

# The Ontological Origins of Sexual Preference

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*“It does not matter if a principle is popular or not; it only matters whether or not it is true. And if it is true; it does not matter whether I stand alone in it.” - Joseph Smith*

**Abstract.** Current scientific thinking is inadequate for completely describing the complex framework of the origin of sexual preference, for the most part because science does not yet have an accepted comprehensive model of mind and consciousness. This paper begins reviewing the status quo in psychology and biology and then develops a physical cosmology for the origin of sexual preference based on fundamental principles originating in Jung’s idea of a ‘collective unconscious’ in the extra-corporeal nonlocal arena. This is accomplished utilizing Noetic Field Theory, a new comprehensive model of the Cosmology of Mind in a Continuous State Conscious Megaverse. Noetic theory is able to illustrate the fundamental origin of sexual preference as a prenatal action of the inherent self-organized ‘vital noetic field’. The action of this ‘noetic effect’ orients the archetypes of the *anima* and *animus* as they are coupled into the substrate of the psyche. Initially, because of conceptual similarity, the periodic reversal of the Earth’s geomagnetic field is utilized as a metaphor to illustrate inversion of the anima and animus; followed by a more scientific description of the pertinent principles of consciousness. The theory is falsifiable and the paper concludes outlining putative empirical tests.

*Keywords:* Consciousness; Cosmology; Geomagnetism; Homosexuality; Sexual preference

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## 1.0 Introduction

It may seem like an immense journey to describe the scientific origins of sexual preference at this point in the evolution of human epistemology because we are considering complex issues that the science of the day is not currently capable of dealing with adequately. Typical thinking in psychology, biology, medicine, philosophy, physics, cosmology and theology are insufficient to definitively handle the issue of the origin of sexual preference. Noetic theory might seem off base to those considering the issue to be at most confined to the biological/psychological arena. Because it is difficult to tell how far ahead of its time this work is at this writing, it is not easy to assess what impact on the political dilemma the work will have in the near term. Progress in science is typically made up of a myriad of continuous small advances; but occasionally, as in Einstein’s theories or the advent of quantum theory in the early part of the last century, paradigm shifts occur that revolutionize thinking. This is the beginning of one of those moments!

But those considerations aside, now that the *cosmological context of mind and consciousness* can be illustrated in terms of the noetic theory utilized (Amoroso, 1995,1997,2000,2001); this is the point where the real voyage to new understanding begins. Often a new model seems overly complex when it is first introduced and takes several years before satisfactory discourse occurs at the more general level. If the author is to be critical of his own work; it is obvious that portions of this paper are too general and some too technical which may leave both audiences somewhat unsatisfied. In defense all that can be said is that this is a seminal work; and as is typical in such cases there will be more to come in the future. To ease the way into the scientific origins of sexual preference a series of three metaphors is used before entering into a more technical discussion. A noetic stressor can induce a prenatal polarity reversal of the anima and animus under certain familial conditions. This is preceded by a review of pertinent psycho-biological issues.

## 2.0 Freudian Inversion Theories of Homosexuality

The term *psychoanalysis* was coined by Freud in 1896. Freud’s theory of psychoanalysis was based on a number of stages of psycho-social development; a sort of evolutionary path of the psyche that each individual passed through with varying degrees of success on the way to adulthood. One of these stages Freud called the ‘Oedipal stage’ which he considered of

central importance in his theories of the origination of homosexuality. Freud first began writing essays on homosexual inversion in 1905 (Freud, 1905); and he was never able to completely resolve in his own mind whether homosexuality was a form of psychopathology or merely a statistically abnormal variation. Freud found little success in the psychoanalytic treatment of homosexuals; "to convert a fully developed homosexual is not much more promising than to do the reverse". He believed that homosexuals were not motivated to be 'cured'; that they were unwilling to give up the object of their pleasure. Freud thought the motivation for treatment was a vehicle used by the homosexual to assure himself that he tried everything he could to change, and failing could resign himself in good conscience to his pleasures (Lewes, 1988).

Freud developed four theories of homosexuality:

1. From the Oedipus Complex - A young male has a typical early erotic bond to his mother, but there is an excessive amount of tenderness on the part of the mother which over sexualizes the bond in the mind of the child at a time when the distinction between self and other has not yet formed. Later when the child's ego begins to separate he feels guilty and develops a fear of castration as a punishment for his erotic feelings toward his mother. He develops hatred toward his mother and severs the erotic bond. A compromise sexual object is chosen, an effeminate boy (Lewes, 1988).
2. Also of Oedipal Origin - The child maintained a particularly long sensitive relationship with his mother which the child refuses to give up. In order to preserve the erotic bond he subconsciously identifies with his mother and selects love objects that resemble himself. In loving them he experiences the erotic bond he had with his mother (Lewes, 1988).
3. Inverted Oedipus Complex - Freud considered this the most common form of homosexual causation. The young boy has an identification with his father; but instead of identifying with him the child wants to be loved by him and surrenders his masculine identity to be loved as a woman.
4. Intense Love of the Mother - Leads to extreme jealousy of other siblings and the father. The jealousy is extreme and leads to a death wish and sadistic fantasies of extreme violence. In what Freud termed 'reaction formation' the child transforms the repressed feelings into inclinations for homosexual love (Lewes, 1988).

In summation it can be seen that Freud attempted to derive a theory of homosexuality from an inherent personality disposition that is triggered by random factors appearing in the family during early childhood development. Although increasingly unpopular today; Freud's theories of homosexuality have remained at the core of clinical theory for the last hundred years.

## 2.1 Jungian Theory of Homosexuality

Jung did not write prolifically on sexuality in part to distance himself from Freud's over-emphasis on the subject. But like Freud Jung considered homosexuality as a deviation from the sexual norm but not necessarily pathological.

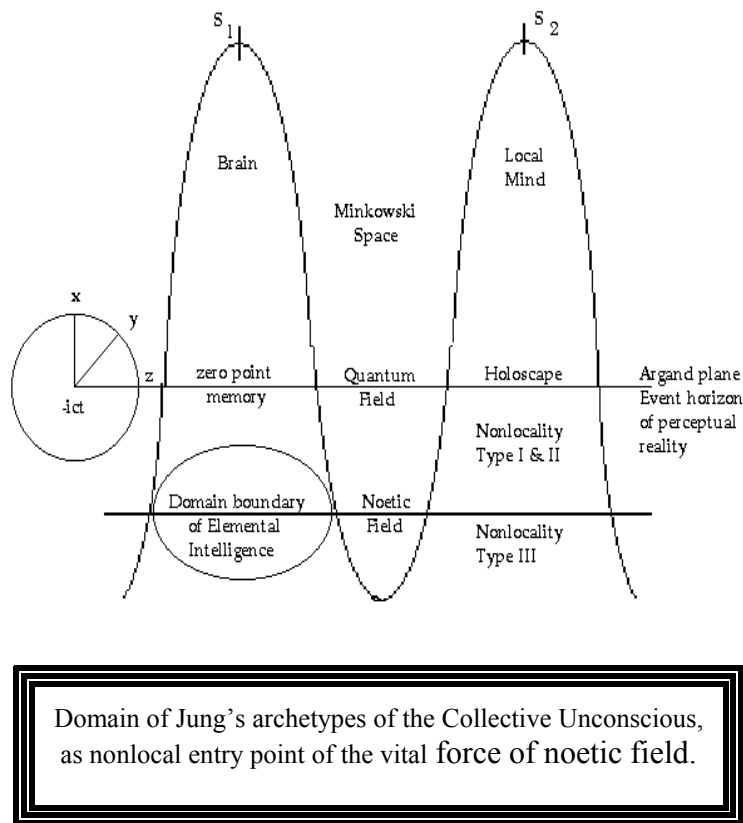
"If we regard sexuality as consisting of a fixed heterosexual and a fixed homosexual component,...the assumption of fixed components precludes any kind of transformation. In order to do justice to it, we must assume a great mobility of sexual components, which even goes so far that one component disappears almost completely while the other occupies the foreground....we need a dynamic hypothesis, since these permutations of sex can only be thought of as dynamic or energetic processes." (Jung, Collected Works Vol. 4)

"For a man, a woman is best fitted to be the real bearer of his soul-image, because of the feminine quality of his soul; for the woman, it will be a man. Wherever an impassioned, almost magical relationship exists between the sexes, it is invariably a question of a projected soul-image....Conversely, it may also happen that the soul-image is not projected but remains with the subject, and this results in an identification with the soul because the subject is then convinced that the way he relates to his inner processes is his real character. In that event the persona, being unconscious, will be projected on a person of the same sex." (Jung, Collected Works Vol. 6)

This conceptualization of homosexuality is defined in terms of the male - female archetypes of the anima and animus. A man's identification with the contra-sexual archetype of the anima, "with his unconscious femininity this leads to a projection of his persona, that is, his "outer" masculinity, onto another man." (Hopcke, 1989)

**2.2 Current Psychology Related to Homosexual Issues**

The main medical reference for the American Psychiatric Association is called the Diagnostic and Statistical Manual of Mental Disorders (DSM). It describes and classifies all known mental illnesses and emotional disorders and was first published in 1952. Until 1973 homosexuality was classified as a mental disorder and in 1980 dropped from the DSM-III. One of the reasons for changing the classification was the belief that this would keep employers from using the APA classification as justification for discrimination. But the APA was also motivated to acknowledge that many gays and lesbians showed no signs of dysfunction and were satisfied with their sexual orientation.



**Figure 1.** A spacetime model of two individuals (S1 and S2) showing how their psyches are imbedded in the physically real Jungian collective unconscious which is the source of racial archetypes forming the persona. This unitarity is nonlocal and associated with the teleology of the noetic field N(f) which is an essential component of the extra-corporeal duality of mind and body.

Historically prejudice against homosexuals has been deeply rooted in Western society. The beginnings of a shift in opinion is said to have occurred with the publication of two well known reports by Kinsey, The first in 1948 - *Sexual Behavior in the Human Male* and in 1952 - *Sexual Behavior in the Human Female*. The beginning of gay rights organizations began after what was called the Stonewall riot in New York City in 1969; which was the first public protest by homosexuals against harassment by police. In California oral sex has been a crime carrying a maximum penalty of 15 years. Anal sex could result in a life sentence. But both of these laws apply to partners of the opposite and same sex.

### 2.3 The Conundrum of Conversion Therapy

Groups associated with religious movements like Exodus International, Seattle, WA have claimed a high success rate for the *conversion* of homosexual men and woman desiring to become heterosexual. As stated briefly in sections 2.0 & 2.1 we have seen that the founders of psychotherapy, both Freud and Jung not only noticed the difficulty associated performing conversion therapy but felt that homosexuality by itself might not be an actual mental disorder. Their reasoning was that historically a number of humanities most creative minds like Leonardo Da Vinci were homosexual; and other than their 'statistically catalogued sexual deviation' were considered well adjusted individuals leading normal lives. Mental disorders are often associated with homosexuality and this was a main reason that it has been classified as a psychiatric condition for most of the last hundred years.

The American Psychological Association (APA) has for over 20 years affirmed that homosexuality is not a mental disorder. In this guise they have recently passed a resolution warning that societal ignorance and prejudice combined with family pressure can cause some gays to seek conversion therapy that may do them serious harm. But as is generally known this is true of any psychotherapeutic regimen if the problem is deeply rooted and the analysis is not carried out properly under professional clinical supervision. But as will be mentioned again in section 6, this was also a strong belief regarding attempts to change handedness 50 years ago. The APA resolution has added fuel to the fire of gay and lesbian rights groups who think of reparative therapy as "psychological terrorism".

Proponents of conversion therapy claim that there is no genetic or biological component to homosexuality and the condition stems from dysfunctional family conditions in early childhood. The claim is that men who do not have a strong masculine identity can readily loose their same-sex attractions as they become more comfortable and confident with their manhood. Although the road might be difficult; with sufficient motivation, relearning can re-modify or standardize structures of the brain to a heterosexual norm.

### 2.4 Homosexuality as Neither a Mental or a Genetic Disorder

Since the homosexual matrix has never been completely understood it is easy to see why difficulties in understanding the condition have arisen on both sides of the coin. The position to be taken up here in apparent agreement with the APA is that homosexuality is not a 'mental disorder'; and as will be shown in following sections, while also not of genetic origin per se there are a number of biological components associated with homosexuality. If the cause of homosexuality is neither of psychological or genetic origin it might seem that all the viable possibilities for understanding the condition are used up. A profound new discovery is introduced in this paper; its application to homosexuality is described in Sec. 3.

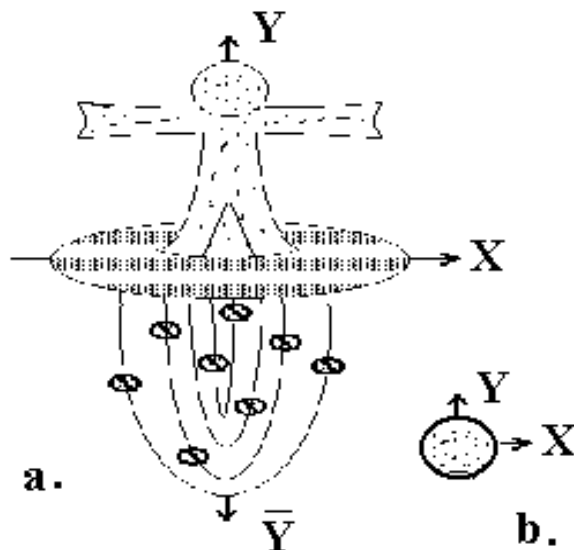
### 3.0 A new Ontology

It turns out there is significantly more to the human condition than currently covered by the allopathic treatment philosophy of western medicine as applied to human psychology and biology. This monograph introduces another whole class of etiological conditions relating to another whole domain of human ontology with its own set of causal action and resultant effects. We will call these ontological conditions to define a duality between the current outer 'phenomenological' domain and the newly defined inner or deeper 'ontological' domain. Some of these ontological conditions like colitis or Alzheimer's disease (Amoroso, 1999) are currently considered incurable; but this will change as noetic theory advances. The new class of diseases will be seen as disorders of consciousness.

This is partly a definitional problem, consciousness is currently not defined other than as the abstract non-physical content of the mind or the state of wakefulness. The actual nature of 'consciousness' is much deeper than the confines of psychology and biology and will be shown in ensuing sections to be a whole physical cosmology. Lets be very clear here as this is one of the essential points of this paper: Noetic theory introduces a whole new ontological domain of existence not part of current biological and psychological theory which form the basis of medicine. This arena has historically been part of philosophy and theology; but because of the lack of a complete model or empirical evidence it has been ignored by scientists.

The APA for the most part succumbed to political pressure and only by a fluke turned out to be correct; but for the wrong reasons. While sexual orientation turns out not to be a psychiatric condition, as we are about to delineate, certain conditions of familial psycho-social make up still provide key causal factors in creation of the homosexual matrix.

Likewise there are biological traits with associated genetics, but these are more superficial genetic attributes paralleling sexual orientation and related to plasticity - not a genetic cause itself, but heretofore believed to suggest a genetic causality.



**Figure 2** Mind does not reduce to brain, algorithm, or information processing as the current reductionist standard model of existence would have us believe. This would be represented in the circle of the (b.) portion of the figure which represents only the brain or temporal portion of the three components of an individual being in Noetic Field Theory. The (a.) portion of the figure shows an unfolded more complete 'soul' imbedded in or part of the 'disk' of spacetime and deeper nonlocality with most dimensions suppressed for simplification. The elliptical lines below represent the nonlocal vital noetic field which acts as the life-force. This would be flipped up, not separated in actuality and pervades every molecule and spacetime position of the individuals mind/body.

The new discovery is that there are factors in the human condition that are deeper than psychology and biology. Factors relating to physically real aspects of consciousness itself. The noumenon of consciousness as opposed to the phenomenological limit considered until now. This is the key foundational issue. While it is currently asked 'what processes in the brain give rise to mental phenomena' (Chalmers, 1995, 1996), a model over 93% of scientists embrace; this is a naive position that makes understanding consciousness impossible (Amoroso, 1997a). This current model defines mind as an abstract and non-physical emergence of neurodynamics with no extra-corporeal properties (Fischbach, 1992) a hard problem too difficult to research (Chalmers, 1995).

Here, according to the noetic theory we are about to introduce, consciousness is more than brain - it is a whole physical cosmology that includes a vital field or '*elan vital*' with a causal action deeper than that described by the current incarnations of psychology and biology which medical science is based on. It is in this new domain that sexual preference is mediated and can finally be understood!

#### 4.0 The Origins of Sex

The origin of sex is nearly synonymous with the question of what is life. At a superficial but most fundamental level the thing that separates an ongoing chemical reaction (A continuous supply of material must be available) from a living entity is the domain wall (cell membrane) that separates one reactive system from another. Sexuality is originally a survival mechanism; a form of symbiosis so that missing ingredients can be acquired and that through variation survival optimized. After four billion years of evolution incredibly complex self-organized living systems (Jantsch, 1984) with sexual reproduction have arisen on Earth (Margulis & Sagan, 1986). The form of evolution utilized in this manuscript is not random-Darwinian, but a guided evolution to be discussed in detail later.

The self organization of life is called *autopoiesis* (Varela & Maturana, 1974) which means that a living system is able to remain far from equilibrium (death) by the catabolic and anabolic dynamics of metabolism which continuously dissipate the *entropy* (amount of disorder) that it produces. The three main properties of life are *autopoiesis*, growth and reproduction. All of these properties may occur in the total absence of sex which was the case through the first three billion years of evolutionary life on Earth.

Individuals of a species may reproduce asexually by replication, a direct copying of genetic material or by sexual reproduction. Sex is the process characteristic of living organisms whereby a genetically new individual is produced from different parents but does not necessarily have to relate to reproduction which is the creation of additional entities. "Beings can be both new in the sexual sense and additional in the reproductive sense. But this need not be the case. Most organisms in the world in fact reproduce asexually, whether they sexually recombine or not" (Margulis & Sagan, 1986).

Margulis and Sagan assume that autopoiesis is a prerequisite for reproduction and that reproduction precedes any form of sex. They can also imagine autopoiesis without reproduction which would occur by the uptake of nutrients and the continuous self-maintenance of proteins and nucleic acid. They also wonder "Why, if asexual beings can have more offspring than sexual ones, are there so many more sexual animals?"; and conclude we may never know the reason for the origin of reproduction and sexuality because even though many forms of passion are generated, sexuality is not an ultimate biological priority (Margulis & Sagan, 1986). It seems that there is no scientific reason for sex.

Although speculative, within the teleological framework of a continuous state conscious universe (Amoroso, 2000, 2001) noetic theory is able to offer an obvious theological explanation. The reason for the evolutionary development of complex autopoietic sexually reproducing self-conscious living systems is so that an eternal soul may be packaged into each differentiated entity for passage through an intelligent eternal social progression.

#### 4.1 Population Genetics

In 1993 it was announced that a gene for homosexuality had been discovered (Hamer et al, 1993). But it turned out the major researcher's results were eventually shown to be 'fudged'(Marshall, 1995) and that "Hamer was under investigation by the office of research integrity at the Department of Health and Human Services because he may have *selectively reported* his data"(Satinover, 1996).

But considerable damage was done:

Hammer himself testified as a sworn expert witness to the Colorado court that heard a motion to void the state's "Proposition 2," which would have disallowed sexual behavior as a legitimate basis for formal minority status on a par with race. On the basis of his research Hammer testified that he was "99.5% certain that homosexuality is genetic." The judge who heard the case ultimately struck down the law (Satinover, 1996).

But there is no 'queer' gene. All intensive searches have failed to find a genetic basis for homosexuality so far. Nevertheless there was a significant element in Hamer's study. He and his colleagues performed a newly widespread type of behavioral genetic experiment called a 'linkage study' where behavioral traits that run in a family are correlated to chromosomal variants found in the genetics of the family (Satinover, 1996). It has also been known for some time that homosexuality has a tendency to run in families. While the incidence of male homosexuality in the general population might be about 5%, having a gay brother increases the chance of homosexuality to about 25% (Pillard & Weinrich, 1986). Hammer was eventually cleared by the U.S. office of Research Integrity; but George Risch of Yale who created the protocol used by Hammer duplicated Hammer's work with a larger N and found no statistical results.

#### 4.2 A Complex Multi-factor Matrix

The genetic, physiological and environmental situation effecting the homosexual matrix is not simple. If there are genetic variations that are related to homosexuality, why isn't homosexuality genetic? Firstly relatively few homosexuals have children so a possible gay gene linkage cannot occur directly. The Hamer research group found families in which homosexuality seemed to follow a mother-son linkage. The X chromosome is comprised of about 100 genes; and on region q28 a variation was found that was related to homosexuality (Satinover, 1996; Hamer et al,

1993).

The problem is one of statistical requirements and interpretation. Although a genetic trait can be of high statistical significance in a particular family; in order to be a genetic trait in the general population it must occur in most homosexuals. While Hamer's research techniques and raw data were within acceptable parameters for a genetic linkage study, he made many unscientific assumptions and was severely criticized for the questionable manner in which he used statistics to support a focus on social and political motivations (Satinover, 1996; Hamer et al, 1993).

Complex behavioral traits are the product of multiple genetic and environmental antecedents, with "environment" meaning not only the social environment but also such factors as the "flux of hormones during development, whether you were lying on your right or left side in the womb and a whole parade of other things..." The relationships among genes and environment probably have a somewhat different effect on someone in Salt Lake City than if that person were growing up in New York City. [For example, conservatives in Utah are less likely to become homosexual than liberals in New York.] (Satinover, 1996)

### 4.3 Physiological Changes

Obviously many but not all gay individuals look quite different from heterosexuals and can be easily recognized by facial characteristics and body language. There are also secondary sociological patterns such as the duration of mutual gaze that extends beyond what is culturally acceptable for heterosexual interaction. It has been said that the eyes are a window to the soul; and it is quite interesting that a mind set, behavior and experience can affect physiological appearance over time. The consequences of one's actions creates physiological changes in both our brain structure and body (Lerner, 1970; Levay, 1994; Tripp, 1976; Swaab & Hofman, 1991). There are genes associated with these factors and they can be regulated by mental characteristics under certain conditions. This is called gene activation, but is not a 'biologically' inherited trait, rather it is mediated by the external 'psychological environment' and mentally by the disposition and mind set of the personality. This can lead to gene activation of more superficial and malleable traits. This action occurs at a deeper level than that currently described by the symptomatology of the western medical/psychiatric arena; but is the result of the cosmology of 'soul talk' (Wolf, 1999; Amoroso, 1999) which will be described in more detail later.

### 4.4 Prenatal Stress and Increased Incidence of Homosexuality

There is some evidence although weak that prenatal stress in the mother produces a statistical increase in the incidence of male homosexuality; but the experiments are difficult to perform on human subject and the results remain inconclusive. The stressor is believed to cause a change in fetal hormones that effect brain development. (Dorner et al, 1980, 1983; Ellis et al, 1988) A similar effect with much clearer results is shown in rats. If a pregnant rat is stressed late in pregnancy her male progeny show very low male sexual orientation (Anderson et al, 1986).

Williams et al (2000) has explored anatomical characteristics in his search to uncover the biological origins of human sexual behavior. Men's ring fingers are typically significantly longer than index fingers which is believed to be an effect of prenatal testosterone release. For women generally the two fingers are nearly the same length. Research has suggested that lesbians are exposed to higher prenatal testosterone release than heterosexual women. Williams et al (2000) found that a statistically significant number of homosexual women have a male-like index-ring finger ratio.

Another curious fact his team found is that men with more than two older brothers have a statistically higher chance of homosexuality. This increases to 50% for men with ten older brothers.

### 4.5 The Modulation of Sexual Brain Dynamics

The idea of homeostatic balance in living systems goes as far back as Hippocrates. Physiological *Homeostasis* is an issue central to the study of feedback mechanisms in evolution theory and is defined as the property of a living system to self regulate itself under conditions of variable inner and outer environments in order to maintain metabolic stability (Lerner, 1970).

The form of Genetic Homeostasis first coined by Lerner we will call 'strong Genetic Homeostasis'. It refers to standard mechanistic Darwinian genetic evolution which is mediated by global ecological and sociological conditions in interbreeding Mendelian populations. What we will call here for the sake of discussion 'weak Genetic Homeostasis' refers to effects of *consciousness* that act internally on the physiology in association with gene activation

to modulate specific structures related to sexuality. This 'noetic effect' of consciousness in terms of external biological action is related to what is currently called neuroplasticity of the brain. This effect suggests that behavior and experience alter brain structure and function so that anatomical and biochemical differences would be expected for homosexuals and heterosexuals. The internal action of the noetic effect that we are leading up to will be taken up shortly.

Evidence of this neuroplasticity in terms of sexual preference has been researched by Breedlove (1999) in terms of the spinal nucleus of bulbocavernosus (SNB). Androgen can permanently masculinize the SNB; but curiously this early influence seems to depend on social factors and there are indications that the plasticity in the SNB system is life long.

The sex organs are indeterminate at conception; certain processes must occur to finalize the genetic traits. All embryos would be feminized without actions occurring at very specific times in embryonic development. One process allows the Y chromosome to form testes, later another action inhibits the formation of fallopian tubes; and finally testosterone stimulates development of the vas deferens. These physiological processes producing the eventual outward manifestation of sexuality in the adult are controlled by genetic mechanisms; but there are environmental, pathological and mutant conditions that can alter these processes. These outward characteristics do not necessarily correspond to sexual preference and are not effected by 'weak Genetic Homeostasis'.

Section 2.4 concluded that although the homosexual matrix may have associated psychological disorders the primary cause is not mental. Here it is seen also that there is no evidence for a genetic basis for homosexuality; but there is considerable evidence for a 'homosexual biology' of prenatal causation with psychologically activated homeostatic mechanisms under genetic control. It has been known for some time that learning, experience or psychotherapy alters the neural pathways of the brain. This means that there is a psychoneurobiology of the brain (Ader et al, 1991) and that if the sexual tendencies laid down prenatally are acted upon physiological changes will occur in the brain (Breedlove, 1999). This sexual dimorphism of the brain has been known for about 10 years in relation to the hypothalamus, the corpus callosum and the amygdala.

The basis of our thesis is that *homosexuality is neither psychological or genetic; yet individuals with homosexual tendencies are still 'born that way'!* If the root of sexual preference is not psychological or genetic; what is it? And how can someone still be 'born that way'? The origin of sexual preference is a factor of 'consciousness' an aspect of the 'vital force' interacting within the 'psychosphere' (Amoroso, 1999). This might not make sense at first glance because the common understanding of consciousness is either 1. The state of wakefulness or 2. The content of the mind. The conclusion above requires a profound new definition of consciousness and a description of the new cosmology of the universe where it operates.

## 5.0 Noetic Field Theory: Foundation for The Cosmology of Mind in a Conscious Universe

Recent popular literature (Freedman, 1994; Horgan, 1994) lists consciousness among the great unanswered questions; and as science's greatest mystery. "It will be our proudest achievement if we demystify consciousness" (Flannigan, 1992). To accomplish this the very foundations of science itself need to be ripped apart and reformed (Amoroso, 2000) to include a broader metaphysics (Harman, 1991; James, 1912) to reach the deeper ontology of the noumenon of consciousness.

Noetics (from the ancient Greek term *nous* meaning mind), is a discipline that embraces science, philosophy and theology and offers a framework for a potential solution to the problems of consciousness. There is ultimately more to reality than currently allowed by the standard models of science. The deeper Unitarity is not currently accessible because of the measurement problem (Amoroso & Martin, 1995) and calls for a new ontological empirical metaphysics able to access nonlocality experimentally, not just type I & II as described by the standard model but also a type III nonlocality of the unitary field (Kafatos & Nadeau, 1990) which is a key element required for understanding the cosmology of consciousness and mind.

### 5.1 The Noetic Model of Mind

The tenets of noetic field theory (Amoroso, 1995, 1998, 2000, 2001) suggest that:

The mind  $|\Psi_M\rangle$  is a continuous state with a complementarity of continuous and discrete properties including a dualism of both local temporal and nonlocal eternal aspects. This noumenon of consciousness is composed of three (Figure 3) main integrated dynamic self-organized base states:



1. Elemental intelligence  $|\Psi_e\rangle$ , a nonlocal bound of individual existence (“to all things are given a bound or they could not abide”, Smith, 1830)

2. Cosmological ordering principle  $|\Psi_c\rangle$  which is related causally to the vital noetic field that is mediated by a photon/graviton (Osoroma, 2000; Amoroso, 2000, 2001) called the noeon. The dynamic flux of the noeon field between the nonlocal eternal bound of elemental intelligence and local quantum brain dynamics provides the ‘spark of life’ and the photonic ‘light of the mind’.

3. The brain defined as a classical apparatus or transducer of temporal sensory input  $|B|\Psi_b\rangle$  into the nonlocal seat of the mind.

The base states of mind interact at the quantum and prespace levels as described generally in equation (2) or as the sum represented in (1)

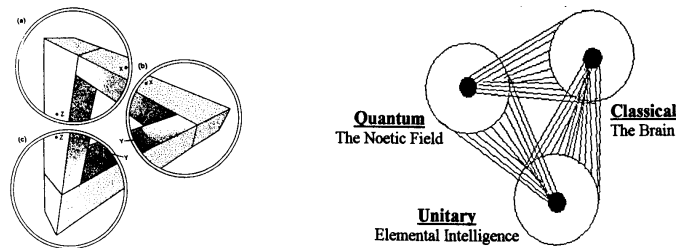
$$|\Psi_M\rangle = |\Psi_e\rangle + |\Psi_c\rangle + |B|\Psi_b\rangle \tag{1}$$

In equation (2)  $N$  is the superimposed base states over complex spinor space  $Z$ .

$$|\Psi_M\rangle = \sum_{i=1}^{Z} N_i |\Psi_i\rangle \tag{2}$$

Most scientists today believe that the brain is the organ of mind with neural processes as the basis of mental life (Fischbach, 1992; Chalmers, 1995,6). This is incorrect! (Eccles, 1992, 93) The brain is a form of naturally occurring conscious quantum computer (Amoroso, 1994, 97) ONLY 1. managing physiology and 2. acting as a transducer for sensory data to and from the extra-corporeal seat of consciousness like first postulated by DesCartes. Cartesian dualism has been incomplete only able to be rectified now in the comprehensive interactionist ‘Noetic Field Theory’.

The complete arena for consciousness and the process of mentation is called the psychosphere. The structure of the psychosphere is the complex interacting bound or domain walls of the three noetic base states (figure 3), This is a 12D hyperstructure of three Minkowski spacetime packages, not just the one 3(4)D spacetime as in the standard model (Amoroso, 2000,2001) This domain contains the totality of an individuals mind and consciousness and the extent of its influence. This means that the noetic field  $N(f)$  couples and mediates information between both the local brain/body quantum fields, and the nonlocal subspace activity within the boundary conditions of elemental intelligence. The transduction of data or interaction of mind and body occurs through quasi-particle formations that cohere into Bose condensation (Amoroso & Martin, 1995).



**Figure 3.** Two conceptual views of the 3-base states of noetic field theory. Classical singularities do not reduce to Planck scale discrete points; but have a complex HD structure. The 2<sup>nd</sup> and 3<sup>rd</sup> 3-spheres are hidden from classical measurement by the uncertainty principle (Amoroso, 2000,2001). The 3 domains are in continuous translation like the standing wave produced by plucking a guitar string. But because of the nature of time and the uncertainty principle these components are not readily observed much like the frames of film are not seen while watching a movie.

All matter in the universe is made of either Bosons or Fermions. Fermions are the substance of material objects and Bosons the substance of light-like quanta. Fermions must obey the Pauli exclusion principle (a main reason for uncertainty relations) so only one Fermi particle may occupy a particular point in space at any time. Whereas theoretically an infinite number of Bosons can occupy a particular spacetime position. Interestingly an even number of Fermions can provide a certain type of symmetry so that they can act as if they were Bosons. In simplified terms this is the mechanism through an intermediary called a quasiparticle transition whereby external sensory or other physiological information in the Fermi brain states are transduced into the Bose content of the mind (Amoroso, 1995). This the fundamental basis of the substance dualism of the interactionist model. Intentional action of course is the reverse of this process.

This bidirectional pathway is a microcosm of general scale invariance in the conscious universe. Think of this Bosonic 'grid of light' as loci that pervade the brain/body confines of the individual psychosphere as a 'ball of mental light'. The supralocal domain of the CSCU (Amoroso, 2000,2001) is a hyperdimensional ball of light called a geon. Wheeler (1955, 1998) proposed a classical geon as an electromagnetic field of sufficient size that it would cohere by its own gravitational self attraction. In recalling Einstein's famous equation  $E = MC^2$  equating energy and matter it might not be as difficult to imagine the supralocal realm as a huge hyper-hologram of pure light energy as a teleological ordering principle of matter, spacetime, and life in our subspace domain of reality.

In the standard Darwinian Big Bang model of cosmology the higher dimensions were compactified ~20 billion years ago at the beginning of time. In the CSCU (Amoroso, 2000,2001) compactification is a continuous dynamic process occurring at every singularity in spacetime (Actually creating and recreating spacetime at each moment). This continuous collapse process of the 12D supralocal domain into our perceptual 3(4)D frame allows our temporality to "surf" as it were of the face of the HD supralocal eternity. This is also the reason for the fundamental stochastic barrier of uncertainty that limits our reality to the 4 dimensions perceived. It is a veil between us and the higher realm. This also means that there is no need for inflation or expansion of the universe. This is a key element of a conscious universe. Within this continuous cycle of collapse and recollapse of geon light energy are the little wormholes or singularities that are the entry points of the self-organized vital noetic field providing life, the light of the mind, and order to matter and the large scale structure of the universe.

This structural phenomenological structure is the domain where coherent Bose psychons (Eccles, 1992, 1993; Amoroso, 1995) condense and interact with the Fermi states of brain microtubules and other quantum structures. The mind, thought, and the brain have complementary features in the sense promoted by Bohr. Complementarity on the brain side suggests that thought is a local quantization of conscious energy, dynamically coupled to a Heizenberg matrix like raster operationally bound with Fourier coefficients to the biomolecular substrate of the holoscape (Pribram, 1991) within the psychosphere (Amoroso 1995, 1998,). This is currently suspected to occur with the quantum condensation of Bose-Einstein correlates at the microtubule, (Hameroff, 1990) synapse and other nodes of quantum activity. These concepts are further elucidated by the holonomic brain theory using Fourier and Gabor relationships (Pribram, 1991); and Quantum Brain Dynamics (Jibu & Yasue, 1995).

What the above paragraph means in plainer English in terms of the body of scientific literature for dualism/interactionism is as follows: Eccles postulated the psychon as the fundamental mental unit that coupled mind to the dendron in the brain. Pribram did work suggesting that these dendrons formed a holoscape - a neural grid with holographic properties. Jibu and Yasue said that this grid has bosonic properties. Hameroff and Penrose formed a theory attesting to the quantum properties occurring in association with microtubules related to the neural nets. Walker and Beck said the same quantum processing could occur also at the synapse. All of these researchers except Eccles confine consciousness to the brain. What Amoroso has done in the Noetic Theory is to integrate all of these pieces into a physical theory that Bosonizes the Eccles psychon. Until now vitalism has been cast out of science because it has not been integrated into a comprehensive dualistic theory (Amoroso,2002). As will soon be more evident *dualism* with extra-corporeal aspects of mind with a vital noetic field provides the essential foundation for the model of sexual preference presented here.

On the mind side this system is superimposed with coherent nonlocal parameters of the noumenon of consciousness. With this model in mind, it is assumed that if consciousness is mediated by tensor noeons (The noeon is a bosonization of Eccles abstract psychon that binds the extra-corporeal mind to the dendrons of the brain, or in other philosophical terms - the *elan vital* or confined photonic light of the noetic field), the leading lightcone singularity is modulated by a phase of the twistor noeon field (equation 2). The twistor psychon - noeon model additionally relies on development of the Sakarov model of gravitation (Puthoff,1989) for the integration of general relativity and quantum gravity as a vacuum fluctuation. (As a philosophical/theological note it is important to realize that gravitation is caused by the movement of spirit - this is part of the teleological causality of the conscious universe) Work has been done by

the author to show that the graviton is a form of confined photon (Amoroso, Kafatos & Ecimovic, 1998; Osoroma, 2000; Amoroso, 2000,2001).

More work needs to be done before the psychon/noeon can be isolated (see mention of experimental protocol in the final section). How does it arise from the unitary noetic field? With the rise of nonlocality as a principle of nature, and as more scientists realize quantum theory is incomplete, nonlocality which occurs in the deeper dimensions of spacetime, must remain as part of any new theory.

There is currently no consensus for the number of dimensions, but it is known that space is quantifiable and work is proceeding to finish this task. Every particle of matter is transient, created and destroyed out of a froth of virtual particles in the plenum. It is generally known that Fermi particles (atomic matter) is composed of quarks - composed of one dimensional objects called superstrings. This is the face of subspace, the Kaluza-Klein tower, or twistor space. Strings are theorized to be formed from fiber bundles or spinor pairs oscillating at the speed of light on the surface of the Dirac vacuum (Vigier, 1983). Twistors are composed of Spinor configurations (Penrose & Rindler, 1986) which are the singularities from which space is projected to represent our observed reality (Amoroso, 2000, 2001). A good generalization of some of these concepts are given in Peat (1988). Various kinds of twistors project bosons, gravitons, or Fermions. The bosons are timeless and represent an aspect of eternity. Fermions which obey the Pauli exclusion principle are relegated to spacetime temporality and the reason for the uncertainty principle; but utilizing bosons an empirical metaphysics can be created to surmount uncertainty.

The hidden dimensions are a necessary structure providing a mechanism to translate the domain of temporal phenomenology in the noumenon of eternity. Uncertainty provides the domain wall for this process. A science of non-computability is needed to surmount uncertainty, but spirituality or the unity of nonlocality through the ontology of synchronicity is required to do so. The measuring methodology cannot be invasive as in the customary form of measurement; but must be an ontology - a becoming of the system or state, such that all information is shared through unity.

The author realizes that section 5 is not very satisfactory; a two volume treatise is being written to clarify the matter. The whole point is that extra-corporeal actions are essential. This introduction is merely to give a flavor for what is required and to show that the explanation is not trivial. And this is why it has taken so long in the history of science to get to this point!

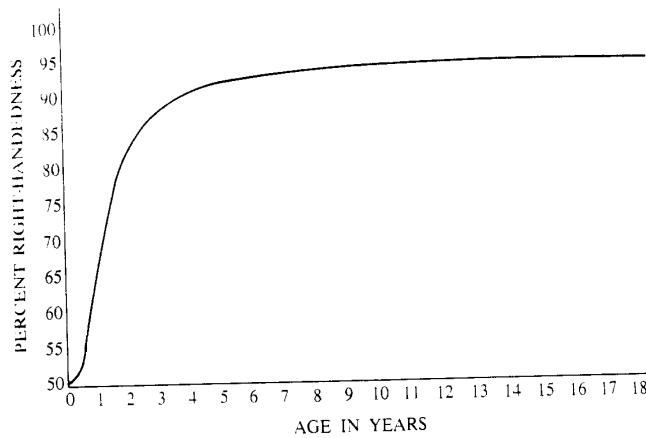
## 6.0 Transmutation of Handedness

Handedness is considered a deeply rooted individual characteristic with about 2% to 11% of the general population being left handed depending on the study performed with about 1% being ambidextrous. People who are ambidextrous often have it to degrees; having some skills with one arm and different ones with the other. Definitional disparity is one reason for the difference in statistical range among different researchers. For nearly a hundred years biologists and psychologists have debated whether or not handedness is genetic or a product of socialization. If handedness is not genetic it remains a mystery why only a small percentage of the population should be left handed.

Probably as in the case we are making for sexual preference, handedness is a combination of *genetic disposition* and conditioning. In that respect the point in terms of transmutation made here is that some parents make an emphatic decision that their children will not be left handed in a predominantly right handed world and train them rigorously until they become right handed for all practical purposes. This is not an overtly natural progression and historically was thought to entail a degree of psychological trauma; now shown to be unfounded. Transmutation of handedness does occur successfully especially when begun at a sufficiently young age.

The cause of handedness still remains a complete mystery. There is little more than a confusing and conflicting array of statistical data subject to various interpretations suggesting that handedness is genetic or not genetic because in 18% of monozygotic identical twins one is left handed and the other is right handed. A recent theory by Coren (1992) states that human beings are naturally right handed and that birth stress or prenatal brain trauma produces left handedness. He considers this to be the reason why a higher percentage of left handed individuals have psychological and emotional problems.

The purpose for utilizing the handedness metaphor is to illustrate the current similarly confusing situation as to whether sexual preference is genetic or not. Also to demonstrate the feasibility of transmutation for similar conditions.



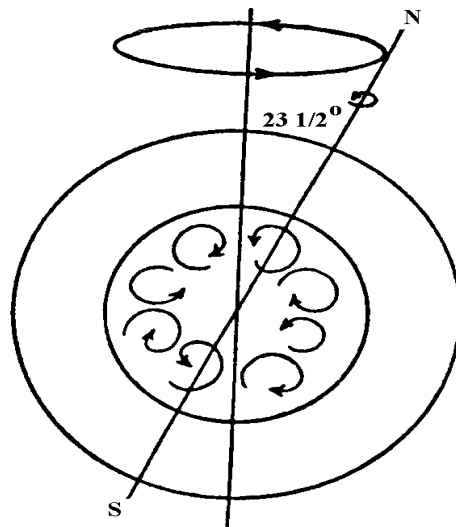
**Figure 4.** Handedness becomes increasingly determined after birth dramatically in the preschool years (Hildreth, 1949).

**7.0 Polarity Reversal of the Earths Geomagnetic Field**

The core of the Earth is mostly molten nickel-iron acting as a self-exciting dynamo which is believed to be the source of the Earth’s geomagnetic field. (Figure 5) The polarity of the Earth’s geomagnetic field reverses relatively often in geologic terms, averaging about 250,000 years between reversals. It has been shown that approximately 50% of the rocks in Earth’s crust have a magnetic polarity that is opposite to the ‘normal’ or present-day polarity (Scheidegger, 1982).

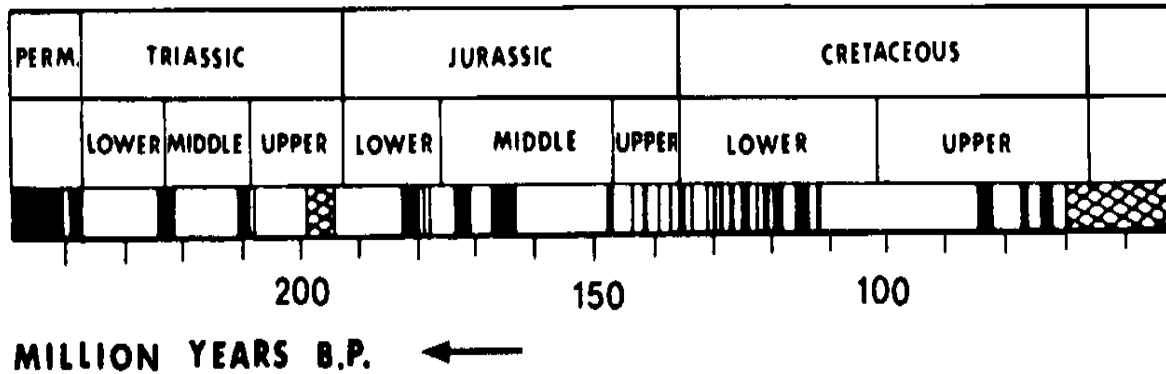
All of the several models describing reversal of the geomagnetic field seem to suggest that direct or indirect extraterrestrial influences precipitate the reversals: periodicity in violent solar activity, galactic effects such as cosmic ray intensity or supernova, changes in activity of the dynamo of the Earth’s core, episodes of violent volcanism, or the impact and explosion of extraterrestrial objects (Albritton, 1989).

A rocks magnetization is defined by three values: angles of declination, inclination, and magnetic intensity. The *declination* is a locally defined angle in the horizontal plane measured clockwise from 0 to 360 degrees with reference to true north. The *inclination* is the angle in the vertical plane between the magnetic direction and the horizontal (Van der Voo, 1993).



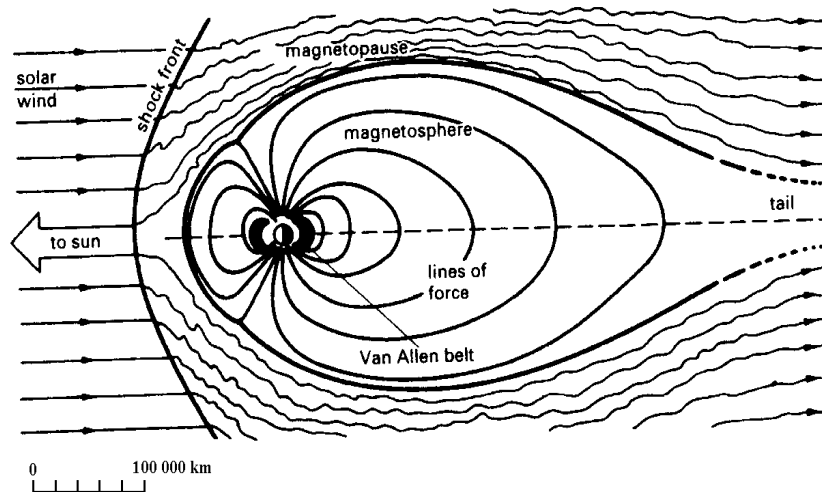
**Figure 5.** Precession of the Earth’s axis creates a turbulence causing the geomagnetic field. (Fraser, 1957)

80% of the Earth's magnetic field is geocentric - meaning that this portion of the dipole field originates at the center of the Earth. The remaining 20% of the field, the non geocentric portion, called the 'restfield' originates in - external and internal non dipole fields, remnant magnetization in the Earth's crust, or of extra-terrestrial origin. This so-called restfield can display rapid variations (Figure 7), with the external portion varying greatly in only a few hours during a solar storm; and the internal field varying sufficiently in five years that world maps of magnetic declination and inclination field strength have to be remade for exact navigation purposes. In A hundred years this 'secular variation van change as much as 10 degrees. (Van der Voo, 1993).



**Figure 6.** Magnetosphere polarity reversals from Tertiary to Permian. White: normal, Black: reversed, cross-hatched: uncertain magnetization due to frequent reversals (Scheidegger, 1984).

In addition to the external and internal forces that seem to precipitate polarity reversal there are a number of interdependent conditions required in the dynamo of the Earth's core before a polarity reversal can occur. If the position of Earth's axis changes from the influence of an extraterrestrial magnetic field several things can happen: 1. The external field would create eddy currents in the surface layers of the Earth that would counteract the normal external field of the Earth. 2. Thermal effects of the electrical currents would liquify rock. 3. The molten rock would require the magnetic orientation of the prevailing field. All three of these effects have been observed (Velikovsky, 1955).



**Figure 7.** The Earth's Magnetosphere is a comet shaped region where the charged particles of the solar wind are influenced by the planets magnetic field. It extends to about 65,000 km on the sunward side with a shock front at

100,000 km (Isaacs, 2000).

Liquid rock is not magnetic until cooled to its Curie point of about 580 degrees C. It acquires a magnetic field oriented with the *declination* and *inclination* of the current field of the Earth which it retains after solidifying. Rock formations are found everywhere on Earth with reversed polarity. Reversed polarity rocks are significantly more strongly magnetized than can be accounted for by the Earth's geomagnetic field - ten times; and often up to a hundred times stronger than the magnetic charge they could receive from terrestrial magnetism. This intensity depends on the velocity which the lava cools and on the form, size and composition (Velikovsky, 1955).

In figure 7 above and the associated commentary we learned about the normal position of the Earth's geometric field and the external and internal effects that are involved in periodic reversals.

Figure 10 below illustrates the dramatic change in the position of geomagnetosphere when a strong external influence is applied. It is profoundly interesting as we shall soon see that the structural phenomenology of the magnetosphere models so strongly the origins of sexual preference. Before we begin the purely scientific discourse there are two more principles that need to be discussed because they are needed as tools to facilitate that discussion.

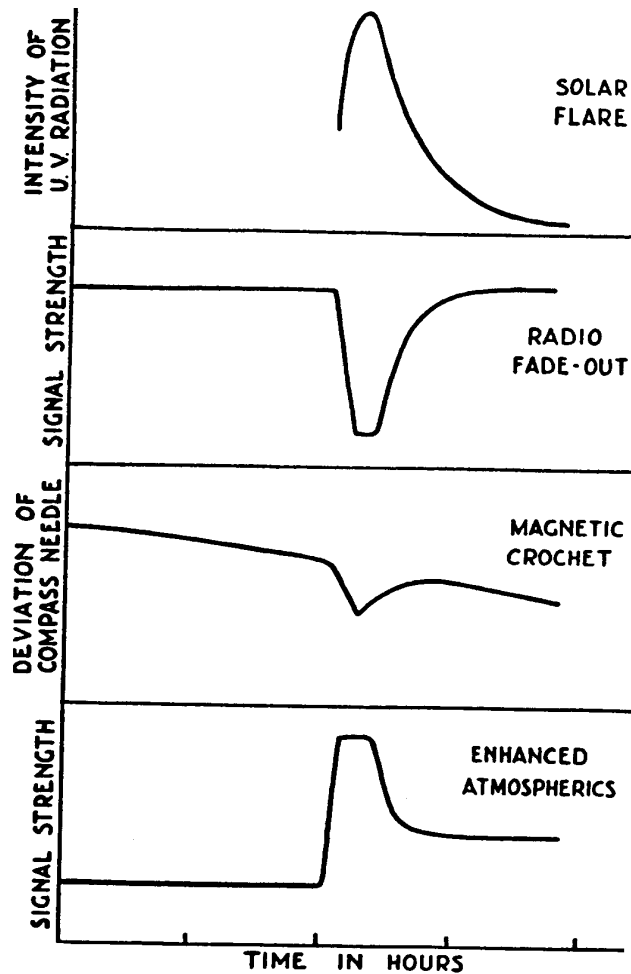
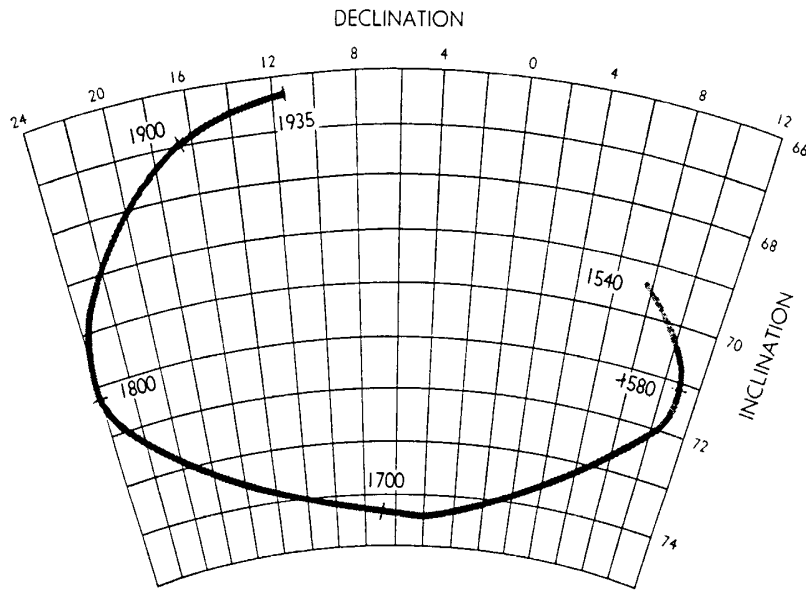
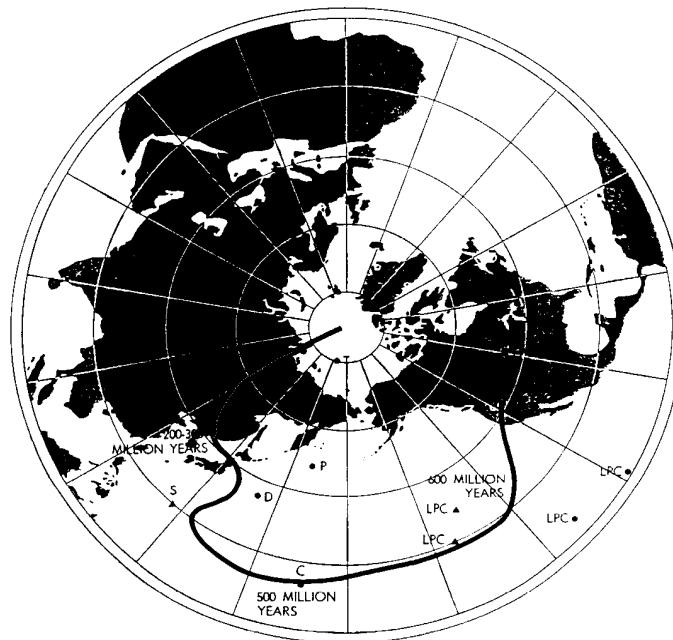


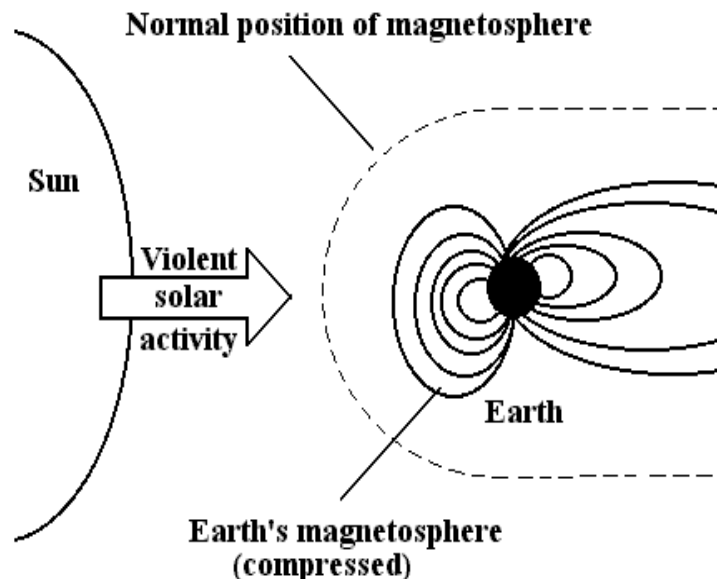
Figure 8. Schematic of instantaneous terrestrial effects of a solar flare (Fraser, 1957).



**Figure 9a.** The westward drift of the earth's magnetic field from observations made in London. Each date represents the direction of the compass needle for that year.



**Figure 9b.** The Wanderings of the North Pole are traced by the heavy black line. The points are derived from the magnetization of rocks in the British Isles and North America (Runcorn, 1955).



**Figure 10.** The Earth's geomagnetic field showing the influence of periodic extreme solar activity. The magnetosphere usually extends for about 65,000 km on the sunward side; but severe solar storms might compress the magnetic field to 40,000 km. When conditions in the molten core of the Earth's dynamo correlate it is believed that such cosmological activity could precipitate a reversal of the geomagnetic field.

### 8.0 Handedness and Symmetry of the Universe

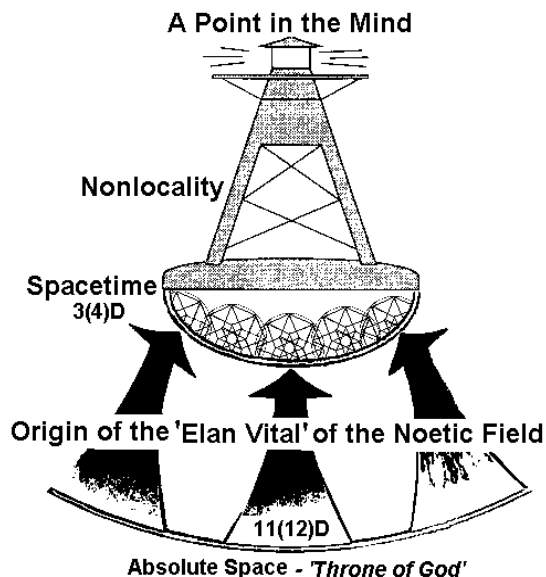
Humanity has still only gone part way in letting go of perceived notions of the Earth as the center of the universe and the brain as the center of intelligence. The approximately 20 billion light-year Hubble sphere is only one little pea in the hyperdimensional pod of the megaverse (Amoroso, 2001). A 2D holographic plate usually produces only one 3D image when illuminated with a laser 3D depth holograms can produce a myriad of images when each depth point is focused on by an appropriate laser. Thus a 12D hyperdimensional holographic megaverse has infinite properties able to contain an infinite number of Hubble spheres each perhaps having its own laws of physics. 99.999% of this does not exist in and is causally isolated from our Hubble universe (Amoroso, 2000, 2001).

In Section 5 basic principles of the CSCU or conscious universe were introduced. The current big bang model is not representative of an intelligent universe with a conscious causality or teleology governing its evolution. A CSCU has a special kind of symmetry that is scale invariant, which means that the same geometric and energetic principles that apply on the microscopic level apply on the macroscopic and cosmological level also. This is very efficient for self-organization and information processing and utilization. This cosmological symmetry appears to also have a handedness related to the origin of life and the propagation of the vital noetic field. The most obvious symmetry is the unidirectional flow of time.

The amino acids of all proteins essential to life exhibit a handedness that correlates with a fundamental symmetry of the conscious universe. Biological proteins are of the L-type and the sugars of chromosomal nucleic acids are of the D-type. The ability of enzymes to select L-type molecules and reject the mirror image indicates that optical activity is an essential aspect of living systems (Caldwell & Eyring, 1971). When L-type amino acids combine they form helices that spiral like a screw. If D-type amino acids mixed in, the proteins would twist in the opposite direction interfering with the coherent effects of the noetic field.

In the CSCU (Amoroso, 2000,2001), the hyperdimensional supralocal domain of the unified noetic field beyond the facade of our perceptual phenomenology is a Geon (Wheeler, 1998, 1955) or megaversal 'ball of light' that propagates into our reality as the vital force or 'light of life' as shown in figure 11.



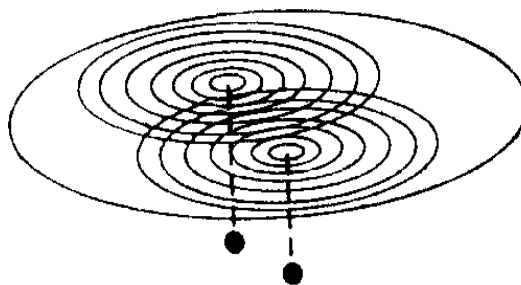


**Figure 11.** Light from the Geon of the supralocal domain (Arrows) of the Megaverse propagates through hyperdimensionality into 'points' of our space-time and pervades all matter. This is the self-organized vital force of life or the unitary noetic field that utilizes the optical activity inherent in all bio-chemistry.

All substances exhibit *optical activity* which is caused by a magnetic field along a beam of light. Optical activity produces a rotation or conformational change in the shape of the molecules of life. Since natural chemical compounds have equal amounts of L and D-type handedness, the effect cancels. This optical activity is of fundamental use to propagation of the vital force. In a manner similar to the constancy of blood bathing all tissues to supply oxygen and nutrients, the conformational ordering produced by the light pressure of optical activity represents the action of the life force allowing the spark of life to 'bathe' living systems through its continuous coherent ordering.

### 9.0 The Force of Dissonance

Another simple metaphor that helps illustrate the 'attraction - repulsion' affect between people can be elucidated using two magnets. For people, usually opposites attract and like sexes repel; which is also true of magnets. A reversal in the noetic field of the anima - animus produces the tendency to cause persons of the opposite sex to seem repulsive - giving rise to the 'apparent' attraction of homosexuals to partners of the same gender. Thus we get a glimpse of both the complexity and tragic difficulties of the homosexual matrix. (Elements of intelligence cleave unto like elements of intelligence according to certain physical rules)

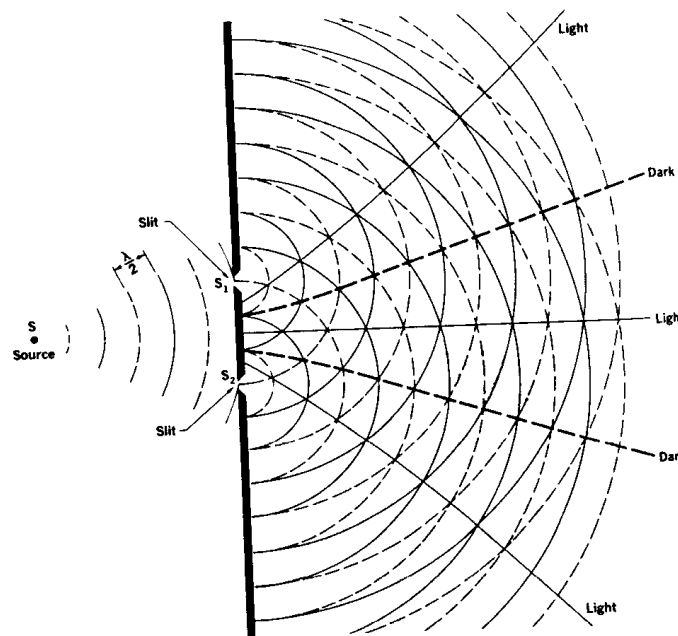


**Figure 12.** One stone dropped in a pool of water creates smooth ripples; while two stones create areas that both enhance each other or destructively interfere with each other.

Human beings have basic innate internal needs as part of both their physiology and psycho-spiritual makeup. These needs are coupled to feelings and sensations; people feel well or have a sense of fullness or happiness when these needs are enhanced or satisfied. When they are not satisfied people feel down, ill, uncomfortable etc. Consciousness contains a real physical field similar to that of the magnets when the spins of the internal atoms are given a specific uniform orientation. Therefore a gay person does not typically feel comfortable with intimacy with the opposite sex; but rather feels 'attracted' to or 'enhanced' by a same gender individual. This is related to the fact that 'all spirit is matter' which creates a physical presence within us that produces an action similar to that illustrated in the above metaphors. There is a price to pay for this reversal; and many reversed gender individuals are also troubled by emotional issues; which is another complex issue only given brief mention in this paper.

The aversion effect can also be illustrated in terms of dropping two stones in a pool of water. In some places the water waves 'summate' or enhance each other; and in other places there is destructive interference or 'cancellation' of the waves altogether. The summation occurs when the waves are in phase; and the destructive interference occurs when the waves are out of phase. In terms of the noetic field the 'light front' is actually destructively interfered with, which creates the feelings of cognitive dissonance when intimate coupling is attempted with polarity of obverse phase. The current neural basis for mind theories do not contain such *telergic* effects. More will be said about telergy later.

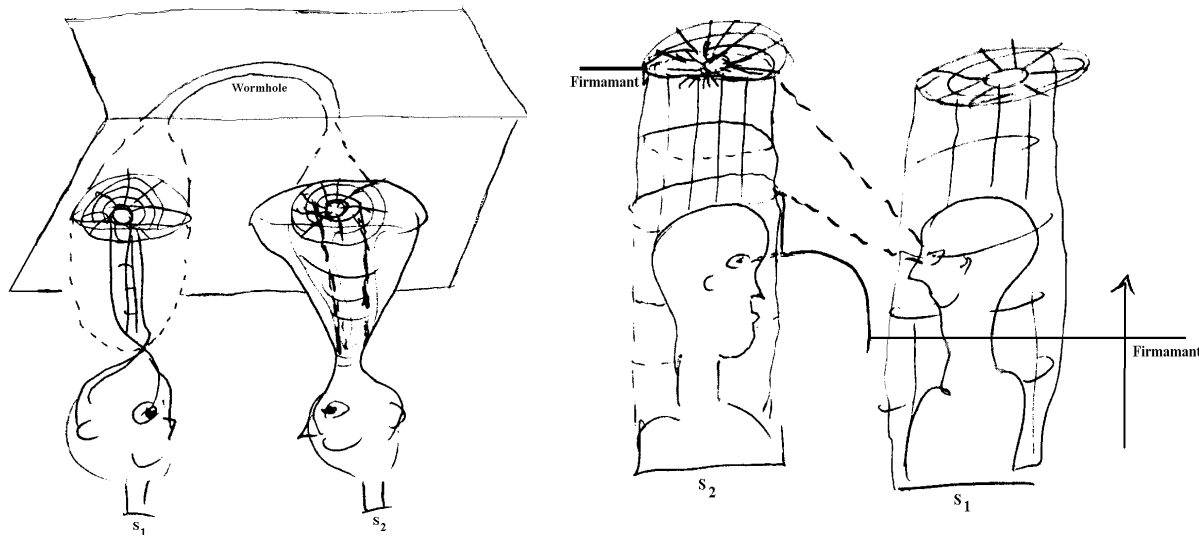
Besides being related to aversion after the anima/animus polarity reversal has taken place this *telergic* interference effect also illustrates the action of a force facilitating the reversal. That light has pressure is well known in physics and generally known to anyone who has seen a radiometer in a novelty shop. An evacuated globe approximating a light bulb has a needle in the center upon which a spindle with four vanes rests. The vanes are black on one side and reflective on the other. The force difference between absorption and reflection is sufficient to rotate the vanes at over 100 RPM. The coherent light of a laser diode pointer as low as a milliwatt is sufficient to create conformational change. Remember that a ship weighing millions of tons can be steered easily by the little finger of the helmsman. It was Einstein, only a few years ago, who formulated the initial definition of the photon. Science still hardly has a clue of the complete nature of light. Although light has many actions in spacetime, its real power and nature exists in the atemporal and higher dimensional realms. A glimpse of this is given in the dialogue relating to figure 5.



**Figure 13.** Bands of light and dark interference fringes occur when light passes through a double-slit. The source S is reminiscent of the light of the life-force entering spacetime and matter. The slits represent wormholes in higher dimensionality; and the light frequency creating the interference patterns oscillates at frequencies of  $10^{11}$  Hz known as Frohlich frequencies and also found in the cosmic background radiation.

The author realizes the difficulty in accepting and comprehending the ultimate action of the light of consciousness at this point in the development of noetic theory. There are many levels to the domain wall barriers and gates that mediate the flow of conscious energy. Imagine two individuals approaching a dwelling with the intent on entering and having intimate relations with the occupant. At the point each starts up the walkway there might be no measurable difference between them. One will be welcomed warmly and allowed to share the most intimate aspects of human existence with their partner or spouse; the other a stranger will engender the most violent reaction possible.

We have discussed in general terms the mysteries of handedness and explored the fact that while there seems to be familial predispositions, these dispositions do not appear to be genetic. It is also possible to wear a special set of glasses with lenses that invert the view of the external world. After a relatively short time the mind adapts and the world is again seen right-side up while wearing the inversion glasses. If the basic premise of noetic theory is correct, that a physicalunitary vital field not only pervades all matter and spacetime, but also self-organizes it from the hyperdimensional realm; then there is a whole universe of conscious phenomenology to deal with and which clearly has *telergic* effects to explore and account for.



**Figure 14.** A) An instant of telergic commerce also defined as the ‘Veneration Gap’.  $S_1$  is noetically dominant over  $S_2$  which dramatically changes the flux boundaries of the wormholes mediating the loci of the noetic field. This changes the position of the ‘firmament’ between them. B) People appear separated in the 3-space of our perceptualreality; but in the additional nonlocal dimensions wormholes make connections that allow for the interpersonal exchange of the noetic field. There is no association or communication without the commerce of the noetic field.

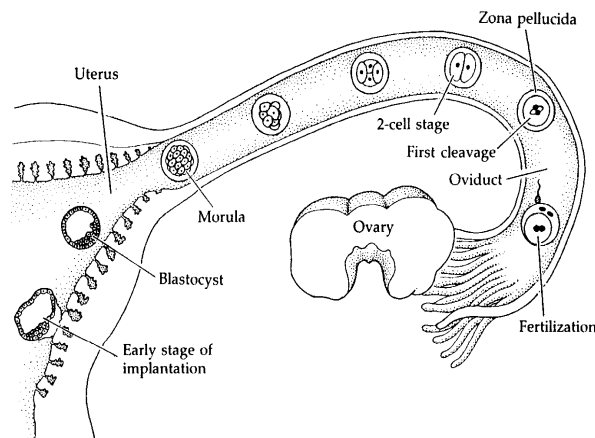
### 10.0 The Veneration Gap

The content of this section many readers might find among the most difficult to accept at first pass; and will take some effort before it can be proven in empirical terms. It is an aspect of the law of hierarchies and is by the current training of our society only visible to psychotics and mystics. I mention psychosis to point out that hallucination has a basis in reality; but unfortunately the ‘vision’ is generally too distorted because of the associated disorder to be useful for discernment. Also I refer to mysticism in the higher form of *transcendence*.

Individual elemental intelligence (Smith, 1989) is represented by boundary condition in the timeless supralocal domain. Like in a hyperdimensional hologram, intelligence has complete unity there. Unlike the dimensionally and eternally suppressed cube in the figure there is no perspective or narrowing with distance because of the properties of unitarity.

In the above figure we see a depiction of eternal unity and temporal/spatial separation in the duality of the mind-body. Perceptually we appear separated in the spacetime of our reality; but there are *telergic* interconnections through hyperdimensional wormholes which mediate the dynamics of the law of hierarchies.

In figure 14A the dominant individual changes the energetic boundary conditions that mediate the flow of the noetic field between them. S2 does not have easy access to the interpersonal higher flux modes; while S1 has full access to S2 because of the firmament S1's dominance creates in the interpersonal nonlocal space. This may seem incomprehensible to many at first because it is outside the realm of their experience; but it is an essential aspect of noetic theory. Also when well known not only will people have to treat each other with more 'veneration', but be expected to do so. This will be left to social mores of the future; at the moment we are only interested in the aspects of this condition of the 'Law of Hierarchies' that relate to the prenatal reversal of sexual preference.



**Figure 15.** Human embryonic development from fertilization to implantation in the uterus where the egg 'hatches' from the zona pellucida (which probably prevents adhering to the oviduct) when it reaches the uterus (Gilbert, 1985).

A further discussion of the veneration gap is needed before going on. In the ideal case of elemental intelligence illustrated in figure 14 B above where there is no separation or hierarchy, these 'gap' effects do not occur because of the perfect harmony or unity. ('wherever two things exist one above the other, I am God, I am above them all', Smith, 1989) Meaning that when the 'veneration gap' does not exist, there is perfect unity and balance of the self-organizing teleology of the noetic field. But in the real world with the disparities of the human condition the effect has a range from negligible to dramatic in non normative interactions.

If the tide of the noetic field strikes the face of rocky cliffs, erosion would take a million years or be negligible; if it strikes a sandy shore erosion would be immediate and the sea of the noetic field would flood inland and occupy that domain. This dynamic transmutation of boundary conditions is important to the personality profiles producing inversion discussed in the next section.

### 11.0 The Ontological Origins of Sexual Preference

Because of the complexity of the origins of sexual preference; analogy was used to conceptually model aspects of the framework. Firstly that handedness, a condition traditionally considered genetic, can be changed with concerted effort. It was pointed out that handedness is probably learned under the causal influence of either environmental conditions or the result of prenatal stressors triggering familial dispositions. Secondly, and most pertinently, we discussed the conditions involved in reversal of Earth's geomagnetic field; and will show how this correlates with the mechanism reversing sexual orientation when described in terms of the *Anima & Animus* of Jung's collective unconscious. The 3<sup>rd</sup> metaphor illustrated how interference in the noetic field can create a dissonance that can act as a force to drive the noetic field with a tendency toward polarity reversal.

The domination of classical naturalistic science since Galileo has made significant strides in the development of the biological embryology of the day. But noetic theory, the cosmology of consciousness, demands a more

comprehensive ‘Embryology of the Soul’. Genetics determines gender upon union of egg and sperm; and after a number of weeks of embryological development the outward physical appearance of the body starts forming. But an understanding of the conscious universe, for the first time, precipitates an understanding of how our eternal spirit enters our body from the supralocal unitary domain of the pre-existence and takes residence within our earthly body to form our *soul*. Now we are ready to apply the parameters of noetic theory directly to the formation of an individual *Psychosphere* and discuss how certain critical conditions can cause a reversal of pertinent aspects of the vital noetic field leading to a reversal in the orientation for sexual preference.

The noted psychologist Donald O. Hebb stated:

“Modern psychology takes completely for granted that behavior and neural function are perfectly correlated....There is no separate soul or life-force to stick a finger into the brain now and then and make neural cells do what they would not otherwise...It is quite conceivable that some day the assumption will have to be rejected. (\* neural basis) But it is important also to see that we have not reached that day yet...One cannot logically be a determinist in physics and chemistry and biology, and a mystic in psychology.” (Kalat, 1992) (\*editorial note added)

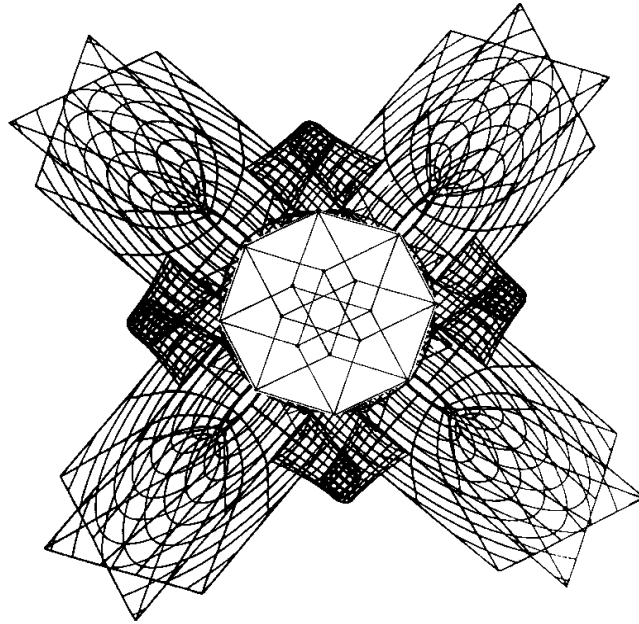
The theory to be presented here the ‘day’ Hebb anticipated. The noetic cosmology of consciousness is a field model, much like electromagnetism; and this similarity is used to illustrate the ‘spiritual’ aspects of personality traits. The spirit (or *elan vital*) in the body - is the soul of man; and interestingly the Earth system can be used as a metaphor for illustration of its structure: The solar and galactic effects are reminiscent of external influences, the geomagnetosphere represents external manifestations of the psyche and thought processes, the liquid core dynamo is like the Jungian collective unconscious, and the magnetization of the rock in the mantle represents personality traits. This is a reasonable metaphor for illustrating the noetic theory of mind (Amoroso, 1995, 1998, 2000) to be further elucidated in future writings.

The crux of the explanation of the origin of sexual preference arises from the action of a stressor called the ‘noetic effect’ which is caused by a combination of environmental, spiritual, and psychological factors in a manner surprisingly similar to the factors effecting reversal of the Earth’s magnetic field. This ‘noetic effect’ can cause a torsion driven reversal in the cosmology of the noetic field at a key point in prenatal development. This happens at a particular stage in the process of hierarchical ordering and polarity formation of the ‘spirit in the body’ for this particular personality archetype. Thus causing a man to have a more feminine disposition and needs, and a woman more masculine needs if this ordering of the anima/animus field is reversed.

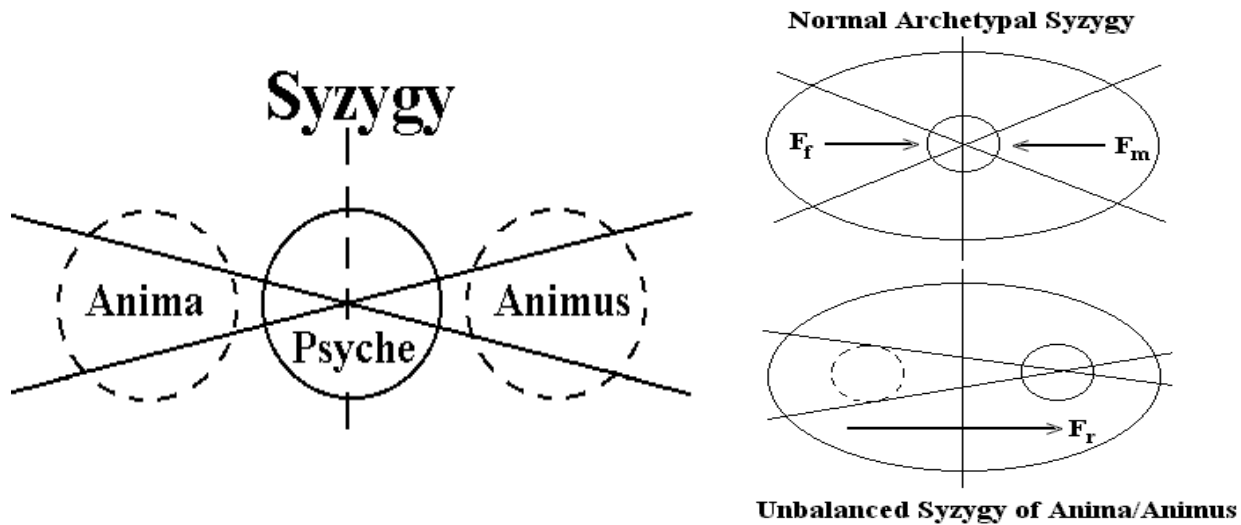
The new cosmology made it evident that the purpose of the higher or extra 8D is to mediate and interface the dynamics of the eternal-unitary with the subspace of our 4D reality. The significance of this fact is that the complementarity between body and soul at the local and supralocal domains. Because of the nature of time (Amoroso, 2000) and the complexity of hyperspatial geometry there is an orientation and dynamics to the gate within which energy propagates. This is illustrated in figure 17 that shows the structure of a point or singularity in the cosmology of noetic theory. This is dramatically different than the Planck scale compactification barrier of the current big bang model. As in the new model of the photon, the singularity is a wormhole system open to flux from all dimensions. Most profoundly this ‘flux gate’ is controlled by the photon-graviton complex and mediated by its teleology!

The next point is the noetic personality profile that exists in a family that can produce a noetic stressor; the action of which can prenatally reverse the *anima* and *animus* of the collective unconscious during embryonic development. Currently no adequate psychological tests exist for measuring the ‘noetic stress potential’. Some existing tests give hints or could possibly be re-analyzed to be applicable for indicating profiles that could produce reversal. The other difficulty or complexity is the *telergic* component that can act as a power factor for the noetic stressor. This means that there is a threshold before the noetic stressor will produce an action of the noetic effect.

In terms of our main metaphor of the Earth’s geomagnetic field we will now develop the final framework for the development of sexual preference. In the cosmology of consciousness the *psychosphere* is the complete domain of an individual’s consciousness. The *psychosphere* is imbedded in the CSCU (Amoroso, 2000, 2001) and contains the *psyche* and the *collective unconscious*. The molten iron core dynamo of the Earth is like the unconscious *psyche* and the *collective unconscious*. The magnetized crust, the orientation of which formed when molten magma cooled, represents the metabolism and genetic biochemistry of the body along with current conscious content. The solar wind represents causal action of the noetic field and other interpersonal *telergic* effects.



**Figure 16.** Rendition of a point moment or singularity extended to illustrate both the unitary and spacetime domains. The central hypersphere represents the higher dimensional atemporal domain where the vital noetic field originates. The spacetime portion shows the present separated into the future-past. The 4 wider vortices represent the separation of spacetime from unity oriented toward the future. The 4 smaller confined tubes represent recession of the ‘moment’ into the past. The geometry of the hyperstructure oscillates at the speed of light and is continuously created and recreated through the nonlocal/supralocal mediation of photon teleology.

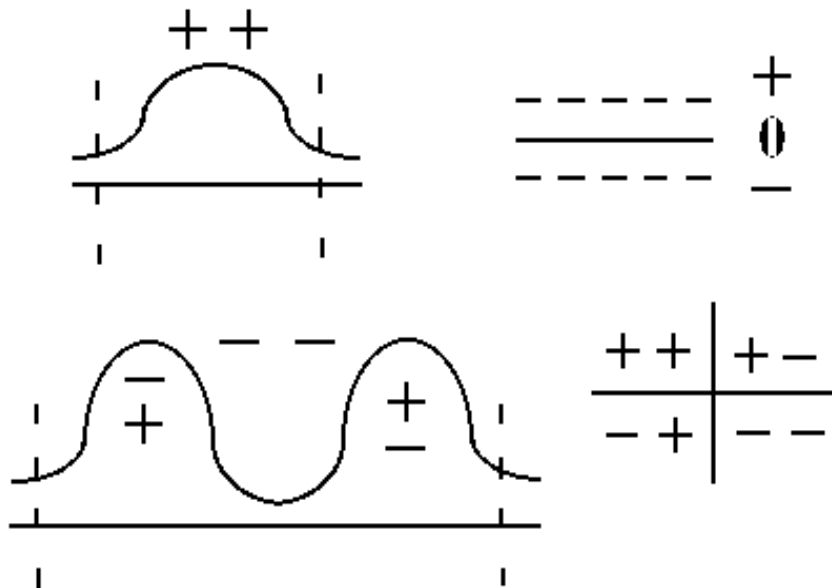


**Figure 17.** A) Conceptualization of the *Psychosphere* showing the nonlocal and supralocal hyperstructure where action of the noetic field orders and maintains the dynamics of the *psyche* and the *soul*. The Psychosphere is the cosmological bound of an individuals mind - brain, elemental intelligence and spirit or noetic field, which is mediated by the photon-graviton through a system of hyperdimensional wormholes. B) Normal Syzygy of the Anima & Animus where the psyche, psychosphere and telergic effects are in balance. (Syzygy occurs when the Earth and two other celestial bodies are in a straight line of either opposition or conjunction)

The nature of the personality sets the flux loci and boundary conditions of the psychosphere and is governed by a hyperdimensional system of wormholes acting as flux gates for the noetic field. This is a physically real aspect of the 'light front' of consciousness as it constantly propagates within the psychosphere. Every aspect of the psyche and the level of development of its archetypes applies. For example a child beaten or frightened by an abusive parent over time might develop a timid personality. If a threat is perceived the child will emotionally and perhaps physically flee. Usually this type of personality will yield to superiority. Whereas a an emotionally secure and confident child will pay little attention to such threats. I am referring to posturing here, a glare, a raised fist, a stomping foot for example. This is a primitive example, not complex enough to have significance for a noetic effect; but used to illustrate that any kind of imbalance changes the physical hyperdimensional boundaries for propagation of the noetic field.

Under normal life conditions or fetal development there is a balanced *syzygy* of all aspects of the psyche, anima and animus. This means that there is no potential for a noetic effect because  $f(A) = 0$ . But with sufficient imbalance a stress potential arises which at a certain threshold will produce a force potential to drive the action of the noetic effect.

If the shielding is removed from a television set and a fairly powerful magnet is held near the picture tube a dramatic distortion of the images occur much like those reflected in a fun-house mirror. Under the proper boundary conditions of the propagation of the noetic field, the force of dissonance will act in a similar way to distort the field. If this force of dissonance is maintained at a sufficient level for a sufficient duration at the critical point in embryonic development a reversal in the normal dominance of the anima / animus occurs.



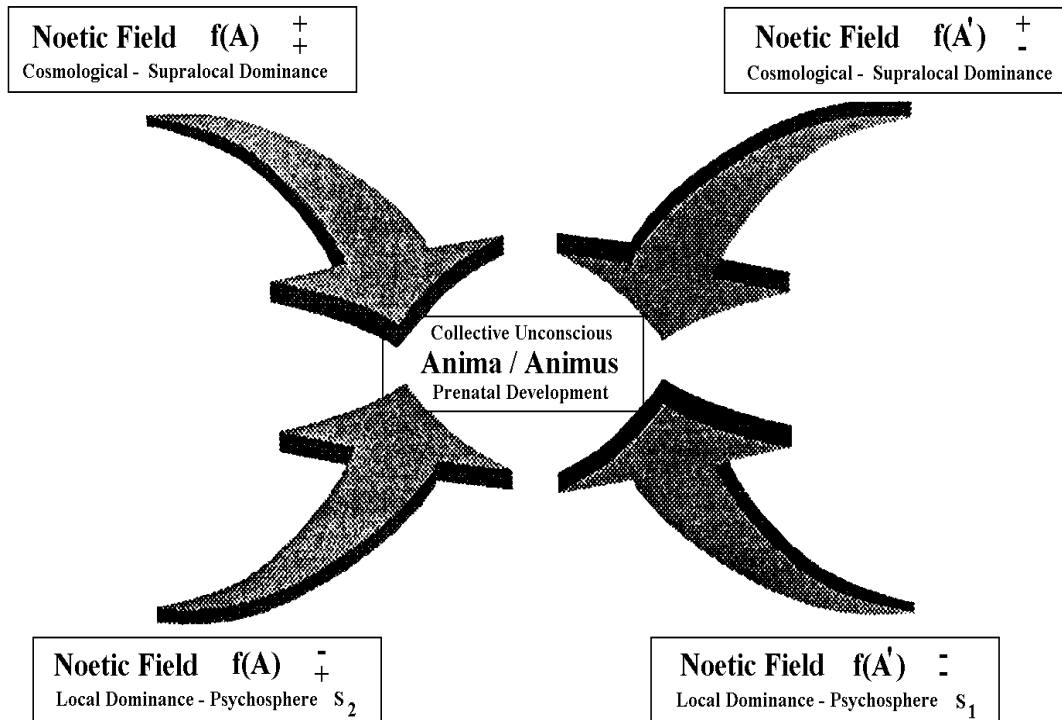
**Figure 18.** (a.) A normal individuals noetic boundary is 'secure' like the rocky cliff against the pounding of the sea. (b.) Force loci for the 3 types of interpersonal field couplings. (c.) But because of psychosis, personality disorder or other conditions some individuals are pushed out of or retreat from the normal domain which is a hostile position for them. (d.) Simplified here in four 2D quadrants, the noetic force potential has phase and polarity modes that mediate the noetic effect.

The noetic energy of a normal psychosphere is in balance, with no force potential from telergic effects from other individuals or from deleterious family history as indicated by cancellation of  $F(f)$  the female component and  $F(m)$  the male component. Certain personality types will create an imbalance in the psychosphere that creates a force that can reverse the polarity of the field. This effect can become fixed in the psyche of the individual if it occurs for sufficient duration and with a sufficient threshold force during a key time in prenatal development.

Two infinitesimally separated particle paths remain separated until acted upon by an external force. In the standard physical model these pathways cannot merge without collapse of the quantum wave function. This is not true in noetic theory where extra degrees of freedom arise because of photon mass. This allows an energyless

interaction that creates a superposition of the two paths without collapse of the wave function (Amoroso, 2000). In this case it is the action of the noetic field that produces the deviation in the loci of the geodesic.

# The Noetic Effect



**Figure 19.** Action of the Noetic Effect on prenatal development is a dynamic resultant of the supralocal noetic field, and the local action of the psychosphere and telergic factors.

Only a generalization of the personality types that produce the geodesic deviation (Amoroso, 2000) in the loci of noetic field propagation can be given here because only observational evidence has been explored at this point in time. This is research that will be done with more sophistication in the future. There are certain personality types like that of the borderline personality disorder, which is fairly common, that demand extreme dominance. Other dominant types which also include manipulation, as does the borderline, are the narcissistic, sociopathic or obsessive compulsive. When these individuals pick a spouse, it is often someone they can manipulate and who will submit to their control. This submission is often more at the noetic level. On the interpersonal level there will be typically common episodes of anger and argument that will occur in cycles of 'war and peace'. The type of submissive personalities are outwardly quiet and meek. They might be shy and introverted. Many of the paranoid, schizophrenic and schizotypal personalities would match this profile.

## 12.0 Parting Remarks

A theory has been presented based on the best available experimental evidence and building upon recent work on extended models in a number of related disciplines. Science is a field that usually advances with hundreds or even thousands of constant tiny steps; and then occasionally every decade, fifty or hundred years or so as the case may be -



dramatic advances occur that lead to whole new paradigms or major shifts in the understanding of fundamental theory. The noetic theory presented here is a vanguard of such a moment in the history of human epistemology. It will become one of the greatest shifts because it will revolutionize so many aspects of life all at once. Noetic theory is not raw speculation as some would want to promulgate. As will be illustrated in the next chapter noetic theory is empirically testable; which will happen soon enough...

## References

- Ackerman, R.J., 1965, *Theories of Knowledge*, McGraw Hill: New York.
- Adar, R., Henry, C., Milbrodt, M., and Kistler, R., 1994 *J. Lightwave Tech.* 12:4.
- Ader, R., Felton, D.L. and Cohen, N. (eds.) 1991, *Psychoneuroimmunology*, New York: Academic Press.
- Albritton, C.C., 1989, *Catastrophic Episodes in Earth's History*, Chapman & Hill: New York.
- Amoroso, R.L. 1992. The psychogenic initiation of Alzheimer's disease. *Proceed. Western Psychological Association*, 1:183.
- Amoroso, R.L. 1994. The telecerebroscope: A rudimentary model. Albany: The Noetic Press.
- Amoroso, R.L. 1995. The extracellular containment of natural intelligence: A new direction for strong AI. *Informatica*, 19, 585-590.
- Amoroso, R.L., Engineering a conscious computer, T. Toffoli & M. Biafore eds., *Proc. Fourth Workshop on Physics & Computation Physcomp 96* 1996 pp. 12-16.
- Amoroso, R.L., The production of Frohlich and Bose-Einstein coherent states in in vitro paracrystalline oligomers using phase control laser interferometry, *Bioelectrochemistry & Bioenergetics* 40 1996 pp. 39-42.
- Amoroso, R.L., 1997a, Consciousness a radical definition: The hard problem made easy, *Noetic Journal* 1:1 pp. 19-27.
- Amoroso, R.L., 1997b, The theoretical foundations for engineering a conscious quantum computer, in M. Gams and M. Paprzycki, Eds., *Mind <> Computer*, Amsterdam: IOS Press.
- Amoroso, R.L. 2000, The parameters of temporal correspondence in a continuous state conscious universe, in L. Buecheri & M. Saniga (Eds.) *Studies on the Structure of Time: From Physics to Psycho(patho)logy*, London: Plenum.
- Amoroso, R.L. 2001, *Noetic Field Theory: The Quantization of Mind*. In press.
- Amoroso, R.L. 2002, The physical basis of consciousness: A fundamental formalism, *Noesis XXVI*, Romanian Academy.
- Amoroso, R.L., Kafatos, M. & Ecimovic, P. 1998, The origin of cosmological redshift in spin exchange vacuum compactification and nonzero rest mass photon anisotropy, In S. Jeffers & G. Hunter (Eds.) *Causality and Locality in Modern Physics*, York, Dordrecht: Kluwer
- Amoroso, R.L. & Martin, B. 1995. Modeling the Heisenberg matrix: quantum coherence and thought at the holoscape manifold and deeper complementarity. In K. Pribram ed. *Scale in Conscious Experience: Is the Brain too Important to be Left to Biologists to Study*. Hillsdale:Lawrence Earlbaum.
- Amoroso, R.L. 2001a, Demise of the Big Bang, In Press.
- Amoroso, R.L., Hunter, G., Kafatos, M. & Vigier, J-P, 2001, *Gravitation and Cosmology: From the Hubble Radius to the Planck Scale*, Kluwer Academic: Dordrecht.
- Anderson, R.H., Flemming, D.E., Rhees, R.W., and Kinghorn, E. 1986, Relationships between sexual activity, plasma testosterone, and the volume of the sexually dimorphic nucleus of the preoptic area in prenatally stressed and non-stressed rats, *Brain Research* 370: 1-10.
- Ashkin, A., 1979, *Physical Rev. Let.*, 40:12.
- Ashkin, A., 1970a, *Physical Rev. Let.*, 24:4.
- Ashkin, A., 1970b, *Physical Rev. Let.*, 25:19.
- Aspect, A., Dalibard, J. & Rogers, G. 1982, *Physics Review Letters*, 49, 1804.
- Baym, G & Pethick, C. 1991. *Landau Fermi-Liquid Theory*. New York: John Wiley.
- Bailey, J.M. et al, Heritable factors influence sexual orientation in n, *Arch. Gen. Psychiatry* 50:3, 217-23.
- Beck, F., and Eccles, J.C. 1992. Quantum aspects of brain activity and the role Consciousness. *Proc. Natl. Acad. Sci. USA* 89: 11357- 11361.
- Begley, S. 1998, Science finds God, *Newsweek*, 20 July, p. 46-51.
- Bell, J., *Speakable and Unsayable in Quantum Mechanics*, Cambridge Univ Press, Cambridge, 1987 p. 191.
- Bergson, H. 1911, *Creative Evolution*
- Bergson, H. 1932, *The two Sources of Morality and Religion*.

- Block, in J. Foskett and S. Grinstein (Eds.), *Optical Tweezers: A new Tool for Biophysics, Noninvasive Techniques in Cell Biology*, Wiley-Liss, New York, 1990.
- Bohm, D., A suggested interpretation of the quantum theory in terms of "hidden variables", I & II. *Physical Review* 85 (1952), pp. 166-179 and 180-193.
- Breedlove, S.M., Cooke, B.M., Jordan, C.L. 1999, The orthodox view of brain sexual differentiation, *Brain, Behavior & Evolution*, 54:1, 8-14.
- Byne & Parsons, Human sexual orientation, *Arch. Gen. Psychiatry* 50:3, 217-23.
- Caldwell, D.J. & Eyring, H. 1971, *The Theory of Optical Activity*, New York: Wiley-Interscience.
- Chalmers, D. 1996. *The Conscious Mind*. New York: Oxford Univ. Press.
- Chalmers, D. Facing up to the problem of consciousness. *J. Consciousness Studies*, 1995, 2:3, 200-19.
- Chaplin, J.P. 1985. *Dictionary of Psychology*. New York: Laurel.
- Cleveland, D.W., and Sullivan, K.F. 1985. Molecular Biology and Genetics of Tubulin. *Ann. Rev. Biochem.* 54:331-65.
- Cline, D.B. Low-Energy Ways to Observe High-Energy Phenomena. *Scientific American*, Sept 1994, 40-47.
- Coren, S., 1992, *The Left-Handed Syndrome*, Free Press.
- Cramer, J.G., The transactional interpretation of quantum mechanics, *Reviews of Modern Physics* 58 (1986), pp. 647-687.
- Crick, F. 1994. *The Astonishing Hypothesis*. New York: Scribner's.
- Dafoe, B. & Popenoe, D, 1999, National Marriage Project Report, Rutgers University.
- Dorland's Pocket Medical Dictionary. 1982. London, W.B. Saunders.
- Dorner, G., Rohde, W., Stahl, F., Krell, L., & Masius, W.G. 1975, A neuroendocrine predisposition for homosexuality in men, *Arch. Of Sexual Behavior* 4: 1-8.
- DesCartes, R. 1960, *Discourse on Method and Meditations*, L.J. Lafleur trans. Indianapolis: Bobbs-Merrill.
- Dorner, G., Geier, T., Ahrrens, L. Krell, L., Munx, G., Sieler, H., Kittner, E., & Muller, H., 1980, Prenatal stress as possible aetiological factor of homosexuality in human males, *Endokrinologie* 75:365-386.
- Durden-Smith, J. & deSimone, D. 1983, *Sex and the Brain*, New York: Warner Books.
- Eccles, J.C. 1992, *The Human Psyche*, New York: Routledge.
- Eccles, J. C., Evolution of complexity of the brain with the emergence of consciousness, in K.H. Pribram ed. *Rethinking Neural Networks: Quantum Fields and Biological Data* Lawrence Earlbaum, Mahwah, 1993
- Ellis, H. 1897, *Sexual Inversion*,
- Ellis, L., Ames, M.A., Peckham, W., and Burke, D. 1988, Sexual orientation of human offspring may be altered by severe maternal stress during pregnancy, *J of Sex Research* 25:152-157.
- Everett, H. 1957, *Rev. Mod. Physics*, 29, 454
- Feynman, R., 1989, *The Character of Physical Law*, Cambridge: MIT Press.
- Feynman, R., Quantum mechanical computers, *Foundations of Physics* 61986 pp. 507-531.
- Feynman, R. 1966. *Feynman Lectures on Physics*. Menlo Park: Addison Wesley.
- Fischbach, G.D. 1992, *Mind and Brain*, Scientific American
- Flanagan, O. 1992. *Consciousness Reconsidered*. Cambridge: MIT.
- Freedman, D.H. Quantum consciousness. *Discover*, June 1994, 89-98.
- Freedman, D.Z., and van Nieuwenhuizen, P. The hidden dimensions of spacetime. *Scientific Am.*, March 1985, 74-81.
- Fraser, R., 1957, *Once Round The Sun*, New York: Macmillan.
- Freud, S. 1905, Three essays on the theory of sexuality, In J. Strachey (Ed.) *Standard Edition of the Complete Psychological Works of Sigmund Freud*, London: Hogarth Press.
- Frohlich, H. 1983. Evidence for coherent excitation in biological systems. *Int. J. Quantum Chem.* 23: 1589-1595.
- Frohlich, H., Long-range coherence and energy storage in biological systems. *Int. J. of Quantum Chem.* 2 1968 pp. 641-649.
- Gabor, D. 1968. Improved Holographic model of temporal recall. *Nature* 217: 1288-1289.
- Gilbert, S.F. 1985, *Developmental Biology*, Sinauer Assoc.: Sunderland.
- Goethe, 1853, *Spirit Song Over the Waters*, from *The Poems of Goethe*, trans. by E.A. Bowring, London.
- Goldman, A. 1986, *Epistemology and Cognition*, Cambridge: Harvard Univ. Press.
- Gordon, R., 1995, *J. Chem. Physics*, April 8.
- Goswami, A. 1993, *The Self Aware Universe*, New York: Putnam's Sons.
- Graff, E.J. 1999, *What is Marriage For*, Boston: Beacon Press.
- Griffin, A. 1993. *Excitations in a Bose-Condensed Liquid*. Cambridge: Cambridge Univ Press.

- Haisch, B. & Rueda, A, 1998, The zero-point field and inertia, in S. Jeffers & G. Hunter (Eds.) *Causality and Locality in Modern Physics*, York, Dordrecht: Kluwer
- Hameroff, S.R., Jibu, M., Hagan, S., Pribram, K.H., and Yasue, K. 1994. *Quantum Optical Coherence in Cytoskeletal Microtubules: Implications for Brain Function*. Biosystems.
- Hameroff, S.R., Rasmussen, S., Karampurwala, H., Vaidyanath, R., and Jensen, K.S. 1990. Computational connectionism within neurons: a model of cytoskeletal automata. *Physica D*. 42:428- 449.
- Hammer, D.H. et al, 1993, A linkage between DNA markers on the X- chromosome and male sexual orientation, *Science* 261:5119, 321-327.
- Han, M.Y. 1999, *Quarks and Gluons*, World Scientific: Singapore.
- Harman, W. 1991. *A re-examination of the metaphysical foundation of modern science*. Sausalito: Inst. of Noetic Sciences.
- Hubner, Kurt, 1983, *Critique of Scientific Reason*, Chicago: Univ. of Chicago Press.
- Hegel, G.W.F., 1981, *Reason in History*, R.S. Hartman (Trans.) Bobbs- Merrill: Indianapolis.
- Hertz, J.H. (Ed.)1960, *The Pentateuch and Haftorahs*, London: Soncino Press.
- Hinckley, G.B., 1999, *Why we do some of the things we do*, Ensign, Nov 1999.
- Hinckley, G.B., 1995, *Proclamation on the Family*, Salt Lake City: The Church of Jesus Christ of Latter-day Saints.
- Hopcke, R.H., 1989 *Jung, Jungians and Homosexuality*, Boston, Shambhala.
- Horgan, J. Can science explain consciousness? *Scientific American*, July 1994, 88-94.
- Isaacs, A. (Ed.), 2000, *A Dictionary of Physics*, Oxford: Oxford Univ. Press.
- James, W. 1912. *Essays in Radical Empiricism*. New York: Longmans, Green and Co.
- Jamieson, I. 2000, *Mind, Nature & Reality*, In preparation.
- Jantsch, E. 1986, *The Self-Organizing Universe*, New York: Pergamon Press.
- Jibu, M. & Yasue, K. *Quantum Brain Dynamics & Consciousness*, Amsterdam: Benjamins, 1995.
- Jung, C.G., 1953, *Psychological Reflections*, Bollingen Series XXXI, New York:Pantheon
- Jung, C.G. & Pauli, W., *The Interpretation of Nature and the Psyche* Bollinger, 1955.
- Kafatos, M. and Nadeau, R. 1990. *The Conscious Universe*, New York:Springer-Verlag.
- Kalat, J.W., 1992, *Biological Psychology*, Wadsworth Pub. Co.: Belmont.
- Kant, I., *The Critique of Pure Reason*, New York:Dover.
- Kennedy, J.F. 1956, *Profiles in Courage*, New York: Harper and Row.
- Kimball, S.W. 1978, *Absolute Truth*, Ensign, September ,p. 3-8, Salt Lake City, The Church of Jesus Christ of Latter-day Saints.
- Koruga, D. 1992. *Neuromolecular computing*. *Nanobiology* 1:5-24.
- Koruga, D., *Information physics: In search of a scientific basis of consciousness*. in D. Rakovic & D. Koruga eds., *Consciousness Scientific Challenge of the 21st Century*. ECPD, Belgrade 1986.
- Kuhn, T.S., 1970, *The Structure of Scientific Revolutions*, Univ of Chicago Press: Chicago.
- Lerner, I.M. 1970, *Genetic Homeostasis*, New York: Dover.
- Lewes, K. 1989, *The Psychoanalytic Theory of Male Homosexuality*, New York: Meridian.
- Lieberman, J.K. 1998, *The Bill of Rights*, Microsoft Encarta.
- Levay, S. 1994, *The Sexual Brain*, Cambridge: MIT Press.
- Lucretius, 55 BC. *On The Nature of the Universe*. Trans. Latham, R.E. 1957. Baltimore: Penguin.
- Margulis, L. & Sagan, D. 1986, *Origins or Sex*, New Haven: Yale Univ. Press.
- Marshall, E. 1995, NIH's gay gene study questioned, *Science* 268, p. 1841.
- Marshall, I.N. 1989. *Consciousness and Bose-Einstein condensates*. *New Ideas in Psychol.* 7:75-83.
- Meehl, P.E. 1966, *The compleat autocerebroscopist: A thought- experiment on professor Feigl's mind-body identity thesis*, in P.K. Feyerabend & G. Maxwell (Eds.) *Mind, Matter and Method*, Minneapolis: Univ. of Minnesota Press.
- Misner, C.W., Thorne, K.S. & Wheeler, J.A. 1973, *Gravitation*, San Francisco: Freeman.
- Misner, H.W., 1977, *Cosmology and theology*, in W. Yourgrau & A. D. Breck Eds. *Cosmology, History and Theology*, New York: Plenum Press.
- Mitchell, E.D. 1974, *Psychic Exploration*, New York: Putnam's Sons.
- Moore, J. 1980, *Sexuality Spirituality*, Tisbury: Element books.
- Musser, G., 1998, *String Instruments*, *Scientific American*, Vol. 279, No. 4, p. 24.
- Nadeau, R. & Kafatos, M., 1999, *The Nonlocal Univese*.Oxford Univ Press: Oxford.
- Nanopoulos, D., *Rivista Del Nuovo Cimento* 17 1994 pp. 1-53.

- Orlov, Y., The logical origins of quantum mechanics, *Ann. of Physics*. 234:2 1994 pp. 245-259.
- Osoroma, D., 2000, *The Scientific Origins of Sexual Preference*, Orinda: The Noetic Press.
- Ostrovsky, Y.I. 1977. *Holography and its Applications*. Moscow: Mir.
- Ouspensky, P. D., 1949, *In Search of the Miraculous*, New York: Harcourt, Brace & World.
- Pagels, H.R. 1988. *The Dreams of Reason*. New York: Bantam Books.
- Peat, D. 1988. *Superstrings and the Search for the Theory of Everything*. Chicago: Contemporary Books.
- Penrose, R. 1994. *Shadows of the Mind*. London: Oxford Univ Press.
- Penrose, R. 1989. *The Emperor's New Mind*. Oxford: Oxford Univ. Press.
- Penrose, R. & Rindler, W., 1986, *Spinors & Space-time*, Cambridge: Cambridge Univ. Press.
- Perus, M. 1997, Consciousness: network-dynamics, informational and phenomenal aspects, *Noetic Journal*, 1:2, pp. 183-197.
- Pickthall, M.M. (Trans.), *The Glorious Koran*, Multan: Maktaba Jawahar al Uloom.
- Pillard, R.C. & Weinrich, J.D. 1986, Evidence of familiar nature of male homosexuality, *Archives of General Psychiatry* 43: 808-12.
- Plato, *Plato: The Republic*, Penguin: Harmondsworth, 1955, p. 316.
- Polkinghorne, J. 1989, *Science and Providence*, Boston: New Science Library.
- Popper, K. and Eccles, J.C. 1977, *The Self and its Brain: An argument for Interactionism*, Berlin: Springer Int.
- Pribram, K.H. , 1999, The primacy of conscious experience, in R. Amoroso et al eds. *Science and The Primacy of Consciousness*, pp. 1-7, Orinda, Noetic Press.
- Pribram, K.H. 1991. *Brain and Perception*. Hillsdale: Lawrence Erlbaum.
- Pribram, K.H. 1971. *Languages of the Brain*. Englewood Cliffs: Prentice Hall.
- Prigogine, I. 1980. *From Being to Becoming*. San Francisco: Freeman.
- Puthoff, H.E. 1989. Gravity as a zero-point-fluctuation force. *Physical Review A* 39:2333-2342.
- Randall, L. & Sundrum, R., 1999, An alternative to Compactification, *Physical Review Letters*, 83:23, pp 4690-4693.
- Ricciardi, L.M., and Umezawa, H. 1967. Brain and physics of many body problems. *Kybernetik* 4: 44-48.
- Rueda, A. & Haisch, B., 1998, Inertia as reaction of the vacuum to accelerated motion, *Physics Letters A*, 240, pp. 115-126.
- Runcorn, S.K., 1955, The Earth's Magnetism, *Scientific American*, 193:3, 152-162.
- Satinover, J. 1996, *Homosexuality and the Politics of Truth*, Grand Rapids: Hamewith Books.
- Scheidegger, A.E., 1982, *Principles of Geodynamics*, Springer-Verlag: New York.
- Schulze, E., Asai, D.J., Bulinski, J.C., and Kirschner, M. 1987. Post translational Modification and Microtubule Stability. *J. of Cell Biology* 105: 2167- 2177.
- Searle, J.R. 1994. Personal Communication, Radford Va, conference..
- Searle, J.R. 1992. *The Rediscovery of the Mind*. Cambridge: MIT.
- Searle, J.R. 1984. *Minds, Brains, and Science*. Cambridge: Harvard University Press.
- Searle, J. , The problem of consciousness, in J. King & K. H. Pribram eds. *Scale in Conscious Experience* Lawrence Earlbaum, Mahwah 1995.
- Silk, J. *The Big Bang*, Berkeley: Univ. of California Press, 1990.
- Smith, H. 1991, *The World's Religions*, San Francisco: Harper Collins.
- Smith, H. 1992. *Beyond the Post-modern Mind*. Wheaton: Quest.
- Smith, J. (1833), 1989. *The Doctrine and Covenants*. Salt Lake City: The Church of Jesus Christ of Latter-Day Saints.
- Sperry, R. 1980, Mind - brain interaction: Mentalism, yes; dualism, no, *Neuroscience*, 5, pp. 195-206.
- Stuart, C.I.J.M., Takahashi, Y. & Umezawa, H., *J. Theor. Biol.* 71 1978 pp. 605-618.
- Swaab, D & Hofman, M. 1990, An enlarged suprachiasmatic nucleus in homosexual men, *Brain Research* 537:141-48.
- Tripp, C.A. 1976, *The Homosexual Matrix*, New York: Signet.
- Van der Voo, R., 1993, *Paleomagnetism*, Cambridge: Cambridge Univ. Press.
- Varela, F. & Maturana, H.R. 1974, *Autopoiesis: The organization of living systems, its characterization and a model*, *Biosystems* 5: 187-96.
- Velikovskiy, I., 1955, *Earth in Upheaval*, Doubleday: New York.
- Walker, E.H. 1997, The quantum theory of consciousness, *Noetic Journal*, 1:1, pp. 100-107.
- Vigier, J-P, 1983, Dirac's ether in relativistic quantum mechanics, *Foundations of Physics*, 13:2, pp. 253-285.
- Vigier, J-P, & Amoroso, R.L. 2001, The origin of cosmological redshift and CMBR as absorption/emission equilibrium in cavity-QED blackbody dynamics of the Dirac vacuum, in R. L. Amoroso, G. Hunter, M. Kafatos & J-P Vigier (eds.) *Gravitation and Cosmology: From the Hubble Radius to the Planck Scale*, Kluwer Academic: Dordrecht.

- Watterson, J.G., A role for water in cell structure, *Biochemical Journal* 248, 1987 pp. 615-617.
- Webb, S., and Stoneham, M., 1977, *Physics Letters*, 60A:3.
- Webster, D.R., Gundersen, G.G., Bulinski, J.C., and Boristy, G.G. 1987. Differential Turnover of Tyrosinated and Detyrosinated Microtubules. *Proc. Natl. Acad. Sci. USA* 84: 9040-9044.
- Wheeler, J.A., 1998, *Geons, Black Holes, and Quantum Foam*, New York: Norton & Co.
- Wheeler, J.A., 1955, *Geons*, *Physical Review*, 97:2, pp. 511-536.
- Wheeler, J.A. & Feynman, R.P. 1945. *Rev. of Modern Physics*, 17, 157.
- Williams, T.J., Pepitone, M.E. Christiansen, S.E., Cooke, B.M. Breedlove, S.M., 2000, Finger length patterns and sexual orientation, *Nature*, 404:6777, 455-6.
- Wolf, F.A. 1999, The quantum physical communication between the self and the soul, *Noetic Journal*, 2:2, 149-158.
- Wolff, M. 1990, *Exploring the Physics of the Unknown Universe*, Manhattan Beach: Technotran Press.