women's experience of having choice and control in childbirth can have a significant effect on children's healthy development. (2007, 2-3)

According to Liedloff's (1977) Continuum Concept, common to happy babies and mothers are certain behaviors that correspond to ancient expectations of the mother and of the newborn child but are generally not found in hospital births in the United States. In many traditional cultures, the mother immediately holds and calms the newborn child. Only after the umbilicus stops pulsing, and the infant can breathe independently, is the cord cut and separated from the infant. The infant is then offered the breast.

David Chamberlain (1998) reports that babies at birth have coordinated senses; their eyes and head turn toward sounds, and hands protect eyes from bright lights. Infants attend selectively and will stop eating to pay curious attention to something happening in their immediate environment. He explains that they are more sensitive to phonemes than adults, and spectrographs of speech matching the mother with the infant indicate that the fetus has been learning speech even before birth. A newborn may listen attentively to the mother while

she reads but stops listening if the mother reads the words backwards. Chamberlain contends that a baby at birth is ready for "intimate dialogue—words or no words" (81).

According to Chamberlain (1998), a baby's facial expressions are meaningful and express all human emotions. Faces are very attractive to newborns, particularly the mother's face and her expressions. Psychologists discovered that an infant who spends only a few minutes with his or her mother can recognize her face from among several photos. An infant's sight is well developed at the distance for gazing into the mother's eyes. This mutual gaze can last for most of an hour immediately after birth if the infant is given to the mother directly (49, 83).

The relationship between mother and infant is reciprocal in many ways. For example, the infant needs the mother to help regulate body temperature, heartbeat, and stress, and the infant's cries help release the mother's milk. An infant learns how to self-regulate emotionally through physical contact with the mother's body. Mothers have consistently held their babies near their hearts, and this image is reflected in paintings and sculptures throughout history where babies are held on the mother's left side. Carrying babies on the mother's body offers the infant an opportunity to nurse when hungry, to feel safe and loved, and to learn how to self-regulate emotionally.

Jean Liedloff (1977) lived for several years in a jungle near the Brazilian border of Venezuela observing the peaceful Yequana tribe, their family life, and their manner of caring for children. Her observations of an entirely different

culture from any in the West, an ancient culture, led her to develop the Continuum Concept, a philosophy concerned with the expectations of newborns that have evolved over millennia and that are integral to the health and well-being of mother and child. Liedloff observed a natural way of being with babies and young children that provides a loving care based on deep intuition. She believes this nurturing style is as essential now for babies as it ever was in the past.

Liedloff (1977) maintains that for millions of years a baby was held and carried on the mother's body and, although for the last few generations babies may have been deprived of this need, they are still being born expecting to be in their "rightful place" without interruption. Their cortisol levels remain low as long as they are held, stroked, fed in arms, and rocked. Liedloff asserts that the baby does not come prepared for being placed in a "plastic box without motion, sound, odor, or the feel of life" (36), and that newborns often spend their time in hospital nurseries wrapped in "dry, lifeless cloth" where the only sounds heard are "the wails of other victims of the same ineffable agony" (60).

It is best for the mother and baby if the mother feels emotionally secure, for these feelings are shared directly with the infant. Sue Gerhardt (2004) is in agreement when she states, "Human babies are born with the expectation of having stress managed for them" (65). Liedloff (1977) claims that an infant remains relaxed when he or she is in constant contact with the mother because excess energy is discharged for both by her activities alone. A child in a crib or stroller cannot discharge energy and may remain in an uncomfortable emotional

state. In addition, the baby may not learn how to self-regulate if the mother is unable to do this for herself.

Touch

An extraordinary example of the significance of a mother's touch was recently reported in an Australian article, Mail Foreign Service (2010), titled "Miracle Mum Brings Premature Baby Son Back to Life with Two Hours of Loving Cuddles after Doctors Pronounce Him Dead." Kate Ogg talked to and cuddled her lifeless, premature infant son next to her skin as her way of saying good bye to him. Two hours later, he began showing signs of life. The doctors dismissed this as reflex actions. She offered him her finger with a little breast milk, and he opened his eyes and began breathing normally. The Australian mother spoke publicly about her experience, highlighting the importance of skin-to-skin contact with newborn babies.

According to the Mail Foreign Service (2010) article, British hospitals are beginning to take advantage of the significance of this essential contact. Most often, premature babies are rushed to intensive care, but what has come to be called the *kangaroo care* technique allows mothers to become human incubators and keep babies warm and stimulated. These infants have shown improved sleep patterns and are healthier, overall, than those placed in incubators.

Perhaps surprisingly, this is not a new idea. Chamberlain (1998) mentions this kangaroo method in *The Mind of Your Newborn Baby* and notes that this had previously been done in Bogotá, Colombia, and describes it as follows:

> Instead of placing the preemies in incubators, pediatricians "packed" them head-up between their mother's breasts to be carried about. With mother's milk, heartbeat, voice, and constant activity going for them, rates of infection, illness, and death fell. (50)

It may be possible that women in the past knew to care for especially vulnerable infants in this way, for indigenous women seem to naturally sense the importance of carrying infants on their bodies.

Research by Nyquist et al. at the Karolinska Institute in Stockholm (2010) resulted in the following recommendations offered at the First European Conference and Seventh International Workshop on Kangaroo Mother Care:

> The kangaroo position provides a neutral thermal environment that provides immature infants with optimal thermal regulation, which is the same or better than provided by an incubator. KMC enhances bonding and attachment; universal human needs that apply to all preterm and LBW [low birth weight] infants, their parents and families. Avoiding unwarranted mother–infant separation and initiating the kangaroo position as early as possible helps repair a bonding process that is disrupted by delivering a preterm or ill infant. KMC helps reduce maternal postpartum depression symptoms and increases parental sensitivity to infant cues. Initiation of KMC as soon as possible is essential for the establishment of breastfeeding . . . KMC has positive effects on infant/parent psychological development and the development of mutual communication, understanding and social recognition, reduces parenting stress and contributes to an optimal family home environment.

Rightness

Jean Liedloff (1977) defines the "correct" way of being with babies as follows: "What is meant by 'correct' is that which is appropriate to the ancient continuum of our species inasmuch as it is suited to the tendencies and expectations with which we have evolved" (22-23). The idea that certain expectations inform and direct the essence of being may be expressed by the term *entelechy*. Christian de Quincey (2002) reminds us that Aristotle first referred to

this concept, and more recently, Hans Dreisch in biology. De Quincey defines entelechy as follows: "Entelechy is innate and inherent in all substances, or processes—as a soul—and acts from within to bring about change and development" (250). It may be considered the guidance or the rightness felt when one is living true to one's own nature.

Liedloff (1977) explains *rightness* as *"the basic feeling about self that is appropriate to the individuals of our species*" and that this sense of rightness helps us claim our basic needs for "comfort, security, help, companionship, love, friendship, things, pleasure, or joy" (34; italics in the original). Without rightness there is a feeling of emptiness.

According to Liedloff (1977), the very "design of each individual was a reflection of the experience it expected to encounter" and that to know what is correct for any species "one must know the inherent expectations of that species" (24). When these expectations are not met, the individual of any species will either adapt or fail to thrive. These adaptations are evolutionary if survival is enhanced, but when health and well-being are compromised, the ability to adapt may become very difficult for the individual and for the species.

A modern mother experiencing the birth process in a hospital environment, may unconsciously feel deprived of the fulfilling experience common to a natural childbirth. She may feel disconnected from her own intuition and inadequate as a mother. Liedloff (1977) explains that when mothers do not feel motherly, they may sometimes feel guilty, or they may withdraw love when care of the infant is perceived as "work." Liedloff comments on a modern

mother's postpartum depression, an experience which is particularly tragic precisely when she is "exquisitely primed for one of the deepest and most influential emotional events of her life" (60). Liedloff continues:

> If the imprinting is prevented from taking place, if the baby is taken away when the mother is keyed to caress it, to bring it to her breast, into her arms and into her heart, or if the mother is too drugged to experience the bonding fully, what happens? It appears that the stimulus to imprint, if not responded to by the expected meeting with the baby, gives way to a state of grief. In the formative eons of human births, when there was no object for the mother's surge of tenderness it was because the baby was stillborn. The psychobiological response was one of mourning. When the moment is missed, the stimulus left without a response, the assumption is that there is no baby and the imprinting urge must be annulled. (59)

When home, the newborn is generally placed in a separate room, often in a crib with a toxic mattress produced by a culture that has indiscriminately ignored the consequences of its use of toxic substances. The infant may be fed with plastic bottles that contain toxic phthalates and with formula that may entirely lack certain essential nutrients found only in mother's milk. The child naturally expects co-sleeping with the mother, being "worn" on her body, and nursing at will.

Liedloff (1977) reports that vomiting and "spitting up" do not happen for Yequana infants, nor is there a need to "burp" them. She asks how it is that a single species evolved in such a way as to suffer indigestion after drinking its own mother's milk and tells us that this is one way that our babies demonstrate to us that they are distressed.

Liedloff (1977) contends that a newborn is in a state of consciousness that is all sensation and is fully expectant that its needs will be met. When expectations are not met, when the infant is no longer in the arms of its mother, he

or she has no way of reasoning or thinking that the mother will return. The child becomes distressed, for everything seems to have gone wrong. If the child is left to cry for too long a time, this crying, meant to make things right again, is given up in hopelessness. Liedloff explains that during the experience of abandonment nothing is acceptable, for the infant's "continuum of correct experience" is not being met. Liedloff adds:

> There is nothing to use, to grow on, to fulfill his requirement for experience, for the experiences must be the expected ones and nothing in his evolving ancestors' experience has prepared him to be left alone, asleep or awake, and even less to be left alone to cry. (33-34)

On the return of the mother, all is right again. Because infants live primarily in the present moment, there may be no conscious memory of what had previously gone wrong.

Leadloff (1977) maintains that at home "waking hours are passed in yearning, wanting, and interminable waiting for rightness" (62), and adds:

> The mother comes in, from time to time, to take care of basic needs. The infant is thrilled, for now he or she feels loved and all is well. Then, because she has been told not to carry the baby around, she returns the infant to its crib. In her heart she knows something is wrong. . . . Through the door she hears what sounds like someone being tortured. . . . Nature does not make clear signals that someone is being tortured unless it is the case. *It is precisely as serious as it sounds.* (63; italics in the original)

Our culture has assumed that the toys and decorations of a fancy nursery stimulate a baby, but Liedloff (1977) insists that these do not console a "grief-stricken infant." A strong attachment to a teddy bear, doll, or special blanket given to the baby to sleep with is not charming or cute but a "manifestation of acute deprivation in a child reduced to clinging to an inanimate object in hunger for a companion who will not desert him" (66).

Liedloff (1977) warns that deprivation of experience, sometimes gone unnoticed in our culture, can result in a considerable loss for the infant with later consequences acted out in the growing person. Babies encourage us to treat them to stimulation and excitement. Instead, they are often treated as if they are fragile and can become dull and slow for lack of stimulation. She reminds us that certain problems with verbal abilities are associated with the deprivation of crawling on hands and knees. Liedloff explains, "The modern human's disconnection from our own continuum affects all areas of our culture, fragmenting us and sometimes leading to bizarre behaviors." She reports on what the World Health Organization and Dr. John Bowlby had learned in the 1950s working with orphaned children who were "severely deprived" (73). These children, unable to form attachments, clung to mother figures and regressed to infantile behaviors, demonstrating what Bowlby referred to as an "affectionless character" (quoted in Liedloff, 73).

Liedloff (1977) argues that "the object of a child's activities . . . is the development of self-reliance. To give either more or less assistance than he needs tends to defeat that purpose" (85). A Yequana mother contributes in a passive way to what the baby desires by complying but not adding anything extra to the experience. Modern mothers feel a need to control the experiences of their children and prevent exploration with warnings that the child will get hurt, fall, or contract a disease. One of the deepest impulses of human nature is the need to be social and to perceive what is expected. Perceiving the mother's expectations of injury and illness, the child will unconsciously comply.

Scientism and Prevailing Modern Assumptions

Mary Clark (2002) once held the notion that science would ultimately resolve issues of how we perceive the universe by combining the knowledge of many disciplines and coming to a "single, scientifically-based explanation" (39). Clark came to realize instead that Western science still holds to what she describes as the Billiard Ball gestalt in which the universe is made up of "discrete objects" with "distinct boundaries" and in which "predictable 'laws' govern events" (39-40). Social scientists, promoting an individualistic view of human nature, describe social interactions in terms of cause and effect. Clark asserts that we are viewed as "living in a world of scarcity" and that we compete like "rational objects" (8). Clark notes the following about this Billiard Ball perspective:

> Our pro-social feelings are merely a form of self-deception to cover up the fact that our selfish genes are really driving each of us to serve what is in our own best interests. (8)

Clark emphasizes that this particular perspective implies we survive only by exploiting others.

Although physics has discarded the concept of a deterministic universe, Clark (2002) tells us that evolutionary biologists, neoclassical economists, and behavioral psychologists have a "rather unpleasant picture of human nature" and that it is their cultural biases that continue to influence us, and these biases need to be revised (40).

Clark (2002) asserts that certain groups of vocal scientists promote their ideas through the popular press and create a biased picture of human nature. One

example, promoted by male-dominated science, is the story that women's breasts developed to attract males despite Darwin's understanding that it is the female's choice of the male that has evolutionary significance. Clark notes that there is no actual evidence for that story, yet it is represented as fact in textbook illustrations and museum depictions of our ancient ancestors. She concludes that what actually makes sense is the adaptive development of female breasts to help maintain eye-to-eye contact during nursing, shown to be essential in mother and child bonding.

Clark (2002) says, "The obvious success of twentieth-century science and technology have accorded the pronouncements of modern science a status once reserved for religious doctrine" (47). Clark argues in agreement with British philosopher Mary Midgley who decries attempts to reduce the human psyche into the "arbitrary units of thought" called memes, analogous to genes, eliminating subjective inquiry and insight and thereby "discrediting *meaning* and *value* as appropriate aspects of human nature" while reducing human beings to "meaning-free objects" (49; italics in the original).

Clark (2002) describes the manner in which science selects, simplifies, and based upon political views of the scientists at the time, interprets for us using the "conceptual language of a particular time and place" (53). Although many proponents of mainstream science insist it is the only way of knowing, Clark states that a science based on a Billiard Ball model of reality "offers no wisdom, no guidance, no existential answers whatsoever" (51). She states that the distortions around our understanding of human nature have caused humanity to appear more "dislikable" than we actually are.

Clark (2002) quotes philosopher Alfred North Whitehead who warns against abstractions and suggests that we need to revise them vigilantly. Whitehead says, "A civilization which cannot burst through its current abstraction is doomed to sterility after a very limited period of progress" (quoted in Clark, 54). Denouncing the concept of competing for survival, Clark concludes that we adapt by changing the way we think, by changing our minds.

Edith Cobb (1977) expresses concern about scientism and its inappropriate applications to forms of inquest that are not creative collaborations. Cobb warns that "overspecialization" threatens any species when it interferes with the ability to "change and adapt" and suggests the necessity to encourage imagination through a "cooperation among disciplines" (110).

Bruce Lipton (2005) promotes the understanding that both mind and environment may affect genes. Lipton explains that "scientism" has given the public the impression that the nucleus of a cell, where the genes reside, is the brain of the cell, but enucleated cells do not die when they lose their "brain;" they simply cannot reproduce. The nucleus is the cell's gonad. Lipton continues:

> Confusing the gonad with the brain is an understandable error because science has always been and still is a patriarchal endeavor. Males have often been accused of thinking with their gonads, so it's not entirely surprising that science has inadvertently confused the nucleus with the cell's brain! (66)

The brain of the cell is its membrane. Lipton reports that cells are attuned to their environment and respond by changing their genes to adapt. Nevertheless, some scientists still promote the idea that we are victims of our genetic heritage, even though recent work on the effect of stressful life events on the functioning of the

epigenome has replaced earlier notions of simple causality through the presence of particular genes.

Bruce Lipton and Steve Bhaerman (2009) describe scientism's rise in position: "In light of science's perceived miracles, the dogmatic religion of monotheism gave way to the dogmatic religion of scientific materialism, or scientism" (61). They comment on the problematic "central dogma" in molecular biology known as the primacy of DNA that creates the impression that life somehow "emanates from material genes" (130). Lipton and Bhaerman state, "By adopting an unverified dogma and making it the very foundation of biomedicine, scientific materialism officially and ironically slipped into the realm of religion!" (131).

Emphasizing the dogmatic position of scientism, Lipton and Bhaerman (2009) describe the treatment of Howard Temin and Frederik Nijhout as "heretics" because of their discoveries that brought the primacy of DNA into question. This information was prevented from receiving the positive attention it deserved.

Temin received a Nobel prize in 1975 for his discovery of reverse transcriptase that demonstrates information flows from DNA to RNA. Lipton and Bhaerman (2009) explain that RNA sends information back to DNA indicating "hereditary changes can be made by design or environmental influence and not only by accidental mutation as had been presumed" (132). Nijhout's work as a biologist proved that environmental signals can control gene activity. Nevertheless, the media and pharmaceutical industry continue to promote the

primacy of DNA ignoring the influence of the environment on genetic information. Lipton and Bhaerman continue, "The concept of genetic determinism is so resonant with the prevailing dominant basal paradigm that even irrefutable scientific proof cannot dislodge it" (133).

Michel Odent (2001) refers to the tendencies of some scientists to judge certain research as disagreeable to them and to treat this work as "politically incorrect," preventing or discouraging publication in major journals and further research. For many years research has shown clear correlations between the experience of the period around birth, or the primal period, and later psychological and physical illnesses and disorders. Odent explains, "Despite the publication in authoritative medical or scientific journals, the findings are shunned by the medical community and the media" (19).

The Yequana people of South America, with whom Jean Liedloff (1977) lived for several years, were shocked to learn that modern mothers read books, often written by men, to learn how to care for their babies. Liedloff asks that we make of the intellect "a competent servant instead of an incompetent master" (43), but science continues to implement technological trauma in place of a more natural experience, and many mothers continue to participate. Liedloff explains:

> The expectation of taking part in a culture is a product of our evolution and the mores that are seized upon by that expectation are, when assimilated, as integral a component of our personalities as the inborn ways of other species. (40)

How well do mothers and babies adapt to a mechanistically and technologically oriented culture? How does consciousness evolve when an increasingly artificial reality is emphasized over natural, organic processes? The

mechanistic theory that originated in the seventeenth century considers living organisms equivalent to mechanical systems and continues to be foundational in biology and medicine and influential in Western thought, thus presenting a degraded view of human beings and of our relationship to the natural world.

Scientism sometimes suppresses evidence that the primal period around birth imprints the future ability of a child to love and to be healthy (Odent 2001; Prescott 1979, 1992, 2002) and instead promotes genetic determinism as responsible for social and health problems. The capacity to love, easily inhibited during that strategic time around birth, is compromised in Western culture. Odent (2001) states:

> From an overview of our data bank it appears that when researchers explored the background of people who have expressed some sort of *impaired capacity to love* – either love of oneself or love of others – they always detected risk factors in the period surrounding birth. (15; italics in original)

Much of the modern birthing experience is taken for granted as normal, yet many procedures have been shown to be harmful to mother and child. From the time that hospital births came into vogue in the United States, it is possible that each generation has distanced itself from its own early pain and has unknowingly allowed harm and suffering to escalate in the lives its children. The consequences of modern Western materialism and its technologically-driven perspectives are profound and disabling in a variety of ways.

Artificial Environments and Normalized Abuse

In the conventional Western medical model, the human brain and neural systems are the focus of intelligence and experience. Because many in the

medical community disbelieve a fetus or newborn with underdeveloped brain can possibly have meaningful experiences, remember those experiences, or feel pain, infants continue to be subjected to births in the most unpleasant environments.

David Chamberlain (1998) notes that a newborn infant will "shriek and pull away from a heel lance" demonstrating that the infant feels pain (xiii). This non-receptivity to clear emotional signals may be, in part, a result of B. F. Skinner's contention that animals have no consciousness and cannot feel pain (E. Green and A. Green 1986). With this kind of thinking as normal, one might wonder whether the researchers tended to dissociate in order to function in the midst of so much suffering. Paul Fleiss describes his personal experience:

> After several years into my pediatrics career, and after having performed perhaps a hundred circumcisions, a strange thing happened to me: I became aware of the suffering, pain, and trauma that a baby experiences when he is circumcised. Somehow, I had previously managed to put the baby's trauma out of my consciousness. (Fleiss and Hodges 2002, x)

Chamberlain (1998) learned by listening attentively and sensitively to newborn memories that emerged during therapy session. He learned that putting babies in nurseries disrupts the relationship between mother and newborn baby. He explains that babies are especially disturbed by the cries of infants their own age. They also become distressed when their mothers are unhappy or depressed. Newborns are especially sensuous and, therefore, sensitive to pain, emotional and physical. Chamberlain emphasizes:

> Medical denial of infant pain has been blatant in the practice of infant surgery without using anesthetics, the pain filled rituals of neonatal intensive care, the routine infliction of pain at birth, and the genital mutilation of newborn males. (199)

At birth, even short-sighted remarks made by medical staff or parents may become engraved in the mind of the infant and cause emotional problems later.

Chamberlain (1998) writes about the pain experienced by hundreds of thousands of premature babies each year as they are treated like "cyborgs." He reports that "many babies die or are damaged for life, while all life-saving efforts are overshadowed by pain" (202). Intrauterine surgery increases infant cortisol levels by 138% indicating painful trauma, yet some doctors still doubt that fetuses feel pain. Chamberlain comments that "pain feeds rage" and wonders what the consequences for society will be in the future.

Circumcision

Circumcision is a painful trauma that is gradually being recognized for its long-term damage. Yet, certain persons in positions of power, who deny evidence, do so at a great cost to the individual and to humanity.

In the 1950s, circumcisions were done routinely in hospitals, without consent, while the birthing process became pathologized and medicalized. After lawsuits were filed in the 1970s, hospitals were required to have parental consent. Nevertheless, many hospital staff personnel proceeded to frighten parents into consenting to circumcision by making claims about the prevention of sexually transmitted diseases and cancer. As they had in the past, many in the medical community continue to make claims that circumcision prevents a number of diseases or conditions. Some of these corporate-owned hospitals were, and still are, protecting a billion-dollar-a-year circumcision business including the biotech industry's use of foreskins (Chamberlain 1998; Fleiss and Hodges 2002).

Hypnosis has revealed feelings of hurt and rage when men remember their circumcisions. The experience of pain, trauma, and lost trust that accompany circumcision's wounds have been correlated with acts of violence and rape perpetrated by adult males when, in addition to the trauma of circumcision, other aspects of the primal period and early childhood have also been traumatic. Ronald Goldman (1997) says, "The incidence of reported rapes in the United States has increased sharply in the last thirty years and is about seven times that of countries in the European Community" where circumcisions are rarely performed (163). Neuropsychologist James Prescott (1992) explains:

> From the perspective of the developmental neuropsychological sciences there can be little question that the extraordinary pain experienced by newborns . . . subjected to ritual genital mutilations has a profound influence upon the brain and later behaviors. It is this writers conviction that the extraordinary pain and trauma experienced through genital mutilations--an organ and brain system that is designed for the experience of sexual pleasure and the expression of sexual love--has permanently altered normative brain development for the normal expression of sexual pleasure and love. It is proposed that this genital pain, particularly in combination with the failure of affectional bonding in human relationships has long-term developmental consequences for the ability of such individuals to differentiate pain from pleasure in love relationships; to develop intimate sexual relationships; and to be characterized as peaceful, egalitarian and compassionate individuals. (1)

The love, trust, and awe of this early period of intimacy, if lost or interrupted by the pain of circumcision, may have a devastating effect upon the life of boys and men. Mother and child bonding may be harmed in many ways (Goldman 1997). Sometimes a baby will not look into his mother's eyes after being circumcised (Fleiss and Hodges 2002). Feeding may become disrupted (Fleiss and Hodges 2002; Goldman 1997). In his research, Prescott (1992) discovered deep neurological damage and has shown that an infant's sleep

patterns are greatly disrupted after circumcision. Some babies withdraw into a state of semi-coma. There are no accurate records of the number of deaths resulting from circumcision. Fleiss and Hodges state that these deaths are "disguised" as "complications of anesthesia" (77). Most often infants die from bleeding and from infection due to the surgery. All reference to circumcision is omitted on the baby's death chart and are not included in the *Vital Statistics of the United States* (Fleiss and Hodges 2002).

A recent article by Ryan McAllister (2010) states, "Newborn babies are especially vulnerable to unnecessary trauma, such as circumcision (1)." Failure of informed consent has significant consequences for many boys, including penile injuries, and the number of infants who die each year as a result of circumcision in the United States "hasn't been recorded or even considered important by any medical establishment" (1).

A newspaper article, based on Dan Bollinger's 2010 study in *Thymos: Journal of Boyhood Studies*, estimates the following:

> More than 100 baby boys die from circumcision complications each year, including from anesthesia reaction, stroke, hemorrhage, and infection. Because infant circumcision is elective, all of these deaths are avoidable. The study concluded: "These boys died because physicians have been either complicit or duplicitous, and because parents ignorantly said 'Yes,' or lacked the courage to say 'No,'" and called the deaths "an unrecognized sacrifice of innocents." (quoted in McAllister 2010, 1)

As a comparison, the study notes that each year approximately 44 neonatal deaths of infant boys result from suffocation, eight deaths from auto accidents, and 115 from SIDS. Within the first month after birth, there are 117 circumcision-related deaths in the United States yearly (1).

Approximately 15 percent of males in the world are circumcised, mostly Muslims, Jews, and Americans, according to Fleiss and Hodges (2002). Pre-adolescent boys may begin to unconsciously rage against their mothers, and later against other women, because of the abandonment and betrayal they experienced during circumcision. Trauma often remains associated with the tissues and organs of the body, and these emotions may surface during intense massage. Perhaps, at the onset of adolescence, experimentation with masturbation brings to the surface these unconscious feelings of pain and abandonment.

At the time of the writing of this dissertation, the issue of reinstating circumcision as routine is being argued by the Centers for Disease Control (CDC) as a preventative surgery for the spread of AIDS. Anti-circumcision groups claim the data is highly questionable and biased. For example, the Langerhans cells in the foreskin are a natural barrier to HIV. (National Organization of Circumcision Information Resources 2010):

> The United States has the highest medicalized infant circumcision rate in the industrialized world and the highest rate of HIV infection. The HIV infection rate in the United States is twice the rate in Europe, where the vast majority of males are intact. (2)

The promotion of circumcision as a defense against AIDS does not appear to make logical sense.

Scientism plays a significant role in circumcision. From the 1830s through 1975, claims had been made that circumcision prevented the following: nocturnal emissions, masturbation, STDs, epilepsy, spinal paralysis, bed wetting, curvature of the spine, paralysis of the bladder, clubfoot, eye problems, deafness, rape of whites by black men, urinary and rectal incontinence, tuberculosis, penile cancer,

prostrate cancer, and rectal, bladder, and cervical cancers (Fleiss and Hodges 2002; Goldman 1997; Maass 2010; Ritter and Denniston 2002).

Ritter and Denniston (2002) report, "Based on the study designs employed to date, clearly identifying the role of circumcision in HIV infection is nearly impossible" (33-2). Although certain "circumcision enthusiasts" admit the North American AIDS epidemic has little in common with the African epidemic, they continue to promote circumcision in the United States (33-2). Ritter and Denniston quote Walter Dowdle, Deputy Director of the CDC: "Our studies have not found circumcision to be either protective or a risk factor for AIDS or HIV infection in adults or in children" (33-1).

At the end of the 1990s, J. R. Taylor discovered that the foreskin is the primary erogenous zone for normal sexual function, while Janice Lender's research revealed that circumcision without anesthesia is definitely traumatic. In 1999, the American Academy of Pediatrics (AAP), after 40 years of research, reversed its policy and did not recommend routine neonatal circumcision. When pro-circumcision Edgar Schoen presided over the AAP board, which did not recommend circumcision at that time, he strongly recommended it and unsuccessfully attempted to promote en masse circumcisions in Europe. Ashley Montagu states, "Circumcision is a very cruel, very painful practice with no benefit whatsoever," while Benjamin Spock comments, "My own preference . . . leave his little penis alone" (Ritter and Denniston 2002, 38-1).

In contrast to the perception of newborn circumcisions in the United States, the Royal Dutch Medical Association (KNMG) released a new policy

statement on non-therapeutic circumcision. The Dutch have never practiced newborn circumcision and understand the normalcy and the value of an intact penis. The following is from the Conclusion of Non-Therapeutic Circumcision of Male Minors by the Royal Dutch Medical Association:

> There is no convincing evidence that circumcision is useful or necessary in terms of prevention or hygiene. Partly in the light of the complications which can arise during or after circumcision, circumcision is not justifiable except on medical/therapeutic grounds. Insofar as there are medical benefits, such as a possibly reduced risk of HIV infection, it is reasonable to put off circumcision until the age at which such a risk is relevant and the boy himself can decide about the intervention, or can opt for any available alternatives.
>
> Contrary to what is often thought, circumcision entails the risk of medical and psychological complications. . . . Partial or complete penis amputations as a result of complications following circumcisions have also been reported, as have psychological problems as a result of the circumcision.
>
> Non-therapeutic circumcision of male minors is contrary to the rule that minors may only be exposed to medical treatments if illness or abnormalities are present . . . [and] conflicts with the child's right to autonomy and physical integrity.
>
> The KNMG calls on . . . doctors to explicitly inform parents/carers who are considering non-therapeutic circumcision for male minors of the risk of complications and the lack of convincing medical benefits. The fact that this is a medically non-essential intervention with a real risk of complications makes the quality of this advice particularly important. The KNMG respects the deep religious, symbolic and cultural feelings that surround the practice of non-therapeutic circumcision. . . . [and] calls for a dialogue between doctors' organisations, experts and the religious groups concerned in order to put the issue of non-therapeutic circumcision of male minors on the agenda and ultimately restrict it as much as possible.
>
> There are good reasons for a legal prohibition of non-therapeutic circumcision of male minors, as exists for female genital mutilation. However, the KNMG fears that a legal prohibition would result in the intervention being performed by non-medically qualified individuals in circumstances in which the quality of the intervention could not be sufficiently guaranteed. This could lead to more serious complications than is currently the case. (2010, 14)

The foreskin has an essential function and purpose and should not be removed any more than a baby's ear or any other part of his body. The losses involved in circumcision include the removal of as much as 80% of penile skin and may reduce the size of the penis. Surgical scars interrupt blood flow, and with the loss of nerve receptors and the protective mucous membrane, the glans becomes desensitized and keratinized in adulthood. The foreskin plays an essential role in enhancing sexual experience, diminished in circumcised adults (Fleiss and Hodges 2002; Goldman 1997; Longley 2009; Northrup 2006; Prescott 1989; Ritter and Denniston 2002).

From the perspective of expectation, the body's consciousness knows what it should experience, and does not, but instead may feel a sense of loss and a craving for the pleasure that nature promised. Many divorces and sexual perversions may be consequences of imprinted hurt and rage and an association of pain with sexuality (Fleiss and Hodges 2002; Goldman 1997; Ritter and Denniston 2002). Prescott's (2003) position follows:

> It is proposed that this genital pain has long-term developmental consequences for the ability of such individuals to differentiate pain from pleasure in love relationships and to develop intimate sexual relationships. (3)

A woman's body may also sense that the experience is incomplete (Fleiss and Hodges 2002; Longley 2009; Northrup, 2006).

American television ads promote new forms of sexual arousal products for men and women as if these can compensate for an otherwise inhibited sensual experience. Sexual satisfaction requires the natural release of the chemistries of love, as Odent (2001) calls them, offering the promised orgasmic experience. His

research has shown that lovemaking, birthing (especially orgasmic birth), and breastfeeding involve ecstatic chemistries that help induce bonding. Odent reports:

> During intercourse, childbirth and lactation, two groups of hormones play a pre-eminent role – the altruistic hormone oxytocin, and the endorphins which can be considered to be our "reward system." (43)

When there is damage to the penis, there is loss to the man, to his partner, to the culture, and to its children. In addition to the problems already mentioned, an unconscious expectation of a particularly satisfying natural experience, unfulfilled, might cause a compulsive and futile seeking for that satisfaction. Genital integrity, now accepted by many as a human rights issue—the right of the child to remain intact—is presently of international concern. It is all but ignored by the American media.

The belief that the foreskin had no value, and in fact, could be harmful to the male child if he were not circumcised, has not been true for certain business enterprises. The value of foreskins in skin-transplanting had been known as early as the 19th century, and their commercial use today in the cosmetics industry and in the biosciences supports a number of multi-million dollar businesses (Maass, 2010). Infant foreskins provide a rich source of fibroblasts which are defined by the National Human Genome Research Institute's (n.d.) glossary:

> A fibroblast is the most common type of cell found in connective tissue. Fibroblasts secrete collagen proteins that are used to maintain a structural framework for many tissues. They also play an important role in healing wounds. (1)

Because the healing properties of fibroblasts harvested from the cells of infant foreskins are superior to those sourced from other skin tissues, they are used to treat chronic and

genetic disorders, to grow skin for transplantation, and to make creams and anti-aging products (Maass).

While the suffering of infant boys continues, girls in the United States have been somewhat protected since female genital mutilation (FGM) was banned in 1996 in spite of immigrant parents who wished to satisfy cultural expectations by circumcising their daughters. In May 2010, the American Academy of Pediatrics (AAP) released a statement on FGM which suggests the consideration of American doctors to perform a small "nick" on young girls as an attempt to stop parents from taking them back to their home countries to have them circumcised. The section of the AAP policy statement, Ritual Genital Cutting of Female Minors, that initiated the controversy follows:

> the ritual nick suggested by some pediatricians is not physically harmful and is much less extensive than routine newborn male genital cutting. There is reason to believe that offering such a compromise may build trust between hospitals and immigrant communities, save some girls from undergoing disfiguring and life-threatening procedures in their native countries, and play a role in the eventual eradication of FGC. It might be more effective if federal and state laws enabled pediatricians to reach out to families by offering a ritual nick as a possible compromise to avoid greater harm. (2010, 5)

Genital integrity activists worldwide were appalled and demanded an immediate public retraction which occurred shortly afterwards. Consider the decades of interference with mother/infant bonding and imprinting. Add to that infant male circumcision. Abuse of the human rights of children has become normalized, and the consequences are not taken seriously. Suzanne Arms (1996) asserts:

> Simply stated, we are numb to how much we have deformed the processes of childbirth and childcare and ignorant of the harm that we inflict on ourselves and our babies. (170)

Toxins

Proper nurturing and nutrition are natural expectations of a new child. If a newborn receives the mother's precious gift of colostrum, with its advantages for the baby's immune system, and if the child has been breastfeeding, that child will have a good start in life assuming the mother is eating well. But the issue of eating well in the United States follows the modern template of artificial and manipulated food, resulting in toxic and traumatic responses for more and more children.

According to Joseph Mendelson's (2002) article "Untested, Unlabeled, and You're Eating It," toxic and allergic reactions are known health hazards associated with genetically engineered foods. About one quarter of the population of the United States has adverse reactions to food, and Mendelson reports, "At least 8 percent of children have physically identifiable allergic reactions to food" (211). Thousands of allergic responses can result from novel proteins that have never before been part of our diet. Children are more susceptible to the effects of genetically engineered (GE) foods because they are unable to process unnatural substances in food as well as adults.

Children are often in contact with pesticides because they touch more surfaces, put their hands in their mouths, and are affectionate with pets who may be wearing flea collars. Pesticides are linked to a variety of cancers. Monica Moore (2002) states, "Children in agricultural settings face particularly high risks" (250).

In the United States, between 1973 and 1990, childhood leukemia increased by 27 percent. The pesticide lindane, found in shampoos that treat head lice, is associated with aplastic anemia in children. The evidence that confirms this derives from human epidemiological investigations, from studies using laboratory animals, and from cell-culture studies. In the past 20 years, childhood brain cancer has increased by 33 percent and is as much as six time more prevalent in homes where pesticides are used. In homes where "no-pest" strips are common, brain cancer rates are five times higher, and where pets wear flea collars, six times higher (Moore 2002).

Children are particularly vulnerable to the neurotoxins found in pesticides because their little growing bodies and brains are more seriously affected by smaller doses of toxic substances. In addition, they are highly susceptible to negative effects if the timing of exposure comes at various crucial stages of their development as indicated by the following research:

> Low-level intrauterine exposure to lead, PCBs, and organophosphate pesticides has been associated with lower birth weight, gestational maturity, or reduced head circumference in some prospective studies.
>
> Because of their potential disruption of central nervous system morphoregulation, hormonally active agents should also be considered as candidate neurodevelopmental toxicants. Hydroxylated metabolites of PCBs and related compounds may bind to human transthyretin, the only thyroid-hormone–binding protein synthesized in the brain. (Dietrich et al. 2005, 1)

Bouchard, Bellinger, Wright and Weisskopf (2010) warn against the use of organophosphate pesticides and insecticides because of their proven harmful affects on children. The study shows that even tiny, allowable amounts of a common pesticide class can have dramatic effects on brain chemistry.

Organophosphate pesticides (OP's) are among the most widely used pesticides in the U.S., they work by interfering with brain signaling in insects. OPs have long been understood to be particularly toxic for children, but this is the first study to examine their effects across a representative population with average levels of exposure. Chlorpyrifos, an organophosphate insecticide, was banned from non-agricultural use a decade ago but still used on crops. Aware of the power of corporations to use public relations, legal campaigns, and questionable science to present their products in the best possible light, the Pesticide Action Network (2004) states that advertising, marketing, and lobbying fosters the myth that their products are essential to life.

Another questionable product that is well-integrated into modern life is bisephenol-A (BPA), a chemical compound used in making plastics that "mimics estrogens [by] binding to the same receptors throughout the human body as natural female hormones" (Biello, 2008). More than two billion pounds of BPA produced annually in the United States finds its way into many aspects of our daily lives, including plastic water bottles, baby bottles, linings of most cans to prevent corrosion, and many reusable food and beverage containers.

This unstable compound leaches out of these containers under normal conditions and leaches as much as 55 times faster when in contact with heat. After being ingested, BPA stays in the body for a number of days before it breaks down into glucuronide and is excreted. Despite the relatively quick passage through the human system, tests by the Centers for Disease Control find glucuronide in most urine samples, indicating constant exposure. Biello (2008) notes that this is in

addition to our routine exposure to "other estrogen-mimicking chemicals to which humans are routinely exposed, from soy to antibacterial ingredients in some soaps" (1). The cumulative effects are unknown.

Bisephenol-A exposure may cause breast cancer, infertility, and prostate cancer. Children's developing brains and organs absorb BPA at higher rates than adults. Biello (2008) writes:

> Fred vom Saal, a reproductive biologist at the University of Missouri–Columbia, warns that babies likely face the "highest exposure" in human populations, because both baby bottles and infant formula cans likely leach BPA. (1)

Scott Belcher, an endocrine biologist at the University of Cincinnati comments: "The assumption that natural estrogens are somehow immediately good for you and these chemicals are immediately bad is probably not a reasonable assumption to make" (quoted in Biello, 1). But a National Institute of Health panel concluded that BPA does pose risks to humans. Nevertheless, the Food and Drug Administration approves its use, and the EPA has remained unconcerned about low levels of BPA exposure (Biello).

The environment protection agency in Denmark published an alarming report about what are termed gender-bending chemicals. This research showed the following: "Two-year-old children are at risk from . . . gender-bending chemicals in such everyday items as waterproof clothes, rubber boots, bed linens, food, nappies, sunscreen lotions, and moisturizing creams" (Lean 2009). Lean adds that research indicates babies still in the womb are most vulnerable to these chemicals; some who might otherwise be born males may be born as girls instead.

According to Lean (2009), "Scientists at the University of Rochester in New York discovered that boys born to women exposed to phthalates had smaller penises and other feminisation of the genitals" (1). The study supports the possibility that many boys may manifest feminine behaviors and produce much less sperm than their fathers. In Rotterdam, Erasmus University's research found that mothers exposed to PCB and dioxin during pregnancy often had boys who expressed feminized behaviors.

According to the research, British children have higher levels of these chemicals than their parents or grandparents. The chemicals include dioxins, PVC, flame retardants, phthalates, and PCBs. Until recently, there has been, on average, 106 boys born for every 100 girls. The proportion of female births is rising rapidly. The study suggests:

> Some 250,000 babies who statistically should have been boys have ended up as girls in Japan and the United States alone. In Britain, the discrepancy amounts to thousands of babies a year. (Lean 2009, 1)

The Danish government will lobby to have tougher rules, especially since other studies show that when these gender-bending chemicals act together, they have even more serious effects.

Another area of suffering and dysfunction is the epidemic of autism in the United States. This epidemic may be caused, in part, by heavy metals in food and water. Commonly found in these children is yeast overgrowth—one of the consequences of imbalances in intestinal flora. Vaccinations have been associated with autism because of preservatives and because of the overwhelming imposition on the highly sensitive immune system of an infant. For years the medical belief

that autism is a brain disorder has prevented successful pursuit of the healing of this disease.

Mark Hyman (2009), a medical doctor ostracized by many in the medical community because of his healing work with autism, writes that autism is not caused by poor mothering, nor is it a genetic brain disorder, two earlier beliefs of causation. Instead, it is a systemic body disorder affecting the brain and activated by environmental conditions that affect genes. Hyman notes the sharp increase in the rate of autism among children within a relatively short period of time, from one in 3,000 to one in 150 children, a massive jump, even though some of the increase may be accounted for by better detection and diagnosis.

Hyman (2009) notes that a new understanding of autism as a systemic condition is supported by the research of Harvard pediatric neurologist, Martha Herbert, who emphasizes that "everything is connected," and has shown how "core abnormalities in body systems like immunity, gut function, and detoxification play a central role in causing the behavioral and mood symptoms of autism." Hyman adds:

> The fact that these kids have smelly bowel movements, bloated bellies, frequent colds and ear infections, and dry skin is not just a coincidence that has nothing to do with their brain function. It is central to why they are sick in the first place! Yet conventional medicine often ignores this. (1)

Hyman (2009) applied Dr. Herbert's systems biology approach to the two-year treatment of a child who was autistic, and who is no longer diagnosed as having autism. After performing a battery of tests to identify specific deficiencies and system imbalances, Hyman's treatment for this child consisted of the

following: no gluten or other food allergens, anti-fungals to get rid of yeast, special antibiotics to destroy toxic bacteria in the small intestine, and the addition of probiotics and enzymes for food digestion. He added zinc, magnesium, foliate, and vitamins A, B6, B12, and D, omega-3 fats to support brain function, and detoxified and reduced oxidative stress once biochemistry and nutrition were improved. Hyman maintains that the problem in medicine is that "we often ignore what is right in front of us because it doesn't fit our belief system" and states that this is most true in the treatment of autism (1).

Violence

Beyond the toxins and environmental issues causing disorders in children is the problem of childhood violence in America. A 2009 study by the University of New Hampshire (UNH) and sponsored by the United States Department of Justice, the Office of Juvenile Justice and Delinquency Prevention, and supported by the Centers for Disease Control and Prevention, found that children in the United States are "routinely exposed to even more violence and abuse than has been previously recognized, with nearly half experiencing a physical assault in the study year" (UNH 1).

David Finkelhor, director of the UNH Crimes against Children Research Center, and the study's director said, "Children experience far more violence, abuse and crime than do adults" and commented further, "If life were this dangerous for ordinary grown-ups, we'd never tolerate it" (UNH). This research, also published in the journal *Pediatrics* found:

> Three out of five children were exposed to violence, abuse or a criminal victimization in the last year, including 46 percent who had been physically assaulted, 10 percent who had been maltreated by a caregiver, 6 percent who had been sexually victimized, and 10 percent who had witnessed an assault within their family. (UNH, 2009, 1)

The researchers emphasized the need to find ways to make schools, homes, and other youth environments, safe for children. Concerning abuse, Liedloff (1977) asserts:

> The "normal" deprivations are so tangled in the meshes of our cultures by now that they are almost entirely unremarked *except* at such extremes as manifest themselves in cost and danger to the rest of us (through violence, insanity, and crime, for example), and even then they are regarded without comprehension of any but the dimmest sort. (73)

The internet has become an efficient and significant tool in promoting the welfare of children. Alice Miller (1997) includes Jan Hunts' "Ten Reasons Not to Hit Your Kids" in appendix D of *Breaking Down the Wall of Silence*, and it is now online worldwide. Some of the points Hunt makes are the following: Hitting children teaches children to hit; "bad behavior" is the child's response to neglect of basic needs such as "proper sleep and nutrition, treatment of hidden allergy, fresh air, exercise, and sufficient freedom to explore" with the greatest need being the parents' "undivided attention;" spanking "distracts the child from learning how to resolve conflict in an effective and humane way;" "'Spare the rod and spoil the child' is from Samuel Butler's 17th century satirical poem "Hudibras" and was written to "expose and denounce violence against children;" spanking may damage the bond between the child and parent for "it is not human nature to feel loving toward someone who hurts us;" cooperation arises through a "strong bond based on mutual feelings of love and respect;" punishment produces

"superficially good behavior based on fear" and can "escalate to more frequent and dangerous actions;" spanking on the buttocks, "an erogenous zone in childhood, can create an association between pain and sexual pleasure;" blows to the lower end of the spinal column may injure the child" and account for the "prevalence of lower back pain among adults in our society;" and spanking promotes the "dangerous and unfair message that 'might makes right'" (172-175).

The Global Initiative to End Corporal Punishment of Children has resulted in twenty nine countries abolishing spanking. As an example, in 2005 Hungary prohibited corporal punishment in the home. The unofficial translation reads in part:

> The child has the right to be respected . . . to be protected against abuse - physical, sexual and mental violence . . .The child shall not be subjected to torture, corporal punishment and any cruel, inhuman or degrading punishment or treatment. (1)

On The Natural Child website, Hunt (n.d.) comments:

> Yet in all of North America, physical punishment by a parent, as long as it is not severe, is still seen by many as necessary discipline, and condoned, or sadly, even encouraged. (1)

Alice Miller (1998) wrote "Every Smack is a Humiliation - A Manifesto," posted it on her website, and notes: "Many researchers have already proved that corporal punishment on children may indeed produce obedience in the short term but will have serious negative consequences on their character and behavior" (1). Miller has strongly supported legislation to end the slapping, spanking, and beating of children and comments:

> When in Sweden legislation laws prohibiting corporal punishment were launched in 1978, 70% of the citizens asked for their opinion were against it. In 1997, the figure had dropped to 10%. (1)

While child diabetes, autism, and abuse have reached epidemic proportions, successful responses have involved reconnection to nature and to wholeness, including healthy diets and alternative techniques for healing. What is commonly found, though, is intense marketing and promotion of pharmaceuticals and artificial foods and drinks, and other substances, by those who place profits over potential destructive consequences. At the root of extreme perspectives is the intense opposition of two world views: one that is self-destructive, death-oriented, and dying, and an emerging paradigm that is life-promoting.

Wilhelm Reich said, "Civilization will start on the day when the well being of newborn babies will prevail over any other consideration" (quoted in Odent, 2001, 27). Some of what is emerging in the new sciences, for example in quantum biology and quantum physics, resembles ancient wisdom where all life is meaningfully entangled and meaningful.

CHAPTER THREE: STATES OF CONSCIOUSNESS OF FETUSES, NEWBORNS, AND YOUNG CHILDREN

Introduction

Chapter Two presented an overview of modern birth and some of the unmet needs and suffering of newborns and introduced these as consequences of a mechanistic paradigm that promotes materialism and low self-concepts. This chapter explores some of the amazing aspects of children that are documented by research, self-reports, and case studies that reveal what appear as unusual states of consciousness easily accessed in early childhood but generally disregarded.

Although authors use a variety of terms for states of consciousness such as nonordinary, paranormal, trance, hypnogogic, extrasensory, and spiritual, these refer to states of expansive awareness beyond what is usually acceptable in normal consensus reality but may be normal and natural and limited only through the process of conditioning. Young children, not yet well-conditioned by modern culture, express aspects of their spiritual nature and awareness of the unseen in many different ways. As claimed earlier, they are highly receptive and may participate with many fields of consciousness and their contents.

Fetuses and infants appear to have an extrasensory communication with their mothers (Chamberlain 1998; Cheek 1992; Ehrenwald 1971; Verny and Kelly 1981; Wambach 1979). Young children may speak spontaneously of prebirth and birth-experiences and of past lives, and, in addition, they may perceive entities otherwise invisible within consensus reality (Armstrong 1988; Bowman 1998;

Chamberlain 1998; Hart 2003; Mack 1994; Stevenson 1974). Because fetuses and newborns have underdeveloped brains, and because of the general belief among scientists that memory creation and retention requires a fully developed brain, what appear to be fetal and newborn memories are often ignored or dismissed. Although some scientists present evidence that memories and perceptions are not necessarily located within the brain, there have been no conclusive explanations thus far for the location of memories.

Adults, and the culture as a whole, often give young children cues, consciously or unconsciously, intimating that some of their unusual thoughts and experiences may be fantasy-based or are otherwise unacceptable, causing children to repress and limit their perceptions (Armstrong 1988; Bowman 1998; Chamberlain 1998; Hart 2003; Stevenson 1974). The world view of the child that includes "magical thinking" has generally been considered invalid within a Cartesian and Newtonian paradigm. Dean Radin (1997) explains:

> Magical thinking refers to an organic worldview permeated with meaning and deep, living interconnections. In contrast, much of modern science has supported a worldview permeated with "nothing but" meaningless isolation. (293)

Athena Drewes (2001) addresses the problem of investigating telepathy with young children. Drewes notes that adults and adolescents are commonly used in psi phenomenon testing, but children "often seem to be overlooked as a viable research population" (1). Drewes claims the following as reasons researchers are uncomfortable working with children:

> lack of understanding of developmental issues in order to use and create the best types of testing protocols . . . ethical issues related to conducting research with children . . . the possibility of fraud emerging from a child's

> desire to seek attention and to continue receiving it, and the desire to please adults. (1)

These protocols refer to guidelines imposed by the American Psychological Association and the American Association for the Advancement of Science.

This chapter begins with self-reports from participants in Helen Wambach's 1970s research that used hypnosis to guide clients to memories of the time prior to conception, to the gestation period, and to the actual birth experience. Working as a therapist, David Chamberlain (1998) heard similar comments as those reported by Wambach. Chamberlain used trance states in therapy and discovered prebirth, birth, and reincarnational memories, and an "unexpected maturity" contrary to the belief that a newborn is unable to think and feel because of an underdeveloped brain. Stanislav Grof's (1992) research suggests that each of us has the capacity to remember our life as a fetus and our experience of the birthing process.

Past life and birth memories may emerge spontaneously as soon as a child begins to speak. Material from Carol Bowman's (1998) extensive collection of children's reincarnational memories is included. Ian Stevenson (1974), who wrote volumes on multicultural case studies of children's past life memories. reports on the precocious nature of many of these very young children. Bruce Lipton (2005) suggests that an embryo may be downloading a "self" from another lifetime.

Thomas Armstrong (1988) explores young children's "visions, intuitions, ecstasies, encounters with the supernatural, confrontations with the infinite, [and] interactions with other levels of existence" (10). Armstrong's insights weave together "many different instances of non-ordinary experience in childhood."

Armstrong includes "child psychology, comparative religion, mythology, metaphysics, anthropology, literature and philosophy" (10).

Tobin Hart (2003) and Robert Coles (1990) offer anecdotal evidence of children's spiritual experiences. They, and others, have noted the repression of non-ordinary experiences due to parental or cultural denial and misunderstanding.

A great deal of material has been researched for this study, but only a small portion has been chosen based upon direct relevance and potential effectiveness to make the point that young children are transforming consciousness in each moment.

Prenatal and Birth Memories

Helen Wambach (1979), psychologist and early researcher in the field of reincarnation, used group hypnosis to produce trance states that allowed her to investigate the birth memories of her participants. Wambach, initially a skeptic, began her studies in the 1960s when there was little research or literature available beyond the reports of reincarnation from various Eastern traditions and from the writings of Edgar Cayce and Rudolf Steiner in the West.

Wambach (1979) learned that subjects on biofeedback monitors whose brainwave cycles register between zero and four cycles per second had little or no recall when awakened. Questioned while still in that state, they often report "mystical insights." Preferring that her participants remain awake for sufficient recall, she taught them how to bring their brain wave electrical potential to five cycles per second, producing theta waves. The theta state, from four to eight cycles per second, is associated with memory integration, hypnotic trance,

hypnagogic imagery, daydreaming, and an uncensored free flow of ideas from the unconscious. Lawrence Kubie explains:

> Free associations seem to flow with extraordinary freedom and vividness, gravitating spontaneously to early scenes and experiences with intense affects, yet without multiple distortions that occur in the dream process. (quoted in E. Green and A. Green 1986, 572)

This theta state has the advantage of freeing up memories without distortion. In Wambach's research, the results were hypnotic trances that included the ability to remember prebirth and birth experiences.

Wambach (1979) made the interesting discovery that forty percent of her subjects reported seeing "colors drifting in front of their eyelids" as they approached five cycles per second. Wambach explains:

> There didn't seem to be any one consistent color: each subject seemed to see a slightly different one. But the phenomenon of drifting fields of color was to recur again and again. (174)

Often, lights and colors are associated with the hypnagogic state while falling asleep. Malcolm Godwin (1994) reports that this hypnagogic state may be accompanied by "vivid, almost psychedelic images" (46).

Wambach (1979) believed that rapid responses to her questions emerged directly from the right brain hemisphere or from the subconscious mind. When there is hesitation, the conscious mind is looking for the "right" answers, speculating and being rational, therefore, she gave her subjects very little time to respond. What follows are documented responses from her workshops in which entire groups were induced into these mild hypnotic trances.

Wambach (1979) focused on the *feeling* of being born into this lifetime. She asked her groups to direct their attention to "the developing fetus who will be

you" (19). Then Wambach asked: "Are you experiencing *inside* the fetus? *Outside* the fetus? In and out? When does your consciousness fully join that of the fetus?" (19). She was careful not to prejudice her participants with a suggestion that life begins at conception because she had already learned from therapy with individuals in hypnosis that many people felt they moved in and out of the fetus throughout the gestation period. Immediately after her questions, the participants filled out data sheets. Wambach notes:

> One woman told me as I handed her the data sheet, "Oh, I felt such compassion for that baby who was me. I felt such sadness to leave the place where I was to come back into physical life. It seemed so hard to be confined in a little body, and to lose the lightness and the love I had known in the between-life state." (25)

The subject continues:

> "Oh, I feel cheerful enough . . . It's just that I realize that birth is not a joyous occasion. The two deaths I had in the two past lives tonight were very pleasant experiences. It's getting born that seems the tragedy." (25-26)

In her workshops, Wambach (1979) guided her subjects through three death experiences before their births into their current lifetime. If they wished, subjects could choose not to participate in remembering the death experiences. After the workshops many people reported that they had lost their fear of death although Wambach was clear that she made no claims that these regressions were therapeutic. Ninety percent of the participants claimed that death is actually pleasant (41).

Wambach (1979) discovered that of 750 subjects, 81 percent reluctantly chose to be born; returning felt like a duty. Twenty six percent of the subjects looked forward to coming into this lifetime and expected to achieve something

particular while here. Nineteen percent reported that they were unaware of choosing to be born, or that no clear answers came to them. Forty-one percent were aware of some sort of advisors or counselors but could not identify them. Of those who claimed they had been counseled, 59 percent had more than one counselor, and of these, ten percent were counseled by persons in their present lifetime. Only 0.1 percent reported that they were counseled by God or some other deity (62). The following question was the one of greatest interest to most of Wambach's subjects: "What is your purpose for coming into this, your current lifetime?" (18). The following is one subject's response:

> "Yes, I chose to be born. Someone did help me choose and it seemed to be some voice that I trusted greatly. It was kind, helpful and wise, very wise. My feelings about the prospect of being born were very positive. When you asked the purpose for this lifetime, it flashed that I was to broaden people's minds." (28)

Because so many of her subjects felt that coming into this lifetime was ultimately met with reluctance, Wambach (1979) wondered whether that reluctance was caused by the particular period in history, the late twentieth century, and if that indicated a particularly difficult time. Just over half the participants chose the twentieth century as a time of "great potential for spiritual growth," while thirty-four percent were more specific in their reasons for choosing. The following claim was made: "Yes, I chose the twentieth century because it is the time of earth changes, and the raising of levels of consciousness" (68). A similar response follows:

> "I chose the last half of the twentieth century to be alive because more advanced spirits are being born and we are closer to obtaining world peace and a sense of the total self of mankind." (68)

Concerning purpose, one subject stated:

> "I had the feeling that before birth it was discussed with me what the purpose was. But when I was launched, so to speak, with my unknown companions helping me, I was not allowed to know anything about having friends from past lives or the purpose of this life." (82)

The study included practicing Catholics, and other Christians, who consider abortion to be murder, but Wambach (1979) presumed that, as a group, many of her subjects were pro-abortion. According to Wambach, seven hundred and fifty subjects agreed on the following key point:

> They felt that the fetus was not truly a part of their consciousness. They existed fully conscious, as an entity apart from the fetus. Indeed they frequently reported that the fetal body was confining and restrictive, and that they preferred the freedom of out-of-body existence. It was with much reluctance that many of them joined their consciousness with the cellular consciousness of the newborn infant. (99)

Thirty-three percent of the participants said they joined the fetus just before or during birth. Wambach (1979) provides these responses:

> "My attachment to the fetus was kind of off and on; it wasn't clear to me when I was actually a part of the fetus. . . . The birth-canal experience was very tight, but warm, and after birth I felt a kind of sterility, and a loudness and a brightness, and I felt that the outer world was so unresponsive. I seemed to feel that my 'soul' retained the knowledge that I had attained throughout previous lives after birth." (36)

> "I attached to the fetus near the moment when the birthing process begins. I was aware of my mother's feelings, and I realized the profundity of her feelings of motherhood. She was "out" during birth, and I felt alienated from her because of this." (101)

> "I wasn't attached to the fetus until I heard some voices (I think they were my guides who helped me choose to be born) warn me that the birth would be premature and they urged me to 'hurry up and get in there' at about seven months." (101-102)

The following are several excerpts quoted in Wambach's (1979) study, specifically the birth canal experience and immediately afterwards:

". . . I had a backache and then flexed and felt better. The impressions after birth were that it was very funny because people think you know nothing, but you know it all . . . " (32)

". . . a tight struggle, and my first experience out of the birth canal was a bright light which made me mad, like someone switching the light on when you're sleeping. I was angry as soon as I was born, and I felt resentment from the people in the delivery room, but not my mother." (124)

"I was amazed by the light when I emerge and I'm chilly. I cried. They take me away from Mom, and I'm terrified, then I realized they care and that they will give me back to Mom. I was aware that the people in the delivery room were caring, even though they didn't understand me." (124)

". . . I saw that my spirit was looking over everything. I joined the body moments before the birth. My impression after birth was that the doctor's slap was *not* necessary. I felt indignant. I was aware that the doctor was badly hung over." (128)

"I was vaguely aware of some thoughts the doctors and nurses had, and their feelings. It was not my present ego that accepted this idea, because I felt as an infant you're not supposed to be doing this. But I *was* telepathically aware of their feelings." (131)

"As soon as I emerged it was very scary with lots of lights. People were handling me in a very unloving way, very cold emotionally. They were doing their job and had good intentions. They were just not aware of their own insensibility and how much I could understand." (131-132)

". . . I was aware that my shoulder was caught and my neck twisted. After birth I was in great pain in my neck and shoulder. I was afraid of falling and the nurse was bouncing me up and down, and I was screaming. My father and the nurse were laughing at me as I screamed." (136)

". . . I thought I was dying. After I emerged, the light was very strong, and I felt very cold. I had a feeling of being lifted in space—I felt scared with nothing to hold onto, out of balance—I felt teary at being so helpless again, even though I had all the intelligence of an adult." (136)

". . . I remember my head being out and the rest of my body still in my mother. I was looking up at the ceiling. After birth I was aware of green hospital gowns and bright lights. I was aware of other people's feelings, and I had the understanding of an adult, not a child. I just listened and observed." (139)

> "My impressions after birth were of a painful blurring of the spirit and body. I seemed to lose awareness of other people's feelings and of the knowledge I had once I was born." (32)

Wambach (1979) reflects on the many reports of overwhelming and negative physical sensations that are experienced immediately upon birth and wonders if the intensity felt by the senses when confronted with loud noises and bright lights suggests "a quite different environment" in which the soul exists before birth. Wambach adds:

> Surprising to me was the frequent report that the soul in the new-born infant feels cut off, diminished, alone compared to the between-life state. To be alive in a body is to be alone and unconnected. Perhaps we are alive to learn to break through the screen of the senses, to experience while in a body the transcendent self we truly are. (123)

In an attempt to understand the lessons to be learned from these reports of entering the world through the birth process, particularly through the hospital births that were most common in her research populations, Wambach asks:

> Do we indeed come screaming into the world? Is the origin of many of our feelings of insecurity and unhappiness the experience of being thrust rudely into the physical world? (184)

Wambach (1979) acknowledges that she learned more about people from their thoughts and reactions in psychotherapy and these group experiences than from years of psychological research and wonders:

> My thoughts were of the strange and profound puzzle of where the child we were exists in our here and now. Everything about us changes, often even our names. Where is the essential feeling of being "me" that continues through all of these physical changes? (13)

Although David Chamberlain's (1998) research did not involve groups, he found that when he induced the theta state, he discovered infant memories and capacities that are generally dismissed by contemporary perceptions of fetuses

and newborns. Chamberlain found the "most disarming" memories are spontaneous birth memories "expressed by very young children" (97). Chamberlain's clients' responses closely resemble Wambach's research reports when he states:

> Virtually all babies complain about bright lights, cold rooms and instruments, the noise, rough contact with their sensitive skin, and nearly every medical routine including slaps, injections, eye drops, hard scales, being held in midair and handled by strangers. (123)

He adds that the most universal complaint is being separated from the mother and of the distress and loneliness babies feel in nurseries. Babies are sometimes angry with their mothers for allowing this separation. Chamberlain recommends: "Now that babies are known to be intelligent, sentient beings, their mental and emotional vulnerability must be reconsidered" (134).

The following is one example from Chamberlain's (1998) documentations of an adult who remembers his birth and an out-of-body experience:

> At times I feel like I'm somewhere in the room witnessing what is going on, and at other times I am a child and seeing it from that point of view. (187)

Chamberlain relates the birth experience of scientist John Lilly who felt "squeezed, trapped, and dying" and then split off to watch from "outside." When his head finally moved out of the birth canal, Lilly "moved back into the baby's body" (188).

Spontaneous birth memories and induced trance state memories have proven to be very consistent with the stories told by the mothers. Chamberlain (1998) reports that the "long-standing prejudice" against the reliability of intrauterine and infant memory is "slowly collapsing," and emphatically expresses

the following: “All this time, we have had memory experts denying birth memory while new waves of three-year-olds were continually proving them wrong!” (197-198).

According to Chamberlain (1998), some infants are aware that they are a *mind* more than a body. Sometimes, when there’s an emergency situation during the birth, the infant is aware of what needs to be done and would be able to communicate telepathically, but no one is *listening*. In cases where the mother might die, an infant may feel that he or she also wants to die in order to remain with her. After sharing multiple examples of birth memories, Chamberlain makes the following point:

> If birth memories are true, we will have to reassess many of our previous ideas about the nature of babies. Birth reports are charmingly intimate and revealing; they are also revolutionary, confronting us with unimagined intelligence and suggesting that babies deserve a new status, that of conscious persons. They share with the rest of us a capacity for enriched and expanded consciousness, something we are only lately acknowledging in ourselves. Referring to these as “altered states of consciousness,” or “unconscious” states, psychology slowly has been introducing us to a range of nonordinary states where things once thought impossible are possible. (184)

Chamberlain (1998) describes the 20-30 second trance states that babies commonly experience. Like adult self-hypnosis, these states represent “creative mental activity” and “intelligent self-regulation” (185). Chamberlain notes that some psychologists call these “bouts of staring,” and they usually end with a blink (185).

Bowman (1998) introduces the work of Norman Inge, a therapist who integrates his family line of kahuna training with psychotherapy and notes that trance states and hypnosis (theta brain wave states) are states of focused attention.

According to Inge, evidence of these states in children are wide eyes, a change in breathing, and a vacant stare for short periods of time. Some psychologists regard these states as especially apparent in the "brightest and most creative children" who "stare frequently, without interruption" (Bowman, 88).

Wambach (1979) and Chamberlain (1998) each discovered that there appears to be communication between the newborn infant and mother, often commencing during the fetal period. Thomas Verny and John Kelly (1981) refer to the extrasensory communication between mothers and fetuses as sympathetic communication and report the following incident:

> The night before one of my patients had a spontaneous abortion, she shouted herself awake several times yelling "I want out, let me out." She is convinced that was her child speaking through her. (88)

Verny and Kelly (1981) site an occasion where birth-related memories are the source of a young boy's nightmares during which he screams, curses, and speaks in a foreign language. Eventually, the mother realized that during her son's premature birth, the doctors swore several times out of frustration, and because the infant nearly died, a priest was brought in for last rites, spoken in Latin. This is an example of memories associated with birth and also with the deep imprinting that takes place during the primal period. In another example, Verny and Kelly correlate births in which the cord is accidentally caught around the baby's neck with later throat-related problems, swallowing difficulties, and speech impediments such as stuttering (102).

To emphasize the point that fetuses are aware of their external environment, Verny and Kelly (1981) relate the experience of Boris Brott,

conductor of the Hamilton Philharmonic Symphony in Ontario, Canada, who states that he was already learning music prior to his birth. Brott told his mother that while conducting certain scores for the first time, he discovered that he knew the cello lines in advance. His mother, a professional cellist, recognized each piece as one she played while she was pregnant with him (23).

In another incident reported by Verny and Kelly (1981), a two-year old was found by her mother chanting, "Breathe in, breathe out, breathe in, breathe out" (23). The mother recognized these words originating in her Lamaze exercise classes during pregnancy.

Concerning historical knowledge of prenatal awareness, Verny and Kelly (1981) quote the Biblical passage in Luke 1:44 in which Mary's cousin Elizabeth responds: "'For lo, as soon as the voice of thy salutation sounded in my ears, the babe in my womb leaped for joy'" (33-34).

Jan Ehrenwald (1971) reports that in the early years of psychotherapy, the mother and child in telepathic relationship were considered a "primary unit" (1). But after the birth, there are two separate beings who generally remain in intimate communication with each other. The explanations offered were the existence of "subliminal sensory cues or unconscious expressive movements" (2). Ehrenwald quotes Margaret Mahler who states, "Communication on this level occurs by mutual cueing, by the mother's selective response to selective cues from the infant's needs [and] tensions" (2). According to Ehrenwald, Mahler describes this as "a pattern of *circular interaction* between the two. In short, she postulates a

nonverbal feedback loop to account for their concerted operation" (2). Ehrenwald comments:

> But these descriptive terms—whether they are borrowed from general systems theory, clinical psychology or psychoanalytic ego theory—are largely metaphorical constructs introduced to cover up a gap in our understanding. It is at this point that the telepathy hypothesis comes to our rescue. (2)

David Cheek's (1992) studies in pre- and perinatal psychology are significant in this context. In an article titled "Are Telepathy, Clairvoyance and 'Hearing' Possible in Utero? Suggestive Evidence as Revealed During Hypnotic Age-Regression Studies of Prenatal Memory," Cheek notes the following: "Experience has shown that babies have a tendency to assume responsibility for any distress that their mother suffered during labor" (133).

Cheek (1992) presents client histories that demonstrate the imprinting of information on the fetus that may emerge later in life. For example, any indication that the mother did not want to be pregnant may be the basis for a difficult relationship between mother and child because, as a fetus, the child felt rejected even though the mother was fully accepting and positively responsive later in the pregnancy and at the birth. Some of Cheek's conclusions are following:

> [1] The human conceptus is a feeling and interpreting organism, [2] Fetal channels for information are psychic, [3] What the mother perceives and responds to in the environment seems to be mirrored by the conceptus throughout pregnancy, [4] The embryo or fetus will usually recognize that its mother is subconsciously happy to be pregnant if her environment is a happy one, but this engram is outweighed by messages of distress, [5] The conceptus is alarmed by maternal distress. It registers her feelings as signs of rejection, even abandonment. (136)

An important area of fetal life is dreaming. Research has confirmed rapid eye movement (REM) in the dream states of fetuses. A fetus may dream for at

least half of each 24 hour day. Fred Alan Wolf (1994) claims that these extended REM states are preparatory for brain development, perhaps resulting from external stimuli, and describes this stimulation as "blasts of neural energy" (138). REM states are associated with memory processing. Regarding the prenatal memories already described, something beyond simple brain mechanics must be taking place. Although Wolf associates REM states in fetuses with basic brain function, he is also aware of the biological and physiological data that suggest the brain operates both "holographically as an imagemaker, and mechanically as a neural network while awake and while dreaming" (18-19).

Bowman (1998) explains that these REM states begin at 26 to 30 weeks in utero, and refers to a Tibetan medical text quoted in *Regression Therapy: A Handbook for Professionals* by Winafred Blake Lucas:

> "In the 26th week in the womb, the child's awareness becomes very clear and it can see its former lives . . . and what type of life it had before it took this birth." (288)

Past Life Memories

Thomas Armstrong (1988), shares a dialogue between a grandmother and young granddaughter in which the child asks what will happen after the grandmother dies. The grandmother answers that she will become an angel, and the child then asks whether the grandmother will become a baby again. Carl Jung comments on this dialogue and states that within the child's response "lie the seeds of the reincarnation theory which, as we know, is still alive in millions of human beings" (quoted in Armstrong, 23).

Stanislav Grof's (1992) research reveals that the biographical realm of the psyche, with its memories of infancy and childhood, is usually first to emerge in altered states. During Holotropic Breathwork, a re-birthing technique designed by Grof and his wife Christina, people often adopt the facial features and body postures of young children and may demonstrate some of the axial reflexes of infancy. After decades of research with participants in altered states, Grof has this to say about past lives:

> In non-ordinary states of consciousness memories of past lives are woven into a tapestry of experience that includes present life memories around birth, infancy, childhood, adolescence, and adulthood. (126)

In his study of reincarnation, Ian Stevenson (1974) explains that some of the children he studied were

> precocious in speaking – both in their ability to articulate and in the richness of vocabulary – and some of them have quite startled their parents by the unusual words and phrases which they have uttered at a remarkably young age. (9)

Although many children are too young to speak clearly of their memories, Stevenson discovered that they nevertheless attempt to communicate through mispronounced words and gestures. Stevenson continues:

> As the child develops fuller powers of speech, say between the ages of two and four or five, he nearly always repeats (often many times) what he tried to say earlier, but can at last express more clearly. (9)

Stevenson's research reveals that many children talk about past life memories at about the age of three and stop talking about them at around five, the same period during which children speak about birth memories.

As psychiatrist John Mack (1994) delved deeper into transpersonal realms, he found himself attracted to clients who claimed to experience extraterrestrial

abductions. Most often, repeated abductions commenced in childhood. He notes that past lives also emerged during sessions with his clients. Mack states the following: "These reports suggest that individual consciousness may have its own line of development, separate from the body" (419). Referring to his clients' vivid experiences of embodiment and death, he describes their common experiences as follows:

> They speak of a return to or diffusion into some sort of primal or universal creative consciousness or source, and then a later rebirth through a woman's womb into a new embodiment on Earth. (419)

Another perspective offered by Mack (1994) is suggested by Rupert Sheldrake Mack writes:

> As biologist Rupert Sheldrake has suggested, it is possible that there exists a kind of eternal collective memory on which we all may draw. One might, Sheldrake suggests, "tune in to particular people in the past who are now dead, and, through morphic resonance, pick up memories of past lives." This does not prove, he says, that "you were that person." (419-420)

Chamberlain (1998) learned from his experiences with past life memories that these are not merely abstractions. Some children insist on dressing according to the gender they remember from a past life (190). One past life memory involves a client who remembers being very disturbed at birth when she realizes she is a baby and not the princess of a previous lifetime. She is further distressed because she thinks her parents must know who she is since they named her Sarah, meaning princess, but she does not understand how they seem to have forgotten (191).

Bowman (1998), in her collection of case histories of the spontaneous reincarnational memories of children, includes her own two children. She reviews

examples from the extensive work of Ian Stevenson and other past life researchers. Bowman reports that personal experiences with young children who speak about previous lifetimes have changed the world views of family members and the perspectives of several psychiatrists, psychologists, and therapists.

Children are often spontaneously induced into trance or hypnagogic states, theta brainwave states, while riding in a car, swaying back and forth in a rocking chair or swing, or during any activity that engages the right brain hemisphere such as artwork, singing, and playing make-believe. Past life therapists who work with children include drawing in their clinical technique.

During Bowman's (1998) research, she came upon a number of children who described hovering over their future mother and father before birth. Sometimes the mother is known from a past life. A young child may recognize a person in this lifetime who was known in a past life and may ask that person if he or she remembers the child while proceeding to tell the story of that past time. Bowman states, "This can have a powerful effect on the adult [activating] profound emotions" (241).

Children may describe the locations of places they knew in a past life that may be verified later. Smells, tastes, and something as simple as a mother wearing an apron, may act as triggers enabling a past life memory to surface. Bowman (1998) shares a story about a young child watching her "apron-clad mother baking in the kitchen" (237). The two-year-old child comments, "My black mother used to wear an apron, too" (237).

A child may retain a talent from a previous life and draw, paint, perform music, or have an aptitude for science or mathematics far beyond their developmental level, the so-called precocious, gifted, or genius child. Bowman (1998) suggests that these are descriptive words commonly used to cover over any real explanations for these abilities.

The matter-of-fact tone within which the child speaks is one of the most outstanding features of this phenomenon. Bowman (1998) reports a story of a three-year-old who saw an image of Abe Lincoln during a television program. The tone of voice of the child changed immediately, and the father describes the following:

> "It was suddenly like talking to a grown-up. The way he spoke was like a little man relating his own experience. It wasn't that his voice deepened; it was the *way* he said it. He was giving me a factual account of his experience as a soldier." (201)

Bowman shares the following quote from Head and Cranston concerning an experience with xenoglossy:

> To the mystification of Dr. Marshall McDuffie, a prominent New York physician, and his wife, Wilhelmina, their twin baby boys were found to be conversing among themselves in some unknown vernacular. The children were eventually taken to the foreign language department of Columbia University, but none of the professors present could identify their speech. However, a professor of ancient languages happened to pass by and was amazed to discover that the babies were speaking Aramaic, a language current at the time of Christ. (212)

A child's phobias may relate to a violent death in a previous lifetime (Bowman 1998). Bowman notes, "This conforms to the now-familiar pattern observed by all past life therapists and by Dr. Stevenson: traumatic deaths are usually at the root of otherwise unexplainable phobias" (148). Bowman continues,

"Children may resist eating foods that remind them of that experience, cry when they hear a particular foreign language, or express disgust for a culture or time in history" (226). As an example, Bowman offers a story she quotes from Yonassan Gershom titled "Mary and the Bombs."

> Mary was born in the Midwest. During the day she was a normal, happy baby, but at night she screamed in terror. As soon as she could talk she described vivid nightmares of being bombed, and she was absolutely terrified of sirens. Once while Mary was walking home from school, a siren went off. She started screaming and ran into the street, stopped a passing car and shouted, "We're going to be bombed! We're going to be bombed!"
>
> While still a little girl, she had visions of herself as a young woman, very gaunt, wide-eyed and frightened, asking, "Why, why, how can this be?" Mary, now an adult in her middle age, has never known hunger in this life, yet she has a deep fear of starving to death.
>
> Her parents always brushed off her weird behavior as "something she heard on the radio," but Mary always knew it was something more. She puzzled all her life about what was "wrong" with her, until years later, while traveling by train through Germany, she had a flashback. She finally saw that she had died in the Holocaust, and her nightmares and weird behavior suddenly made perfect sense. (293; quoted in Gershom 106-109)

Bowman reports that adults often respond inappropriately to children when they share deep moments of knowing. Difficult challenges, present and past, may be alleviated for the child when these memories are responded to appropriately and respectfully.

Experiences with Spiritual and Invisible Realms

The Boy Who Saw True (Anon.1961) is a published diary written by a young Victorian child who was born in the North of England. Cyril Scott, who wrote the introduction, reveals that the anonymous author demonstrated "literary aspirations when quite young" (9-10). Scott describes him as "a precocious young boy with a talent for clairvoyance . . . who could see auras and spirits, yet failed to

realize that other people were not similarly gifted" (8). Scott explains that we have access to the diary only because the author's wife was able to finally persuade him that it should be published (9). Here the child describes one of his mother's friends:

> Mrs. Croft has a face the colour of a suet pudding and talks very slowly, and drops her aitches, which I thought only common people did. She has something sticking to her like a crab, which looked horrid and gave me the creeps. (The unfortunate Mrs. Croft died about eighteen months later of cancer). (Anon. 1961, 46)

The boy's mother often had him seen by eye doctors because he saw things that no one else could see. After the following doctor's visit, the child wrote in his diary:

> Then he asked me if I still saw things. And of course I said yes, though I thought it was a funny question. Then he said very amiably, "Well now, tell me what you've seen?" So I told him I'd seen Jesus, and a lot of little elves, and then I'd seen a crab sticking to a lady, and an old gentleman inside that Miss Salt at Birkdale, and a few other things. And he said, "tut tut tut, that was a funny thing to see, wasn't it?" He meant the old gentleman. (1961, 47- 48)

The boy continues:

> The doctor asks, "Do you see anything now?" So I said, "Yes, I see an old lady with white hair and ringlets, and she has a lace cap on and a lace shawl, and she is nodding and smiling at you and me. She has a sweet kind face and nice lights, and says to me "I was your mother!" And this seems to surprise the doctor so much that he said, "Hum hah, dear me, dear me." Then mamma came back into the nursery, and the two of them went off together. (1961, 48)

Earlier, when he told Miss Salt about the old gentleman "in her lights," she showed him a photo, and it was an image of the same person, an example of entity attachment (45). Commenting on the number of people he has met who manifest similar abilities as that of the boy, Scott states, "I believe that the day is not far

hence when many children will be born with the same faculties that he possessed and may be equally misunderstood" (1961, 8).

Healing

The ability to see disease in the body's energy field before it manifests physically is one way that children may participate in the healing process. Thomas Armstrong (1988) asserts that children can act as unconscious channels of healing until the age of seven, after which they are often well-conditioned by beliefs perpetrated by family members and modern health care (86). Armstrong explains that when this healing takes place, it occurs "more often within the deep structures of the community or within deep levels of the individual psyche" (86-87). In some indigenous cultures, Armstrong continues, children act almost as assistants to the shaman, "tapping into the collective unconscious [and] participating in the healing processes of the tribe through their subterranean communications with nature" (87).

Relating his experience of being stricken with Asiatic cholera at the age of eight, Paramahansa Yogananda (2005) describes the healing that took place while he stared at a photo of his mother's guru, Lahiri Mahasaya: "I gazed at his photograph and saw there a blinding light, enveloping my body and the entire room. My nausea and other uncontrollable symptoms disappeared: I was well" (10).

Barbara Ann Brennan (1988) was a NASA research scientist for a number of years and later trained as a counselor. Soon she discovered that she could see lights or colors around her clients. With further training in energetic healing, she

helped others to become healers. Brennan describes her childhood on a farm as follows:

> I would spend hours in the woods alone, sitting, perfectly still and waiting for small animals to come up to me. . . . I entered into an expanded state of consciousness in which I was able to perceive things beyond the normal human range of experience. . . . I discovered that everything has an energy field around it that looks somewhat like the light from a candle. I also began to notice that everything was connected by these energy fields, that no space existed without an energy field. (5)

Psychiatrist Elisabeth Targ was a renowned psychic researcher, a pioneer in mind/body medical research, and a healer who also demonstrated paranormal capabilities as a child. She often worked with her father, physicist and parapsychology researcher, Russell Targ.

As a child, Elisabeth was able to describe the contents of her birthday presents before opening them. Jane Katra, in an obituary article in 2002 after Elisabeth Targ's death at the age of 40, wrote that as an eight-year-old, she was "one of the most outstanding participants working with a four-choice random number generated ESP-teaching machine" (1). Elisabeth taught her friends how to play hide-and-seek while using remote viewing. They would practice "seeing" where each child hid before finding the playmate.

Katra (2002) states, "At age 13, Elisabeth started working in Karl Pribram's renowned brain lab at Stanford" (1). Near the end of her short life, Elisabeth said that "her fondest wish was to be 'the Virgin Mary's assistant,' helping people to love and to heal" (2).

In these two examples, each was born into a situation advantageous for maintaining a child's natural state of connectedness. Barbara Brennan spent her

childhood in intimate relationship to the natural world, and Elisabeth Targ lived in a home where reports of paranormal experiences were well-received. In addition, each retained a strong spiritual orientation, so natural to young children.

Spirituality

Tobin Hart's (2003) study sought to understand the spiritual world of children. Hart writes:

> From my research, a startlingly different picture of children's spiritual life emerges from the one we have been taught. The evidence overwhelmingly suggests that children have a rich and formative spiritual life. (7)

Hart shares experiences with children that demonstrate their wisdom and awareness beyond what is usually expected of them. Referring to the paranormal experiences of children, Hart states, "The integration and refinement of this knowledge may reflect a natural evolution of human consciousness that opens to a multidimensional universe" (13).

Hart (2003) explains that childhood visions serve as "a measuring rod and moral barometer," in some cases, and quotes the following from one woman's childhood visions. She claimed that her visions were the "fundamental measure against which all else was measured in my life" (53-54). In her own words:

> "I tested everything else. I saw people and things in terms of quality and quantity of light: the presence of light or its lack was my only yardstick of right and wrong. . . . . When I tried to speak to adults of the light, or tried to live by its implicit truth, this was often met with blank astonishment or, as I grew older, active annoyance." (53-54)

Hart (2003) refers to the questions children ask, their *ultimate concerns*, about "their place on Earth, the nature of knowledge, their being and their becoming," the questions of philosophy and spiritual pursuit (112). Hart asserts

that "Children's natural openness, freshness, and candor make them remarkable natural philosophers" (112).

Bowman (1998) reports that while she investigated past lives, she learned about the spiritual awareness of young children. Some of them have "a gift for comprehending and articulating sophisticated spiritual concepts" (Bowman, 340). Four-and-a half-year-old Courtney describes heaven in a serious tone:

> "You go to heaven, then you have a little time to rest, kind of like a vacation, but then you have to get to work. You have to start thinking about what you have to learn in your *next* life. You have to start picking out your next family, one that will help you learn whatever it is you need to learn next." (341)

Bowman (1998) asks if Courtney had seen God and expects a common cultural image to emerge, but the child says, "Don't you know, I only saw God with my soul" (341). Bowman comments that children "speak directly from their hearts about heaven, death, and rebirth . . . [asking] the same questions that adults created philosophy, religion, and myths to answer" (338). Bowman adds that they are "unprejudiced by adult limits or conceptual clichés" and refers to their clarity as an example of the Buddhist concept of beginner's mind (338).

Thomas Armstrong (1988) asserts that a child has "extraordinary levels of insight and deep reservoirs of inspiration and illumination" (4). He notes that, worldwide, more and more therapists and researchers are reporting astonishing comments from young children about their inner experiences, memories, and observations. Freudians contend these are hallucinations or "primary process thinking," and even Jean Piaget and his followers consider the non-ordinary or the spiritual experiences of children as "confused, paradoxical, and inferior"

compared with adults (Armstrong, 9). Armstrong weaves together his discoveries with those from multiple disciplines and hopes they will become "a foundation for further research into this dimension of the child's existence" (10).

Robert Coles (1990) spent many years researching childhood primarily through direct interviews. Coles states that his emphasis is not on children as "practitioners of this or that religion" but on the soulful ways "they themselves reveal: young human beings profane as can be in one minute, but the next, spiritual" (xvii, xviii). After talking with individual children from a group of ten-year-olds, Coles shares his perception of these children:

> I've noticed the abiding interest they have in reflecting about human nature, about the reasons people behave as they do, about the mysteries of the universe as evinced in the earth, the sun, the moon, the stars. . . . the moral and spiritual power that certain children display. . . help me learn about matters I might not want to acknowledge as part of what I choose to call psychological "reality" (332).

Coles (1990) documents many conversations and responses similar to this comment by a ten-year-old girl:

> "I say my prayers at night . . . but afterwards, sometimes, I'll lie there and think, and I wonder about how I came to be the one who's here, and why I was born me and not someone else — all that, and I know lots of people have those thoughts, they just do." (300-301)

Coles comments about such "pious moments:"

> like Pascal, she knew the bedrock perplexity and aloneness that both faith and reason quake before them. Pascal's dilemma of many children I have met, who seek faith with all their heart, all their might, yet also know much of honest self-confrontation, of twentieth-century secular soul-searching, during which, as with Pascal centuries ago, "nature confronts the skeptics, and reason confutes the dogmatists." (301)

In the responses from Helen Wambach's (1979) group trance states, death is often described as a profoundly positive experience. Bowman (1998) notes, "According to sacred Buddhist teachings, the moment of death is the peak psychological moment—the supreme bardo in the entire cycle of life, death, and rebirth" (78). Bowman comments on the general cultural denial of reincarnation:

> This idea of the continuation of consciousness is difficult for Westerners to comprehend because we have been taught that the mind ceases at death. But reports from those in the West who have had near death experiences, in addition to reports of remembered death experiences from past life regressions, support what Eastern mystics have been saying for thousands of years. (78)

Melvin Morse (1994) recorded a variety of children's comments concerning near death (NDE) and out-of-body (OBE) experiences. Morse states, "Childhood experiences are often compelling because children have a different perception of death than adults" (1). According to Morse, children are "too naïve to invent stories based on repressed fear of death" (2). He mentions child historian Philippe Ariès' observation that modern society abandoned the traditional relationship with death that existed for thousands of years.

Morse (1994) was the first physician to report a pediatric NDE. It involved a seven-year-old-girl who observed details of her resuscitation in which she described a spiritual guide, heavenly realm, and her return to consciousness.

Morse (1994) comments on the "cultural contamination and examiner bias" that "became extremely difficult to control" after the 1976 publication of Raymond Moody's investigation of near death experiences (7). Morse relates the

experience of a two-year-old that took place in 1971, five years before Moody's book:

> Todd was age 2 years 5 months when he bit into an electric cord from a vacuum cleaner. Medical records document that he was in ventricular asystole with no spontaneous respirations for approximately 25 minutes. After his resuscitation, he slowly recovered cortical and neurologic functions over the next 4 to 6 months. At age 33 months, he was playing in the living room when his mother asked him about biting into the cord. He stated: "I went into a room with a very nice man and sat with him. (The room) had a big bright light in the ceiling. The man asked if I wanted to stay or come back with you." He then looked up at his mother and stated: "I wanted to be back with you and come home." He then smiled and went back to playing with his toys. (11)

Morse (1994) reports that most children describe fragments of their experiences, but taken together, the following results can be understood as core NDEs and are basically the same as adult descriptions of NDEs. The experience generally involves:

> a sense of being dead . . . seeing a light . . . separating from the physical body . . . going through a tunnel . . . seeing dead relatives . . . seeing living teachers and relatives . . . pets . . . angels . . . a godlike being. (31)

A decision is made to return to the body, and the child experiences a "sense of peace and joy" (31). Morse comments,

> One piece of circumstantial evidence that NDEs represent a real-time event and not a reactive fantasy is that long-term follow-up of these experiences documents that they cause significant personality transformation. (24)

Morse states that these stories are "best analyzed scientifically as 'subjective paranormal experiences'" and that this allows for "clinicians to study visionary or paranormal experiences without taking a philosophical position as to the objective reality of them" (12).

John Mack's (1994) final years as a psychiatrist were focused on clients who claimed to have been abducted by extraterrestrial beings. Mack learned that the indications of a childhood abduction are as follows: feeling a "presence," seeing "little men or other small being" and an "intense light," hearing or feeling a "humming or vibratory sensation," having an out of body experience (OBE) or "being floated down the hall or out of the house," seeing a UFO close-up, experiencing a loss of time (sometimes parents are unable to find the child for an hour or so), and awakening paralyzed and often with a "sense of dread" (29).

Kenneth Ring (1992) notes that children's abduction experiences generally begin at about age five and share a "common set of motifs" indicating something "systematic" underlies them, in addition to being an "initiatory journey" (74-75). He explains that many of the encounter-prone children he interviewed had abusive childhoods and learned to access alternate realities, but that this is only one of perhaps many routes to psychological sensitivity. Ring suggests that some children may be born readily able to have these experiences, and others "may be nurtured through positive means, such as their parents encouraging imaginative involvement in childhood" and therefore "sensitivity to nonordinary realities" may be cultivated (146-147).

CHAPTER FOUR: BRAIN AND CONSCIOUSNESS THEORIES

Introduction

This chapter includes research and theories concerning human perception at several levels: cells; organs, (heart, brain); mind; and body. The consciousness of infants and young children is revisited with an emphasis on feelings and emotions in the experience of perception. Chapter Four challenges the conventional view that mind, or consciousness, is an epiphenomenon of brain activity. In addition, a distinction is made between psychological consciousness (awareness), investigated by most researchers, and philosophical consciousness, the view that everything has consciousness (de Quincey 2002).

Ignorance regarding the significance of feelings has had a devastating effect on children and nature. Current research suggests that a well-regulated emotional state and a coherent state of heart and brain rhythms are essential for the ability to reason intelligently (Damasio 1994; McCraty 2003). The continuing Western tendency to presume conflict between reason and emotions may play a significant role in the disregard for the emotional bonding of mothers and infants, the normalization of painful and unnatural births and childhoods, and the plundering of the natural world.

This dissertation proposes that while the modern mind seems to have nearly dissociated from the natural world and the nature of babies, modern humanity has not fully lost the states of consciousness that are essential for a positive transformation. These are still found in babies, who are known to be

empathic, highly sensuous, attuned to the intention of others, and who experience a borderless perception (Bloom 2010; Gopnik 2009) They are natural to certain indigenous groups who have remained isolated from the Western mind (Liedloff 1977; Pearce 2002; Sorenson 1998). Such culture's peaceful villages demonstrate individual and empathic social structures that include a non-verbal attunement to intention and a synchronistic relationship with each other and the natural world.

In the1970s, Jean Liedloff (1977) and Edith Cobb (1977) developed relational and perceptual theories based upon their experiences with babies and children. Liedloff was impressed by the fully sensuous nature of the infant and the non-verbal interaction and intuition that guides indigenous mothers in caring for their babies. Her assertions concerning an infant's expectations of love and nurturance and of the essential need for the mother to assist with emotional self-regulation are confirmed directly and indirectly by Candace Pert (2003), Sue Gerhardt (2004), and Alison Gopnik (2009). Cobb (1977) emphasizes the significance of a child's imagination and relationship with the natural world. Gopnik's (2009) emphasis on the imagination of babies and imagination's significance in art and science is similar to Cobb's findings.

Important to this dissertation's thesis is an understanding of the physical and non-physical universe within which these fetuses, infants, and young children find themselves. There is significant information in consciousness studies, quantum science, and field theories that suggests a highly relational and interactive universe, mostly invisible, to which human consciousness may attune.

This chapter explores the subject/object experience of babies and the feedback-driven nature of reality as noted by emerging new science.

The research of anthropologist E. Richard Sorenson (1998) describes a kind of consciousness, an indigenous consciousness, which he claims is incomprehensible to Western thought. Liminal consciousness is sensuous and involves an often non-verbal and synchronistic manner of relating.

Liminal consciousness is not fully lost to the modern person and may be evident as the participatory and empathic nature of babies and young children. This ancient and participatory way of being may open to Western culture through its children in a newly emerging paradigm. The theta brain wave state in which children naturally exist for much of the time allows for this state of presence. Often lost long before adulthood, similar states may be sought after through meditation techniques and a variety of systems, including biofeedback. E. Green and A. Green (1986) comment:

> In our view, psychophysiologic training, using biofeedback as an aid, is one of the most effective of the newly developing ways of cultivating this state of presence, or at least finding the "inner place" (in the brain?—in the "heart"?) that opens to this state of presence. (554)

E. Green and A. Green's consideration of the brain and heart in a participatory presence concurs with recent research (Childre and Martin 1999).

Relational and Perceptual Theories

Cells

The cells of the fetus and newborn infant are imprinted by the environment. This includes the chemical elements that the fetus is exposed to in

the womb and during the primal period surrounding birth. As the cells reproduce, their progeny are attuned to the information passed to them by parent cells (Lipton 2005). Each cell has consciousness (de Quincey 2002; Lipton 2005) and is informed by the field associated with its growth and well-being while informing that field in turn (Sheldrake 2009).

Healthy cells develop and brain function is enhanced when an infant perceives the environment as safe and responsive to expectations of love and nurturance (Clark 2002; Gerhardt 2004; Lipton 2005). If a positive environment is not experienced, cells may become predisposed to trauma and disease. An infant's perceptions, expectations, and developing beliefs may align with these negative perceptions (Lipton). Negative cellular perception adds validity to the thesis that the primal period is the origin of many diseases that may unfold over a lifetime (Prescott 1979).

Bruce Lipton (2005) reports that each cell contains "organelle systems [that] are essentially the same mechanisms employed by our human organ systems" (37). Cells possess the "functional equivalent" of the following systems: nervous, digestive, respiratory, excretory, endocrine, muscle and skeletal, circulatory, reproductive, and immune. Each cell has protein receptors that are tuned in to environmental signals and read vibrational energy fields or frequencies. The cell's receptors read the physical signals of molecules such as estrogen and insulin. Antenna-like receptors vibrate. When a molecule in the environment creates resonance with a particular protein receptor, the protein's charge is affected, and the receptor changes its shape in order to interact. Invisible

forces, including thought processes, are able to influence a cell's activities. Applying the definition of perception as "awareness of the elements of environment through physical sensation," Lipton reports that cells, too, perceive (87). Lipton continues:

> The cell engages in behavior when its brain, the membrane, responds to environmental signals. In fact, every functional protein in our body is made as a complimentary "image" of an environmental signal. If a protein did not have a complimentary signal to couple with, it would not function. (188)

Lipton (2005) emphasizes that ultimately the cells in the body answer to the human brain. Therefore, if the brain perceives the environment as fearful, cells respond appropriately. Health may arise from loving thoughts and emotions just as disease or dysfunction results from fear and distress. Whatever a person believes about his or her environment informs the life of each cell.

Lipton (2005) contends that post-Darwinian scientists are in error in their focus on genes: "The problem with this under emphasis on the environment is that it led to an overemphasis on 'nature' in the form of genetic determinism—the belief that genes 'control' biology" (50). Lipton reports:

> But single-gene disorders affect less than two percent of the population; the vast majority of people come into this world with genes that should enable them to live a happy and healthy life. (51)

Lipton states that the diseases that are "today's scourges" (diabetes, heart disease, and cancer) are not the result of a single gene, but of "complex interactions among multiple genes and environmental factors" (51).

The impact of the environment on cells is well understood in certain areas of biology. Lipton (2005) reports: "when the cultured cells you are studying are

ailing, you look first to the cell's environment, not to the cell itself for the cause" (49). When Lipton "provided a healthy environment" for the cells, they thrived, and "when the environment was less than optimal, the cells faltered" (49-50). He adjusted the environment, and these "sick" cells were revitalized (49-50). A revolutionary field in science, epigenetics, meaning "control above genetics," reveals that DNA is not "set in concrete at birth" (67). Just as DNA blueprints are inherited, so are the environmentally influenced modifications.

The inclusion of cellular perception in this study is relevant, in part, because of fractal self-similarity that aids in a more complete understanding of living systems. This allows investigation at one level to help describe systems at other levels (Lipton and Bhaerman 2009). Just as cells perceive and attune to resonant fields, so do fetuses, infants, and young children. Bruce Lipton and Steve Bhaerman (2009) state: "The inherent nature of fractal self-similarity is the key reason why knowledge gained from studying the biology of cells can be applied to understanding human biology as well as communal society" (236). Antonio Damasio (1994) expresses this relationship in a similar manner:

> The same simple device, applied to systems with very different orders of complexity and in different circumstances, leads to different but related results. The immune system, the hypothalamus, the ventromedial frontal cortices, and the Bill of Rights have the same root cause. (262)

Potentially toxic chemicals in the amniotic fluid, including stress hormones from the mother, the unnecessary stress from birthing in an unnatural environment, as well as toxins in the external environment, influence a baby's perceptions. The fetus or newborn infant may not sense a world in which he or she can readily thrive and may feel insecure and unloved, resulting in a variety of

physical, emotional, and psychic diseases that may manifest from infancy into adulthood, diseases that continue to escalate in this culture.

Body

Body-based sensations are significant in the life of a child. Commenting on what is referred to as Descartes' error, "Je pense donc je suis," Damasio (1994) states:

> It suggests that thinking, and awareness of thinking, are the real substrates of being [and yet] as we come into the world and develop, we still begin with being, and only later do we think. (248)

Theories of perception relevant to this dissertation are relational and involve the whole being: body, heart, brain, mind, and emotions, and their interactive relationships with their environments. Alva Noë's (2004) theory of perception states that what we perceive is based on what we do and refers to this as an enactive approach. He does not conceive of perception as a process that takes place only in the brain. Noë explains, "A neuroscience of perceptual consciousness must be an enactive neuroscience—that is, a neuroscience of embodied activity, rather than a neuroscience of brain activity" (227). Damasio (1994) expresses a similar perspective when he states, "Perceiving is as much about acting on the environment as it is about receiving signals from it" (225). Affirming this full-body perception, Damasio adds:

> The idea that it is the entire organism rather than the body alone or the brain alone that interacts with the environment often is discounted, if it is even considered. Yet when we see, or hear, or touch or taste or smell, body proper *and* brain participate in the interaction with the environment. (224; italics in original)

Objects

The modern person's relationship to the word for an object appears to be that this word/object is a distinctly separate thing to be filed away in what is commonly accepted as the brain's computer-like memory system. The object is then perceived as a static thing. Children are conditioned to perceive reality in that limited fashion from the moment an adult says something as ordinary as, "This is a ball, a red ball." What exactly the child was perceiving before the naming process concretizes the ball into an object is unclear. Bloom (2010) and Gopnik (2009) claim that babies have a proper sense of the behavior of objects. What babies see beyond any imposed limitations, those that they are expected to perceive, the Western mind has forgotten.

Leonard Shlain (1991) notes that the Sanskrit word for "form" and "name" are the same. Shlain explains: "What we *see* is preconditioned by what we *saw* in the past, so that knowledge of the names of things prevents us from seeing new things afresh" (173; italics in original). With repetition, naming holds the form in place.

Johann Wolfgang von Göethe focused on a person's emotional relationship with color. Shlain (1991) notes that for Göethe color "existed chiefly in the mind of the beholder" (170). Until recently, the materialistic view maintained that "color is a unique property of matter" (170). This appeared to be confirmed when light was shown to consist of varying wavelengths "reducing to number what had always been a sensation" (170). What is now known about color, Shlain reports, is that it is *both* "the subjective perception in our brains" *and*

"an objective feature of light's specific wavelengths" (170). A specific color may actually appear slightly different to different individuals. The experience of color is an interactive dynamic.

A baby's relationship with subjectivity and objectivity has not been well understood. What exists for the baby *before* the name "ball" and color "red" are presented as facts? Babies sometimes confuse facts. They may not be clear about whether an event has taken place or whether they only thought it happened (Gopnik 2009). Shlain (1991) states, "Children blur the border between thinking and doing, between the inner space of imagination and the outer space of objectivity" (139). Gopnik's research suggests:

> It's not, as scientists used to think, that children can't tell the difference between the real world and the imaginary world. . . . It's just that they don't see any particular reason for preferring to live in the real one. (71)

Cognitive dissonance, generally not expected to be found in babies, develops during the cultural conditioning of emphasis on intellect over emotions, including the testing of preschoolers, and the removal of essential play and expressions of imagination from educational environments, escalating in this culture. Guy Deutscher (2010), language researcher, notes:

> The habits of mind that our culture has instilled in us from infancy, shape our orientation to the world and our emotional responses to the objects we encounter, and their consequences probably go far beyond what has been experimentally demonstrated so far; they may also have a marked impact on our beliefs, values and ideologies. (1)

The baby's borderless perception is not an unknown human quality. It has been recorded by anthropologists, ethnologists, and others, as natural to indigenous peoples. David Abram (1997) reports that indigenous communities in

many parts of the world refer to a mysterious realm in their stories as "long ago, in the future." Abram adds that researchers view stories of Dream Time or Distant Time "as confused attempts at causal explanation by the primitive mind" (19). He explains that the "sensuous breathing body" cannot "readily appropriate 'facts' or 'data'" but can assimilate "dynamic or eventful processes" as those related in the stories of oral cultures (120). He offers an example of the perceptual reality of the Inuit people as told to ethnologist Knud Rasmussen in the early 20th century, which refers to a time and reality when humans could change form and become animals, and animals could become human:

> *All spoke the same language.*
> *That was the time when words were like magic.*
> *The human mind had mysterious powers.*
> *A word spoken by chance*
> *Might have strange consequences.*
> *It would suddenly come alive*
> *And what people wanted to happen could happen—*
> *All you had to do was say it.*
> *Nobody could explain this:*
> *That's the way it was*. (87)

Abram reports, "In such indigenous cultures the solidarity between language and the animate landscape is palpable and evident" (87).

Before Albert Einstein's revelation of his theory of relativity, the Western view of object permanence was taken for granted (Shlain 1991). Jean Piaget noted that after several months babies *learn* to accept an objective reality. Shlain asserts that prior to that time, "space and time are fused," and objects change form and motion (139).

As a child, Einstein imagined what it would be like to travel astride a beam of light, the inspiration for his life's work. During a meeting between

Einstein and Piaget, Einstein posed a question about the subjective, intuitive experience of time and whether it is "immediate or derived" and "integral with speed" from the beginning of childhood (Shlain 1991, 139). Shlain reports that Piaget's studies, following this query, suggest "a strong similarity between an infant's rudimentary perceptions of time and space and those experienced by an observer traveling at lightspeed" (139).

Moral, Imaginal, and More

Paul Bloom

Paul Bloom (2010) helped design experiments to detect morality in babies. Bloom's intention was to find answers from studies of the "mental life of young humans" to help resolve "fundamental questions of philosophy and psychology, including how biological evolution and cultural experience conspire to shape human nature" (46). He states that although there may be an impression that infants "begin as ignorant as bread loaves," a growing body of evidence indicates that babies have appropriate expectations concerning the behavior of objects and a "rudimentary moral sense" apparent in the first year. Babies demonstrate a "naïve physics and psychology," far beyond what had been expected. Nevertheless many developmental psychologists have promoted the idea that the "ignorance of human babies extends well into childhood" (46).

Bloom (2010) acknowledges that the claim of a "universal moral code" is "highly controversial" (49). He adds that "the very existence of an innate moral sense has profound implications" (63). Because babies are especially attracted to human faces, expecting engagement, Bloom uses "looking time" as the

methodology. This measurable factor in experimenting with babies is based upon the extent to which the baby is surprised by, or especially likes, what is being observed.

It has been well-observed that infants express empathy, and that babies attempt to sooth and help spontaneously. Beyond this empathic response, experimenters were interested in a baby's notions concerning praise and blame. In order to garner this information, it was necessary to note what matters to babies, their sense of meaning. A number of experiments were devised using puppets and three-dimensional geometric objects. Generally, these experiments were based upon the infant's ability to reach for the more likeable object. Bloom (2010) reports that when "given a choice, infants prefer a helpful character to a neutral one; and prefer a neutral character to one who hinders," suggesting that babies have a "general appreciation of good and bad behavior" (62). He discovered that "toddlers have a mental model not merely of the world but of the world as understood by someone else" (49). Bloom asserts that a baby's experiences "might be cognitively empty but emotionally intense, replete with strong feelings and strong desires" (63).

Alfred Russel Wallace assisted Charles Darwin in the development of the theory of natural selection. In 1869, Wallace stated that "higher moral faculties" are too rich to have resulted from biological evolution alone, much to Darwin's distress. Bloom (2010) concludes:

> The morality of contemporary humans really does outstrip what evolution could possibly have endowed us with; moral actions are often of a sort that have no plausible relation to our reproductive success and don't appear to be accidental byproducts of evolved adaptations. (63)

He adds that although adults possess the capacity to "reason about morality," moral feelings are often as instinctive as those of babies (63)

During Bloom's (2010) experiments, it was also noted that infants and babies prefer what is most similar to themselves. They prefer their own race, those who eat the same foods, and those who speak the same language. Bloom states that a mature morality is impartial, as in Christianity's golden rule. He claims that this generality and universality are a product of culture rather than biology.

Contrary to Bloom's statement, the empathy demonstrated by infants may represent a universal human quality and the foundation for an impartial morality. The attraction to what is familiar, or self-similar, may be a biological adaptation necessary for survival in stressful situations. This may help explain the adult tendency to join forces against the "enemy," or "other," when biological and/or psychological survival are threatened, whether the threat is real or perceived.

Alison Gopnik

Alison Gopnik (2009) comments on the "bad old days" when psychologists promoted the idea that a newborn baby's responses were automatic and that babies were relatively "brain-deficient," much like "crying carrots" or "vegetables with a few reflexes" (116). Research now demonstrates that infants and babies are consciously aware in surprising ways.

Gopnik (2009) reaches many of the same conclusions as Paul Bloom (2010) concerning the moral development of babies. Babies are able to "differentiate between rules and harm" because they understand that sometimes a

rule needs to be broken to prevent harm to another person and because they often understand what "people think and intend" (Gopnik, 212, 225). Even nine-month-old babies demonstrate a heightened sensitivity to intention. A baby's consideration of intention, as applied to moral judgment, is well developed by the age of three.

Gopnik (2009) reports that babies are more conscious than adults, and that unconscious awareness develops over time. In order to accommodate a baby's rapid shifting of attention, their brains are structured with numerous cholinergic neurotransmitters, which process specific information in various parts of the brain. Anesthetics must act on these in order for a baby to become unconscious. So abundant are these neurotransmitters that high doses of anesthesia are required when babies are patients. Infants have experienced decades of surgeries, including circumcisions, while fully conscious because of the adult belief that infants do not feel pain and because of an inability to effectively render babies unconscious with anesthetics.

Babies live in a heightened state of absorption, in a state of uninhibited behavior, where they may more readily manipulate and explore the environment. Their consciousness appears to be very different from adult consciousness. Gopnik (2009) states: "Children's brains and minds are radically different from ours, so their experience must be too" (14). The visual occipital cortex and the orienting parietal cortex are highly active in young children. Magnetic imaging has shown that when an adult is engaged in watching a movie, the prefrontal cortex is inactive. As a result, disbelief is temporarily suspended. Gopnik suggests

that an infant's consciousness may often be in a similar state. At birth, 100 billion neurons are in place, yet humans tend to organize their lives around repetition rather than novelty. Those neurons left unused undergo a pruning process.

Gopnik (2009) suggests that moral knowledge is imaginative knowledge, a result of deep empathy from birth. It is possible, at times, that babies literally do not see a difference between self and another's emotional states. A healthy attachment during the first six months after birth is essential for the expression of empathy and for the development of spontaneous acts of altruism.

Gopnik (2009) considers early childhood play and imagination preparatory for the creation and appreciation of art. Imaginary play is also a survival skill and teaches children to understand, and respond to, the intentions of others. Gopnik comments that their "obsessive and unstoppable pretend play . . . reflects the most sophisticated, important, and characteristic human abilities" (71). Her research findings demonstrate a correlation between pretending and learning: the more babies learn, the more they pretend. Truly experimental, they literally play with the new ideas that are being discovered (65). She notes that cultural attitudes towards imagination are often different from those towards knowledge; they may be oppositional. Gopnik argues that it is possible to alter or create events only through imagination.

According to Gopnik (2009), childhood memories seem to reside in the body rather than in the mind and remain central to selfhood. Those early memories are difficult to recover because the consciousness of a baby is entirely different from that of an adult. Time, too, is experienced differently by babies.

Gopnik describes a state of mind termed "lantern consciousness" or "beginners mind" that developmental psychology and neuroscience suggest might be what it is like to be a baby (130). Children do not develop autobiographical memory until after the age of five.

Also, at about the age of five, children generally appear to think that there is a "single vital force," similar to the concept of chi in Oriental philosophy, that helps things grow and keeps people alive (Gopnik 2009, 36). They believe that loss of this force results in death. At that age, children seem to understand the finality of death, but prior, they may think of it as a temporary "ending" with the possibility of return.

Gopkin (2009) asserts that young children are important not for their potential but simply for themselves. She perceives children as partners with adults but with a different and more malleable brain that is highly attuned to the processing of new information. Gopnik states: "They have very different, though equally complex and powerful minds, brains, and forms of consciousness, designed to serve different evolutionary functions" (9).

Edith Cobb

Edith Cobb (1977) emphasizes the child's perceptual and imaginative relationship with the natural world. She devoted her life to the creation of a library related to the lives of children, to the nature of childhood, and to the child's relationship with culture. On the cover of Cobb's book, *The Ecology of Imagination in Childhood*, James Hillman states: "Since the imagination arises

from the child's contact with nature, each child is a born ecologist. Thus: save the children to save the imagination to save the planet."

Cobb (1977) accumulated children's expressions of imagination in their artwork and writing. She investigated the imbalance caused by an emphasis on the intellect over imagination and suggests that we "cast off the shackles of a superintellectualism." Cobb explains:

> My aim throughout this work was dictated by the belief that a curious combination of negative attitudes towards both the child mind and nature deters us from observing and building upon the innate need and positive desire of every child to create in order to learn and know. Although we speak freely in philosophy—even in philosophy of the sciences—of the value of the child's sense of wonder to knowledge and learning, without some causal connection, some idea of the sources of wonder in human beings, we know not wherof we speak. Yet the intuitive placing of the child in the midst of the natural world when referring to the sense of wonder is in itself evidence of some biological basis for the attitude of wonder as we have experienced it personally, in "the first poetic spirit of our life." (24)

Both Cobb (1977) and Gopnik (2009) came to understand the significance of childhood imagination in relationship to the appreciation of art and science. Cobb asserts that art and aesthetics are a "cosmogenic description of human gestalt-making endeavor of extraordinary depth and beauty" (22).They demonstrate the love of nature and knowledge as a "unitary action, the mind as body interacting with the universe" (22).

Leonard Shlain (1991) agrees that science, as well as art, is an aesthetic experience and requires sensitivity and imagination. He shares David Bohm's description of physics as "a form of insight [and] art" (Shlain, 15). Nobel laureate Hans Selye comments on the mystery of science:

> He who knows it not, and can no longer wonder, no longer feel amazement, is as good as dead. We all had this precious talent when we were young. But as time goes by, many of us lose it. The true scientist never loses the faculty of amazement. It is the essence of his being. (quoted in Shlain,142)

Dream researcher J. A. Hobson considers science to be "sensual in the deepest sense." (quoted in Wolf 1994, 135).

Cobb (1977) developed her theories while involved in "extensive fieldwork" with children. She dedicated herself to defining the genius of childhood by discovering clues from the childhoods of those whom the culture admires as geniuses. Cobb studied the lives of such diverse creative persons as Albert Einstein, the Brontë sisters, and Paul Klee, all of whom renewed themselves by returning to childhood memories and feelings. Education researcher Arnold Gesell's explanation that beginning with the fetal stage on "growth behavior of the body [is] toward mind" convinced her that genius is a biological phenomenon and begins prenatally (40). Cobb concludes that the genius of childhood is a "common human possession and a biological condition" (15).

Margaret Mead expresses her reasons for including Cobb's (1977) work in her own 1950s publications. Mead was especially illuminated by the "idea of a cosmic sense—that human beings need to take in, reshape, and give out, in some altered form, their perception of the natural world, the cosmos" (8). Mead continues:

> We were all struggling with, first, the definition of basic needs of human beings for food, water, shelter, and sleep, and, second, the more subtle needs for stimulating interaction with other human beings. This came to a head in the studies of maternal separation, of infants who lost the ability to

> smile when kept without individualized care in even the best orphan asylums. The idea that there was an intrinsic human need for understanding of the natural world, a need as important as the basic needs that human beings share with animals, was an exciting one. The metaphor of "breathing in air," utilizing this air internally and the "breathing" it out in a new form, to be recycled by the natural world, fitted many of our theories about why physically well-cared-for children nevertheless perished, and about the nature of the differences among children reared in stimulating and unstimulating intellectual and artistic environments and different cultures. (quoted in Cobb, 8-9)

Cobb (1977) perceives a child as a transformer of creativity, metaphorically, and as a transformer of human consciousness. She uses the term "biocultural" to describe a child's biological directive to form a unique world image and a self-image within the context of "evolutionary history." For Cobb, the structuring of world views and philosophies of purpose are at the intersection of biology and cosmology as the experience of childhood. Biocultural growth is driven by wonder during this period of very personal world-making. Cobb claims that personal evolution may become lost to social conditioning that "enervate[s] or destroy[s] the compassionate intelligence that is our true humanity" (61). This creative intelligence allows for participation "in otherness."

Cobb (1977) asserts that wonder is an "expectancy of fulfillment" displayed as "surprise and joy" and the "power of perceptual participation in the known and unknown" (28). For Cobb, the "aim of the cosmic questions of both philosopher and child is to obtain, perceptually or verbally, some reflexive action from the external world to the self" (28). She describes this "principle of expectancy" as the state of awareness of a small child who is concerned about extension in time and space even before understanding or verbalizing how or why

this is so. This expectancy is always future-directed and at no other time will be experienced so intensely.

Cobb (1977) shares biologist James Thorp's perspective that "*perception* is a *first-order drive*" (40; italics in original). He reports that even the simplest protozoan life forms are able too perceive. Further, Thorp states that perception is "closely linked with ideas of 'expectancy' and 'purpose'" (40). Cobb states that a child can "perceive preverbally the logic of relationships" that are overlooked within "systems of knowledge" (34). She is in agreement with Owen Barfield's comments about these relationships:

> Those mysterious relations between separate external objects, and between objects or feelings or ideas . . . exist independently, not indeed of thought, but of any individual thinker. . . . The language of primitive men reports them as direct perceptual experience. The speaker has observed a unity, and is not therefore conscious of *relation.* (quoted in Cobb, 34)

Modern childhood is divided into the dependency of infancy, and later, a newly forming independence through self-expression (Cobb 1977). First, there is perception and then cultural meanings and a continual comparison of what is known directly with what one is told, followed by ever higher levels of abstraction. Cobb notes that the latent period between infancy and adolescence, referred to by Victor Lowenfeld as the "x-ray period," has been neglected. Here the child is poised between inner and outer as well as living in a somewhat subliminal realm clearly evident in artwork. Cobb concludes that during this time, the child is in love with the universe and wants to "possess the whole world as his [or her] theater of perception" (55).

The Importance of Feelings

Feelings and Emotions

Concerning emotions and perception, Antonio Damasio (1994) reports that "the essence of a feeling may not be an elusive mental quality attached to an object, but rather the direct perception of a specific landscape: that of the body" (xviii). Damasio comments on the interaction of neurons and chemistries:

> What gives the body landscape its character at a given moment is not just a set of neural signals but also a set of chemical signals that modify the mode in which neural signals are processed. (144-145)

For Damasio, "feelings are the sensors for the match or lack thereof between nature and circumstance" (xix). Contrary to conventional scientific opinion, Damasio argues that "feelings are just as cognitive as other percepts," turning the brain into "the body's captive audience" (xix). Damasio asserts that "feeling your emotional states [offers] *flexibility of response based on the particular history of your interactions with the environment*" (133; italics in original).

Damasio (1994) grew up believing that reason and emotions require different neural systems in the brain "where emotion should not be allowed to intrude" on the separate mechanism of reason (xv). Damasio discovered that "*reduction in emotion may constitute an equally important source of irrational behavior*" (53; italics in original). Damasio emphasizes that the absence of emotion and feeling in decision-making is no less damaging than emotional bias and its potential harm (xi). He warns of the need to be aware of the "pitfalls of scientific observation" for this reason (246).

Rollin McCraty (2003), a researcher at the Institute of HeartMath, has come to a similar conclusion. McCraty reports that while traditionally, "the intellect was held with high regard" and emotions were considered "irrational," emotional intelligence "is as important as are mental abilities in both personal and professional spheres" (1). He also contends that "emotional competencies often outweigh the cognitive in determining success" (1). McCraty reports that this new perspective illuminates "the critical roles that emotions play in human experience, performance, and rationality" (2).

Sue Gerhardt's (2004) research concerns the emotional foundation of an infant that takes shape during pregnancy and during the first two years of life. This includes the formation of a baby's "social brain" (the infant's social and cultural programming), and the baby's emotional resources that aid in self-regulation when emotional expectations are not met. Gerhardt focuses on "unseen patterns of relationship that are woven into our body and brain in babyhood" (14-15). She describes the problematic results affecting biochemical systems, including neuropeptides of the emotional system, when an infant experiences high levels of stress, especially damaging when the stress lasts for extended periods of time.

Much of what has been known about infants and babies takes place privately between the mother and baby. Gerhardt (2004) suggests that "Meaning emerges as the baby begins to recognize whether the mother coming through the door will bring pleasure or pain" (19). Gerhardt reports:

> Physiologically, the human baby is still very much part of the mother's body. He depends on her milk to feed him, to regulate his heart rate and

> blood pressure, and to provide immune protection. His muscular activity is regulated by her touch, as is his growth hormone level. Her body keeps him warm and she disperses his stress hormones for him by her touch and her feeding. (22)

This care and connection is required for several months. The mother, or other caregiver, must experience the needs of the infant as if these were her own feelings. According to Gerhardt (2004), these unconscious "non-verbal patterns and expectations" involve the feeling that others will be emotionally available and provide comfort as needed. She reports that those children whose expectations are not met are regarded by attachment researchers as "insecurely attached."

Infants and young children who fear upsetting the mother, or other caregiver, will protect that person from their own feelings by repressing their feelings and appearing calm (Gerhardt 2004). But when measured, heart rate and autonomic arousal are heightened, indicating high levels of stress. Intense emotional states require some action to allow the physiological system to arrive at a state of rest. When there is no soothing of the arousal state, the child develops incomplete cycles replacing the healthy rhythms of the sympathetic and parasympathetic nervous systems. The cardiovascular system may remain activated even after muscle tension, shallow breathing, and the immune and hormonal systems have returned to a normal or a nearly normal state. Unless disrupted, blood pressure, sleep, digestive, and excretory systems have rhythms and timings that work together as a whole. Gerhardt describes this interaction: "The internal symphony of fluctuating inhibitory and excitatory activity is self-organizing through a process of feedback loops, so that influences are mutual and constantly adjusting to each other" (28).

The stress response begins to self-regulate prenatally. At about six months after birth, it is set. Stressful environmental influences contribute to low serotonin or dopamine levels. These are often associated with genetics and inheritance instead of with this significant stress response (Gerhardt 2004).

Gerhardt (2004) asserts that modern science has neglected to understand the importance of an emotional life because of the "linear and predictable," cause-and-effect, stimulus-and-response science that emerged during the Enlightenment period when a "particular approach to knowledge which could not be applied to emotions" was promoted (3). This understanding that "cognitions depend on emotions" is argued by neuroscientists such as Antonio Damasio and mapped by biochemists such as Candace Pert (5). Gerhardt quotes Damasio: "Nature appears to have built the apparatus of rationality not just on top of the apparatus of biological regulation, but also *from* it and *with* it" (5-6).

Gerhardt (2004) suggests that although conventional science may insist that infants do not remember the primal period around birth, "it is not forgotten because it is built into our organism and informs our expectations and behaviour" (15). The most comfortable adult relationships are based upon our earliest relationships and our responses to them. This "rapid exchange of emotional information" is referred to as "psychobiological attunement" by Tiffany Field (1985) in *The Psychobiology of Attachment and Separation* (28). Gerhardt concludes: "The paradox is that people need to have a satisfying experience of dependency before they can become truly independent and largely self-regulating" (90). Brain development is also based upon these early relationships.

The inhibitory prefrontal cortex, in particular, according to Gerhardt, requires "affectionate relationships that will generate plenty of opiates which will help this part of the brain to grow" (180).

Aspects of the relationship between emotions, body, and mind are described by Candace Pert (2003), who concludes that since the "biochemicals of emotion" run all the systems of the body then "our emotions must also come from some realm beyond the physical" (257). Emotions, as information, participate in an exchange among organs, cells, and other systems. Pert continues:

> Like information, then, the emotions travel between the two realms of mind and body, as the peptides and their receptors in the physical realm, and as the feelings we experience and call emotions in the nonmaterial realm. (261)

Christian de Quincey (2002) provides a philosophical approach to this mind-body relationship and the importance of feelings. He describes mind and body as "experience in process;" therefore, they are of the same type and *not* ontologically different. De Quincey asserts that the mind and body distinction is "wholly a consequence of their intrinsic *temporal* reality—the inevitable arising and perishing of experience" (227). Alfred North Whitehead transcends this Cartesian split of mind and body by emphasizing that we know the world by *feeling* it within and upon our bodies. Whitehead explains:

> Perception in the mode of presentational immediacy [sensory perception] corresponds with knowledge of the world as it filtered through our sensory-cognitive systems. In this sense, perception in the mode of causal efficacy [feeling] is extrasensory, and though intuitional, is still necessarily bodily based. (quoted in de Quincey, 175)

Heart

The heart's role in perception, consciousness, and love require a larger perspective than that of a potentially replaceable mechanical pump. New information is surfacing about this complex organ. Doc Childre and Howard Martin (1999), at the Institute of HeartMath, state that the purpose of the Institute is to discover how the "philosophical 'heart' and the physical heart interact" (xvii). Researching beyond conventional science, Childre and Martin note that in their own theory "the heart links us to a higher intelligence through an intuitive domain where spirit and humanness meet" (xvii). Childre and Martin explain:

> This intuitive domain is something much larger than the perceptual capability the human race has yet been able to grasp. But we can develop that perceptual capacity as we learn to do what sages and philosophers have asked us to do for ages: listen to and follow the wisdom of the heart. (xvii)

Childre and Martin (1999) report, "From the moment a child is born, love is as vital to his health and survival as physical nourishment" (229). They add that when a parent communicates genuine love, the child experiences "a harmonious, coherent heart rhythm" (230). The opposite is also true. Childre and Martin discovered that a parent in a "stressful, anxious, or angry state" communicates "a disharmonious, incoherent heart rhythm pattern" (230).

With emphasis on the importance of a caregiver's attunement to a baby's feelings, Childre and Martin's (1999) research agrees with Gerhardt's (2004) findings. When the attunement is positive, the baby's "neural circuits are positively reinforced" (230). Confusion in the neural circuits may cause weakened

connections that are unable to "withstand the neural pruning process" that occurs at least twice during childhood (230).

According to McCraty (2003), research at HeartMath has shown that "heart rate variability (heart rhythm) patterns are consistently the most dynamic and reflective of changes in one's emotional state" (3). Observation of heart rhythm coherence indicates positive or negative emotions, significant in emotional, physical, and psychic health. McCraty reports: "In short, through its extensive interactions with the brain and body, the heart emerges as a critical component of the emotional system" (4).

Brain

Elaine de Beauport (1996), researcher and educational innovator, reports that skin cells absorb energy in a constant interaction with the environment. The brainstem receives information through the skin and other senses "without our conscious consent" (de Beauport, 209). Sensorial patterns are stored as habit in the basic brain (214). De Beauport adds, "I began reflecting on the wave form as being characteristic of this basic brain" (214). With the brainstem, one incorporates the universe and is affected by vibration at a cellular level. When certain conflicts arise in this brain, de Beauport considers the ego self as the source:

> By means of a perpetual dualistic battle between "self" and "other," we not only avoid all responsibility but immerse ourselves in continuous conflict and drama. We can overcome this dualism by considering ourselves not as individuals separated from our context, but rather as an I-in-context. (236)

After information passes through the limbic system where thought, image, or intuition emerge in the neocortex, one becomes aware of "feelings" (de Beauport 1996, 209). The sense of awareness provided by the activity of the neocortex allows for mental feedback. The limbic system *feels* the universe, and provides emotional feedback.

To help maintain a balance between mental and emotional experience while learning, de Beauport (1996) worked closely with children as an educator and founder of the Mead School for Human Development in Greenwich, Connecticut. Students were asked to respond with both their *thoughts and feelings* when responding to questions or reporting on classroom material. Her statement concerning the incorporation of the universe at the level of cellular vibration seems similar to Cobb's (1977) descriptions of self and cosmos in a participatory relationship. Referring to Cobb's observations, Charlene Spretnak (1999) comments:

> A child moves not *away* from relationship to an autonomous state of the lone individual but, rather, moves *into* a cosmological exploration of the immediate environment and the perception of an ever-increasing complexity and inclusiveness in the structure of *gestalten*. (121; italics in original)

Mary E. Clark (2002) stresses the significance of an infant's need for a secure environment and identifies two essential requirements for the optimal development of the brain of an infant, security (emotional bonding) and opportunities for experience (63). Psychological and/or physical stress or trauma alter the brain's structure. When stressed, basic survival becomes the focus for adaptation to the environment, and the brain's more sophisticated functions

remain underdeveloped. Unless healing of the brain occurs, a damaged brain may remain so, and the child may be incapable of healthy social interactions. The study of peptides and neural structures in the brain have shown it to be malleable. Physical structures within the brain can change when healing occurs or whenever habitual behaviors are altered.

The prefrontal cortex, a specialized addition to the human brain system, is noticeably dominant following a natural birth, different from what is generally seen in hospital births (Joseph Chilton Pearce 2002). If the infant is appropriately "protected and nurtured," this growth spurt begins to occur shortly *after* the birth, otherwise a mother would not be able to birth a baby with such large frontal lobes (251). In a situation where a C-section is required, there may be noticeable development of the frontal lobes *if* the fetus experienced sufficient nurturance, and *if* the newborn infant is given immediately to the mother to be held next to her skin and breastfed (252n4).

Unnecessary birth trauma or any number of long-term stressors during the primal period may inhibit the development of predominant frontal lobes and their healthy function. The research of Allan Schore, published in 1994, found that it is a toddler's emotional state that "determines whether or not the orbito-frontal connection is established and used" (Pearce 2002, 45). Pearce notes that this connection influences the "lifelong shape and character of that child's worldview, mind-set, sense of self, impulse control, and ability to relate to others" (45). Self-consciousness is also associated with the prefrontal cortex. Lipton and Baehrman (2009) comment on this capacity: "Self-consciousness enables the individual to

factor in the consequences of his or her actions, not only in the present moment but also in the future" (31).

"To say that mind comes from brain is indisputable" (Damasio 1994) is typical of the conventional belief that mind is an epiphenomenon of brain and neural system development (251). But this view does not aid in understanding the non-ordinary experiences of fetuses, infants, and young children. The relationship between subjectivity and objectivity is important to the thesis presented in this dissertation. De Quincey (2002) reports that a "dual aspect" theory allows for both subjectivity *and* objectivity: "All matter would be both physical and mental in some degree" (95). A well-developed brain and nervous system may result in more expansive mental capacities and consciousness, but consciousness itself evolves this mind-brain system in order to receive information. The tiny brains and incomplete neural structures of fetuses and newborn infants attune to information, and in this exchange come to know what is otherwise commonly unkown. From her observations in mind-body medicine, Pert (2003) recognizes mind as immaterial with a "physical substrate" of body and brain:

> It may also be said to have a nonmaterial, nonphysical substrate that has to do with the flow of that information. The mind, then, is that which holds the network together, often acting below our consciousness, linking and coordinating the major systems and their organs and cells in an intelligently orchestrated symphony of life. (185)

Researchers have observed measurable brain-related activity beyond the physical body. Lipton and Bhaerman (2009) report that the brain-scanning system magneto-encephalography (MEG) "reads the brain's neural patterns through a probe that is some distance from the body" (273). Lipton and Bhaerman explain

that MEG technology "provides a physical proof that brain activity is broadcast into the environment in the same way that a tuning fork radiates a sound through the field" (273).

According to the thesis presented here, field theories and coherent states may help explain a transformation of consciousness mediated by fetuses, infants, and young children. Well-developed physical brains and neural systems may not be required at all. A coherent state in quantum physics, Bose-Einstein condensation, is a single macroscopic wave function that bleeds over into everyday reality. A laser beam is representative of this state. Ian Marshall and Danah Zohar (1998) explain:

> Under the exceptional circumstances known as Bose-Einstein condensation, an enormous number of such particles gather together in the same energy state and produce collective phenomena that spills over into our large-scale world. (75)

They tell us that Henry Fröhlich discovered coherent systems (Fröhlich systems) that coordinate complex processes at the level of cells and organs. The human body may act as an amplifying system with neurotransmitters in the brain inducing vibrations, and microtubules within neurons translating experience and collapsing quantum particles into this slower time-bound reality. Pearce (1992) concludes:

> Since the neural fields of our brain and the non-localized potential operate as a dynamic of resonant frequencies, our brain's neural-fields are obviously "quasi-temporal-spatial," both in and not in the time-space they give rise to. No research has been able to determine where in the brain perception actually takes place, because perception isn't localizable; yet every response we make to the stimulus of awareness changes the field from which our awareness springs. Our lived experience is a dynamic between a non-localized potential and our particular localizing of that potential as our perceived time-space world. (11)

The neurologist Karl Pribram developed a holographic brain model based upon information as frequencies of various wave forms. Reporting on the research done by Pribram, Michael Talbot (1992) says that Pribram came to understand reality as "a vast, resonating symphony of wave forms, a 'frequency domain' that was transformed into the world as we know it only *after* it entered our senses" (31; italics in the original). In the following description, Talbot combines the theories of Pribram and of David Bohm's holographic perspective:

> *Our brains mathematically construct objective reality by interpreting frequencies that are ultimately projections from another dimension, a deeper order of existence that is beyond both space and time: The brain is a hologram enfolded in a holographic universe*. (54; italics in the original)

De Quincey (2002) asserts that there is no interaction of mind and matter because "*mind is the action or process by which matter moves itself*" (249; italics in original). He explains that there is "purposeful process" involved and "no mysterious boundary or interface" (248). De Quincey adds that mind is "neither outside nor inside matter, but is constituent of the very essence of matter—*interior* to its being" (249). The "becoming" of matter as mind is related to entelechy, "an interior, self-force of a body" (de Quincey 249). The characteristics of mind, or consciousness, impel matter to move. In addition, mind is sentient and subjective and, therefore, feels as if it has a "first-person point of view" (70-71).

Consciousness

This section addresses different views on consciousness, although consciousness ultimately resists definition because of its "self-recursive nature: We need consciousness to define consciousness" (de Quincey 2002, 65). De

Quincey makes a distinction between philosophical consciousness and psychological consciousness. Generally, references made to the subconscious, to the psychological unconscious, and to consciousness as awareness refer to psychological consciousness. Philosophical consciousness, "includes both conscious and unconscious awareness" (de Quincey, 67). Philosophical consciousness has to do with the "mode of being" or "state or quality of being" that allows for the "context of consciousness" and a "capacity for sentience and subjectivity" (64). De Quincey adds:

> Although different qualities or states of (psychological) consciousness may evolve or emerge as nervous systems and brains evolve, (philosophical) consciousness, as such, is not an emergent phenomenon. It is ontologically prior to the material and biological complexity of nervous systems and brains. (67)

Often referred to as the subconscious mind, unconscious awareness takes place beneath our purview. Lipton and Bhaerman (2009) describe the subconscious as an "astonishingly powerful information processor" that records and plays back perceptual experiences (32). In addition to maintaining hidden personal psychological material, the subconscious is responsible for attending to the multitude of sounds, sights, smells, and background feelings present in daily life (Damasio 1994). Nevertheless, even these bodily systems may be consciously directed, to some degree, as is the case with yogis and persons trained in biofeedback. Hidden psychological trauma may also be accessed and healed.

Lipton and Bhaerman (2009) report that the most "powerful and influential programs" in the subconscious mind are those that were recorded earliest in life (34). These take place during the "formative period between

gestation and six years of age" (34). When a child expresses inappropriate behaviors, he or she may not be fully aware of these behaviors let alone the fact that they may be the result of primal wounding. Lipton and Bhaerman note:

> Because the role of the mind is to create coherence between its programs and real life, the brain unconsciously generates appropriate (or inappropriate) behavioral responses that assure the truth of its programmed perceptions. (34)

Jiddu Krishnamurti (1970), passionate in his dedication to questioning the process of thought and social conditioning, often asked whether there really is an unconscious, psychologically, or whether the unconscious develops as an excuse to deny what one does not want to acknowledge and feel. With a similar view, de Beauport (1996) asserts:

> The label "unconscious" obscures our vision, limits our capacities, separates us from deep religious experience, and ignores the discovery that we are energy systems guided by artistic and spiritual processes as well as by rational processes. (xxi)

Ralph Metzner (1998) describes Freud's conception of the unconscious as "a deep and dangerous unknown, like the ocean; and psychoanalysis—making the unconscious conscious—was like reclaiming land from the sea" (5). Metzner reports on Wilhelm Reich's consideration of cells and their association with unconscious material: "Reich concluded that 'repressed unconscious factors have become congealed into a kind of invisible armor, impacted into the tissues of the body, especially the musculature'" (5).

Jacobi (1973) reports that Carl Jung's theory of the collective unconscious includes both personal and collective shadow contents, deeply hidden psychological material (111). Infants and babies do not have personal shadows

even though they may have access to the totality of the collective unconscious, according to the thesis presented here. Jung's philosophy promotes the idea that children have no real shadows but shadows become evident with ego development (110).

Metzner (1998) shares Jung's description of the child archetype as "an anticipation of the synthesis of conscious and unconscious, and as a symbol of wholeness or the Self" (157). Metzner refers to individuation as the development of "individual consciousness, as distinct from mass consciousness [and] becoming 'un-divided,' or whole" (3). Healthy and whole babies have no shadow material determining their lives for them, but the unconscious material of the parents may rule the lives of their children. Abuse, systematic enculturation, and repression results in the unconscious hidden material present in older children and adults.

Gopnik (2009) comments on "some spooky substance responsible for consciousness" and suggests that this

> just doesn't fit with everything we know about science—even when it's dolled up in talk about quantum mechanics . . . While we don't know how "Capital C" Consciousness is related to the brain, we know an increasing amount about how particular features of consciousness are related to particular psychological and neural states. (108)

Gopnik admits that she really does not know about "the spiritual intuitions that accompany mystical experiences" (238). From her own experience, she notes:

> The sense of significance that accompanies the experience of raising children isn't just an evolutionary determined illusion [for] children really do put us in touch with important, real, and universal aspects of the human condition. (238)

Children present a particular problem in that they are at one moment acting as a baby or as a young child is expected to act, and then the next moment,

they may spontaneously share information or wisdom beyond their years or present life experience. From research material gathered for this dissertation, it is clear that indigenous cultures are generally not surprised by the wisdom of small children; it was attended to and appreciated. Lorna B. Williams (2006) reports on the Lil'wat in Canada:

> As in many indigenous communities, the belief is that when children come into the world they come with gifts that the community must nurture and support. The qualities of leadership are developed from birth, fostered, and recognized in every child. (94)

Paulo Wangoola (2006) shares his knowledge of Afrikan folklore and notes that "adults came to the conclusion that their children can be as intelligent, resourceful, creative, imaginative, and brave as adults; and often even more so" (123). There is a saying in Uganda, "There comes a time when the best adults can do is to follow their children" (Wangoola, 123-124). Margaret Mead wrote about the Balinese and Eskimo children who are expected to have prophetic gifts and are taught adult tasks at very young ages because they had learned everything in prior lifetimes and, from that perspective, only need to be reminded (Bowman, 1998).

There are no maps in child psychology that include non-ordinary phenomena (Armstrong 1988). Thomas Armstrong comments on how these non-ordinary or unusual states are reduced to "forms and shapes" and become "primitive fantasies" or "projections of the undifferentiated psyche of the child onto the world" (9). For Freudians, they are referred to as hallucinations or "primary process thinking." Armstrong explains how the developing ego-self is integral to the soul-Self:

> This Self (which existed even before the physical birth of the person) is larger than the growth of the individual ego as it moves through the various stages of human development charted by contemporary developmental psychology. (37)

Jung suggests that the Self is "in some respects the director or orchestrator of that very process of development" (quoted in Armstrong, 37). On occasion, children may act "childish." At other times, they present themselves as "childlike," a way of being that is generally considered endearing.

This dilemma of a child's capacity to be a child and also more than what is typically expected of a child might be resolved by Ken Wilber's (2001) four-quadrant model of consciousness. In *A Theory of Everything*, Wilber states, "Individuals at virtually any stage of development can have an *altered state* or *peak experience"* (48; italics in original). Wilber claims that his model "sheds considerable light" on how highly evolved spiritual teachers, for example, may also demonstrate "poor (or even pathological) development" (44).

Wilber's (2001) also contends that everyone "is born at square one and will continue to move through that spiral, with billions of people stretching across all of the colors of the entire spectrum of consciousness" (130). This is contradictory when applied to babies. Wilber asserts that "every infant born in every society still has to begin physical manifestation at level 1" (56). In *The Eye of Spirit*, Wilber (1997) explains:

> Precisely because the infant is at the lowest level in its frontal development and evolution, it is merged with and embedded in the lowest dimension of Spirit: it is one with the material and physical world . . . There are no differentiated emotions nor emotional object constancy; there are no mental concepts, symbols, or rules. (363)

Although he acknowledges the possibility of a spiritual experience at any stage of development, adding insight to a child's ability to shift from a baby to a brilliant small person, Wilber appears to place infants at a level far below what is now apparent concerning the nature of babies and their capabilities.

Referring to the matter of a baby's perception of objects, one might consider the possibility that babies *know* they are both subject and object. A child's capacity for allowing the subjective experiences of everyone and everything else may open children to experiences of the non-ordinary, experiences that are discounted and repressed. The materialism of late modernism does not allow for spirit, soul, or consciousness: no subjectivity whatsoever (de Quincey 2002). Subjectivity only *seems* to be happening. De Quincey asks, "Who or what is doing the 'seeming'?" (37). He asserts that "*matter is intrinsically sentient*" and both subjective and objective. De Quincey's perspective is referred to as radical naturalism:

> We exist as embodied subjects, as *subjective objects* or feeling matter. We know consciousness only as embodied beings, yet we know it not as body or matter. It is simultaneously our most intimate reality and our deepest mystery. (48)

De Quincey explains that matter-energy is the form reality takes "in response to the in-forming activity of psyche or consciousness. . . . *Matter and psyche always go together*—all the way down" (49; italics in original). He makes a clear distinction between matter that occupies space (physical and objective) and consciousness that does not (subjective). There is the *feeling* of what we might call "energy," the feeling is subjective. The energy or vibrations, or whatever is

felt subjectively, is objective, spatial, and, therefore, physical. According to de Quincey, consciousness may be expressed in this way:

> Consciousness is the ability that matter-energy has to feel, to know, and to direct itself. The universe could be (and probably is) full of energy flows, vortices, and vibrations, but without consciousness all this activity would be completely unfelt and unknown. Only because there is consciousness can the flow of energy be felt, known, and purposefully directed. (61)

Philosophical consciousness, the perspective that everything has consciousness "all the way down," appears to be the perception of indigenous peoples who, as with babies, allow for the subjectivity and objectivity of everything else and, therefore, experience fully participatory relationships.

Liminal Consciousness

Modern children are generally far removed from the natural environments that may assist in healthy ego development where the Soul-self is well-integrated with daily life experience. Charlene Spretnak (1999) notes that even when children have been "schooled in modernity's radical discontinuity between human and nature," they may still have "a profound engagement with a natural place" (27). Spretnak continues:

> Throughout their lives they carry in their minds that sense of place, a place they came to know with a child's deep capacity for personal response. The presence of place evoked their interiority and shaped their unfolding, offering over the years refuge and sustenance, stability and grace. (27-28)

Young children move relatively easily through a variety of states of consciousness based upon their feelings and on their relationship with the natural world and beyond. The modern child's disconnection with nature prevents confirmation of the kinds of extraordinary experiences that are available to children. Enculturation

places little value on these experiences, if they are mentioned at all, and generally dismisses them and any synchronicities they may experience.

Liedloff (1977) discovered a glade during a nature walk as a child of eight that held for her "the missing center of things, the key to rightness itself" (7). For years she thought back to that moment, to the "sense of salvation" that had infused her being. Later, while living with the peaceful Yequana in the jungle of South America, Liedloff realized that she had found her "glade" once again where everything was in its place: "It vibrated in its every cell with life, with rightness—ever-changing, ever-intact, and always perfect" (7). Here she reconnected with her own nature and spirit and from this presence formed the hypothesis that came to be known as the Continuum Concept.

Pearce (2002) comments on the Senoi people of the Malay jungle and "their unbroken, silent communion with their environment and each other, an integrated, self-contained way of relating" (256). Armstrong (1988) notes that this way of being is still found in the young child who is "acutely aware of the familial/interpersonal field and exists in what Levy-Bruhl called a *participation mystique* with family members" (115).

E. Richard Sorenson (1998) observed the child-nurturing practices of "preconquest" peoples found in "isolated enclaves." Sorenson describes a different kind of consciousness, a liminal state of consciousness, emerging from a "sociosensual nurture common to such peoples but shunned in Western societies" (9). Synchronicities are integral to liminal consciousness (Sorenson 1998).

Carl Jung's concept of synchronicities, i.e., meaningful coincidences, cannot be explained by the usual concept of cause and effect. Grof (1992) reports that what one might conclude from Jung's vision is that "the world of the psyche and the material world are not two separate entities . . . they are intimately interwoven" (12). Commenting on an inborn "knowledge" or "perception" in living organisms, an idea similar to Hans Driesch's vitalism, popular in his day, Jung (1973) adds that psychology finds itself in an embarrassing position "trying to explain the phenomenon of synchronicity" (77). Jung concludes:

> Final causes, twist them how you will, postulate a *foreknowledge of some kind*. It is certainly not a knowledge that could be connected with the ego, and hence not a conscious knowledge as we know it, but rather a self-subsistent "unconscious" knowledge which I would prefer to call "absolute knowledge." (77; italics in original)

Sorenson (1998) discovered that the sociosensual relationships of these small preconquest cultures "spawns intuitive group rapport and unites people without need for formal rules" (80). Their way of life "makes the forcing of others (including children) to one's will a disruptive and unwholesome practice. It was not seen" (Sorenson, 80). In a happy and coherent people, such instances would lead to the demise of the group's sense of integral community. Sorenson reports that "unconditional open trust . . . shrivels with alarming speed when faced with harsh emotions or coercion" (80)

In New Guinea, Sorenson (1998) spent extended periods of time with "isolated clusters of hunter-gatherer-gardeners" who were clearly "simultaneously individualistic and collective," and discovered that life "exuded a most remarkable, on-the-mark intuitive helpfulness and a constant considerate regard

by each for all the others" (81). Sorenson noticed that well before there was any verbal communication, "these forest-dwellers had instinctively tuned in to my feelings and made life easier and happier for me" (81). This "empathetic, integrative, intuitive rapport" was also found in the Himalayas (Nepal, Tibet, and Bhutan) in isolated and remote regions (Sorenson, 81).

Few, other than Freud, have referred to liminal consciousness. It differs from subliminal awareness and is defined as occurring on the "threshold of consciousness" and focuses on "at-the-moment, point-blank sensory experience" (Sorenson 1998, 82). Sorenson identifies and distinguishes this as the type of consciousness found in these preconquest cultures that were contacted "whereas a supraliminal type that focuses logic on symbolic entities is the dominant form in postconquest societies" (82). Sorenson observed that babies quickly assembled "a sophisticated tactile-speech to transmit desires, needs, and states of mind. They didn't whine or cry to get attention; they touched" (84). Even while the main caregivers did their daily chores, they maintained body contact with babies. Here Sorenson describes these interactions:

> Eliciting delight from babies was a desired social norm, and attentive tactile stimulation was the daily lot of infants. It included protracted body-to-body caressing, snuggling, oral sensuality, hugging, fondling, and kissing. (84-85)

The interactions of older children with the little ones consisted of spontaneous play and "wide-eyed enthusiasm." The older children welcomed younger children, considered babies a constant "source of pleasure," and they "were handled with intuitive regard and delight" (Sorenson, 87).

Sorenson (1998) notes: "Infants were quick to notice that the happiness of others made their own lives happier and richer, so they responded accordingly" displaying "true feelings" as "openly and clearly as their tiny frames permitted" (97). For these people, "tactile-talk" was "affect-talk," and "affect-talk" was "truth-talk." Even after learning verbal speech, children continued "bouncing inner passions back and forth in 'affect-talk'" (Sorenson, 97). Sorenson was "astonished to see the words of tiny children accepted at face value – and so acted on" (97). For months he tried to observe any instance where a child's words were considered "immature and therefore disregarded" (97). He never observed any such response.

After several years of being in contact with such people and observing their "astonishingly rewarding and zestful life," Sorenson (1998) realized that they had a very different type of cognition that was "sensitively intelligent and beneficially responsive" (106). Sorenson describes the infants as boldly thrusting "their sentient interests and awareness into an empathic experiential maelstrom. The boundary-resistant, fluctuating pulse of cognition they experience there leave logic at a loss" (106). He found that his own logical mind could not comprehend their cognition, but came to realize that this is problematic only when "inquiry is held too rigorously within a single culture's ethos and system of belief" (107). Each time he returned to Western culture after periods of time spent with these people, Sorenson would sometimes doubt his own perceptions. After repeated experiences, Sorenson began to question standard Western logic:

> Now I rather think that alternative routes to truth may exist within the immediacy of a type of experiential awareness that perhaps moves in

> extra-sentient directions not yet brought into the realm of our modern sense-of-truth. (107)

Human nature may have a natural affinity to non-verbal communication and to synchronicities, but the Western mind appears to have dissociated from the natural world, the nature of babies, and human nature itself, to some degree, creating nearly insurmountable boundaries by using psychological thought inappropriately. Krishnamurti (1991), who warned against the misuse of psychological thought, emphasized meditation and being fully present while standing outside of psychological conditioning. It is not an escape, he explains, but a way of "wandering away from this world" and becoming "a total outsider" (9). Sorenson did just that and became aware of a different way of being and of living. Babies are also outsiders when they come in.

CHAPTER FIVE: QUANTUM AND FIELD THEORIES

Introduction

Consciousness and, ultimately, the participatory nature of fetuses, infants, and young children are considered in this chapter. The participatory manner in which humanity interacts with nature and the cosmos is described by recent scientific theories and by certain transpersonal and spiritual models including Stanislav Grof's (1992) view of the universe as an "infinitely complex system of vibratory phenomena" (12). This perception is compatible with that of Yaqui shamans, who hold that the invisible realm of vibratory phenomena is unavailable to the ordinary consciousness of the modern Western person. Instead, there is focused attention on a limited and restricted band that has been called the "assemblage point." A. H. Almaas (1998) explains:

> What is spotlighted, then, is what you see and experience, and if a particular set of emanations is continually illuminated in this way, you will take this band to be reality. (165)

Almaas states that Western people are conditioned to this "band of emanations of the physical world" or what the Yaqui call "the place of reason" where the ego is conditioned to a small, limited, and therefore distorted world view (165). Yet Western humanity has the potential to experience all bands and emanations.

Young children generally do not have such ego boundaries and, therefore, interact with the expanded continuum of reality and contents of consciousness. The models and theories presented here offer explanations for memories that sometimes surface in small children concerning pre-birth, birth, past lives, and

perceptions beyond the limitations of consensus reality. The significance of these theories or models as they relate to this current study is offered at the end of each description or summary.

Collective Consciousness

As discussed in previous chapters, Newtonian-oriented science considers consciousness a by-product of evolutionary development. The common denominator in recent theories of consciousness suggests it is not derivative of neurophysiological brain function. Several approaches to studying consciousness have moved beyond mechanistic explanations of consciousness. For example, Grof (1992) offers the analogy that the brain cannot produce consciousness anymore than a television can create the programs normally viewed on it. Integral to the thesis of this dissertation is a two-way dynamic, the sending *and* receiving of information, with the brain and nervous systems acting as tuners, receivers, translators, and transmitters of information.

During his research, Grof (1992) learned that while in expanded states of consciousness, one might identify with a group, other species, all of humanity, and the biosphere—"*the totality of life*." He notes that Carl Jung's collective unconscious includes "basic dynamic patterns" or "primordial organizing principles" within an "immense pool of information" (12). According to Grof, the personal psyche has access to all of human history and culture. Collective consciousness when understood as the Source of everything in the manner expressed by ancient and indigenous peoples includes conscious and unconscious

information (de Quincy 2002). The following concepts in science and transpersonal psychology include similar descriptions.

Mary E. Clark's (2002) description of Indra's net as a "world of connectedness" is found in Mahayana Buddhism. Clark describes this nearly 2,000 year-old metaphor as representative of "interacting, interdependent entities, whether they be human bodies, an economy or other social arrangement, an ecosystem, or a galaxy" (9). Indra's net of jewels is an appropriate symbol for a holographic universe in which all entities are informing each other. Each jewel holds the reflection of all the others, infinitely reflecting each and every one in turn.

Christopher Bache (2008) notes that feminist writers contest the idea of an atomistic self. They argue that the idea is "literally *man-made* and in contrast with the 'connective self' that flows more naturally from women's experience" (8; italics in original). Bache adds that in nature, life-systems "interpenetrate so profoundly" that it has been a major task of ecology to "isolate one species from another in this matrix" (8). Within such a world view, everything is intimately interrelated with everything else, and separation is an illusion.

Cells

The previous chapter considered body-based perception. Buddha is said to have compared the body to an eye (Olsen 2006). Individual cells are also like perceiving eyes. Similar to the physical boundary of human skin, each cell has an integument system. Bruce Lipton (2005) notes that the cell's membrane receptors are not the source of its identity. Instead, the cell's "self" is "downloaded" from

the environment (191). Believing that receptors are the source of the cell's self is equivalent to believing an antenna is the source of a television broadcast. Each cell may appear to be an individual, but each is also integrated into a cooperative community of cells that have consciousness and the capacity to learn.

Cells create "cellular memories" that are passed on to their "offspring" (Lipton 2005, 38). Lipton reports that when a viral infection occurs, "an immature immune cell is called in to create a protective protein antibody" (38). The cell creates a new gene to "serve as a blueprint" in manufacturing the appropriate antibody protein. Cells are capable of learning about a virus and passing the new antibody gene information on to daughter cells during reproduction. This represents an "inherent 'intelligence' mechanism by which cells evolve" (39).

A cell communicates through resonance. The membrane, or brain of the cell, receives and transmits information and is not the source of the information it processes (Lipton 2005). Whole bodies or organisms consist of multiple cell communities in communion with each other. Fractal self-similarity allows a comparison of cellular receptors and transmitters with the human brain as a receptor and transmitter. An entity has the capacity to receive, interpret or translate, and transmit information in an exchange with collective consciousness while maintaining a sense of self and enhancing the wholeness of the community within which it functions. These dynamic relationships between individual selves and the collective exist at all levels.

Child

Stanislav Grof

Much has been learned about the awareness and perceptions of fetuses, newborn infants, and young children through the experience of adults in expanded states of consciousness. Testimonials of persons in altered states helped initiate radical changes in the understanding of consciousness, the human psyche, and the nature of reality itself and indicate "an urgent need to drastically revise and expand" contemporary views (Grof 1992, 6). Grof discovered that while in an altered state, one may experience the biographical realm of the psyche where memories of infancy and childhood are usually the first to emerge.

During research with psychoactive lysergic acid diethylamide, LSD, Grof (1992) found that low to medium doses resulted in a subject reliving experiences from infancy and childhood. Higher doses and repeated sessions often resulted in "psychological death and rebirth, feelings of oneness with all humanity, nature and the cosmos" (17). Some clients experienced mythological realms, visions from ancient cultures with which they were unfamiliar, and past life memories that were sometimes confirmed. While in altered states, many Westerners described "auras" and "subtle bodies" even though they had no prior knowledge of these otherwise invisible manifestations. Grof concludes that we are "fields of consciousness without limits, transcending time, space, matter, and linear causality" (18).

Grof (1992) developed a view of the universe as "a complex web of unified events and relationships" unlike the Newtonian world of objects (6, 7). Grof's own first experience with LSD changed his personal and professional life:

> I found myself thrust into the middle of a cosmic drama that previously had been far beyond even my wildest imaginings. I experienced the Big Bang, raced through black holes and white holes in the universe, my consciousness becoming what could have been exploding super-novas, pulsars, quasars, and other cosmic events. (15)

At the onset, he attributed this deep exploration of the unconscious, the intense color displays and meaningful symbols, to the drug itself. Later, he came to feel that such altered states, or mystical experiences, are our birthright.

Christina and Stanislav Grof developed Holotropic Breathwork to induce non-ordinary states of consciousness. During these sessions, people often adopt the facial features and body postures of young children and may demonstrate some of the axial reflexes of infancy. Grof (1992) discovered an "inner radar" that seems to selectively draw forward the most "relevant and emotionally charged" material, "invaluable for therapist and client alike" (23).

> The release of emotions and patterns of tension that were still being stored in the body as a result of early [physical] traumas proved to be one of the most immediate and valuable benefits derived from this work. (24)

Grof notes that "many but not all embryonal memories are associated with phylogenetic, karmic, and archetypal experiences, and with organ, tissue, and cellular consciousness" (114). He explains:

> While the possibility of cellular memory from the earliest stages of our lives may stretch the boundaries of our imaginations, it is by no means the greatest challenge posed by transpersonal experience. It is not unusual for people in non-ordinary states of mind to accurately portray material that precedes their conception or to explore the world of their parents, their ancestors, and of the human race. Particularly interesting are "past life"

> experiences, which suggest that individual consciousness might maintain continuity from one lifetime to another. (118)

Grof (1992) developed a model, or theory, incorporating systems of condensed experience (COEX Systems). Each COEX constellation appears to be "superimposed over and anchored into a very particular aspect of the birth experience" (25). These "experiential patterns" are referred to as the four Basic Perinatal Matrices or BPM. The term "perinatal" refers to the time near or around (*peri*) birth (*natalis*), the primal period.

BPM I is the good womb/bad womb experience and involves a "natural symbiosis that exits between the mother and child" (Grof 1992). It is an "oceanic" state in which a feeling of oneness with the cosmos is experienced in addition to "numinous overtones" and "direct, immediate, and unlimited access to knowledge and wisdom of universal significance" (39). It is also a time when emotional stress and toxins ingested or inhaled by the mother may create a toxic womb experience with emerging images of evil. Loud noises, toxic substances, or the depression of the mother disturb the fetus. A client in an altered state may find himself, or herself, perceiving oneness with the fetus or may view the fetus objectively from a distance when describing these experiences. Past lives may also be recalled.

BPM II is the onset of the birthing process and may be experienced as an "expulsion from paradise." During this period, Grof (1992) states that one may sense "the fear and confusion of an inexperienced mother or the mother's negative or strongly ambivalent attitude toward the child" (47). He reports that a mother's conflicting emotions may disrupt "the physiological interplay between the uterine

contractions and the opening of the cervix" (47). While in an altered state, memories of the onset of a difficult delivery sometimes induce paranoia. One may feel caged, trapped, and claustrophobic, have nightmarish visions, and feel that death is immanent. The experience may include a sense of hopelessness; nothing one does can change this horror. Later, whenever life feels threatening, one not only experiences the present moment but also this corresponding "perinatal material."

Grof (1992) describes BPM III, moving through the birth canal, as "rich in both positive and negative imagery." This may be experienced as a fight for survival. With head wedged and oscillating contractions pressing in forcefully on the infant, mother and child remain connected as if they are "still of one consciousness" (60). While in an altered state, Grof notes, "it is possible to experience the feelings and sensations of the infant, to identify fully with the delivering mother, and to connect with the archetype of the delivering woman" (60).

Under *ideal* circumstances, many women have a powerful sexual experience during birth while the fetus may be having a negative experience. Grof (1992) considers it possible that in this "precarious life-threatening context," there may be a potential for sexual dysfunction (60). Sexual arousal may become associated with negative feelings and images, reinforced by any traumatic sexual experiences in childhood.

A sexual experience during birth, particularly if the mother feels orgasmic or feels guilty, may be emotionally imprinted on the newborn infant. What

follows in life experience will be interpreted from this original imprinting. The thesis presented in this dissertation considers circumcision one of the first experiences of infant sexual trauma.

Grof (1992) claims that the merging of polar opposites in BPM III may result in identification with both victim and perpetrator and may be regarded as a possible source of violence, especially self-destructive behaviors. Grof considers the "intense suffering and exquisite pleasure" or "murderous aggression and passionate love" as potentially overlapping sensations (63). He adds that archetypal images of "confrontation between the forces of good and evil or of the destruction and creation of the world" are also perceived at times (65). Grof links BPM III to later disorders that arise from "problematic emotions and difficult sensations" experienced in infancy and early childhood (67).

In BPM IV, clients may relive the pull of forceps and any birth trauma experienced, as well as sensations from the anesthesia given to the mother. All that remains of the biological connection with the "maternal organism" is the umbilical cord. When cut, the sensation of separation may result in a death-rebirth experience that may lead to a state of spiritual ecstasy if completed successfully. If the experience is incomplete, this could manifest in the client as a manic episode. Grof (1992) comments, "Typically, we see a combination of the original birth memories, symbolic images of birth, scenes from human history, identification with various animals, and mythological sequences" in BPM IV (75).

Mapping the transpersonal realm, Grof (1992) defines three regions: "(1) an expansion or extension of consciousness *within* the everyday concept of time

and space; (2) an expansion or extension of consciousness *beyond* the everyday concept of time and space; and (3) 'psychoid' experiences" (87). Jung refers to psychoid states as existing in the blurry realm "between consciousness and matter" (87). Grof includes synchronicities, spirits or ghosts, the "supernatural luminosity" around saints, "impossible" events experienced by some athletes, UFO encounters, psychokinesis, ritual magic, the works of psychic surgeons in Brazil and the Philippines, and the supernatural feats of Indian yogis. Some of these psychoid experiences are the experiences of young children noted in Chapter Three of this dissertation.

The significance of Grof's (1992) theory to this dissertation lies in the imprinting process and future attachment of similar experiences and emotions, thus creating patterns that may continue to attract further similar experiences and emotions. These may involve past life experiences as well. Grof's research demonstrates that all information is everywhere and accessible. Altered states, where a substance or a behavior is used to help induce that state, and spontaneously occurring non-ordinary states of consciousness enhance self-knowledge and allow for mediation and the dissolution of difficult emotions in a person's life and the ending of unhealthy patterns from birth, including past-life attachments.

Thomas Armstrong

Thomas Armstrong (1988) asserts that a fetus develops both biologically and as a soul/Self. He uses the phrase "from bottom up" to designate biological development and "from spirit down" to describe the interactivity between

physical manifestation and Source. Armstrong states, "Children are souls as well as personalities, they have access to higher fields even while their lower fields are unfolding" (77).

Using theosophical and other esoteric or metaphysical teachings, Armstrong (1988) develops a perspective on children with soul as the "core of individuality" (68). Each level, or field, corresponds to the seven levels of the theosophical model. The most dense field includes the physical body through which "spirit can be realized" (69). The next level, the etheric field or "vital body," is integrated with the physical realm. This is the field of auras and clairvoyant phenomena where disease may be perceived prior to manifesting in the physical body. Armstrong notes that Rupert Sheldrake's description of morphogenetic fields may refer to this etheric matrix "within which life structures can develop" (69). Therapeutic touch, psychokinesis, and other such healing modes work primarily within this field.

Armstrong (1988) refers to the next field, or level, as the emotional field, a "kaleidoscopic field of emotional states" that is continually transforming (70). He considers this to be the astral realm where one finds "angels, fairies, and entities passing between lifetimes" (71). He states that the next two levels are mental fields divided into lower and higher with the lower, or concrete field, representing "the 'flowering' of the Western rational mind, with both its powers and its limitations" (72). The higher mental field includes the "witness" or "observing self" and contains "memory imprints of past lifetimes" (72). It is also, Armstrong

asserts, where synthesis occurs and a resulting instantaneous insight or "Eureka!" moment may surface.

Armstrong (1988) describes an "intuitional field" of bliss and divine insight (73). Young children seem to experience wisdom or insight within a spontaneous moment rather than as a "sustained state of consciousness." He proposes that these experiences are "stepped-down" from this intuitional field of advanced spiritual beings and accessed by a child who is ready to receive the information. Within this field, the "bliss body" holds transcendent illumination and vision, where one feels "a deep sense of oneness with all life" (73).

From the intuitional level, one moves into spirit. Armstrong (1988) states that this is "more than a level or field": it is the realm of spirit, Brahman, or Christ Consciousness, and the "ultimate ground of being" (74). These levels are not stacked on top of each other, but interpenetrate, for there is "one indivisible wholeness, one primal cosmic energy that animates all life" (74). Armstrong asserts that one tunes in to, or is connected with, these fields through "wheels [or] built-in energy vortexes that exist on different levels and mediate between the many different fields of consciousness, helping to integrate or unify them all within a human life" (75).

Armstrong's (1988) theory includes a bi-directional developmental process: physicality emerges from the non-physical in an interactive dynamic. The developing fetus and infant have access to all fields, including the etheric field which informs and forms the physical structure. The overlapping of these fields and access to them occurs through vortices. The possibility of a "witness"

or higher self and of past life imprints is also significant to the thesis of this dissertation.

Groups

Individual healthy cells benefit the cellular structure of which they are a part just as healthy and whole individuals benefit the whole of humanity. Clark (2002) proposes that group bonding and acceptance are essential to human nature. In addition, healthy individual behavior enhances the whole. She asserts that the evolution of intelligence within a social group increases individual and collective cognitive capacities.

Bache (2008) expresses a similar view. He states that individuality is "not compromised by recognizing an underlying connectivity of consciousness that integrates individuals into larger landscapes of awareness" (7). Bache adds, "The collective dimensions of mind actually nourish and support our complex individuality" (7). This dissertation emphasizes feedback dynamics and interactive relationships between the individual and the collective, at all levels.

Entanglement

Some scientists and certain philosophers, transpersonal psychologists, mystics and spiritual teachers, as well as traditional indigenous peoples, include in their teachings, visions, or cosmologies the perception of a plenum or an intelligence that permeates the interiors and exteriors of all of reality. Grof (1992) concludes that consciousness research and other scientific disciplines demonstrate that "the universe and the human psyche have no boundaries or limits" (84). De

Quincey (2002) states that consciousness "cannot be divided up into separate parts or localized in space" (131). This interconnectivity is referred to as non-locality or entanglement.

Albert Einstein commented on the sense of separation from universal wholeness as "a kind of optical delusion of consciousness" (quoted in Grof 1992, 90). It is interesting to note Einstein's resistance to the phenomenon of non-locality, or "spooky action at a distance," as he called it. Although his theories pointed to nonlocality, he had difficulty accepting that something affecting one particle affects another without any signal or force between them. Einstein created a thought experiment with Boris Podalsky and Nathan Rosen, the EPR paradox. Alain Aspect subsequently proved nonlocal reality empirically in his mid-1980s experiments (Laszlo 2007).

Amit Goswami (1993) asserts that experiences such as Maslow's "peak experience" involve reduced reaction time and a direct experience of the quantum realm. One does not remain in the quantum world because the brain acts as an instrument of measure and records each event. Goswami refers to the measurement system of the brain as a classical system, as distinct from a quantum system, and the ego as a classical self.

Bache (2008) observes that quantum effects scale up into the macroscopic world, "meaning that the world we walk around in shows signs of quantum connectivity" (6). Referring to crystals in this quantum holographic system, Talbot (1992) relates Bohm's analogy: "The nothingness and the pieces of matter do not exist independently from one another. They are both part of the same

fabric, the deeper order of the crystal" (quoted in Talbot, 51). In an interactive universe, everything is in intimate relationship with everything else without any physical mediation.

Holography, Fractal Self-Similarity, and the Phi Ratio

Referring to holography and David Bohm's holomovement theory, Grof (1992) states:

> As individual human beings we are not isolated and insignificant Newtonian entities; rather, as integral fields of the holomovement each of us is also a microcosm that reflects and contains the macrocosm. (10)

According to this view, we have immediate and direct access to the entire universe. Talbot (1992) notes that for Bohm, even rocks may be alive from a certain perspective. Talbot extrapolates on Bohm's view as follows:

> Life and intelligence are present not only in all of matter, but in "energy, space, time, the fabric of the entire universe," and everything else we abstract out of the holomovement and mistakenly view as separate things. (50)

Bohm felt that there might be a deeper realm of causality and referred to the unmanifest as the "implicate enfolded order" and the manifest as the "explicate unfolded order" where all the parts are connected and dynamically related (174).

Bohm (1982) uses the following example to help explain holomovement: Two video cameras are set to run simultaneously to capture two distinct perspectives of a single fish in a fish tank. One camera is directed at the front of the fish, and the other is pointed to the side. When each of the two monitors is viewed separately, it may not be immediately recognizable that it is the same fish in the two different images. Bohm explains:

> We know that the two images do not refer to independently existent though interacting actualities (in which, for example, one image could be said to "cause" related changes in the other). Rather, they refer to a single actuality, which is the common ground of both (and this explains the correlation of images without the assumption that they causally affect each other). This actuality is of higher dimensionality than are the separate images on the screens: or, to put it differently, the images on the screens are two-dimensional *projections* (or facets) of a three-dimensional reality. In some sense this three-dimensional reality holds these two-dimensional projections within it. Yet, since these projections exist only as abstractions, the three dimensional reality *is* neither of these, but rather it is something else, something of a nature beyond both. (187-88; italics in original)

Holographic perspectives or views, such as Indra's net, involve nonlinear interconnections. Such connections are found in psychoneuroimmunology, in neurons throughout the human body. In living systems, the components are integral parts of an ordered whole (Fritjof Capra 1982). Living systems are flexible, dynamic, and able to self-organize. Capra reports that through continuous feedback with each other and the external environment, living systems "renew and recycle their components while maintaining the integrity of their overall structure" (269). Capra adds that they also self-transcend by creatively reaching out "beyond physical and mental boundaries in the processes of learning, development, and evolution" (269).

Raymond T. Bradley (2006) reports on results from the studies of quantum holography and the intuitive perception of future events. These are directly related to the "degree of emotional significance" concerning the event (1). The brain and heart process the "pre-stimulus emotional response to the future event" (1). He adds that focused emotional attention "attunes the psychophysiological systems to a domain of quantum-holographical information" where knowledge of the future

potential of the object of attention becomes an intuitive experience (1).

Although it is the habit of Newtonian thinking to categorize the natural world into separate and discreet parts to fulfill the machine-like character of that world view, more recent scientific theories include a self-similar characteristic associated with fractal mathematics. Fractal geometry describes "infinitely complex structures" formed from the repetition, or iteration, of self-similar patterns (Lipton and Bhaerman 2009). Lipton and Bhaerman state that "the life of a cell in the body and the life of a human in civilization are parallel realities, fundamentally self-similar" (243).

Richard Voss (1988) reports that self-similarity differentiates fractal images from Euclidian shapes because the "magnified subsets look like (or [are] identical to) the whole and to each other" (22). The concept of self-similarity in fractal geometry helps explain how perception at the cellular level is related to perception at the personal level. Bache (2008) concurs by noting that "the macro-realm we live in is awash with holographic patterns and fractal iteration" (6). Many ancient and indigenous cultures included geometry in their cosmologies (Olsen 2006). The Golden Section, or phi, is the two-dimensional version of a spiral. Euclid (325-265 BCE) defined phi as "the division of a line in extreme and mean ratio" (2). In the ratios of 1:3 and 3:9, 3 is the geometric mean. Pythagoras called it a "three-termed continuous geometric proportion" (4). Plato perceived it as the "most profound cosmic bond" (4). Olsen states that the golden section "unifies parts and whole like no other proportion" (8). The golden ratio manifests in all of nature as well as in human body proportions.

Olsen (2006) explains that the golden section is expressed through "a very simple series of whole numbers" (10): "Nature pulses with cycles and rhythms of increase and decrease" (22). Olsen emphasizes that the "simplicity and economy" of nature, and the ways in which nature "appears to require an accretion and diminution process that is simultaneously additive and multiplicative, subtractive and divisional" (22). Using the example of an oak tree, Olsen notes:

> It shoots up as fast as it can from an acorn, only to slow, mature and fractalize its space toward a limit, becoming a new relative unity, what Aristotle called an entelechy, the form it grows into. Like Alice in Wonderland, nature simultaneously grows and diminishes to relative limits. (22)

Olsen (2006) reports that the three-dimensional golden spiral is referred to as a logarithmic spiral because the curves appear to be "the same at every scale" (24). These are found in leaves, shells, tornadoes, and galaxies. Olsen continues:

> Nature presents us with a wonderful holographic portrait, where the smaller portions mirror the whole (cosmos) itself. Recognizing that structured self-similarity connects, or binds, what he called the hidden "implicate order" to the outer "explicate order," physicist David Bohm remarked: "The essential feature of quantum interconnectedness is that the whole universe is enfolded in everything, and that each thing is enfolded in the whole." (26)

Olsen (2006) notes that while in a state of phi-induced quantum coherence, or "deep sacramental states of consciousness . . . one may experience Samadhi, cosmic conscious identification with the awareness of the Universe Itself" (48). Olsen concludes:

> You are a whole made up of lesser parts, and you are part of a greater whole. This is nature's greatest secret. The golden section is interwoven into the very fabric of our existence, providing us with the means to resonate, to attune with successfully broader stages of self-identity and unfoldment upon the path of return to the One. (50)

The significance of this understanding to the current study lies in the holographic nature of the universe; a feedback system that allows access to all information and the possibility of self-transcendence. Spirals and spin are the dynamics that inform physicality. Fractal dynamics allow self-similarity to be applied to all levels of this orderly phi geometry-based universe. Emotions are well-integrated within this system, creating feelings of oneness and allowing access to future information.

Holistic Theories and Cosmologies

Ervine Laszlo

Ervine Laszlo (2007) developed a theory in which coherence and entanglement are primary. The universe, in a state of dynamic equilibrium, stores this energy and information. He notes that there are 70 octaves of vibration, like music—if we could hear them. Living organisms are "macroscopic quantum systems" responding to these vibrations (46). Laszlo adds that "genome, organism, and environment" are well-integrated and autonomous parts of this whole.

Connections that bind one consciousness to another, well-known by traditional or "primitive" peoples, are being rediscovered in controlled experiments where "thought and image transference" affect the "mind and body of another" (Laszlo 2007, 49). The protocols used are known as the Ganzfeld technique and DMILS or "distant mental influence on living systems" (52). Laszlo reports that these are transpersonal connections and include telepathy, remote viewing, the oneness experienced by couples in love, brain interactions

with dowsable fields, telesomatic effects, and healing through prayer and intention.

Laszlo (2007) uses David Bohm's term "in-formation" to refer to this factor that is "neither matter nor energy" and is "present in the world independent of human volition and action" while evolving the reality that we perceive (13). It actually "forms" the recipient. Laszlo reports that there is a "constant transformation from virtual into real states and also from real into virtual states" (29). Quanta are in several virtual states simultaneously until observed or measured. It is as if they are then pulled from a "sea of possibilities" and become real (26). Even then, only one parameter can be measured at a time. When measuring position, for example, another parameter, like motion, is "blurred" (26). These nonlocal standing waves are described by wave functions, virtual states by virtual functions. They are not random. The relationship between matter and the vacuum of the universe is that of a "self-generating feedback loop" (42). Laszlo notes that G. I. Shipov and A. E. Akimov found that the linking of events in the vacuum excites charged particles and spin; the vortices carry information, linking at "one billion times the speed of light" (69). This system is a "phyton" and includes "torsion fields" (69).

Another theoretician, Laszlo Gazdag, notes a magnetic effect that registers in the vacuum from the spin of particles. These minute vortices carry information. Laszlo (2007) concludes, "The vortices generated in the vacuum propagate as torsion wavefields" (71). When wavefields meet, their interference patterns carry information "on the state of the whole universe" from micro to macro (71). Laszlo

refers to the nonlocal coherent information field of the vacuum as the A-field (Akashic field), the "all-encompassing medium that *underlies* all things and *becomes* all things" (76; italics in original). Edgar Mitchell considers the quantum vacuum to be a "holographic information mechanism that records the historical experience of matter" (quoted in Laszlo, 67).

Laszlo (2007) suggests that the coevolution of all things large and small is an orderly, systemic process. The goal is "generated in the process itself" toward "greater and greater coherence and complexity" (91). The Earth is one of many "*physical-biological-psychological* worlds" with life on Earth being "*in-formationally* seeded" (98; italics in original).

Humanity has access to a "wide range of information" through a variety of states of consciousness (Laszlo 2007, 99). Clinical evidence suggests that consciousness "may persist in the total absence of brain activity" (122). He reports that functional magnetic resonance imaging (fMRI) is "associated with metabolic changes in specific areas of the brain [and] does not tell us that such consciousness is *due* to these structures" (107; italics in original). Laszlo notes that in higher states of consciousness, there is "deep communication [where] every cell of the body coherently resonates" (113). Edgar Mitchell refers to this as "holographically embedded information" within the vacuum or zero-point energy field (quoted in Laszlo, 113). Concerning the question of how unconscious matter could arise to consciousness, Laszlo states that Peter Russell considers this a non-problem, for matter itself has consciousness.

Laszlo (2007) claims that A-field traces, holograms, "persist and in-form all things" and remain in coherent relationship with their source. Collective holograms form the collective "pool of humankind" (115). He states that consciousness may be tuned "to resonate with the holograms in the A-field" where the transmission of information through "phase conjunction" creates this resonance or "synchronized oscillations at the same frequency" as happens in harmonics (115). Laszlo shares Hans-Peter Dürr's conclusion that the "transmission of information between separate things that vibrate at the same frequency [is a] genuinely non-local 'communion'" (147). Nonlocal coherence includes constant phase relations, like those of a laser light, and harmonized processes and rhythms. At the quantum level, quanta that share the same state are interlinked or entangled no matter the distance apart from each other.

When a person or event is recalled, what is actually recalled is information from "the hologram that records our experience" (Laszlo 2007, 116). A mother and child, or lovers, resonate with each other's hologram. Laszlo suggests that past-life memories may be information retrieved from the A-field rather than from the actual reincarnation of a soul.

The significance of Laszlo's (2007) theory to this current study are several: (1) consciousness is not contained within the brain; (2) psychic phenomena demonstrate the interconnectivity of human consciousness; (3) information moves by way of vortices and torsion fields; and (4) these fields evolve and feedback continually while creating holograms of information

accessible to everyone. Ultimately, the universe tends to evolve in the direction of coherence and complexity.

Mae-Wan Ho

Quantum biologist Mae-Wan Ho (2008) concurs with Bohm's description of an "enfolding and unfolding" quantum universe and offers insight into life forms as coherent systems (322). They are transparent to themselves because they are in instantaneous communication internally. They know themselves completely. Ho states:

> The dilemma of the absolutely ignorant external observer betrays the alienation from nature that the mechanistic scientific framework of the west entails, for it is premised on the separation of the observer as disembodied mind from an objective nature observed. (314)

Ho suggests that "time itself (as well as space) is generated by process, specifically by the incoherence of action" (314). There is less time generated when there is a "match or transparency" between subject and object (328). She asserts that we must become one with a system so that "observer and observed become mutually transparent or coherent" (315). Ho notes that this involves

> A consciousness delocalized and entangled with all of nature, when the awareness of self is heightened precisely because self and other are simultaneously accessed [resulting in an] aesthetic or mystical experience. (315)

Ho (2008) asserts that when dealing with living systems, one must find "ways of *communicating* with the system itself, rather than interrogating it, or worse, testing it to destruction" (314; italics in original). She notes that knowing "with one's entire being, rather than just the isolated intellect" is foreign to Western science (315). Ho reports that there is a newly developing paradigm that

validates "the participatory perspective that is universal to traditional indigenous knowledge systems the world over" (315). She adds that Whitehead's "locus of prehensive unification" corresponds to a "field of coherent activities that is sensitive to the environment, drawing on its experience of the environment to make itself whole" (321).

Ho (2008) contends that there is evidence that a healthy heart rhythm is multi-fractal and "consistent with multi-fractal organic space-time" (329). She claims that an empathic, heart-centered, or "truly participatory consciousness" perceives nonlocal coherence in relationship to other as "constitutive of its own being" with resulting "authentic knowledge" and powers to "act appropriately and coherently" (322). Ho adds that a moral feeling "arises from this primary perception of the mutual entanglement of self and other, ultimately, of all nature" (322). Concerning the wave/particle duality and related observer paradox, Ho refers to a theory proposed by W. Schommers that removes the "collapse of the wave function," and, for this reason, "wave and particle are no longer in contradiction" (326).

The significance to this study lies in Ho's (2008) conclusions concerning the participatory nature of the universe and the tendency towards coherence. For Ho, morality naturally arises from empathy because it offers an authentic knowing when observer and observed are one. This is similar to the participatory nature of babies noted in the previous chapter, their empathy, and consequent morality.

Nassim Haramein

Physicist Nassim Haramein (2008) focused his attention on the search for a fundamental principle or pattern of creation and developed a unified hyperdimensional theory of matter and energy, the "Holofractographic Universe." Haramein and Elizabeth Rauscher (2007) developed the Haramein-Rauscher metric to resolve Einstein's Field Equations. They have recently presented new perspectives on torque and the Coriolis effects to the physics community where spacetime not only curves, but it curls. Haramein and Rauscher (2004) explain:

> Coriolis forces dictate very specific structures that are related to a torus (donut structure) or more specifically to a dual torus bubble, because the Coriolis forces manifest in two opposite rotational patterns. (3)

The electromagnetic fields of a human being, of a human heart, and of the Earth are torus-shaped.

According to Haramein and Rauscher (2007), spacetime torque and Coriolis forces generate "spin/rotation at all scales, from galactic and stellar objects, supernovae, to the weather patterns in the Earth's atmosphere, and may even be a key to defining an electron's path" (16). Haramein and Rauscher (2004) assert that "without spin/rotation none of reality can come about" (1). Spin is an essential dynamic in nature.

Haramein and Rauscher (2004) maintain that infinite information is within the boundary of every organism. They found that organized matter scales in terms of density towards a black hole or Schwartzchild condition. A cell, a person, the Earth, and the universe are fractal examples of self-similarity, and each can be defined as a black hole. The atom is Haramein's "mini-black hole."

The biological cell is located at the center of a linear progression along a scaling map with the largest known objects in the universe at one end and the tiny Plank's constant at the other (Haramein 2008). The X axis on the scale is the radius, and the Y axis is the frequency of each object. Humanity exists at the center, or transfer boundary, between the largest and smallest objects in this universe, a universe that is infinitely dividing itself in alignment with the phi ratio and sacred geometry. According to Haramein's theory, the macroscopic and microscopic realms come together in biology through humanity.

In part, Haramein's (2008) work has been a corrective process. He has questioned certain renormalizations, mathematical adjustments, in physics and found them to be errors that arise when calculations become infinitely large and are impossible to manipulate. The workable estimates that are substituted have caused conceptual errors as well as errors in calculations. Some of these errors allow for calculations involving systems in isolation when, indeed, there are no systems in isolation. He points to the circular thinking that has created problems in understanding the dynamics of life and of the universe at large. Haramein describes wave patterns as three-dimensional vortices that have been flattened into the familiar two-dimensional wave image. Because of this two-dimensional perspective, physicists have missed angular momentum and the significance of spin. As a three dimensional wave packet of energy, a quantum is located between the trough of one wave and the next. In other words, with this shift in perception, particle and wave are interrelated and complimentary rather than contradictory.

Noting the significance of the phi ratio and fractal nature of reality, Haramein (2008) states that through phi ratio division "the vacuum directs reality, and reality portrays the structure of the vacuum." He reports that Johannes Kepler used the phi ratio for his correct representation of the solar system. Phi ratios also define cell division. When a fertilized egg cell divides, it first becomes a tetrahedron and then begins to differentiate at 64 cells.

Haramein (2008) comments on modern culture's preoccupation with external matter and the exploding of objects to discover matter's essence. Note that it is similar to the commonly accepted behavior in biology where the disconnect between observer and observed causes the suffering and death of animals in laboratory experimentation but is ultimately expected to result in knowledge about life (Ho 2008; Sheldrake 1995).

The significance of Haramein's work to this dissertation lies in spin as *the* dynamic of the universe and in the related toroidal fields and phi ratio. All information is available, and human life can be seen to lie the mid-point between the macro and micro in the material world. Realizing the significance of feedback in such a system as that of the universe, Haramein (2008) asks modern humanity to consider the importance of "what you're feeding the universe."

Thomas Zinser

Thomas Zinser (2010) developed a model of the psyche, or soul, that is a paradigm shift from what most psychologists study, a work that transpersonal psychologist Chris Bache refers to as "far ahead of its time" (9). Zinser learned to reach ego-states, Jung's *complexes* or Assagioli's *sub-personalities,* through

trance states and came to perceive them as real beings rather than things (37). With that in mind, he began to communicate with them directly. Zinser found that these ego-states are "defensive creations [living in a] reality born out of trauma and threat" (163). Hypnosis, when focused on unblocking the client's own healing potential, loosens boundaries and makes a two-way communication possible.

Zinser (2010) discovered previously unknown dynamics in the transpersonal realm through channeled material from a source referred to as Gerod and used this information successfully with his clients for nearly two decades. He concludes that a soul is a repository of information from past and present lives; that choices made before birth may involve past life influences; and that ego-states, detrimental to the soul, may involve interfering spirits and have their own energy and existence, field phenomena that respond to similar resonances (71)

Zinser (2010) explains that an ego-state, or alternate personality, is "triggered by events, feelings, or thoughts [that] resemble or match" the state from which it was formed (164). The match is not consciously realized when this activation of emotions takes place. A reaction is set off by the ego-state's perception and not by the person's actual reality (164). When a matching, or resonance occurs, Zinser refers to the experience of "anxiety and panic" that results (165). If this "*breaking through*" happens too often, the person may come to be considered psychotic (168; italics in original).

According to Gerod, when a soul incarnates, it agrees to forget the Light from which it came and to enter a limited consciousness (Zinser 2010, 247, 248).

The forgetting is deliberate, and the soul expects to ultimately awaken to Oneness (248). He also holds that choices are made concerning the body type, parents, time, place, and circumstances of birth. The soul may enter the body at any time between conception and birth (249). This speculation is similar to Wambach's (1979) research and that of Verny and Kelly (1981), and others mentioned in Chapter Three.

Zinser (2010) learned about the *protective part of the mind* that can significantly block communication. He discovered what he calls the *higher self*, a "direct connection to the Divine" (120). Without this channeled material, Zinser states,

> I would never have guessed all that was possible in these psychic or nonphysical realms, or the kinds of situations and binds in which these inner beings—as well as spirits—could become caught. I would never have known enough to ask about the inner structures and layers of the psyche and how to find the doors that needed to be opened for healing—or closed and sealed for protection. I would never have understood the interconnections between the psychic and spiritual dimensions and how they relate to each other and to the physical plane as well. (132)

The protective part of the mind, with the body's survival as its primary function, operates in the present moment, somewhat separate from conscious awareness. Zinser (2010) reports that he communicated first to the protective part until it felt safe and found little resistance to inducing a client into a trance state. Zinser explains, "It was like removing a filter and being able to see the next layer down"; healing could then proceed more smoothly (139).

Zinser (2010) began to think of the higher self as a "conduit and interface between the soul and self," able to perceive beyond physical reality (149). "Choosing the Light" must be done freely, he notes, for the higher self does not

impose and respects a chosen boundary. Zinser reports that conscious recognition of an ego-state is central to the healing process: "This is the abreaction . . . in which the conscious self reclaims the ego-state's experience, psychologically and emotionally" (168). Zinser comments:

> Each one of these integrations is a healing of the fragmentation and pain that has, at some level, kept a person blocked, afraid, or splintered for many years. Each integration of an ego-state frees a person from hidden conflict and backward looking protection. It is a reclaiming of the self; and each reclaiming brings the person increased clarity and understanding about him or her self, the world in which they live, and a greater feeling of safety and freedom. (170)

He reportedly found that past-life personalities are fragments from previous lifetimes and discovered that present ego-states and past life personalities are similar enough that they could be healed in the same manner. Zinser states that these processes or "interweavings" expanded his concept of "*fields*" (195).

Zinser (2010) came to understand the *Karmic layer* as one of unresolved ego-states. The karmic layer includes the soul's many unresolved experiences and distorted perceptions (196). Unresolved ego-states are enfolded when the body dies and the soul returns to the Light. Themes and issues are then addressed in subsequent lifetimes (196). When a soul enters physical reality, it opens to this layer where parts of the soul reawaken and may be activated, resonating to an experience that matches one in which the issue was originally created (197).

Zinser (2010) adds that he learned that interconnection and interaction between ego-states is the rule, not the exception, with two or more ego-states comprising a group (173). Ego-states from different lifetimes may share an issue or conflict and present themselves in groups or in a series. Zinser comments, "It's

as though they formed fields, or . . . 'trails of energy' within the soul that called for healing" (197). He notes that ego states do not "dissolve or disappear after their sharing and release. They continue to exist at an unconscious level" (153).

Dark spirits could be commanded to leave his clients (Zinser 2010). These souls exist outside of time and space and cannot reincarnate. Some souls in darkness may be able to maintain a relationship with a person and establish contact from time to time throughout that person's life and across lifetimes.

Each person has a dark side. Zinser (2010) found that this shadow may serve as an impetus for growth and that it is essential to pass through the shadow without getting caught in it (207, 208). He describes this process as entering the dark spot of a normal cycle where ego-states may be activated (210). An unaware soul in darkness draws like energy to itself (215). If a person stays too long in the shadow, he or she may become weakened and attract spirits from this place of despair, sadness, and depression (208).

Zinser (2010) deduced from this channeled material that the journey through each one's own darkness, one's "dark spot," depends on choices made when entering life experience. Those persons who appear to be evil are confused and in pain and want to find a way out of their darkness but continue to make choices that keep them in a maze. Gerod explained to Zinser that what is considered to be evil is interference with the free will of another soul's ability to make choices (216-217).

Zinser (2010) further asserts that deals are made between souls as a strategy used by groups of dark souls Zinser. There are rules "governing these

intrusions [and most are] made with ego-states at an unconscious level" (222). Zinser explains:

> The contact with ego-states by dark souls was not accidental. I began to understand that the dark souls pursued these contacts intentionally. I realized they were, to some extent, doing the very same thing therapists do in ego-state therapy: that is, making direct contact with ego-states and engaging them in some ongoing interaction. . . . A spirit might offer succor to a child who is frightened and alone; or threaten a boy with more punishment if he doesn't do what he's told; or it might hit upon an ego-state's secret guilt and repeat the message until it reverberates throughout the mind. (222-223)

Zinser (2010) came to realize that emotions and their related thoughts create the access to these dark energies; they are tapped into (226). If sufficient contacts are made over lifetimes, the soul is accessed through deals or devices. These psychic devices act as "energy markers" or "anchors" that are offered to ego-states for access (227). Zinser comments:

> This use of devices by dark souls is extremely common. They are employed not only to set up future connections with a soul, but they can be placed within a person in their present life, usually through an ego-state, in order to cause pain, distress, fear, or confusion for a person. The higher self has the ability to scan ego-states—present life or past— to determine if there are any devices present, and if so, can remove them. However, since it is the ego-state that has *accepted* the device, it usually must give permission to have it removed. (228; italics in original)

Zinser (2010) notes that dealing with darkness at one level was to be "dealing with it potentially at all levels" (212). This darkness is neutral, neither good nor bad in itself, but it absorbs the Light (213). Gerod explains that this is not a well-understood concept:

> This darkness is like the snake that consumes itself; that is what this void tends to do to some degree. It has a certain energy about it, but it goes around and around and so there is no final consumption and it just is as it is. (213; quoted in Zinser)

This darkness is the void that supports the universe and a primal energy that has consciousness (Zinser, 200, 229). In addition, Gerod states that darkness can also be a "tunnel to someplace new" (quoted in Zinser; 234).

Zinser (2010) reports that what Gerod revealed was often told in "mythic terms . . . the only way we have of talking about such ultimate forces and realities" (235). He adds that science has

> no empirical basis or methods by which to recognize, study, or even think about these invisible realities [and will need to] establish a new ground, one centered beyond the physical. (251-252)

Ultimately, Zinser concludes, "The Light acts as a self-organizing principle and transcendent force that brings all it touches into a consciousness of Oneness and right relations" (257).

The significance of Zinser's (2010) understanding and experiences with the channeled material he reportedly received lies in the possible relevance of his deduced conclusions concerning past lives, guidance of the soul prior to birth, ego-states formed from trauma, and the similarity of past-life personalities with ego-states. Healing is done primarily in the theta state where the higher self and protective self play significant roles. Ego states do not fully disappear after healing but become integrated with the wholeness of the person. There is sometimes attunement to darkness through thoughts and feelings where too much time spent in such a state is potentially dangerous. At the time of incarnation, free will choice is a basic right and promise.

Unrelated in any obvious way, traumatic emotions may inappropriately express themselves in the present moment. This is similar to Grof's (1992) COEX

systems and the emotional patterns related to perinatal trauma where a situation in one's daily life may activate emotions based upon earlier trauma. As in Grof's work with his clients, potent emotional material in need of healing tends to surface most readily. In these non-ordinary states, information may be accessible over lifetimes. These states are fields that may include group dynamics. Finally, darkness, or the void, is understood to have consciousness and a circular dynamic that may be similar to Haramein's (2008) perspectives on the void and black holes. It includes self-similarity and tunnels to other places.

Morphic Resonance

Every organism is shaped and organized spatially and temporally by fields (Sheldrake 1995). Rupert Sheldrake refers to them as fields of information and structures of probability: "Fields are the medium of 'action at a distance,' and through them objects can affect each other even though they are not in material contact" (97). His hypothesis of formative causation is based upon fields, their self-organizing capabilities, and their inherent memories.

Sheldrake (1995) notes that the hypothesis of formative causation began its development more than a century ago with American philosopher C. S. Pierce. Pierce described the laws of nature as habits or tendencies rather than eternal laws set in motion at the beginning of the universe. At about the same time, William James commented on evolution in terms of habits, and Samuel Butler suggested that even atoms retain a certain faculty of memory (14, 15). The discovery of DNA stunted further exploration in the direction of such perspectives. The inheritance of acquired characteristics was accepted by both Jean-Baptiste

Lamarck and Charles Darwin but denied by geneticists and neo-Darwinians who, according to Sheldrake, ignore or dismiss experimental evidence despite ever-increasing data (80, 141).

The term morphogenesis is derived from the Greek words *morphe* (form) and *genesis* (coming into being) (Sheldrake 1995, 70). The conventional understanding of morphogenesis involves the inheritance of genes, but genetic programs do not explain how material structures within a developing embryo appear where none had been present before, nor do they explain instinctual behaviors (136). Many models emerged during the past sixty years to describe morphogenesis. Sheldrake contends that understanding these fields as evolutionary with an inherent memory goes far beyond ambiguities and pre-existing Platonic structures (107). The assumptions behind conventional scientific theories are rooted in changeless mathematical laws, a metaphysical speculation, according to Sheldrake, that relies on the repeatability of experimentation. Morphogenetic fields are immanent in nature and influenced by habits (107, 108).

In the 1900s, a vitalist theory was developed by Heinz Driesch who appeared to resolve problems of embryonic regulation with a purposive, teleological, and non-material causal factor referred to as entelechy. He was discredited because vitalism undermines the belief in determinism, which still held sway in classical physics (Sheldrake 1995, 81). A few years later, indeterminism became a fact of quantum physics and inherent in the physical nature of all systems (82, 83). Nevertheless, the coding information of genes became the new emphasis.

Sheldrake (1995) notes that in the 1920s, a number of biologists described morphogenesis in terms of organizing fields. From the 1930s through the 1950s, C. H. Waddington elaborated the field concept and the idea of the chreode, a developmental pathway that canalizes to a definite endpoint (100, 101). Sheldrake states that this represents embryonic regulation and differs from entelechies "in that the field concept implies the existence of profound analogies between the organizing principles of the biological realm and the known fields of physics" (101). Sheldrake explains:

> The ends or goals of the chreodes from the point of view of a developing system lie in the future, and Waddington described them in the language of dynamics as "attractors." Modern mathematical dynamics is teleological in that it involves the idea of "basins" within which are "attractors" representing the states towards which dynamical systems are drawn. (101)

Chreodes and attractors are the temporal manifestations of these fields and depend on previous similar organisms rather than "transcendent Ideas or timeless mathematical formulae" (Sheldrake 108).

The manner in which formative causation influences an organism's field is through morphic resonance on the basis of similarity: the greater the similarity, the greater the influence (Sheldrake 1995). Unlike other forms of resonance that involve a transfer of energy from one system to another, Sheldrake claims that these morphic fields are non-energetic and rhythmic patterns of activity:

> All processes of development start from systems that are already specifically organized. For example, an embryo develops from a fertilized egg containing DNA, proteins, and other molecules that are organized in particular ways and are characteristic of the species. Such organized starting structures, or morphogenetic germs, enter into morphic resonance with previous members of the species. In other words, the developing embryo is "tuned in" to the fields of the species and thereby becomes

> surrounded by, or embedded within, the chreodes that shape its development, as the development of countless other embryos before it has been shaped. (109)

Sheldrake asserts that "morphic resonance enables a large range of phenomena in chemistry, biology, and psychology to be seen in a new light, and it gives rise to many predictions" (122).

Electro-magnetic fields organize material systems from micro to macro including brain and body systems but disappear when the systems no longer exist (Sheldrake 1995). Morphic fields, on the other hand, do not disappear as patterns of influence and may become apparent once again when appropriate conditions are met. He states that these fields are "non-material regions of influence" (97). One tunes in to the morphic fields of one's own memories, or draws in a past morphic field by way of a similar resonance.

Even though morphic fields evolve, because their memory is cumulative and based upon repetition or habits, the past is always available. Memory itself is radically reinterpreted by the hypothesis of formative causation. It is inherited both as a collective species memory and as a personal self-resonant memory of past personal memories and habits. Sheldrake (1995) states that this is a "radical alternative to the conventional theory that habits and memories are somehow stored as material 'traces' within the nervous system" (xxi, 159).

According to formative causation and morphic resonance, the past influences the present directly with no need for memory traces in the brain or nervous system. Experiments that involve the learning of patterned behavior and the subsequent removal of large portions of brain matter have proven that the

removal of brain tissue does not diminish the memory of the learned behavior. There is no proof that memories are located in the brain (Sheldrake 1995, 164).

Sheldrake (1995) reports that an organism maintains a resonance with its own past in order to persist through time: "The continuity of any self-organizing pattern of activity at any level of complexity—from an electron to an elephant—results from this self-resonance with its own past patterns of activity" (133). He notes that this is similar to Alfred North Whitehead's ideas of "prehension" and "actual occasions" and quotes Whitehead:

> Any likeness between the successive occasions of a historical route procures a corresponding identity between their contributions to the datum of any subsequent actual entity; and it therefore secures a corresponding intensification in the imposition of conformity. (134)

According to Sheldrake (1995), Noam Chomsky proposes a universal grammar that is inherited by all children to explain their innate ability to grasp the complexities of language learning. This has led him to believe in inheritance by way of genes. Sheldrake responds by explaining that listening to, and later speaking a language, tunes children in "on the basis of similarity, to speakers of the same language, including many millions of speakers in the past" (185).

Sheldrake (1995) asserts that the most dramatic learning is the instinct of imprinting. The imprinted object, animal, or person, is recognized by the senses as specific patterns in the nervous system that enter into morphic resonance with the originally imprinted patterns. In associative learning, higher-level morphic fields synthesize and emerge as wholes. A new pattern arrives as a flash of knowing or insight. Regarding newly formed morphic fields, Sheldrake states, "At the moment of insight a potential pattern of organized behaviour comes into being"

(173). With repetition, morphic resonance stabilizes the field to become more probable and habitual.

Organisms require the correct genetic structures and proteins (Sheldrake 1995). They tune in to fields that transmit information about their own species. A genetic mutation acts like a damaged television component and results in unclear reception and distortions. A program is dependant on the ability of the television to receive a particular frequency, but the television is not the source of the transmission. When an embryo is exposed to toxins or radiation, attunement to the required formative fields are disturbed. These stimuli from the environment change patterns of vibratory activity. Formative activity is influenced by genes and organized by morphic fields thus enabling damaged embryos, at times, to regulate and normalize or to regenerate damaged or missing structural parts (139).

The significance of morphic resonance to this work is in the tuning-in process based on self-similarity, similar feelings and related thoughts; the bi-directional interaction of fields, particularly the individual with the collective; the formation of fields through repetition; the powerful nature of the imprinting process; and the attraction to a final form like that associated with entelechy. Fields do not disappear and may be activated when circumstances match previous such feelings and associations. Memories may well not be situated in the brain or even in the entire body but in the field, with all information being accessible within the contents of collective consciousness.

CHAPTER SIX: AN EVOLUTIONARY CHOICE

Regressive Transformation and Implications

Childhood suffering and disease with origins in the primal period surrounding birth, as well as trauma-related issues later in life (Chamberlain 1998; Grof 1992; Prescott 1979, 1992; Verny and Kelly1981), may be considered symptoms of post traumatic stress disorder, or PTSD, a common disorder among modern children. Goldman (1997) cites the following descriptions of PTSD from the DSM-IV: "exposure to an extreme traumatic stressor, fear or helplessness [and a] "threat to one's physical integrity" (American Psychiatric Association 1994, 98). Noting the symptoms of PTSD that affect the mother-child bond when an infant is circumcised, Goldman states, "If certain behaviors, attitudes, fears, and beliefs are prevalent among circumcised men then they also affect those who are not circumcised, both male and female" (139). He concludes that this trauma "can spread to others" (139). The delayed response associated with circumcised infants may manifest later in multiple forms such as aggression, depression, and sexual dysfunction (Goldman).

The exponential increase in babies diagnosed with autism spectrum disorders has arisen in epidemic proportions as though it were a contagious disease. A similar contagious phenomenon may be noticeable following a teen suicide when a number of adolescents also attempt suicide immediately afterwards. Symptoms of PTSD may surface years later and may be the manifestation of group-resonant fields with their origins in the mistreatment of

children. Gun violence and its increasing incidents among children and adolescents may be such a contagious group-field phenomenon. An article in *New Scientist Magazine* (Bhattacharya 2005) cites Felton Earls at Harvard Medical School referring to violence as "a socially infectious disease" and suggests that "preventing one violent crime may prevent a downstream cascade of 'infections'" (1). Traumatized adults continue to unconsciously, or at times deliberately, inflict suffering on infants and children, thus the normalization of and increase in unnecessary suffering over recent decades.

Infants and babies are relatively fluid in their explorations of the fields and contents of the collective consciousness of humanity. During the experience of trauma—heightened because of their sensitivity, their capacity for deep imprinting, and their potential access to the shadow material of the collective—they may fragment, or dissociate, as a protective strategy (Zinser 2010). Ralph Metzner (1998) asserts that regressive transformation leads to

> greater limitation or imprisonment, to deeper darkness, more extreme fragmentation and separation, into the chaotic depths of madness, depression, and the states of consciousness associated with violence, injury, and disease. (17)

Although Metzner's emphasis is on personal transformation, Bache (2000) suggests that "*wherever one of us goes, to some degree we all go*" (20; italics in original). Claiming a strong correlation between personal experience and the collective, Bache continues:

> If we assume for a moment that the dynamics of this species-mind parallel the dynamics of the personal psyche to some degree, we can speculate that just as problematic experiences can collect and block the healthy functioning of the individual, similar blockages might also occur at the collective level. (80)

Because original trauma may create a tendency to repeat and attract similar traumatic patterns over a lifetime, an intelligent and aware population might begin to focus on the prevention of this trauma, especially during an historical time when such trauma may result in serious negative consequences worldwide and extensive damage to human, animal, and plant populations.

There is evidence that the prefrontal cortex may be damaged if the birth process is traumatic (Prescott 1979, 1992). One notable result of this damage is the inability to imagine the future consequences of one's actions. Those children in whom a natural empathy does not exist and those who appear to have no conscience may have experienced damage to the prefrontal lobes. In natural births, noticeably large frontal lobes develop rapidly after the birth. Adrian Raine (2002) has researched the role of prefrontal deficits in the development of "antisocial and aggressive behavior in children" (1). During a study on predispositions towards violence, including birth complications, maternal rejection, and prefrontal dysfunction, Raine (1995) reports the following:

> Early maternal rejection (defined by unwanted pregnancy, attempt to abort fetus, and institutionalization of infant for at least four months in the first year of life) may predispose to later violence, because disruption of the mother-infant bonding process early in life may lead to the inability to form meaningful relationships and what has been termed "affectionless psychopathy" [by] Bowlby [in] 1946. (571)

Jean Liedloff (1977) concludes that since modern people have been deprived of a continuous in-arms experience (left in cribs and strollers) and have been somewhat disengaged from the natural human continuum, the need for these experiences remains unfulfilled, thus leaving parts of the self infantile. This may

lead to self-hatred, self-doubt, an unsatisfying search for happiness and the sense that something is always missing. Waiting for completion, one may never feel whole. Liedloff asserts that fear of betrayal prevents intimate relationships from reaching fulfillment. Objects and partners are placed at a distance.

According to Liedloff's (1977) Continuum Concept, the in-arms infant has all desires met. His or her expectation of rightness are fulfilled. Liedloff notes that when this does not happen for Western children, sibling rivalry and competitiveness are acted out as consequences of the suffering caused by unresolved longings and unmet needs. Liedloff adds:

> One of the most striking differences between the Yequana and any other children I have seen is that the former neither fight nor argue among themselves. There is no competitiveness, and leadership is established on the initiative of the followers. (108)

Liedloff (1977) notes that the idea of "your child" or "my child" does not exist with the Yequana since each child is respected as "his own proprietor." For this reason there is no coercion or pressure placed on anyone to do anything. There is no imposing of one's will with the threat of punishment. The Yequana baby feels so "right" in the process of living that he or she understands immediately when a behavior is met with disapproval. It is the behavior itself, not the child, that is unacceptable, and he or she is happy to cooperate with societal expectations. This relationship to behaviors was also noted by Sorenson (1998).

Liedloff (1977) asserts that the disapproval modern babies receive for doing something "wrong" or for being "bad" is taken as an affront to the self. In addition, children who are always being forewarned of immanent danger are handicapped in their exploration of their surroundings. She adds that "gnawing

insecurities" are accepted as normal, and it is taken for granted that "life is hard" (148). For these reasons, Liedloff explains, modern people accept many sorts of unacceptable impositions with "resignation."

Lloyd deMause (1982), influential in the founding of the discipline of psychohistory, "the science of historical motivation," developed a theory of the psychogenic evolution of childhood proposing that "shared childrearing modes" are the "real basis for understanding motivation in history" (ii). DeMause asserts that rather than economic collapse, the primary condition leading to war is due to *emotional values* that fall apart, and he correlates this directly with a nation's nurturing practices. He emphasizes the "life-and-death struggle" of birth and concurs with aspects of Grof's (1992) perinatal research that support his own. Primarily a Freudian analyst, deMause does not acknowledge Jungian archetypes or spiritual and paranormal phenomena.

The evolution of deMause's (1982) six childrearing "modes," from ancient to modern, develop in a linear fashion: infanticidal, abandoning, ambivalent, intrusive, socializing, and helping. The helping mode refers to loving and supportive parents assisting in their child's attainment of goals, including "children's rights, de-schooling and free schooling, child therapy, birth without violence" (136). Rather than a linear progression, I propose that these earlier forms of childrearing continue to surface spontaneously in Western culture today because they are accessible to the psyche through morphic resonance.

David Finkelhor (2011), director of the Crimes Against Children Research Center at the University of New Hampshire, recently stated, "Fifteen hundred

parents kill their kids every year, and that's heavily focused on the under 1 year of age category" (1). The news media frequently reports on teenagers giving birth in public restrooms and abandoning the newborn, mothers drowning their children in bathtubs, and other forms of child abuse. If the evolution of nurturing practices were based on a linear evolutionary progression, infanticide or intrusive nurturing practices still found in modern society would no longer be observed. An expansion in consciousness, including deMause's (1982) helping mode, with its proper attunement to the thoughts and feelings of children and appropriate responses to them, may be a natural outcome of the evolutionary process at this time in human history, but the normalization of suffering may interfere with this potential. Instead, any of deMause's nurturing modes may be accessible through emotional connections with resonant fields of similar thoughts and emotions. James Prescott (1979) and Margaret Mead (1972) correlated violent societies with violent nurturing practices decades ago. When humans, during any point in development, are bound by a culture for which their evolution has not prepared them, and when their innate expectations are unfulfilled, they are pushed beyond their ability to adapt, and their personalities may become damaged in the process.

Armstrong (1988), Bowman (1998), and Hart (2003) attest to the potential psychic harm done when parents or culture deny or demean the spiritual, psychic, or other so-called non-ordinary experiences of children. Alice Miller (1989, 1998) informed the culture concerning the severe consequences of violent and humiliating acts upon children and thoroughly denounced the common practice of spanking. These may teach that force is basic to social interactions, carrying

forward a cycle of violence. Presently, bullying in schools has reached epidemic proportions.

Regressive transformation involves an attunement to violent fields in the species-mind, or collective, based upon painful feelings and experiences in childhood. The acting out of violence in the world may result from unconscious emotional attachments to similarly painful fields. As Sheldrake (1995) states, "Morphic resonance takes place on the basis of similarity" (108).

If a child has been traumatized by violating nurturing practices, he or she may be in danger if the child remains attuned to similar fields or to shadow material in the collective for too long. Although children are highly resilient, excessive trauma that continues after the imprinting of earlier trauma during the primal period may manifest as early-onset schizophrenia, autism, bullying, suicide, or homicide, all of which are escalating in the United States.

Emotional states are accompanied by memories associated with resonant fields. Pert (2003) comments, "Positive emotional experiences are more likely to be recalled when we're in an upbeat mood, while negative emotional experiences are recalled more easily when we're in a bad mood" (144). This may be so common as to go unnoticed in daily life. Pert adds, "Emotions and bodily sensations are thus intricately intertwined, in a bidirectional network in which each can alter the other" (142). Gerhardt (2004) emphasizes the significance of emotions and illness:

> Once you start to think of yourself as an organism with many interconnecting systems that provide feedback to each other and regulate each other, you can start to appreciate the part that feelings might play in physical illness. Emotions are central to self-regulation. (99)

Feeling *bad* aligns one to painful memories and resonant fields of disease and other negative shadow contents of the unconscious, personal and collective. Bache (2000) associates personal suffering and collective suffering with an interaction between resonant fields.

The tendency to form a defensive ego results from pain and trauma. Zinser (2010) reports that extended periods of time brought on by states of anguish and depression and spent in fields associated with dark, negative energy is very dangerous. It is essential that as little time as possible be spent in that condition (Zinser). Children who attune to morphic fields while in states of inner conflict attract similar energies to themselves and confirm their dissonance by what they attract to themselves. They then share these emotions and thoughts with the collective, and in this way, contribute to regressive transformation. Concerning the influence of modern media on the minds of children, Stephen Harrison (2002) notes:

> Violent images projected through commerce-driven media literally change the brain chemistry of the child, creating the reflection of those images in nightmares and mental agitation, and their expression in more violent behavior. This is a drug; it changes the state of mind, and there are side effects. (88-89)

A resonant field, a group phenomenon, may be involved in the distress of newborns in hospital nurseries, the formation of gangs, cults, and collective experiences such as the famous—or infamous—Stanford Prison Experiment initiated by Philip Zimbardo. In the Zimbardo experiment, the participants, university students, were randomly assigned the roles of prisoners or prison guards. The "guards" played out their roles so intensely and were merciless in the

punishment they meted out to the "prisoners" that the two-week experiment was aborted after six days (Aronson 1999, 294). Aronson questions whether it is the "kind of *people* in prison" or the nature of the environment that creates the problem of prisons (294; italics in original). It seems likely that prison fields are powerful emotional group fields that influenced the emotions and behaviors of the students who attuned to them.

The thesis of this dissertation contends that fetuses, newborns, and young children are informed during direct experience with resonant fields induced by feeling states, and, in turn, inform those fields. These fields gain power to produce impressions in physical reality. Emotional responses and entrainment may form physical impressions in the brain such as neural connections. These connections atrophy when no longer needed, such as when an addiction is released. When the same conditions reappear, related resonant fields are again re-activated and produce the required physical connections (Sheldrake 1995).

A child may feel safe and well, or fearful and anxious, and interact with fields that feel similar and familiar. With repetition, neurons are predisposed to receive and communicate ever more easily with those fields. The potential for clear passage from pre-birth through the birthing process into the genius of childhood is diminished in modern society. The continued devastation of the natural world may be a consequence of this excessive violation of new souls entering the physical world.

The normalization of childhood suffering calls for an understanding of its progression over time. The following is a summary of an historical analysis of

attitudes towards the child as the sequence occurred in Europe, especially France. This perception of the child, family, and education influenced the life of children in the United States as well. Philippe Ariès (1962) instituted a new field for historical inquiry and investigated the idea of family, which appeared to be on the decline in the 20th century. He felt that contemporary writers missed the idea of family and the child because they are too commonplace, too ordinary. The idea of family, and the child's role within it, is relatively new in the Western mind, a powerful component of the Industrial Revolution. Prior to the seventeenth century, children were dependent until age six or seven and were treated as little adults afterwards. The modern tendency is to separate age groups of children from each other, and children from the adult world.

Prior to the modern era, middle-class households consisted of family members, sometimes extended family and servants, all living in rooms that were open to everyone (Ariès 1962). There was no privacy, as we know it. Without rooms off a main corridor, one had to pass through these rooms to get to others. Guests could show up at any time in these "big houses." From the 15th until the 18th century, this was the style for the nobility and rural aristocracy (the upper-middle class), other notabilities, and well-to-do merchants. Peasants often lived in one large room with their animals in another. Children were exposed to everything. Sociability, Ariès explains, happened in the streets and in the big houses, with the majority of social codes designed to teach one how to converse and interact publicly. Everything was public. It was during the 17th century that this earlier household community began to develop into the modern family. Until

then, a child was "babied" until weaned and kept in the company of adults until sent off to other households for apprenticeships as early as the age of seven (391-398).

Prior to modernity, the most widely held view of childhood held that babies needed to be "coddled" and played with affectionately without thought of morals and education. This brief childhood ended at about age six or seven and was not distinguished from adolescence until the late 18th century. According to Ariès (1962), the view held by "a minority of lawyers, priests and moralists" felt it their duty to safeguard the child's innocence and dependence. They extended childhood with moral education. Ariès reports:

> The moralists and pedagogues of the seventeenth century. . . succeeded in imposing their considered concept of long childhood thanks to the success of the educational institutions and practices which they guided and supervised. We find the same men, obsessed with educational questions, at the origins of both the modern concept of childhood and the modern concept of schooling. (329)

For centuries, education took place in little Medieval Latin schools, where children learned by rote along with adults. The humanists of the Renaissance and traditional schoolmen alike, as different as they were from each other, considered education to be enculturation, spread over the span of a lifetime. It was not directed at childhood. Later, colleges were instituted without age segregation (187-188, 330).

Ariès (1962) explains that the moralists, "above all the Jesuits, the Oratorians and the Jansenists" initiated a different kind of education and organized colleges and "pedagogicas" (331). Despite the medieval attitude of "indifference to age," once colleges were instituted they devoted themselves

primarily to the education of the youth of the nobility and middle classes. Ariès refers to the idea of precocity in children and reports that a young person could advance well beyond others of the same age because there had been no tightly imposed structure upon his progress through education. This remained so until the 18th century (227-231, 331).

Women and girls were excluded (Ariès 1962). Girls did not go to school until the 18th century, except for the few who went to the "little school" or convents where they received religious instruction only. Girls, treated as grown-ups, were apprenticed to care for households and could do this work as early as the age of ten (331-332).

When the need for discipline was recognized, it was religious discipline (Ariès 1962). Later, it became coercion into moral and spiritual improvement. Finally, discipline meant beatings in some cases, and regular strikings of the child with birch, a very hard wood. Eventually, boys were supervised day and night, and this was extended from the colleges to the *pensions*, the lodgings of the schoolboys, and into the towns. The masters became ever more strict with the boys, and by the end of the 17th century, parents considered severe discipline part of a good education (170, 254, 258-262, 333).

While the moralists of the colleges did their best to separate the boys from family, allowing less time, if any, for holidays at home, a backlash occurred as more and more day schools were instituted. The "day boys" went home after school, and family became more central and more private. Families kept their children dependant for several years while their education was completed. Ariès

(1969) notes that a retreat into an entirely different lifestyle occurred, for the family separated itself from its servants, rooms became private, children were sent to school, and childhood was extended into adulthood. Ariès states, "It is not individualism which has triumphed, but the family" (406).

Ariès (1962) emphasizes the seclusion of the child within isolated nuclear households and rigid educational structures. He considers this the modern child's misfortune. Today, the schooling of babies, who still need to be babied, is normalized. To some degree, indigenous wisdom concerning the care of young children still held sway until the 17th century. The boys were primed for individualism, an ideal influenced by Descartes, whose thinking "was seminal in this regard" (Bache 2008, 6). Richard Tarnas (1991) summarizes this influence:

> Here, then, was the prototypical declaration of the modern self, established as a fully separate, self-defining—doubting everything except itself, setting itself in opposition not only to traditional authorities but to the world, as subject against object, as a thinking, observing, measuring, manipulating being, fully distinct from an objective God and an external nature. (280)

Ego formation as a defensive process may escalate during modern education. Conformity, repression of feelings, focus on left-hemisphere dominance, and forcing children to read and write before they are ready may cause so-called learning disabilities (de Beauport 1996; Harrison 2002). Children are generally schooled in an aggressive manner without acknowledgement of their need to make free will choices about what they are to learn. The repression of imagination, essential for intelligent comprehension and response, are continually replaced by forced memorization of so-called facts and by required thinking that matches some agenda or ideal. Concerning imagination, Cobb (1977) states:

> A major clue to mental health lies in the spontaneous and innately creative imagination of childhood, both as a form of learning and as a function of the organizing powers of the perceiving nervous system. (15)

Gopnik (2009) comments on the need of young children to use their imagination:

> And even in cultures where pretend play is discouraged, rather than cultivated, like Gradgrind's school in Dicken's *Hard Times*, children continue to do it anyway. ("No child left behind" testing policies seem to be echoing Mr. Gradgrind, replacing dress-up corners and pretend play with reading drills in preschools). (28)

Harrison (2002) contests the idea that a child needs to be "molded, trained, and educated" (3). Further extending their education, children are now expected to attend preschools. Harrison asks, "Doesn't the child, like the adult, hold the essential quandary of synthesizing the whirl of thought, feeling, and action into a meaningful life?" (4). Rudolf Steiner (1996) noted:

> We are not really aware of the fact that we have regressed in human evolution. In the past, children were allowed to grow up without being educated: their freedom was not invaded. Now we violate this freedom when we begin to educate them in the sixth or seventh year. (67-68)

In a world of fractured, dysfunctional, and confused families and societies, an education for the whole child is particularly challenging (Harrison 2002). Harrison states, "Teaching the child to simply objectify and quantify the complexity of life is also teaching a reduction in capacity, rather than an embrace of the full human capacity" (6). It is through relationship that a child learns about himself, or herself, and others. Harrison contends that although computers can present facts and retrieve information better than children can, children are still expected to do so. This regurgitation of bits of information passes as learning. Instead, children need to explore and investigate information, find its meaning and utility, and develop the skills to manipulate it. The irony, Harrison asserts, is

that they do this naturally. Instead, Harrison notes, this natural tendency is interrupted by the "harshest of measures: being taken to schools, made to sit still, made to stop talking, made to listen and remember bits of information" (8). Children feel disconnected when only this small range of intelligence is valued. Harrison is convinced that in the public educational system what is learned is power, the power of dominance, not empowerment.

Harrison (2002) states that "the current school environment of force-feeding information to passive students" will never allow the "element of self-direction" essential to a whole person who will be able to "meet the future fully, without fear" and use intelligence to understand and meet new challenges (9). He adds that the only way children can be shipped off to a warehouse and "educated by strangers from a curriculum designed by politicians and academic theorists" is because the parents, too, ship themselves off to be "warehoused at work" (10). The modern person is convinced that this is for their own good. A population that has experienced a disconnected education cannot imagine an integrated education.

Harrison (2002) reports that "innovation, experimentation, and inquiry—the very essence of learning—are not part of the repertoire of institutionalized education" (16). When parents do not understand their own projections of fears and anxieties, they are unable to make reasonable choices about their children's education and can even be "oblivious to the odd, sometimes crackpot theories behind the educational programs" (16). Children are often under pressure as babies to learn fast enough and to be good enough. They have a heightened alertness to "the underlying purpose of adults" (18). A very young child may

parrot back the names of the letters of the alphabet and may appear to be interested, but the meaning for the child is in pleasing the parent or teacher, the authority. Harrison further observes:

> As the children learn, they learn what the teacher thinks is important, and so letters become just letters, part of the symbol system called words. Later, they will learn that learning fast is good, that being right is important, that some kids are smarter than others (the others are dumber), that suppression of feeling and expression of thought (at least certain thoughts) is valued. (20)

Harrison notes that all the qualifying that is attached to what is assumed to be education—comparing experiences, comparing grades, evoking fear or pleasure—is not the rich experience that draws one deeper into contact, into an investigation that informs the heart. Albert Einstein describes his experience:

> One had to cram all this stuff into one's mind for the examinations, whether one liked it or not. This coercion had such a deterring effect [upon me] that, after I had passed the final examination, I found the consideration of any scientific problems distasteful to me for an entire year. (quoted in Harrison, 29)

When learning includes being told what one is experiencing, being given an explanation of that experience, and what can or cannot be done with it, the experience becomes dead to the learner (31-32).

For Harrison (2002), testing is a tool of "politicians, business interests, and education consultants," but it will not help failing children for they are turned into statistics, given labels, and stressed through "the humiliation of imposed failure" (35). The baby boom generation entered an educational system that used operant conditioning and trained students efficiently with or without their interest. Harrison notes:

> The absurdity of this coldly rational and mechanistic view of the human being was epitomized by the suggestion that even infants could be adequately raised in boxes that would respond to and at the same time alter the child's needs. (39-40)

Harrison questions the possibility of a truly democratic society when, with the exception of a few democratic schools, the political environment of public schools demeans the individual and attempts to control all aspects of learning by use of force, thus teaching something similar to totalitarianism.

Edith Cobb (1977) concludes that little is offered in standard public education to encourage imagination, the basis of art and science, which is segregated and left on the periphery. In her view, a teacher should serve as *co-learner* and facilitator in the exploration of helping students find out about themselves, who they are in relationship. She adds that the stifling of evolutionary striving may lead to the extinction of our species (111). Critical thinking is not generally acceptable in the present public educational system. Considering the state of the environment with the death of large patches of the ocean, children who cannot think on their own, and children who have damaged prefrontal cortices, may be unable reverse a dying planet as they grow into adulthood.

Cobb (1977) and Clark (2002) concur that negative consequences result from the passive learning of isolated facts. Clark correlates this passive learning in America's classrooms with experiments on human cognition where feelings, spontaneous motivation, and active discovery are ignored. Clark says that by acquiring "isolated facts, disconnected, memorized bits of information" we are unable to comprehend wholes and meanings. (165).

Clark (2002) addresses cultural identity and how the "self" is given meaning, purpose, and ranking within hierarchical systems. These structures, she says, may be efficient, but they are also rigid, repressing the "psychic needs" of some of its members out of fear of "social unrest" (63). Western history has been interpreted and distorted as a constant "war-for-survival" in line with social-Darwinist theory. There may have always been "vendettas of revenge" as there are today. But, Clark emphasizes, when violence comes to an end, resolution and healing need to begin. Commenting on "unrelenting competitive capitalism," Clark states, "the trauma to the human psyche being inflicted by the dominant Western world view [is] metastasizing around the globe" (63).

Clark (2002) notes that reason cannot exist "without purposeful values, and purpose demands motives, and motives are the product of feelings" (51). In other words, feelings precede logic. Cultural narrative, or meaning, connects the individual to the group. Clark asserts that the propensities for bonding, autonomy, and meaning "frame virtually all human social behaviors" (59).

As an example of regressive transformation in anthropology, Colin M. Turnbull's (1972) study of the Ik people of Uganda describes how meaning systems and child nurturing practices were lost as a result of near starvation on drought-stricken land, a consequence of governmental limitations imposed on otherwise nomadic people. Adults became extremely self-centered and "mean." Children were "put out," abandoned at the age of three or four, and banded together by age groups in which the weaker ones did not survive.

Richard Sorenson (1998) reports that repeated viewings of films of isolated preconquest peoples in various part of the world demonstrate liminal consciousness with its characteristic sociosensual infant and child nurturing, as well as empathic and intuitive rapport. For such people, the mere presentation of angry faces in photographs was sufficient to induce a genuine terror, let alone maltreatment of any sort. As noted earlier, deception did not exist, and the idea of lying could not be explained to them. Sorenson reports, "Any form of subjugation, even those barriers to freedom imposed by private property, are the kiss of death to this type of life" (80).

Sorenson (1998) notes that when conditions of harsh emotions or coercion are imposed by a modern world view, unconditional open trust breaks down and a chaotic period of cultural breakdown follows, including the loss of memory of previous patterns of living. Adolescents appear to suffer greatly during such transitions. Postconquest abstractions and behaviors ultimately emerge. These evolve into the image that has been assumed to be the true nature of these people. They become the "savage," unlike the people they were prior to their conquest.

Sorenson (1998) describes the onset of a cultural breakdown of the indigenous people with whom he bonded. Having been present during that week of the collapse of such a tribal group and their preconquest consciousness, he states, "There was no way to have predicted . . . the acute phase of their ancient culture's death would start" (99). There had recently been government impositions, merchants, and tourists. These ancient people could not comprehend the deceptions nor their treatment by these intruders.

Sorenson (1998) considered his own state of consciousness susceptible to the contagious mental breakdown of the tribe since returning from "two months of tantric philosophical inquiry in a Tibetan monastery," notes that nothing he was aware of during his anthropological studies could have prepared him for "the speed by which it can occur" (99). Sorenson adds:

> In a single crucial week a spirit that all the world would want, not just for themselves but for all others, was lost, one that had taken millennia to create. (99)

Sorenson reports on the following observations during this cultural breakdown brought on by exposure to Western consciousness:

> . . . epidemic sleeplessness, frenzied dance throughout the night, reddening burned-out eyes getting narrower and more vacant as the days and nights wore on, dysphasias of various sorts, sudden mini-epidemics of spontaneous estrangement, lacunae in perception, hyperkinesis, loss of sensuality, collapse of love, impotence. (99)

This cultural breakdown that may be considered the disruption of the group field of consciousness of these people continued during the period of one week. Sorenson describes his own personal experience in his notes:

> To pass through the disintegrating social enclaves was to undergo a rain of psychic blows, a pelting shower of harrowing awarenesses that raised goose flesh of unexpected types on different epidermal sites along with other kinds of crawlings of flesh and skin. There were sudden rushes, both cold and hot, down the head and chest and across the neck, even in the legs and feet. And deep inside, often near the solar plexus, or around the heart, or in the head or throat, new indescribable sensations would spontaneously arise [and] leave one at a loss or deeply disconcerted. (100)

At the end of the week, Sorenson's beloved people no longer remembered their previous intuitive rapport. He describes the teenagers as

> playing at (and then adopting) the rude, antagonistic, ego-grasping styles of the encroaching modern world [while] oldsters retreated into houses,

> lost their affinity to youngsters, who then turned to one another, sometimes squabbling (which did not occur before). (101)

In an historical summary of the civilization process from preconquest consciousness into the postconquest type, Sorenson (1998) reports that only sustained "exposure to anger, deceit, or greed" would cause a complete breakdown. He notes that despite the "conquistadors" impositions, "an older psychic unity would unpredictably reappear" from time to time, as in the Eleusinian and Dionysian mysteries and in the Christian love philosophy (103). Sorenson comments on how "collapsed preconquest communities began restabilizing in a postconquest mode" and how sociosensual inclinations would, at times, continue to surface (103). Sorenson states:

> They leaked out spontaneously and unpredictably as if [from] some panhuman reservoir so deep it could neither be undone by existential terror nor seduced by worldly thoughts of ownership and power. (104)

The descriptions offered by Soreson (1998) may be explained by field phenomena. The fact that such a particular kind of consciousness is still to be found, although rarely so, in isolated areas and well-integrated with the local natural ecology attests to the possibility that related morphic fields remain accessible to humanity. The powerful resonant fields of the Western mind induce a breakdown and amnesia similar to, or the same as, PTSD, with the kinds of bodily sensations that resonant fields carry such as a mother's tingling sensations when her child shifts into a non-ordinary state of consciousness and reports on his or her own birth or past life (Bowman 1998).

If the modern baby begins life in a state that is the same or similar to liminal consciousness, ordinary for peaceful indigenous peoples, then this baby

may also be broken down when imposed upon, mistreated, and denied sufficient touch, in-arms experience, intuitive communication, and synchronistic movements through time, so integral to such consciousness. Parallel to the breakdown of the group consciousness of an ancient people and their eventual, shattered state of integration with modern consciousness, it may be that babies, too, lose their intuitive and non-ordinary states and begin compromised and defensive ego development. Preserving or recovering such liminal states of consciousness may be required, as this thesis proposes, to evolve humanity beyond materialism and to facilitate more conscious relationships to more coherent fields available to human beings. The conscious creation of coherent group fields may offer the potential to correct and heal environmental damage that has been done to this point. It has been shown that a coherent state is a healing state. An infant in a coherent state may induce healing in others.

This dissertation asserts that these invisible morphic fields are alive and well within the human collective psyche. New souls must survive modern impositions, insufficient bonding, and inappropriate imprintings in order to maintain a quality of consciousness that still manages to survive in modern culture, at least for a time, in babies. Because they have access to realities beyond the limited scope of a materialistic social structure and belief systems, all they need is the appropriate love and protection from abuse to maintain their natural states of empathy and wise knowing. With a healthy and well-developing prefrontal cortex as a visionary organic tuning apparatus, undamaged young children might help re-establish a significant attunement to fields of

consciousness that would pull Western humanity out of the depths of near despair as reflected in spiritual, emotional, and physical diseases, massive animal extinction, and the approaching collapse of the global ecological system. Quoted in Clark (2002), Malidoma Somé warned in 1994:

> There is no doubt that, at this time in history, Western Civilization is suffering from a great sickness of the soul. The West's progressive turning away from functioning spiritual values; its total disregard for the environment and the protection of natural resources; the violence of inner cities with their problems of poverty, drugs, and crime; spiraling unemployment and economic disarray; and growing intolerance toward people of color and the values of other cultures – all of these trends, if unchecked, will eventually bring about a terrible self-destruction. In the face of all this global chaos, the only possible hope is self-transformation. Unless we as individuals find new ways of understanding between people, ways that can touch and transform the heart and soul deeply, both indigenous cultures and those in the West will continue to fade away, dismayed that all the wonders of technology, all the many philosophical "isms," and all the planning of the global corporations will be helpless to reverse this trend. (373)

Progressive Transformation

Transformation is possible through "participatory social change through dialogue, which all members then 'own'" (Clark 2002, 64). Clark adds:

> Once we see ourselves in this light—in a gestalt of meaningful connectedness to other human beings because that is how humans must live to survive—we can comprehend the emotional forces that are built into us and begin creating institutions that satisfy our deepest longings, rather than ones that try to override and suppress them in a misguided attempt to impose a rigidly prescribed social order. Such insights into human nature have the power to open up new approaches for resolving our conflicts and achieving non-destructive, adaptive social change. (61)

Clark considers the brain a meaning-making organ that requires direct experience with its environment and the "meaningful sharing of minds-in-context" essential for "coordinated cultural action." She notes that mind emerges from "interactions among brain, body, and the socio-environmental milieu in which the self exists"

(62). In her all-inclusive view, the "self" extends beyond the body, and the mind is body "*plus all its relationships*" (162).

It is possible that Western culture's fear of death, and of birth, inhibit the birthing of a new paradigm that is already present in resonance but needs a significant amplification by an attuned population in order to become manifest. This may be related to Edgar Morin and Anne Keene's (1999) comment: "The death/birth struggle is perhaps the way, through infinite risks, toward the general metamorphosis—on the condition that we raise to consciousness this very struggle" (77). As many cultural historians point out, humanity is at a "choice point" and is, therefore, experiencing a mounting tension as an old destructive paradigm is being released while a new, more spiritual world attempts to emerge. A focus upon the primal period and childhood may be a saving correction, for as the collective field of birth is healed, so may the planet be healed. By focusing on the care and preparation of a pregnant mother and fetus, offering the least distracting and least invasive natural birth possible, especially birth in water, and promoting a childhood of safety and play, of healthy nourishment and nurturing, and of a joyful education that is child-centered and based on each child's unique view and natural talents and predispositions, the response or shift in fields that could take place is the evolutionary leap of love and abundance so many hope for and invite.

Bruce Lipton (2005) insists that human violence is neither necessary nor inherent: "We have the ability, and I believe an evolutionary mandate, to stop violence" (201). He states that the story of evolution is the "story of ascension to

higher awareness." Lipton adds: "Survival of the Most Loving is the only ethic that will ensure not only a healthy personal life but also a healthy planet" (202).

Conscious Preparation for Prenatal Nurturing and Birth

Prior to the birth of a child, a pregnant woman needs to prepare and heal herself of trauma from her own birth and perhaps the birth of her mother, for trauma is carried forward in the body and associated fields may influence the forthcoming birth. The mother's partner also needs to be involved since those additional thoughts and emotions are also perceived by the soul of the fetus and are imprinted on the life of the newborn infant. Parents may choose to discharge strong negative emotions and interfering thoughts through Holotropic Breathwork and other energy healing methods to disengage resonant fields and COEX dynamics. Lipton (2005) promotes conscious parenting and asks parents to "reprogram their limiting beliefs before they bring a child into their world" (177).

Natural childbirth, especially a water birth inspired by Russian water birthing, has the potential of being a peaceful experience. Elena Tonetti-Vladimorova (2011), who promotes Russian water births worldwide along with the preparation of the mother, psychically and emotionally, also promotes conscious procreation as a pathway to freedom from addictions. Tonetti-Vladimorova describes the limbic imprint as

> an inborn capacity of the nervous system to absorb and memorize non-cognitively all of the information from the surrounding environment during the pre-verbal formative period from conception, through gestation, birth, and the first few years of life. (1)

She adds that if the baby is saturated with oxytocin and other dopamines, the mother's love hormones, the baby "grows well and feels safe about coming into this family" (1). For a baby exposed to "predominantly stressful experiences, that would mean adopting negative sensory overload as the norm by the baby's limbic brain and nervous system." In that case, "loneliness and suffering" might register as the "comfort zone" (1). One might imagine an attunement to fields of safety or of trauma based on morphic resonance where the brain is transforming itself to receive certain patterns that become the "normal" personality field.

Tonetti-Vladimorova (2011) reports that when a woman's own birth was not a healthy birth experience, "her body doesn't know that it knows how to produce enough oxytocin during delivery," but it is "possible to re-train" the nervous system to produce sufficient oxytocin by re-writing a "new script" and "triggering the creation of new reference points" that include feelings of safety and nurturance (1). She refers to birth as a "deeply mystical, shamanic experience" (1). Tonetti-Vladimorova adds:

> This is exactly why the longest journey one will ever undertake is the journey from the head to the heart. Because if the feelings are emotionally disconnected from physiology, one cannot tell the difference between love and lust, with no reference point of what it's supposed to feel like.

Conscious Parenting

According to Gopnik (2009), "It isn't just that without mothering humans would lack nurturance, warmth, and emotional security. They would also lack culture, history, morality, science, and literature" (15). Describing her observations during years of living with the Yequana people, Liedloff (1977)

reports that a baby's smiles and happy sounds elicit smiles and joy from young and old and encourage a "high pleasure quotient" (52). These correspond with ancient expectations of mother and baby. This was observed by Sorenson (1998) as well.

A child experiencing the fulfillment of expectations natural to childhood is capable of novelty. But when birth or past life memories are distressful, receptive caregivers may be alerted to psychic trauma and proceed to investigate methods of healing these wounds *before* an ego structure and world view are formed. Such trauma, thereafter, will no longer draw similar experiences to coexist and deepen in the manner Grof (1992) describes in his theory of COEX Systems, thus preventing future repetition of these psychic patterns with associated resonant fields.

Sometimes, when experiencing past lives during altered states, people heal their emotional and physical symptoms. Grof (1992) states that karmic relationships may also be healed of old wounds. Grof comments on the need to "depathologize" the psyche and "inner core" of our being, for a "self-actualized" person is full of potential and does not dismiss "signals from the inner core" (86). Doing the work of helping heal the psyche of those who suffer PTSD ought to become the healing work of our time.

Harrison (2002) promotes intentional families and asks that our culture consider creating living communities based upon shared interests and vision. He adds that maintaining the unraveling nuclear family creates too much isolation and loneliness for many. Liedloff (1977) suggests that stay-at-home mothers take

turns meeting in each other's homes to clean together, prepare food together, and converse while their children play instead of remaining in relative isolation.

Holistic Methods of Education

Gopnik (2009) notes that young children have "remarkable learning abilities" long before they go to school (4). Cobb (1977) suggests that what is best for the child's personal development is a cooperative environment of learning. She states that children are concerned with ecological relationships naturally because of their "common-plus-cosmic sense" and need to express their power to "model and mold" their environment.

Clark (2002) is in disagreement with Noam Chomsky's perspective that children are born thinking in a "universal grammar" and need to learn the symbols of their native language to communicate verbally. She prefers the view that these word-symbols, as emphasized by the more holistic model of linguist George Lakoff, embody cultural preconceptions. Therefore, Clark asserts that language carries forward a "framework of reality [where] meaning already exists in external reality" (177). This may be understood as similar to, or the same as, tuning in to the morphic field of a language and of generations of speakers who predispose the learning of that language (Sheldrake 2009, 190).

Whole children move fluidly through their thoughts and feelings while "exploring their inner and outer capacities" and the social structures within which they find themselves (Harrison 2002, 9). They require supportive environments with "freedom to express themselves" in educational communities without

compulsion or coercion (9). Harrison asserts that children do not need mediators of experience:

> Non-coercive learning takes place in an environment that is responsive to the child and in which the child is informed factually, but without a particular learning direction implied. Children are interactive; they communicate and take in communication constantly. The simple act of open listening and the honest, direct response that neither strips the child of responsibility nor imposes authority actualizes the potential of the whole child. What is taught is not so much the information, the concept, or the skill, as much as the demonstration of interaction from the common ground of relationship. (11-12)

Harrison (2002) contends that failure is integral to success in all learning. Contrived praise meant to motivate actions in a certain direction confuses a child as does withdrawal of "emotional support" when behaviors do not please. Children need to find out what they like and what draws their attention and passion into complete engagement. Harrison adds:

> Children, if left to explore, can discover their passions—the activities, the skills that bring forth the totality of their life energy in an engaged, full-tilt expression that is creative, productive, and not coincidentally—happy. What an amazing concept—happy children! (13)

Maria Montessori said: "One test of the correctness of educational procedure is the happiness of the child" (quoted in Harrison, 34). Without such experiences, Harrison explains, the soul of the child is destroyed and what is left is "an intact shell of compromised personality [and an] empty heart" (14). If children are allowed to keep their hearts intact, there is the possibility of the healing of adult broken hearts. Harrison adds that the "transformation of fragments into the whole [can result in a change in] the heart of education" (15). This radical change is already active and alive in each child (53).

Children need to be allowed to approach their learning fearlessly, with the curiosity that is natural to them (Harrison 2002). Harrison suggests imagining a society with "no imbedded power structure" (44). Democratic education has advantages over "forced curriculum" and the negative attitudes towards children as "creatures of the state" (65). Children need to understand "social contracts and paradigms" in order to be educated in a new way. Cultural ego and identification, Harrison states, "is the source of irresolvable world problems, and its unraveling is the beginning of the solution" (75). It needs to be made clear to children that this culture's perspective is one of many. He promotes helping children understand belief systems and how they are used for a sense of certainty, but when taught as facts, they become indoctrination. Harrison concludes that

> we cannot entrust our children's lives to our contemporary culture [but we can] entrust our culture to our children [and give them] the tools to understand the forces that are unleashed to inform them, manipulate them, sell them. (87)

Harrison (2002) contends that we do not need to answer the many "why" questions that naturally come forth from the child. Children need to answer their own questions while facilitators are playfully present with them in the experience of finding those answers. Harrison states, "Socrates' perception was a profound understanding of the nature of learning that led him to communicate through dialogue and discourse using the medium of questions" (100).

Because parents fear for their children's future and depend on modern education to form them to cope and succeed, Harrison (2002) notes that the resulting loss for children is the "creative and passionate expression" unlearned during education. He notes that if one could begin to live passionately, one would

put into place the forms that "reflect a life of love and inquiry." Harrison offers the following possibilities:

> intentional living communities; student-directed schools; cooperative, entrepreneurial, sustainable businesses; ecologically sound food production; relationship-based charity; artistic and media expressions that reflect more than materialism . . . a life full of books and computers, paintbrushes and musical instruments, mystics and visionaries, along with entrepreneurs, artisans, scientists, and scholars. (104)

While the adults begin to benefit spiritually, emotionally, socially, and psychologically from releasing their own fear of living life fully, the children will unfold fully as well. Learning centers need to be an integral part of the community. The interconnectedness of life, in all its forms, is an essential spiritual realization and is at the heart of a whole education. Harrison's (2002) vision of learning communities, if put into practice, might hold a space within which a revolution in consciousness might also take place, a fearlessly new way of living.

CHAPTER SEVEN: A REVIEW OF CURRENT PROBLEMS AND EMERGENT SOLUTIONS

Our Failure to Understand Consciousness

This dissertation has considered several issues that appear to be increasingly polarizing in our culture. Capra (1996) identifies some of the prevailing beliefs that are the basis for Western culture's present dominant world view:

> the view of the universe as a mechanical system composed of elementary building blocks, the view of the human body as a machine, the view of life in society as a competitive struggle for existence, the belief in unlimited material progress to be achieved through economic and technological growth, and . . . the belief that a society in which the female is everywhere subsumed under the male is one that follows a basic law of nature. (6)

The emergence of a paradigm of holistic and ecological perceptions and values appears possible but often arouses reactionary responses and further polarization. Opposing views are promoted widely thus signifying the extremes of our time as well as the necessity of informed choice. The fundamental thesis presented in this dissertation states that the treatment of fetuses, infants, and young children activates the powerful field dynamics of the collective and may influence a shift from humanity's present regressive evolutionary trajectory to a progressive transformation of consciousness. This study offers examples that, if understood, might increase the happiness, security, and well-being of fetuses, infants, and young children.

Since a transformation in world views involves a transformation in both personal and collective consciousness, perhaps a clarification of what is meant by consciousness itself would help resolve the extreme disagreement between poles. De Quincey (2002), Grof (1992), and Lipton (2005) refer to the fact that the plethora of real life anomalies, disregarded by mainstream science, is evidence that the present paradigm is limited in its understanding of mind and matter. De Quincey develops the philosophical assertion that all matter-energy has consciousness.

De Quincey (2002) notes that energy and spirit are sometimes confused because they are non-physical and invisible. According to physics, most of the universe is invisible energy, but still it is matter. De Quincey explains that "energy flows" and "consciousness feels." And de Quincy states: "Consciousness is the 'witness' that experiences the flow of energy, but it is not the flow of energy. We could say consciousness is the felt interiority of energy/matter" (60).

The larger sense of consciousness as an informing, feeling witness, differs from psychological consciousness, the more commonly used meaning (de Quincey 2002). Psychological consciousness evolves with nervous systems and brains, but philosophical, cosmological consciousness informs matter-energy "all the way down" (de Quincey). The need for clarification stems from the conventional belief that mind is the result of physical evolution and that matter-energy does not feel.

An understanding of philosophical, cosmological, consciousness would help explain the evidence that a conscious witness exists prior to conception and

during the formation of a fetus. Psychological consciousness would be understood as a "state of awareness" requiring "modes of access" (nervous systems) to tune in to the "contents" of fields of consciousness (de Quincey 2002). Following the perspective presented in this dissertation, states of awareness, nervous systems, and chemistry (psychological) *feel* (philosophical) and attune to fields of consciousness and their contents all of which have their source in a philosophical, cosmological consciousness (Source, All-That-Is).

Cultural Practices as Consequences of Dissonance

In addition to advocating these delineations of complex consciousness, I also propose that there might exist a continuum or spectrum of traumatic disorders that would fall under the diagnosis of post traumatic stress disorder (PTSD) and reveal itself functionally in the culture as cognitive dissonance. This assertion is similar to Liedloff's (1977) continuum of feelings and behaviors advantageous to mothers and infants, and ultimately, to the species. Extreme dissonance would be at one end of the spectrum while coherence is at the other end. When an entity is in a state of incoherence or dissonance, fields of information are experienced as distortions. Autism and related disorders are already referred to diagnostically as spectrum disorders (Sicile-Kira 2004). Festinger defines cognitive dissonance as follows:

> Cognitive dissonance occurs when a person holds two attitudes or thoughts (referred to as cognitions) that contradict each other. For example, a smoker who knows that smoking leads to lung cancer. The theory predicts that these thoughts will lead to a state of cognitive dissonance. (quoted in Robert Feldman 1990, 632)

I propose that PTSD may result from primal trauma and leads to contradictory personal and cultural beliefs. Because of the cultural repression of intuitive knowledge and feelings, many people in modern society may be functioning in a state of cognitive dissonance. Damasio (1994) agrees that intelligent decision-making is at risk, personally and collectively.

A culture that comprehends the significance of a happy and healthy child might consider it the right of every child to have the least stressful fetal life, the most natural childbirth, and an in-arms, non-toxic babyhood. Such a culture would support extended family communities that care for mothers-to-be and provide assistance in preparation for pregnancy and childhood. It would support a life of joy and play for its children, lovingly respecting and valuing them. From the perspective of this thesis, those children would be positively attuned to fields of similar resonances, strengthening those fields through participation.

Anxiety in a child would alert the parents that some trauma-related pattern has developed and that healing should be facilitated as early as possible. Alternative healing techniques have been used successfully as treatments for removing patterns of trauma, including those related to reincarnational issues. Coherence, or compassionate intelligence, may result from the correction of negative imprinted patterns, the consequences of primal suffering.

Stress has been shown to affect the fetal forebrain and gut (Lipton 2001). Recent research is demonstrating how bacteria in the gut affects the brain and influences anxiety and depression. Genetically modified foods have a negative effect on intestinal flora perhaps because they stress the body's energy field.

Natural techniques and dietary supplements may balance intestinal flora and emotional states.

Tonetti-Vladimorova (2011) claims that the limbic system, in particular, needs healing from primal trauma. The work of Damasio (1994) and others demonstrates that emotions *always* affect cognition. Subconscious beliefs might be assessed through "energy psychology modalities" that facilitate a rapid "reprogramming" of limiting core beliefs (Lipton 2001). Lipton recommends such techniques as Psych-K, EMDR, Body Talk Systems, Holographic Repatterning, and clinical hypnotherapy (Lipton 2001; Lipton and Bhaerman 2009).

Although the popular impression remains that genes determine our characteristics and tendencies towards certain diseases, recent studies reveal an interaction between genes and the environment. One study provides evidence that PTSD is influenced by the "interactive effect of environmental and genetic factors" (Xie, et al 2009, 1201). The study was conducted with individuals who reported experiences of childhood or adult traumatic events, or both, including "witnessing or experiencing a violent crime, sexual abuse, physical abuse, or neglect" (1201). DNA was extracted with the intent of searching for a gene mutation known as the 5-HTTLPR associated with emotional responses after stressful events. According to the report, what is significant about PTSD is that it involves "re-experiencing, avoidance and increased arousal following exposure to a life-threatening event" (1201). The genotype 5-HTTLPR was detected in only the most extreme cases where repeated trauma was experienced during childhood and in adulthood.

Reframing the conventional perspective—that a gene might cause a person to be susceptible to PTSD—the activation of the 5-HTTLPR genotype found in persons who have undergone excessive trauma in childhood *and* in adulthood may be a *consequence* of that trauma where the trauma affected gene expression. Epigenetic studies demonstrate that trauma can actually change genetic codes (Lipton 2001). Adding unnatural substances like pharmaceuticals to the body system may shift the organism further from coherence.

Lipton (2001) states that according to genetic determinism, maternal and paternal genes "collectively download an individual's physiologic and behavioral character [therefore] the fundamental character and attributes of a child are genetically predetermined at conception" (1). However, early fetal perceptions actually "constitute the life-shaping subconscious mind" (Lipton, 1). Lipton contends that although the conscious mind might observe and criticize behavioral patterns, it cannot willfully change the subconscious.

Regarding the role of parents, Lipton (2001) states that the nature-versus-nurture controversy needs resolution. If genes program and execute development, the only significant role of parents would be to provide nutrition and protection. According to conventional thinking, characteristics that deviate from the norm are considered expressions of defective genes. Dysfunctional "mechanisms" are treated with drugs, Lipton explains, while pharmaceutical companies promote a future in which "genetic engineering will permanently eliminate all deviant or undesirable characters and behaviors" (1). Lipton states: "Parents have a fundamental impact on the developmental expression of their offspring [since]

some environments enhance the potential of the child, while other environments may induce dysfunction and disease" (1). Lipton observes:

> If a parent provides a child with a positive or negative self image, that perception is recorded in the child's subconscious. The image acquired of self becomes the subconscious "collective" voice which shapes our physiology (e.g., health characteristics, weight) and behavior. Though every cell is innately intelligent, by communal agreement, it will give its allegiance to the collective voice, even if that voice engages in self destructive activities. (1)

Lipton emphasizes that it is "our perception of the environment [that] directly controls our behavior and gene activity" (1). Mutations may impair the quality of a life, but 95 percent of the population possesses "fit" genes (Lipton 2001). Because environments are not static, genetic engineering genes create new perception proteins to interact with environmental stimuli whereby "positive perceptions produce a growth response, while negative perceptions activate the cell's protection response" (Lipton, 1). Lipton adds:

> The expression of the cell is primarily molded by its perception of the environment and not by its genetic code, a fact that emphasizes the role of nurture in biological control. (1)

It is estimated that 13 to 27 million people in the United States are prescribed antidepressant drugs (Olfson and Marcus 2009). With such a large population of the United States medicated by anti-depressants, fetuses are at risk. The emotional states of fetuses and pregnant women may be associated with powerful resonant fields that further influence collective feelings of depression. A Canadian medical and psychiatric survey found, "The use of antidepressants, especially paroxetine, venlafaxine or the combined use of different classes of antidepressants, during pregnancy was associated with an increased risk of

spontaneous abortion" (Nakhai-Pour, Hamid Reza, Perrine Broy, and Anick Bérard 2010, 1031).

In spite of the increase in miscarriages, pregnant women are still taking these drugs. In addition, anti-depressants are resulting in multiple birth defects. A modern woman taking antidepressants and concerned about her new pregnancy, can find the following information on the Mayo Clinic (2012) website:

> Early studies suggested a risk of limb malformation with tricyclic antidepressants, but the risk hasn't been confirmed by more-recent studies . . . . Other rare birth defects have been suggested as a possible risk in some studies, but not others. Still, the overall risks remain extremely low. (1)

On that same web page is an advertisement for the antidepressant drug Pristiq, a serotonin-norepinephrine reuptake inhibitors (SNRI) and more recent version of selective serotonin re-uptake inhibitors (SSRIs). In December 2005, the Food and Drug Administration warned that the use of such drugs during the first trimester of pregnancy was associated with an increased risk of birth defects (Mills, 2006). Multiple legal suits and class action suits have been filed against the pharmaceutical company that produces Pristiq because of birth defects associated with its use.

Birth defects caused by pharmaceuticals may indicate that the resonant, causative, and coherent field of the formation of the fetus is disturbed by these molecules. The culture itself creates confusion and more dissonance when sources of information that might be expected to be reliable are not. Certain journals and reports that might be expected to be reliable may not be readily available, sometimes requiring paid subscriptions or payment for accessing articles.

Two opposing world views, each presenting itself as accurate, are polarizing people and their behaviors. The belief in drugs as a cure for personal and social conditions and behaviors continues to be promoted, and simultaneously, the view associated with the significance of love and care for mothers and infants also finds support. One approach may boost our evolutionary progress, perhaps shifting modern culture into living in the world harmoniously, attuned to nature and spirit; the other view may lead to destruction, in part, because of a dysfunctional population due to unhealthy emotional self-regulation, pharmaceuticals, GMOs, environmental toxins, and an increase in children with disabilities, to name a few of the consequences. Such dysfunction may undermine efforts to resolve the present ecological crisis.

Birthing

Cultural polarities related to all aspects of the birthing process have intensified to extremes in modern America. On the one hand, birth centers have again established themselves, as they did in the 1970s, as safe havens for mothers and newborn infants to bond. Yet once again they are undergoing the threat of dissolution.

It may be shocking to women to learn how different birth has been for indigenous peoples. Pearce (1984) reports an important fact discovered decades ago through anthropologic studies:

> The average length of time in pre-literate societies for a delivery is twenty minutes. . . . But the minute you start interfering with the process it's going to take longer and longer. (7)

Anthropologist Meredith Small (1998) discovered that pygmy mothers remain secluded with their babies for three days in order to bond. She also notes that in non-Western cultures a baby's needs are met *before* or immediately after they begin to become uncomfortable. Only Western cultures allow babies to cry.

At the 2003 Alliance for Transforming the Lives of Children (aTLC) Summit, the West African speaker and author Sobonfu Somé spoke about her village and how a committed couple, intending to have a child, invites the soul of a new life through ritual. Later, during pregnancy, the soul or spirit of the child is contacted and asked the unborn child's name and what is needed for its birth. In a film presented at that same (aTLC) summit (2003), an infant, born naturally, is placed on the abdomen of the mother. The newborn infant wriggled up to one of her breasts to nurse. After a typical hospital birth, the newborn infant, placed on his mother abdomen, appeared to be in shock and made no effort to find his or her way to the mother's breast. Another short film of a circumcision revealed only the face of the newborn infant. His expression of shock had the attendees in tears, some of them sobbing, including the few men present. An extended break was necessary before the presentation could continue.

The psychologist Charlotte Peterson (2003) offered a presentation at the (aTLC) Summit about her travels to other cultures where she observes many different parenting styles. Peterson especially enjoyed visiting Bali because of the happy, peaceful population who cherish their children. Parents purify their bodies and minds prior to conception and consciously invite the baby. During gestation, a mother receives loving care, especially from the father. Bonding is considered

essential for wise, generous, and compassionate children.

The Balinese people have always birthed at home and kept their infants held in arms for the first three months until a ceremony initiates the infants descent upon the earth. Children are nurtured by an extended family and spend no time alone. Peterson (2003) reports that a baby in the United States is alone two-thirds of the time and left to cry nearly half of the time. She described Balinese men as nurturing, and the culture as egalitarian and non-violent. Children are happy and friendly with large, well-developed prefrontal cortices, bright eyes, and smiles.

During Peterson's (2003) last trip to Bali, she was disturbed by the changes she saw. The primary sources of iron had been fruits and grains. A Western corporation promoted a rice product that was inexpensive to grow but that did not have appropriate nutritional value and no iron. When women birthed their children, many hemorrhaged. According to Peterson, 718 of 100,000 died. Corporate hospitals were instituted, further disrupting the birthing process. Mothers and infants are treated with the same insensitivity and disrespect as in the United States. Pearce (1984) contends:

> Taking away a woman's rights over her own reproductive process has been a disaster, but intervening in and all but abolishing the bonding of mother with infant at birth is a devastating crime against nature; perhaps the most criminal and destructive act on the planet today, and an ultimate, if slow but sure, instrument for species' suicide. (8)

Powerful collective fields, one more aggressive and one more passive, challenge humanity to choose. Only one of these orientations promotes life-affirming values and experiences.

Information about all areas of natural childbirth is available through organizations such as Touch the Future, Alliance for Transforming the Lives of Children, Birthing the Future, Birth into Being, yet a typical hospital continues to reduce birth to a medical procedure and, as noted in Chapter Two, may induce a situation in which surgery is required. Newborn infants are still removed from the mother in hospital births creating further trauma for both in spite of the growing body of evidence of the empathic connection between mother and infant,

Most babies in the United Sates, and in some European countries, sleep alone, unlike the majority of babies in other parts of the world. Ethnopediatrics claims that infants sleeping alone is contrary to human biology and evolution. One benefit is the prevention of SIDS (sudden infant death syndrome) which is responsible for more infant deaths than most other causes of infant deaths combined (Fleming 2002). Still, certain American and European pediatricians and most crib manufacturers advocate that the infant sleep alone in a crib; this is one more example of two opposite world views at work.

The 25-minute video "Birth into Being" (Harper 1999) reveals supportive communities of young Russian families birthing babies in water at home and in the Black Sea where dolphins swim near the mothers and babies. Early Russian water birth children known as "Charkovsky's babies" after Igor Charkovsky who promoted this natural birthing style, were studied by French scientists in the 1980s. They noted that these children were "so advanced and intelligent they were like people from another planet" (Pearce 2002, 250). Enculturation, though, may have diminished the potential influence they might have had in the world just as

such children are sometimes "dumbed-down" by the public educational system in the United States (Gatto 2005).

Julian Jaynes (1990), Shlain (1998), and Sorenson (1998) appear to agree that a shift from holistic right-brain values to left hemisphere objectification and abstraction predisposes groups (tribes, cultures) to a kind of traumatic experience. A child's experience of birth in a modern hospital—removed from the mother by patriarchal authority and entrenched custom—may parallel the trauma and dissonance experienced by peaceful populations after conquering cultures impose themselves Sorenson (1998). The liminal state, in harmony with nature and the cosmos— intuitive, sensual, participatory, telepathic, and synchronistic—comes undone under the imposition of a culture lost in abstraction.

Controlling and insensitive to nature, the "patriarchal ideals oppressive to the integral development of women" excluded women from decision-making while educational institutions created a one-sided and dominating mentality (Swimme 2002; Swimme and Berry 1992). Hoffman (2003) contends:

> The failure to integrate feminine and masculine qualities is a sign of pathology—a lack of healthy brain function. Creativity, imagination, and forethought are all but lost to the hyper-rational mind. (53)

Prescott (1995) comments on the treatment of women, children, and the human condition:

> This inexplicable philosophical/religious moral disorder of male-female inequality has brought violence upon woman, her body, her children and the body politic of all humanity. It is for these reasons that not one major religion of the world has been successful in the moral education of its members to avoid violence against the body of woman and of her children.
>
> Until woman is affirmed as fully equal to man; has complete and autonomous control over her own body, particularly her sexual body, it will not be possible for woman to become mothers by choice and to give

> birth to only wanted children who are nurtured and loved - the foundation for a peaceful, harmonious and egalitarian humanity. (3)

Ursula Le Guin (1987) expresses a similar view:

> And for the people Civilization calls "primitive," "savage," or "undeveloped," including young children, the continuity, interdependence, and community of all life, all forms of being on earth, is a lived fact, made conscious in narrative (myth, ritual, fiction). This continuity of existence, neither benevolent nor cruel itself, is fundamental to whatever morality may be built upon it. Only Civilization builds its morality by denying its foundation.
>
> By climbing up into his head and shutting out every voice but his own, "Civilized Man" has gone deaf. He can't hear the wolf calling him brother—not Master, but brother. He can't hear the earth calling him child—not Father, but son. He hears only his own words making up the world. He can't hear the animals, they have nothing to say. Children babble, and have to be taught how to climb up into their heads and shut the doors of perception. No use teaching women at all, they talk all the time, of course, but never say anything. This is the myth of Civilization, embodied in the monotheisms which assign soul to Man alone. (11)

Swimme and Berry (1992) offers the following possibility: "As women are liberated from the oppressions they have long endured, as women reach new levels of personal fulfillment, a new energy will undoubtedly be felt throughout the Earth" (257).

Abortion

Polarization concerning abortion is extreme, and has remained so. In light of Chamberlain's (1998) perspective that a spirit, or soul, would not "wait around for an abortion" that was imminent, it may be preferable to release the developing little body with an understanding that the soul may move on rather than damage a child's spirit through the harsh life of an unwanted baby. As an example of cognitive dissonance, for some, death by abortion is a serious problem, but death by war is not. Jesus said nothing about fetuses but warned against harming little

children and killing an enemy. The Annunciation may have been a teaching about choice—that a woman has a natural, spiritual right to choose to conceive.

It may be that women had always known how to ask a new life to release itself if her own life was not conducive to birthing a child. Sorrow and grief may follow, but the knowledge of what is right for the soul balances the *mistaken invitation*. For descendants of Europeans, threads of knowledge passed by word of mouth from woman to woman, and from generation to generation. They were disrupted and severed during massive witch hunts. The loss is not only one of information, but of passionate teaching stories and their associated resonant fields. How does a modern woman attune to that information? Preparation for natural childbirth in the fashion recommended by Tonetti-Vladimorova (2011) seems to help realign mothers with their deep intuitions and perhaps the associated resonant fields of motherhood.

Genital Integrity and Circumcision

In Chapter Two of this dissertation, the impact of toxins on children, especially boys, was addressed. In addition, girls are suffering from early onset puberty. Estimates of one in ten girls develops breasts as early as the age of eight, in part, because of chemical toxins in the environment. Organizations such as Saferchemicals.org research pediatrics journals and bring pertinent information to public attention, sometimes developing petitions in hopes of changing the severe harm imposed on children's genital and gender development. Transgender-related healthcare facilitators now view gender as a continuum (Bushong 1995).

Maintaining the genital integrity of a child is significant to emotional self-expression and future intimate relationships. No harm should be done to a child's genitals nor should anyone other than the child decide his or her gender in cases where genitals are undeveloped or unclear. With the discovery of correlations between gender and brain activity, it may be that a child is attuned to the resonant field of a particular gender although sexually unclear or sexually opposite. More parents are allowing their adolescents to choose hormonal treatment and surgery based on the gender that the child *feels* is correct.

A contradiction is apparent in the present conflict between those who consider the circumcision of infant boys mutilating and abusive and those who continue to promote it. In addition, female genital cutting is considered a crime while baby boys continue to be harmed with no legal or medical protection.

When anti-circumcision activists recently promoted a ban on circumcision in San Francisco, Bill 768 was immediately drawn up to oppose any law that would prohibit or restrict male circumcision. It was supported by a number of California doctors who stated they opposed the criminalization of medical procedures, including circumcision, even though the American Medical Association admitted that elective circumcision is a procedure that is neither medical nor therapeutic. In spite of massive information indicating the problems associated with circumcision and attempts to clarify the misinformation circulated to influence Governor Jerry Brown, in October, 2011, he signed a law that prohibits local governments from banning the practice of male circumcision.

The ACLU of Northern California supported the bill and argues that state law bans any city or county from passing a law restricting a licensed medical professional from performing professional procedures. In addition to the argument that circumcision is not a medical procedure, there is no logical explanation concerning the ban on female genital mutilation but not on male circumcision.

One area of disruption involves accusations of anti-Semitism by certain members of the Jewish community who disagree with the anti-circumcision activists. Many of the doctors who speak out and who have written books against circumcision are Jewish. An article in the Jewish World, Washington D.C. (2011) notes that in the past two decades, beginning in Israel, tens of thousands of Jews are choosing not to circumcise their children. The article includes the following:

> The current San Francisco circumcision referendum has made the public aware of the severe physical consequences of the controversial surgery. The idea that an individual has the right to their own body is recent by historical standards. For many years, a number of courageous Jewish and Israeli scholars, historians, activists, and parents have raised serious objections to circumcision surgery. More and more Jews are choosing not to circumcise their sons. These Jewish voices against circumcision are just starting to enter the mainstream conversation. (1)

The stated purpose of Leone-Vespa's (2010) doctoral research was to examine "the relationship between circumcision and emotional development in young boys: measuring aggressiveness and emotional expressiveness." The study found that circumcised boys, compared to intact boys, scored higher in the following: activity/impulsivity, aggression/defiance, and peer aggression; in depression/withdrawal, general anxiety, separation distress, and inhibition to novelty; and in negative emotionality, sleep, eating, and sensory sensitivity. In addition, circumcised boys, compared to intact boys, scored lower in compliance,

attention, mastery, motivation, imitation/play, empathy, and prosocial peer relations.

Popular culture is being made aware of the issue of circumcision by such well-known public figures as Christiane Northrup (2010) who agrees that as the culture criticizes the act, misinformation surges in the media as well:

> From the 1980s through today, as the tide has been turning against male circumcision, misleading medical information has begun to surface (yet again) in support of circumcision. This information supports the belief that men with foreskins are more likely to get viral or bacterial infections and pass them on; that the foreskin is tender and thin, and therefore more prone to tiny cuts through which germs can be transmitted. New justifications, such as circumcision to prevent penile and cervical cancer, too often receive the blessing of the medical establishment. But these are justifications that science has been unable to support. Nor is there any scientific proof that circumcision prevents sexually transmitted diseases. (1)

Longley's (2009) Master's degree thesis in Social Science entitled, *Framing the Foreskin: A Content Analysis of Circumcision Information Handouts for Expectant Parents,* examines informed consent and its ethical underpinnings. She reports on a content analysis of 55 circumcision information handouts and the framing by omission that can have a "significant impact on the cognitive processing of receivers" (88). Omission of information and interpretations are as important as the information that is included. Longley discusses "some of the negative frames that have been – and continue to be – commonly associated with the foreskin and the idea of not circumcising" (88).

Vaccinations

The polarization around the issue of vaccinations has also been contradictory and confusing. In an interview with Mae-Wan Ho (2010), she explains:

> Current medical thinking is to define diseases by molecules. You have single molecule diseases; you have single molecule interventions. In fact, there are a lot of misdiagnoses, a lot of ignoring the whole system. . . . You can't just push a molecule into a system because the molecules are acting in an entire network, and they've got to change according to the whole. . . . For example, in your body, you've got trillions, tens of trillions of cells. And any single cell in your body is different at every moment. How can you say that you can cure diseases by focusing on a single molecule that you put under control of a viral promoter that makes it overexpress in every cell, all of the time? Harmful side effects are getting worse with these so-called biologicals, biological medicines that they are pushing onto the market. (94)
>
> There are quite a number of them. And the worst ones are the antibodies . . . The names of the drugs bear no direct connection to what they really are, so you've got to look at the drug, and then you've got to figure out, "Is it a protein? Is it a monoclonal antibody? Or is it something else?" Another example is the recent swine flu vaccines: practically all are potentially dangerous, more dangerous than the swine flu itself. (94, 95).

Some scientists are questioning the over-vaccination of infants and children. Françoise Berthoud (2010) reports that in England, Michel Odent demonstrated that children who received no Pertussis vaccine had 5-6 times less asthma than those children who received a vaccination. Berthoud notes:

> Throughout Europe, a group of mostly pediatricians studied 14,893 children in Steiner schools in Austria, Germany, Holland, Sweden and Switzerland and found that children living in "anthroposophist culture" (where vaccination is largely shunned) were in better health than the controls. (2)

In Germany, according to Berthoud (2010), a researcher with the European Steiner schools study wrote the following: "In the eastern part of Berlin before the fall of the wall, we saw less allergies than in the west. This population

was poorer, nearer nature and less vaccinated" (2). Berthoud reports that in Spain, Uriarte and Marín (1999) published a longitudinal study of 314 children who were followed between 1975 and 2000. Most of these children were born at home, were breastfed, had no vaccinations, and received no allopathic medicine. Their asthma rate was three percent compared to 20 percent in the general population. Berthoud notes that autism is absent in the unvaccinated Amish communities of Pennsylvania and Ohio. Children living in an intimate relationship with the natural world appear to have less health issues. On occasion, a vaccination may be important, but the kind and quality of the vaccine should assist the body in shifting into a coherent state, not the opposite.

Emergent Corrective Attitudes and Actions

Attunement

In the present epidemic of autism, it may be possible that the soul does not fully enter and integrate with the physical body at birth perhaps dissociating from the body because of multiple trauma. Birth trauma, heavy metals and other toxins, imbalanced intestinal flora, and over-vaccination may be some of the stressors culminating in a form of PTSD. Many stories about these children reveal a telepathic relationship with the mother. The inability to make eye contact or to be affectionate may be due to disturbances experienced when eyes meet and when touch would otherwise move the child into coherence with the mother. This intimate connection is not possible and may result in the disturbing symptoms displayed as if experiencing pain and extreme frustration.

Certain severely abused children split off into multiple personalities for protection. Two extreme cases surfaced in popular culture through bestselling books and television appearances. Tuddi Chase, raped at the age of two years, and Joan Frances Casey offer insightful information about their experiences. Each personality might be considered a personality field formed with its own memory and characteristics, including unique physical appearances and behaviors (Sheldrake 1995). Such changes might be expressions of trauma influencing gene expression. Where the psychiatric community has no explanation for multiple personality disorder (MPD), morphic resonance might.

Children are often given anti-psychotic drugs for rage. Oprah Winfrey (2011) televised the story of Zach who, as early as 18 months, would rage over what appeared to be insignificant issues. With an unnatural strength for his age, his behavior became so destructive that Zach's mother was afraid of her son. Psychiatrists diagnosed Zach with "sensory integration disorder, a condition which alters the way one processes stimuli—sound, touch, smell—from the world" and a combination of hypersensitivity and hyposensitivity (Winfrey, 1). Pleasurable experiences appeared to cause pain. He was prescribed psychotropic drugs that interfered with learning and remembering and did little to calm him.

Zach is presently living in a residential school for children with mental illnesses where he has learned a technique called "White Light" for dealing with emotions. It helps him focus on positive instead of negative energy. The White Light technique also helps his mother understand her own energies and thoughts. Teaching children to attune to harmonious morphic fields and to learn to self-

regulate emotionally may create a resonant field in the collective that will allow easier access for more children to help with their healing.

The prefrontal cortex expands immediately after a relatively peaceful birth experience but may be otherwise inhibited in its development by modern birthing practices. Sheldrake (1995), Lipton (2005), and de Quincey (2002) argue against the materialistic view that mind is an epiphenomenon of brain activity, yet, according to Sheldrake, " brain damage can affect the ability of the brain to tune in to its past patterns of activity" (216). It may be that brain tissue is useful as an imprinting medium.

Contrary to the belief that a brain has certain localized areas for specific processing or that it contains memories, there are those who have undeveloped or dysfunctional brain systems and yet they have unusual capabilities. The so-called idiot savant is dysfunctional in nearly all mental abilities with the exception of one area in which he or she excels. Snyder (1981) reports:

> In this one area the idiot savant can actually be said to be a genius, such as being a human calculating machine, having a photographic memory, being a concert-playing virtuoso, or inventing and designing machinery. (1)

An idiot savant possesses an extremely low IQ, yet demonstrates phenomenal talent in a particular area of focus. There is no explanation for how this is possible, except, perhaps, attunement to very specific morphic fields. For example, Leslie Lemke, blind and unable to speak, began playing concert piano spontaneously and singing in multiple languages. Idiot savants appear to have little ability for abstraction. Snyder states that identical twins, George and Charles, known as "the human calendars," can tell you that "George Washington

would be 249 years old if he were alive today, yet they can't solve the abstract equation 2 + 2" (1).

Snyder (1981) notes that there has been no comprehensive theory to explain these artistic or mechanical abilities that include "an unusual capacity for vivid mental images (photographic memory)" in addition to the ability to focus on one thing to the exclusion of all else (1). The exceptional ability shows up "almost instantaneously and doesn't improve much over the remainder of his life" (1). Such total focus might be attributed to a complete engagement with a morphic field of specific contents of consciousness where, as described in Chapter Five, memory and holographic images may be accessed.

Lorber's research on brain anomalies might indicate that although a brain is damaged, something beyond the physical structure of the brain is active. As a receiver and transmitter of information, with other aspects of the nervous system and heart performing well, there may be no evidence that a person has an poorly formed brain structure (Lewin 1980; Lipton 2005). This was noted in a socially normal young student with an IQ of 126 and an honors degree in mathematics, who, instead of a normal brain, had only cerebrospinal fluid (Lewin 1980). Recognizing the brain and nervous system as transmitters, translaters, and receivers of information may help explain many of these anomalies.

Recognizing the Value of Childhood

Children need to feel safe in order to self-regulate emotionally and maintain coherent states of heart and mind. They may bring in new information from the collective unconscious and will want to share and have their

contributions valued. They may be capable of helping to solve many problems of our environmental crisis. Children tend to experience direct perception and a holistic and ecologically attuned empathy. As noted by Armstrong (1988), they are like little shamans, recognized as such in some tribal cultures.

In contrast, Clark (2002) notes that the age group under 18 years has been rapidly growing more violent—far surpassing any of the other industrialized countries. More money had been spent on new prisons in California by the end of the 1990s than on any new higher education facilities (Clark). Prescott (2001) tells us that "more children and youth in the 5-24 year age group have committed suicide over the past ten years than all of the American combat deaths in the ten-year Vietnam War" (15). There is no War Memorial for these children.

Social conditioning is deeply emotional, and beliefs may be defended violently. Nonconformity, Liedloff (1977) notes, is feared to the degree of deprivation experienced by an individual. It would then follow that a social group, steeped in normalized deprivation, would demand rigid conformity.

Free and democratic schools, home-schooling, and unschooling are part of a world-wide movement. Alternative Education Resource Organization (AERO), a global network of innovators, resources, and action, promotes and supports democratic education, such as the Sudbury free and democratic schools, and other forms of alternative education. The rigid public school system denounced by Harrison (2002) and others, which generally disallows critical thinking, continues to repress child prodigies as it did 300 years ago (Ariès 1962). Steiner (1996) states:

> Believe me, everything we mediate to the children via feelings allows their inner life to grow, while an education that consists of mere thoughts and ideas is devoid of life, remains dead. (40)

Precocious children are now receiving attention from the media, especially internet videos and television talent and talk shows. The natural child is a genius, a precocious child, or what is sometimes called an "Indigo child." But these children may be threatening to a repressive culture.

Acknowledging a Child's Subtle (Paranormal) Perceptions

A child's spirituality and paranormal experiences are an essential and integral part of the wholeness of the child and need to be respected as such. Radin (1997) notes that most of the world's population believes in psychic (psi) phenomena. Disagreements concern interpretation since, according to Radin, scientists who have actually studied the evidence agree that serious scientific attention is merited. Because information has been suppressed and ridiculed for decades, few scientists are aware of the highly persuasive evidence. Radin adds: "The tendency to adopt a fixed set of beliefs and defend them to the death is incompatible with science" (5).

Radin (1997) notes that the Congressional Research Service has concluded: "There exists an 'interconnectiveness' of the human mind with other minds and with matter. This interconnectiveness would appear to be functional in nature and amplified by intent and emotion" (4). The report suggested possible applications for health care, investigative work, and successful decision making as a result of the mind's ability to obtain information.

Converging theoretical developments in multiple disciplines demonstrate possible clues as to how psi works (Radin 1997). Radin notes that the implications of psi are becoming more apparent and present profound challenges to science, philosophy, and religion causing scientists to begin to reframe basic assumptions. He states that the phenomenon of young children reporting accurate details of previous lives deserves serious study.

One of the most publicized accounts of a child remembering a past life is the story about James Leininger who began having nightmares at the age of two years and would kick and scream in terror, shouting "Airplane crash on fire, little man can't get out" (Bruce Leininger and Andrea Leininger 2010, 47). Preoccupied with planes as a toddler and displaying an uncanny knowledge of a particular World War II plane, a Corsair, it became evident that James was remembering a former life as a pilot shot down at Chichi Jima, Japan. All of the information, including the name of the pilot who died, James M. Huston Jr., intimate family knowledge, and details of a friendship with another Navy pilot, still living, was confirmed.

James' father pursued the information offered by his son with a passion to understand the source of such knowledge (B. Leininger and A. Leininger 2010). Reincarnation counselor and therapist, Carol Bowman (1998), helped advise the family. When a certain Japanese film crew became aware of the story, James and his family were invited to Chichi Jima and escorted out to sea to where the plane had crashed. James threw flowers over the water in the area he recognized and experienced a profound emotional release. After the publication of a book about

his experiences, *Soul Survivor*, Fox News interviewed James at the age of eleven. He stated that before his birth he purposefully chose his father who possessed both skepticism and perseverance to disprove the evidence, but accomplished the opposite. James also said that he wants people to know that reincarnation is possible. His story may demonstrate attunement to the resonant field of his own previous life or to the memories of a person whom he channeled.

An Example of a Powerful Field Phenomenon

An example of the power of a particular kind of resonant field was demonstrated by Norman S. Don (2002), known for his extensive field work studying the brain function of trance mediums and healers in Brazil. At the 2002 International Conference on Science and Consciousness in Albuquerque, New Mexico, he presented a film of Antonio Rios, formerly a laborer with a first grade education, who has been channeling a doctor. During these trance surgeries, Rios cuts and saws into people in his small village clinic using unsterilized instruments, including surgical tools, hammers, and electric saws. Bodies are cut without anesthesia, yet pain is rarely felt. No one is in shock. The actual organs that are diseased are not touched directly, but the area around them is cut and poked with sharp instruments. Assistants, also in trance, do the stitching afterwards, but only surface stitches are used while severed arteries and other internal wounds are left unstitched.

When Rios was interviewed, he said that this work is being done *through* him by a disincarnate doctor to atone for wrong-doings (Don 2002). According to Rios, codes are used to create an energy cover, or cupola, of vibrational

frequencies within which these events may take place. If the field ruptures in any way, Rios must stop immediately. Although there is cutting near the diseased organs, the actual work is done to the energy body of the person, according to Rios. Of the thousands of persons who have received this crude surgery, those few who have allowed a follow-up, had healed from their conditions.

Don states that the feeling quality within the clinic is like that of a cathedral with a quality of sacred peace and calm. The EEGs of patients' brains indicate a high amplitude alpha rhythm—relaxed and aware (Don 2002). The surgeon is in a hyper-aroused trance of 40 Hz, associated with ecstatic states. Although trance surgery is illegal, the medical and legal community do not interfere. The creation of powerful fields through the use of codes may indicate a future direction in the understanding of fields. It may be possible to learn to access specific resonant fields by conscious choice and codes of some sort.

The human capabilities of engaged, in-the-moment presence *and* of abstract thinking evolved for reasons, but require balance. The polarities dividing two opposing world views where conscious or unconscious choices are made to attune to one or the other, if harmonized, may move humanity into a more coherent state. When choices are based upon trauma and cognitive dissonance, more destructive possibilities are enhanced collectively. Choices made by happy children, peaceful indigenous peoples, and other empathic adults, may invite a different world dynamic, one of community and communion.

CHAPTER EIGHT: VISUALIZING THE TRANSFORMATION PROCESS

The following is a simple description of how human incarnation may transpire and how the infant's initial stage of life could be optimally experienced and enhanced. In this ideal model, a soul would be guided to choose the mother, or parents, and the time and place of birth and would await the moment of conception (Bowman 1998; Chamberlain 1998; Wambach 1979; Zinser 2010). The profound experience of conception would sometimes be "felt" by the mother (Chamberlain 1998). The egg cell would attune to its causative morphic field and divide in alignment with the phi ratio to differentiate at 64 cells into the various organs and tissues of the little body (Haramein 2008; Olsen 2006; Sheldrake 1995). Even DNA exhibits a phi resonance (Olsen 2006). Cell membranes and microtubules would oscillate, transmitting and receiving information from the environment and from human collective consciousness (Laszlo 2007; Lipton 2005; Sheldrake 1995, 2009). Sitting on the tip of a microtubule, the clathrin is "abuzz with golden ratios" (Olsen 2006, 48).

The new life would grow at the mid-point between micro and macro dimensions, formed and informed by causative formation and morphic resonance (Haramein 2008; Sheldrake 1995, 2009). The fetus would be in constant relationship with the soul/Self although it might not fully engage with the fetus's body consciousness until just prior to birth (Chamberlain 1998; Wambach 1979; Zinser 2010). The Self would remember where it came from and what it needs to know for this lifetime but may easily forget once it integrates fully with the body

consciousness of the fetus (Armstrong 1988; Bowman 1998; Chamberlain 1998; Verny and Kelly 1981; Wambach 1979; Zinser 2010).

The mother's feelings and perceptions would be transparent to the new soul while the heart and developing nervous system of the fetus experience her emotional states (Chamberlain 1998; Childre and Martin 1999; Gerhardt 2004; Liedloff 1977; Lipton 2005; Verny and Kelly 1981; Wambach 1979). The fetus would attempt to maintain a balance within a process of emotional self-regulation, developing a set point that would be in place by the time of the birth (Gerhardt 2004). Strong emotions would be imprinted and would attune the fetus to fields in the human collective. These might activate images of people and events of similar resonance from other times and places because of the resonant, holographic, and entangled nature of the universe (Bohm 1982; Grof 1992; Haramein 2008; Ho 2008; Laszlo 2007; Sheldrake 1995, 2009; Zinser 2010). There are no boundaries.

In their two-way communication, the mother would teach the fetus through her perceptions. The transpersonal Self of the fetus would teach the mother about the developing child. The child would be guided by entelechy and expectations (Cobb 1977; de Quincey 2002; Gerhardt 2004; Ho 2008; Liedloff 1977; Sheldrake 1995). This intimate relationship would assist in the expression of the mother's well being and might be noticeable as the maternal glow.

The birthing process would be initiated by the fetus (Chamberlain 1998). The mother would be in a quiet, safe environment, ideally water, in order to maintain a non-ordinary state of consciousness—a coherent state, that would allow for the least traumatic birth for mother and child and perhaps an orgasmic

birth as well (Humenick 2003; Grof 1992; Odent 2001; Pearce 2002). During the birth, and influenced somewhat by the state of the mother, the fetus would be swept through the experience of multiple layers, or fields, of the collective (Armstrong 1988; Grof 1992; Laszlo 2007; Sheldrake 1995). With an ability to self-regulate and maintain coherence throughout, the fetus would resonate with collective contents that resolve the birth/death transition and alleviate the sense of destruction and fear that one might expect.

The newborn infant would be immediately in the arms of the mother to be welcomed and consoled and would continue to learn to self-regulate emotionally in this new environment through skin-to-skin, heartbeat-on-heartbeat, contact. With heightened sensibilities, this tiny sensuous being requires gentle caressing and quiet expressions of loving attention. There would be no external interference allowed. The mother and child would continue to fall in love while gazing into each others' eyes for extended periods (Chamberlain 1998; Odent 2001; Verny and Kelly 1981).

The cord would be left intact until it stops pulsating. It would then be cut and might be preserved in some form as in Bali, where it is dried and saved for the baby. The powdered form is ingested in case of illness. In the West, cord blood may be frozen for similar reasons. Important information, transmitted between the placenta and fetus, is associated with the cord.

The infant would nearly never leave his or her mother's body, would be slept with at night, and nursed when hungry. All autonomous activity, including sleeping in a separate bed, would be initiated by the baby. The mother, in her

participatory relationship with the child, would know how to follow his or her lead (Childre and Martin 1999; Gerhardt 2004; Liedloff 1977; Ho 2008; Sorenson 1998; Small 1998). The parents would support the explorations of the baby without imposing unless there is clear and immediate danger.

The baby, in a theta state much of the time, would tune in on the bases of feelings and explore the contents of the collective consciousness as well as his or her own physical environment (Armstrong 1988; Chamberlain 1998; Gopnik 2009; Lipton and Bhaerman 2009; Sheldrake 1995). Emotional states would activate fields of like resonance with which the baby interacts, and he or she would receive and transmit information based upon those feelings (Laszlo 2007; Sheldrake 1995). A happy, secure, and well-loved child has a positive influence on the whole of consciousness.

Experiences with the natural world would enhance communion and coherence (Cobb 1977; Ho 2008; Liedloff 1977). Mae-Wan Ho (2008) states that a "quantum coherent organism is most spontaneous and free, [the] Taoist ideal" (333). Babies are like wavelets in a particle world balancing between both states. Renée Weber (1981) writes:

> Lenseless vision provides us with a glimpse into a domain of timeless waves, vibrating as unbound energies *prior* to being "translated" into objects through the mathematical transformations (Fourier series) by which Pribram tells us our brain produces the familiar sensed world. It may be that this shift from phenomena to noumena becomes possible with the shift from the particle-nature of consciousness to its *wave-aspect.* (132)

The collective would be imprinted with the child's unique perceptions, unique as fingerprints and snowflakes. No other person will interact with collective consciousness in exactly the same way, offering the same inspiration and insights.

The young child might remember birth, a time before birth, see lights around people and other beings, know the thoughts or feelings of others, sense future events, and directly experience otherwise unseen entities (Armstrong 1988; Bowman 1998; Bradley 2006; Brennan 1988; Chamberlain 1998; Cheek 1992; Ehrenwald 1971; Grof 1992; Hart 2003; Mack 1994; Morse 1994; Ring 1992; Stevenson 1974; Verny and Kelly 1981; Wambach 1979; Zinser 2010). Highly empathic, the child might communicate telepathically and experience synchronicities without understanding that these are non-ordinary for most modern people (Sorenson 1998). Perceptive parents would respond positively and respectfully to all verbal and artistic expressions of such experiences, mediating only when the child is distressed (Armstrong 1988; Bowman 1998; Hart 2003). The evolutionary process of the collective towards complexity and coherence would be enhanced by happy children.

To visualize the tuning-in process, one might imagine a vortex established between oneself as a field and the field with which one is resonating. Spin is essential to activity in the universe, and vortices carry information (Haramein 2008; Laszlo 2007). Although Sheldrake (1995, 2009) has described these fields as stretching rather than spinning, he is clear on their two-way communication. There may be two vortices, from the self to the contents of a field and from the field to the self. The fields are morphic fields that inform in each direction. The

information is non-physical, non-local, and spins into localization and physicality from the implicate to the explicate (Bohm 1982; Ho 2008; Laszlo 2007; Sheldrake 1995, 2009). At each end of the informing, the spinning vortex may contain a hologram of memories or other contents of consciousness (Laszlo 2007). In this way, a healthy, happy, secure fetus, newborn, or young child is attuned to the intelligence of the universe. Tom Atlee offers this perspective quoted in Bache (2008) :

> There is more to intelligence than a solitary capacity exercised within the life of one entity. As it attunes to life, intelligence evokes a fuller, deeper intelligence in and around it. Resonant intelligence is intelligence that grows stronger or fuller as it resonates with other sources of intelligence. (1)

Because everything in the universe is entangled, the influence of a coherent child would be like that of a mini-shaman (Armstrong 1988).

If the majority of births in modern culture were natural, preferably in water, and if the natural well-being and happiness of the mother and newborn were of primary focus, instead of the projected screaming of mother and child as depicted by Hollywood, a mass healing of birth trauma might resonate at the societal level throughout and immediately produce effects, ultimately worldwide. Describing what a massive awakening of humanity might look like, Peter Russell (1998) points to

> a moment when the light of inner awakening radiates throughout the world . . . an end to our dysfunctional attitudes and behaviors; an end to the world as we know it now. (171, 172)

This healing and awakening of consciousness to the level of love for all creation, of which humans are actually capable, was the hope and dream of Pierre

Teilhard de Chardin and his vision of the Omega Point. Russell (1995) expresses de Chardin's vision as follows: "the culmination of the evolutionary process, the end point toward which we are all converging" (149). It might be possible that the following description by Mae-Wan Ho (2008) might actually become manifest:

> Thus, in long-range intercommunication between cells and organisms, the entire community may become one when coherence is established and intercommunication occurs without obstruction or delay. Within the coherence time, there is no space separation. . . . Similarly, within the coherence volume, there is no time separation, hence "instantaneous" communication can occur . . . and people everywhere can get caught up simultaneously. (327)

At the present time thousands of little children are starving and dying each day. In the West, children are experiencing epidemic levels of autism, cancer, diabetes, eating disorders, and physical brutality. From the perspective of this thesis, they are not separate from the suffering bodies of babies and children *on the other side of the world*. In the case of obesity, a child in the West cannot eat enough to stave off the suffering of the starving children to whom he or she is connected in this shadow of the collective unconscious. Through morphic resonance, all children are tuned into the fields of all other children. If one child is spanked, all children feel the hurt. This is the meaning of entanglement. Shifting one's perspective, it may be that if the suffering children on the other side of the world were, all at once, lovingly nourished and nurtured, modern children might spontaneously heal with them. What I want to emphasize is that working with fields is instantaneous. One needn't be concerned about linear time. Therefore any action to alleviate the suffering of children, affects all children now. The

happiness of those children who are cared for and nourished properly adds power to the possibility of happiness for all of us.

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