

The Noetic Origin of Sexual Preference; An Integrative Cartesian, Jungian and Unified Field Mechanical Parameter Approach

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Abstract

The climate surrounding sexual preference is politically charged, and before the introduction of Noetic Field Theory; contemporary science has been unable to describe the complex framework for the origin of sexual preference, because science has not had either a comprehensive model of living systems or *consciousness* able to delineate the correspondence between biophysics and the noetic effect of the 3rd regime of unified field mechanics (UFM). This work begins reviewing aspects of psychology, biology and cognitive science, then develops an anthropic telergic teleology of mind-body interaction (physically real Cartesian interactive dualism) as the context for developing a pragmatic scientific model for the fundamental origin of sexual preference. The model utilizes archetypes originating in Jung's concept of a collective unconscious which are also presumed to be physically real elements of *mind*. This so-called Noetic Theory (relying on spirit (*chi, prana*) as an inherent self-organized aspect of a *vital field*, as a physically real action principle predicts a prenatal stressor acting during a key stage of embryonic development typically under a panoply of one or both parents exhibiting a threshold (gradient of severity) personality disorder(s). The resultant action of this *noetic effect* orients the anima and animus archetypes as they are coupled into the biophysical substrate of the psyche (soul) and reverses, for the case of sexual preference, the normal orientation hierarchy of the noetic field within the individuals *psychosphere*. Initially, because of conceptual similarity, the periodic reversal of the Earth's geomagnetic field by the force of solar wind on the dynamo at the Earth's core is utilized as a metaphor to axiomatically illustrate the prenatal inversion of the Jungian anima and animus. This scenario is followed by a more technical and experimentally testable scientific description utilizing pertinent new principles related to the UFM domain discovery of physics of awareness.

Keywords: Archetypes, Awareness, Biophysics, Cartesian dualism, Collective unconsciousness, Epigenesis, Noetic field, Sexual preference, Unified field Mechanics

"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^[1].

"To conclude, therefore, let no man out of a weak conceit of sobriety, or an ill-applied moderation, think or maintain, that a man can search too far or be too well studied in the book of God's word, or in the book of God's works; divinity or philosophy; but rather let men endeavour an endless progress or proficience in both." - Francis Bacon^[2].

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1. Introduction

It may seem 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 current accepted state of science is incapable of adequately addressing. Current thinking in psychology, (epi)genetics, biology, medicine, philosophy, physics, cosmology and theology have proven insufficient to definitively handle the issue of the fundamental origin of sexual preference; and the dominant model of consciousness based on *biological mechanism* (no life principle) insists Mind = Brain^[3]. Noetic theory might seem off base to those considering the issue to be at most confined to the biological/psychological/sociological arenas. This work, while experimentally somewhat *a cart before a horse* at this writing, is nevertheless empirically testable^[4]; however, it is not easy to assess what impact, if any, the work might have on the political climate 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. We are on the cusp of one of those moments.

Those considerations aside, the discovery of a comprehensive model of mind/awareness as illustrated in terms of the noetic field theory utilized^[5-8]; 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 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 greater proficiency in the future. To ease into the scientific origins of sexual preference a series of three metaphors is used before entering into a more technical discussion of the noetic stressor that can induce a prenatal polarity reversal of the Jungian anima and animus archetypes under certain familial conditions. That delineation is preceded by a review of the following pertinent psychosocial-biological issues.

1.1 Early History of the Origin of Psychoanalysis

Sigmund Freud, the father of psychoanalysis is known also for developing additional theories relating to the psychology of human sexuality and dream interpretation in the late 1800s. His most important contributions to clinical psychology dealt with the connection between abnormal behavior and the unconscious mind. Freud also developed a model for the theory of transference, the process by which attitudes developed toward parental figures in childhood are transferred to others later in life playing a significant role in the quality of interpersonal relationships.

Freud coined the term *psychoanalysis* in 1896. Analytic therapy was different in those early times, rather than *50-minute hour* sessions in a therapist's office today; a therapist often came and lived with the patient in his home during diagnosis and treatment. First hand observations made it much easier to observe the true basis of the condition; but this is not practical in modern times where an analyst can easily sit with a half dozen or more clients per day, consult with other therapists and be an expert witness in legal proceedings.

It is not widely known; but Freud's original inspiration for the development of psychoanalysis came from his studies of Jewish mysticism - The Kabbalah. The term Kabbalah comes from the

Hebrew word קבלה which literally means *receiving* and refers to the Jewish esoteric school of thought forming the foundations of mystical religious interpretation^[9,10]. The Kabbalah includes a discipline and method for obtaining enlightenment used as an aid to explain the relationship between a mysterious, eternal, unchanging universe and the temporal mortal and finite world that God created as recorded in the book of Genesis.

The main Judaic text for studying the Kabbalah is called the Zohar, which teaches that studying the Torah proceeds along four levels of thought. These levels called the *pardes* were derived from the initial letters of their Hebrew names:

- *Peshat* (meaning simple) - The most direct interpretation of the meaning.
- *Remez* (hint or hints) - Allegories alluding to the meaning.
- *Derash* (from the Hebrew darash meaning inquire or seek) - And the Midrashic or Rabbinic meanings with repetitive words or verses making imaginative comparisons.
- *Sod* (secret or mysterious) - The most esoteric or metaphysical meanings expressed in the Kabbalah.

One can easily see how the techniques of Kabbalism inspired Freud to invent the introspective and therapeutic aspects of psychoanalysis.

2. Freudian Inversion Theories of Homosexuality

Freud's theory of psychoanalysis was based on a number of stages of psychosocial 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. The Oedipus Complex refers to unresolved sexual feelings of a child to the parent of the opposite sex.

Freud first began writing essays on homosexual inversion in 1905^[11]; 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^[12].

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^[12].

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^[12].

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 as a role model or father figure the child wants to be romantically loved by him and surrenders his masculine identity in order to be loved as a woman by another man. It is statistically common among both Lesbian and Homosexual couples that one partner usually the more submissive or *feminine* (whether a male or female) plays the role of the wife and the other partner more dominant the role of the husband. An example of this in public life is the American comedienne / talk show host Ellen DeGeneres who has a butch haircut and generally acts quite masculine in contrast to her wife Portia de Rossi who is also physically beautiful, remains exquisitely feminine.

4. Intense Love of the Mother - Leads to extreme jealousy of other siblings and the father. The jealousy is very 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^[12].

In summation, it can be seen that Freud attempted to derive a theory of homosexuality from an inherent personality disposition that he considered to be triggered by both random statistical occurrences and abnormal developmental personality factors appearing in the nuclear family beginning during the early years of childhood development. The psychoanalytic perspective as the cause of homosexuality has become increasingly unpopular today, especially because of the sociopolitical issues surrounding homosexuality as a politicized human rights issue rather than a putative personality disorder.

However, Freud's theories of homosexuality have remained at the core of clinical theory for the last hundred years. The controversy has continued over the last several decades as to whether sexual preference is psychological, genetic, environmental or as we intend to show here part of a much more complex structure of the soul.

3. Jungian Theory of Homosexuality

Jung did not write prolifically on sexuality in part to distance himself from what he felt was Freud's over-emphasis on the subject. Even today critics say according to Freud everything was based on sex. This is one reason Freudian psychotherapy has fallen into disfavor. This is not completely fair to Freud because his concept of the *Libido* can be considered to refer to *drive/ambition* more generally than just the sex drive. But like Freud, Jung considered homosexuality as a deviation from the sexual norm, but also not necessarily a pathological condition:

"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”^[13].

and further:

“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”^[11].

In Jungian psychology, this conceptualization of homosexuality is defined in terms of the male-female archetypes called the anima and animus. A man’s identification is with the contra-sexual archetype of the anima, “with his unconscious femininity, thus leads to a projection of his persona, that is, his ‘outer’ masculinity, onto another man”^[15].

As Jung suggested we will describe how the fixed components of sexual archetypes may undergo an *energetic process* of transformation. Relative to the male stereotype, a gradient from a androgynous heterosexual male persona to an ultra-machismo seemingly bestial male persona is observed. It could be said that the disparity between the anima and animus exists in maximal and minimal format.

3.1 Jung’s Concept of a Collective Unconscious

Jung is considered the first modern psychiatrist to view the human psyche as “*by nature religious*” and make it the major focus for exploration^[16,17]. Jung considered the Collective Unconscious to be a nonlocal cosmic domain that stored for all time a finite collection of universal archetypes with infinite combinatorial possibilities relating to personality structure. These *racial memories* are shared in the makeup of the psyche of every human individual. The collective unconscious includes the concept of archetypes which are the mode whereby the collective unconscious expresses itself in the individual. This is a deeper level than the more personal unconscious that Freud postulated. The collective unconscious could be considered as a Gaia or a planetary mind.

The figure below shows a hierarchical conceptual depiction of the domains Jung considered to house the archetypes of the Collective Unconscious.

Contemporary medical psychiatry and therapeutic psychology is based solely on a personal unconscious. Jung’s system adds a second psychic system of an eternal universal impersonal nature he defined as the Collective Unconscious. An archetype in this system as defined by Jung is a pre-existent thought form that can become conscious or facets of the personality. He believed that there are as many archetypes as there are life situations or personality factors. Jung experimentally demonstrated (by subjective reporting) the existence of archetypes in analyzing

dreams, imagination, psychotic delusions, and fantasies produced in hypnotic trance. The archetypes that we will be concerned with in this article are the male/female opposite gender archetypes contained in every person called the anima and animus. The anima/animus archetypes are susceptible to personification and transformation expressing the process of individuation itself.



Figure 1. Conceptual model of Jung's Collective Unconscious. The set of concentric circles begins with the figure of a person at the bottom then proceeds inward to layers of his conscious and subconscious mind through the archetypes to the deepest level called the collective unconscious which Jung proposed to be universal and part of the psyche of every individual. Most psychologists currently consider the collective unconscious to be physically real.

Jung thought this duality represented what he called a *mythical syzygy*. The term *syzygy* most commonly used in astronomy refers to a straight-line configuration of three celestial bodies in a gravitational system. Syzygy usually involves the Sun, Earth & either the Moon or a planet, with the latter either in conjunction or opposition. Solar & Lunar eclipses are occurrences of syzygy, as are transits and occultations. The term is also applied to every new moon or full moon when the Sun & Moon are in conjunction or opposition.

As will be shown in a later chapter the crux of our Scientific Origin of Sexual Preference (SOSP) model can be said to relate to a compound syzygy. A complex threefold syzygy structure (each component syzygy itself being a triad also) between both of the parents and a certain susceptible developmental phase in the prenatal embryo.



Figure 2. Conceptualization of a balanced normal *syzygy* (like north and south poles of a magnet) between the anima and animus or male-female archetypes in an individual heterosexual adult psyche or personality structure of the soul.

As an archetype manifests itself and penetrates consciousness, it influences the experience of normal and neurotic people. An archetype that becomes too powerfully manifest can totally possess the individual and cause psychosis or as we intend to demonstrate a reversal of sexual preference. One can suspect because of the psychic conflicts that Freud and Jung proposed as causative agents for homosexuality, similarities in the mechanism that causes any psychological disorder and why it is often the case that homosexuals also have associated psychological problems, especially since causation is suspected to generally occur when parents have varying degrees of personality disorder(s).

4. Psyche, Soul and Mind

The term psyche in general historically and in contemporary psychology and philosophy is used to refer to the totality of the conscious and unconscious human mind of a particular individual. Psychology is often defined as the study of the psyche. In psychoanalysis and other forms of depth psychology, the term psyche refers to the conscious and unconscious forces in an individual that influence thought, behavior and personality.

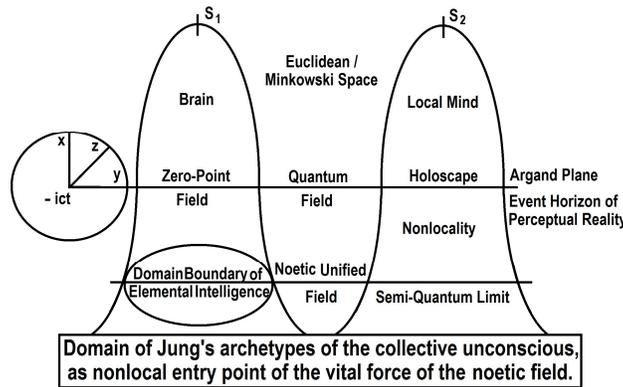


Figure 3. Local-nonlocal space/spacetime model of two individuals (S_1 , S_2) showing how their psyches are imbedded in a physically real Jungian collective unconscious which is the source of racial archetypes forming the persona. This unification is associated with the teleology of the noetic unified field, $N_{(t)}$ which is an essential component of the extra-corporeal duality of a physically real Cartesian mind-body dualism

Sigmund Freud, the father of psychoanalysis, believed that the psyche was composed of three components:

- The id, representing baser instinctual drives of an individual and remains largely unconscious.
- The super-ego, which represents a person's conscience and their internalization of societal norms and morality.
- The ego, which is conscious and serves to integrate the drives of the id with the prohibitions of the super-ego. Freud believed this conflict to be at the heart of all forms of neurosis.

Jung was very careful to define what he meant by the distinction between psyche and by soul:

I have been compelled, in my investigations into the structure of the unconscious, to make a conceptual distinction between soul and psyche. By psyche, I understand the totality of all psychic processes, conscious as well as unconscious. By soul, on the other hand, I understand a clearly demarcated functional complex that can best be described as a "personality"^[13].

Since the birth of the field of Consciousness Studies in recent decades cognitive psychology (the currently dominant school) has replaced psychoanalysis as the dominant model of psychology in academic circles. The word *mind* is now preferred by cognitive scientists to the term *psyche*; and the term awareness is preferred over the word consciousness which is perceived as too general.

In Noetic Field Theory (NFT) the school of thought used here, the word mind is also preferred over the term the psyche. The main difference between NFT and cognitive psychology is that physical principles of mind have been formally discovered. This historical event allows its principles to be applied to problems such as SOSP. Another important fact for NFT is that since mind is physically real it can be experimentally manipulated and also used to engineer a new class of medical devices. This also means that since NFT can be empirically tested eventually the noetic theory of SOSP can be experimentally tested at which point psychology will cease to be an art and become a physical science.

As will be described in more detail in a later chapter the content of mind or action of mind is not limited just to the brain but also pervades not only every atom of the body but is extended beyond the body into local and nonlocal regions of surrounding spacetime and eternity (something like the corona of the sun). This represents the sum total of the domain of individuality defined as the *psychosphere* in noetic theory. The detailed structure and phenomenology of the psychosphere will also be developed further; suffice it to say for now that since mind, distinct from body, is physically real, the psyche is housed as a totality in the psychosphere – which also has three components: temporal body, mind and *elemental intelligence*, the eternal bound of individuality^[3]. We could have chosen to call the Psychosphere the *noosphere* because it also has a Greek root stemming from the word noetic, but we thought a term with the root psych(e) closer to psychology would be more immediately intelligible.

Briefly, NFT defines the soul as the *spirit and the body*. This refers to life on Earth. When a person passes on, he becomes a disembodied spirit and must wait for resurrection or reincarnation before his intelligence can be considered a soul again. Formally introducing the spirit into psychology and mind (as Jung suggested) is important because it is related to the life principle which is purposefully removed from the basis of cognitive psychology. Most importantly as we shall see because mind and spirit are physically real concepts with unified field properties; it is this fact that has not only allowed the comprehensive discovery of mind but what allows us to understand the causative agents reversing the dominance of the anima and animus for the theory of SOSP.

5. Contemporary Psychological Issues Regarding the Homosexual Matrix

In the United States, the main medical reference for the American Psychiatric Association (APA) is called the Diagnostic and Statistical Manual of Mental Disorders (DSM)^[18]. It describes and classifies all known mental illnesses and emotional disorders. It was first published in 1952. Until 1973 homosexuality was classified as a mental disorder but in 1980 dropped from the DSM-III by a decade of relentless pressure from gay activists.

One of the reasons the APA administration stated for allowing the change in classification was the belief that this change would tend to keep employers from using the APA classification as justification for discrimination in hiring policies. This seems like a weak reason because there is no box in an employment application to check things like political party, religious affiliation or sexual preference. Marital status is usually queried however because employers want to know if they can expect a person to work nights and weekends. But the APA announced that it was also motivated to acknowledge that many gays and lesbians showed no signs of dysfunction and were satisfied with their lives and their sexual orientation.

Figure 3 illustrates the domain of Jung’s archetypes of the Collective Unconscious, as a nonlocal entry point of the vital force of noetic field into living systems.

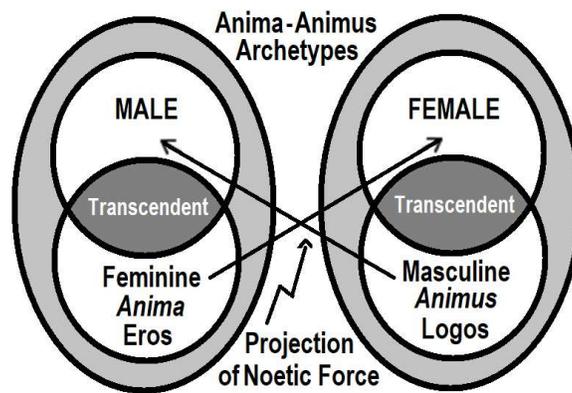


Figure 4. Cross section through center of Fig. 3 showing nonlocal interrelation of the male-female archetypes and structural framework for application of dissonant noetic stress.

Historically prejudice against homosexuals has been deeply rooted in both Eastern and Western society. In Muslim nations, the penalty can still be death; and some of those governments will proclaim that homosexuality does not exist in their country. 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 started after what was called the Stonewall riot in New York City in 1969. This 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 if prosecuted to the full extent of the law. Interestingly both of these laws apply equally to partners of both the opposite and same sex.

6. Homosexuality as Neither Mental or Biological / Genetic Disorder

We begin to see after examining the psychological and biological/genetic correlates of homosexuality that homosexuality is a complex multifactor matrix^[19] that until now has never been completely understood. It is easy to see why difficulties in understanding the homosexual matrix have arisen on all sides of the issue because there are a number of biological and psychological components associated with homosexuality. These conditions have acted as red flags suggesting

that they are causative. But those factors turn out to be peripheral, i.e. not part of the root cause of homosexuality, but occurring because of a more general trauma associated with the abnormal setting itself that caused a homosexual inversion in the first place. If the cause of homosexuality is neither of psychological or genetic origin (nor does it fall under the current causative definitions of epigenesis) it might seem that all the viable possibilities for understanding the condition are used up in terms of the tools available to contemporary science.

The position to be taken up here is in apparent agreement with the APA's profession that homosexuality is not a *mental disorder* nor is it a *biological condition*. But as will be shown later this is a somewhat misleading suggestion of a false sense of normalcy. Because while noetic theory agrees that homosexuality has not been shown to be of genetic or psychological origin per se, the cause of homosexuality is representative of a whole new class of medical conditions relating to consciousness itself. The cause is an imbalance (destructive interference) in the function of the newly discovered physical basis of the life principle! It was not possible to understand the fundamental basis of the homosexual matrix because the life principle had yet to be formally discovered theoretically and experimentally^[3,4].

This profound new discovery as introduced here will eventually lead to psychology becoming a hard science instead of an art. Most psychologists think of Psychology as a science because it employs the scientific method in a variety of psychometric tests and experimentation. But because many of these tests rely on subjective reporting rather than objective results, by definition this kind of measurement is not scientific. For example, witnesses at the scene of a traffic accident virtually all report different views; for example, even to the extent of "*seeing*" different colors of the automobiles involved.

7. The Conundrum of Conversion Therapy

From similarities in the discussion of handedness in (next section) groups associated with religious movements like Exodus International in Seattle, WA USA have claimed a high success rate for the conversion of homosexual men and woman choosing to become heterosexual. As reviewed briefly above we have seen that the main founders of psychotherapy both Freud and Jung not only noticed the difficulty associated in performing conversion therapy (homosexuals wanted it to fail so they would feel free to remain gay) but felt that homosexuality by itself might not be a mental disorder. Their main evidence was that historically a number of humanities most creative minds like that of Leonardo da Vinci were homosexual and other than their so-called *statistical sexual deviation* as Freud put it, were considered well-adjusted individuals leading normal lives. However, mental or emotional disorders are often associated with homosexual individuals and this was one of the main reasons that it had traditionally been classified as a psychiatric condition for most of the last hundred years since the invention of clinical psychology.

The APA has since, for over 20 years now, 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 this criticism is not fully justified as it is generally known that this is true of any psychotherapeutic regimen if the problem is deeply rooted and the analysis is not carried out properly or for a sufficient length of time. For in general, all neuroses are believed to be caused by

unconscious or repressed psychic trauma; and if these deep-seated *wounds* are laid bare without proper resolution and control a serious psychotic breakdown can occur.

Personality disorders which are considered the most serious and deeply rooted of psychoanalytic conditions are most often not curable even after decades of therapy. The best a therapist can hope for is to teach the *victim* how to sufficiently cope with the condition through understanding and behavior modification so that they can learn to lead a semblance of a normal life. The APA resolution has added fuel to the fire of gay and lesbian political 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 or are very shy and timid in their interactions with women will readily lose their same-sex attractions if they can be taught to become more comfortable, proactive and confident with their manhood.

8. Historical 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 epigenetic 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.

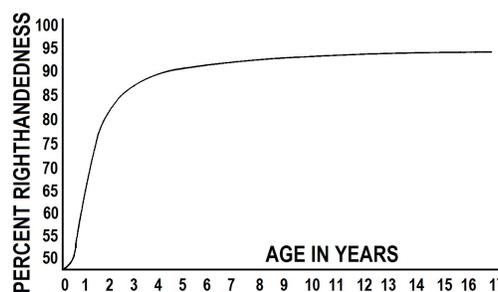


Figure 5. Handedness is increasingly determined after birth most dramatically in preschool years.

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^[20] 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. This seems highly speculative with little empirical evidence in support; however, our reason for bringing up the apparent plasticity of handedness is in relation to historical periods where parents intervened during the handedness formation period (1 to 4 years, Fig. 5) as left-handedness was considered undesirable, i.e. right-handedness could be trained^[21,22].

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.

9. Polarity Reversal of the Earths Geomagnetic Field

Reversal of the Earth's geomagnetic field provides a profound metaphor for gaining insight into the origin of sexual preference. Based on two salient assumptions: 1) That the *life principle* is a physically real noetic UFM field, and 2) correspondingly, that Jung's collective unconscious is likewise physically real; we can paint a picture of the dynamics of dynamo field reversal as it pertains to reversal of the anima-animus archetypes in sexual orientation.

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. (Fig. 6) 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^[23].

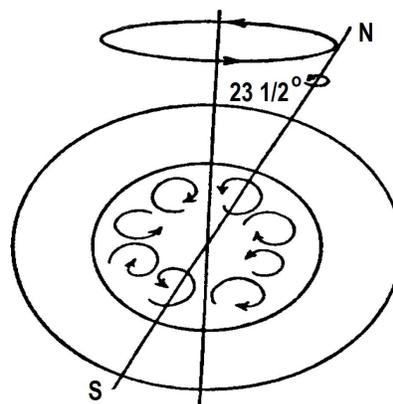


Figure 6. Precession of the Earth's axis creates a turbulence in the molten iron core effecting the geomagnetic field - Geomagnetically induced currents.

All models describing reversal of the geomagnetic field seem to suggest that direct or indirect

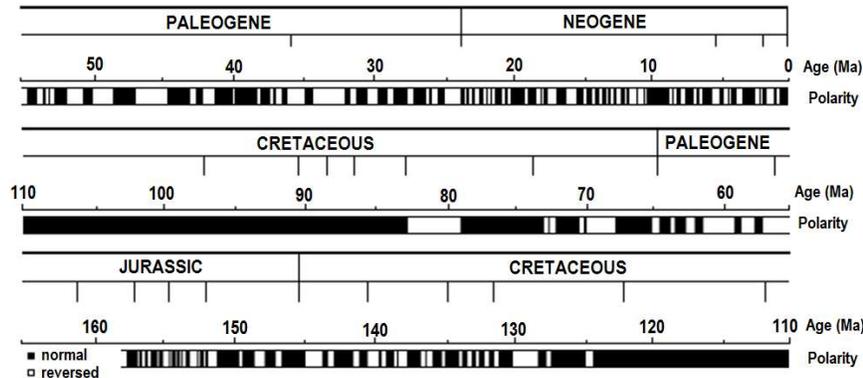
extraterrestrial influences precipitate the reversals: periodicity in violent solar activity, galactic effects such as cosmic ray intensity or supernova, changes in activity of the dynamo of the Earth's core, episodes of violent volcanism, or the impact and explosion of extraterrestrial objects^[24].

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^[25,26].

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 (Fig. 6), with the external portion varying greatly in only a few hours during a solar storm; and the internal field varying sufficiently in five years such 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* can change as much as 10 degrees^[25].

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 liquefy rock.

3) The molten rock would acquire the magnetic orientation of the prevailing field.

All three effects have been observed^[27]

Figure 7. Chart of Earth's Magnetosphere polarity reversals over last 160 million years (Tertiary to Permian). Black = normal polarity, White = reversed polarity.

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 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^[23,27-32].

In Fig. 9 below 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. Figures 9 and 10 below illustrate the dramatic change in the position of geomagnetosphere when a strong external influence is applied,

Secular variation describes the changes in the Earth's magnetic fields on the timescale of years. These changes mostly reflect changes in the Earth's interior, while more rapid changes mostly originate in the ionosphere or magnetosphere. The changes were 1st noted when plotting a graph of the declination in major cities, for example London in 1540. The changes occurring in the direction, declination and magnitude of the field. In order to measure secular change, readings must be taken over a period of many days; the greatest change in the field is that which occurs on a daily basis. An average can then be taken from all these readings so establish how the magnetic field changes over 10 or more years.

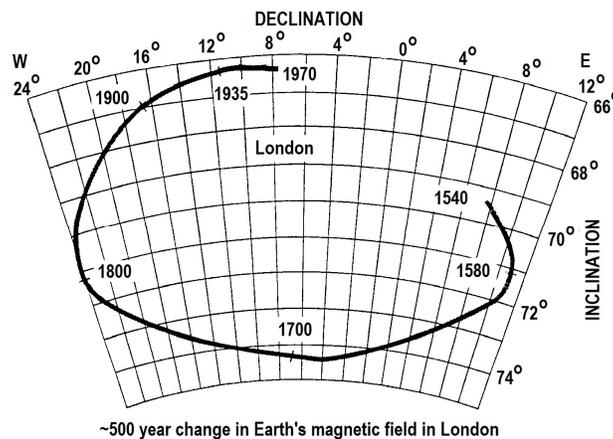


Figure 8a. mapping changes in the Earth's magnetic field in London over 500 years. The westward drift of the earth's magnetic field from observations made in London. Each date represents the direction of the compass needle for that year.

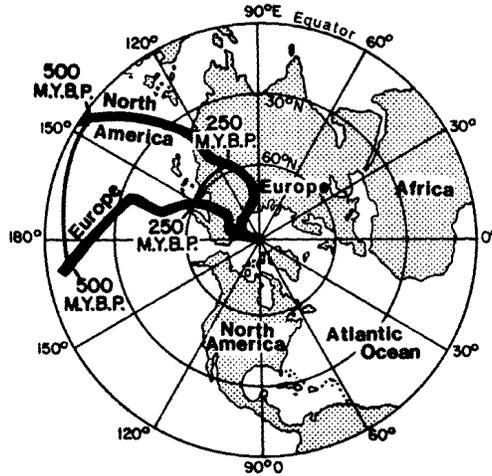


Figure 8b. The Wanderings of the North Pole are traced by the heavy black line. The points are derived from the magnetization of rocks in the British Isles and North America.

The 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. The amplitude of magnetic disturbances is larger at high latitudes because of the presence of the oval bands of enhanced currents around each geo-magnetic pole called auroral electrojets.

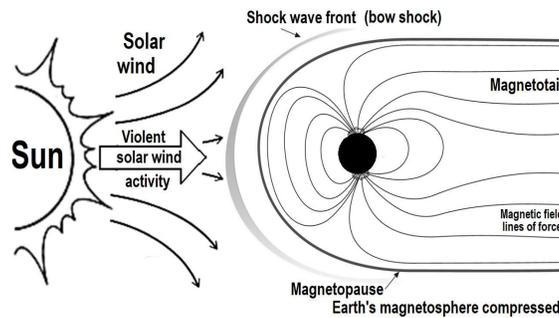


Figure 9. Solar wind and the Earth's magnetosphere. The Earth's geomagnetic field showing the influence of periodic extreme solar activity. The magnetosphere usually extends for about 65,000 km on the sunward side; but severe solar storms might compress the magnetic field to 40,000 km. When conditions in the molten core of the Earth's dynamo correlate, it is believed that cumulative effects (Figs. 8a,b) of such cosmological activity precipitate a reversal of the geomagnetic field (Fig. 8) every ~ 200k years on average.

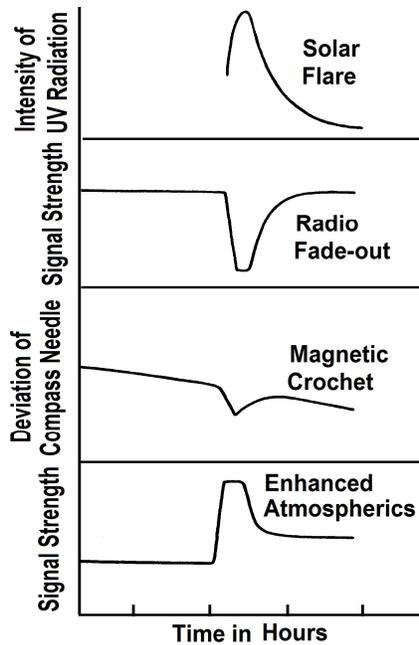


Figure 10. Schematic of instantaneous terrestrial effects of a solar flare.

The most severe magnetic storm in recent times occurred in March 1989 and this had a number of serious impacts on technological systems by generating damaging geomagnetically induced currents^[35]. As well as the regular daily variation, the Earth's magnetic field also exhibits irregular disturbances, and when these are large they are called magnetic storms. These disturbances are caused by interaction of the solar wind, and disturbances therein, with the Earth's magnetic field. The solar wind is a stream of charged particles continuously emitted by the Sun and its pressure on the Earth's magnetic field creates a bounded comet-shaped region surrounding the Earth called the magnetosphere. When there is a disturbance in the solar wind the current systems existing within the magnetosphere are enhanced and cause magnetic disturbances and storms. Figure 9 shows a schematic picture of the solar wind and the Earth's magnetosphere.

10. 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 (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 4-billion years of evolution incredibly complex self-organized living systems^[36] with sexual reproduction have arisen on Earth^[37]. The form of evolution utilized in this manuscript is not random-Darwinian, but a teleological guided evolution, discussed in detail later.

The self-organization of life is called autopoiesis^[38] 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*”^[37].

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?*”^[37]; 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^[37]. It seems that there is no scientific reason for sex.

Although speculative, within the teleological framework of a continuous-state Anthropic Multiverse^[3,7,8] 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. As we shall see, souls add an additional unified field with an inherent noetic effect involved in *polarity reversal* of Jungian archetypes^[39,40].

11. Population Genetics

In 1993, it was announced that a gene for homosexuality had been discovered^[41]. But it turned out the major researcher’s results were eventually shown to be *fudged*^[42] 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*”^[43]. 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^[43].

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^[43]. 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%^[44]. 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.

11.1 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^[41,43].

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^[41,43].

Complex behavioral traits are the product of multiple genetic and environmental antecedents, with "environment" meaning not only social environment but also factors as "*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*". Relationships among genes and environment likely 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)^[43].

11.2 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 mindset, 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^[19,45-47]. 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 epigenic 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 might be the result of a cosmology of *soul talk*^[48] as mediated by the unified noetic field^[39,40,49] and associated noetic effect, described in more detail later.

11.3 Prenatal Stress and Increased Incidence of Homosexuality

Some evidence exists that prenatal stress in a mother produces a statistical increase in the incidence of male homosexuality; but experiments are difficult to perform on human subjects and results inconclusive. The stressor involved is believed to cause a change in fetal hormones that effect brain development^[50-52]. 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^[53].

Williams^[54], explored anatomical characteristics to uncover biological origins of human sexual behavior. Men's ring fingers are typically significantly longer than index fingers, 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 found a statistically significant number of homosexual women have a male-like index-ring finger ratio^[54]. 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.

Historically, H. Ellis published *Sexual Inversion*, the first English medical textbook on homosexuality in 1897, co-authored with J.A. Symonds, appearing the preceding year in German. It was banned by Symonds' literary executor; the next edition was banned as an obscene publication in the 'Bedborough Trial'. Finally, a new American edition was released 1901, updated in 1915 to take account of Freudian theories of sexuality. The original 1897 edition contained 33 original case histories of homosexual men and women, and was an important text in the fight against the legal oppression of homosexuality in England. A 2007 edition includes Symonds' appendix on Greek love adapted for the original publication^[55].

11.4 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^[45].

The form of Genetic Homeostasis coined by Lerner^[45], we will call *Strong Genetic Homeostasis*. It refers to standard *mechanistic*² Darwinian genetic evolution (statistical probability) mediated by global ecological and sociological conditions in interbreeding Mendelian populations. What we introduce here, we call *Noetic Epigenetic Homeostasis* referring to unified field effects on a physically real Cartesian field of mind-consciousness that do not act directly on the physiology at the biophysical level as associated by definition with current thinking in epigenic mechanisms of histone modification in gene activation that are believed to modulate specific structures – all said to be caused by various stressors. But instead, *Noetic Epigenesis* acts on the nonlocal field of mind considered to be a physically real unified field of awareness. This experimentally testable concept^[4,39] allows transmutation of archetypes of Jung's collective unconscious; which in terms of the purpose here, in principle conceptually follows the reversal of the Earth's geomagnetic field

² An essential factor of Darwinian evolution is *Biological Mechanism* – The laws of chemistry and physics are sufficient for describing living systems, no additional life principle is required. False for Cartesian dualism.

(Section 9). Universal physical principles are involved in this action that by conformal scale-invariance apply equally to the *Sun-Earth-Dynamo Core* system as to the Mother-Father-Embryo system^[56]. The discovery of this 4-level conformal scale-invariant system (Microscopic/quantum-Observer-Planetary-Cosmological) will be discussed in a forthcoming work.

Some current thinking classifies stressors related to consciousness in terms of external biological action 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. Evidence of this neuroplasticity in terms of sexual preference was researched by Breedlove^[57] 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 lifelong.

The internal action of this *noetic effect* that we are introducing can fit under the epigenetic umbrella, but demands a new nonlocal UFM category since its operation is not in the 4D space of living systems as currently described by biophysics or biochemistry^[3].

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 to varying degrees. These outward characteristics do not necessarily correspond to sexual preference and are not necessarily pertinent to our discussion about *Noetic Epigenetic Homeostasis*.

Section 6 concluded that although the homosexual matrix may have concomitant psychological disorders the primary cause of homosexuality 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 with prenatal causation by psychologically activated homeostatic mechanisms under epigenetic 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 psychoneuroimmunobiology of the brain^[58,59] and that if the sexual tendencies laid down prenatally are acted upon physiological changes will occur in the brain^[57]. 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 the unified field of *consciousness*, an aspect of prenatal dissonance in the *vital force* interacting within the *psychosphere*^[3,49]. This might not make sense at first glance because the common *philosophical* understanding of consciousness is either:

1. The state of wakefulness or

2. The content of the mind.

This conclusion requires a profound new definition of consciousness, rather awareness and a description of an anthropic cosmology of the multiverse wherein it operates.

12. Evolution from Classical Freudian to Integrative Noetic Psychology

The 120-year evolution of Psychoanalysis from its 1895 inception lays one of the major foundations for the basis of the Scientific Origin of Sexual Preference (SOSP). It contrasts the history of psychoanalysis with contemporary psychological concepts that rely on the currently dominant cognitive approach. The cognitive model seeks to understand consciousness as a system of neural correlates in the brain. This is called the mind-brain identity hypothesis. The cognitive approach has failed in providing a complete explanation of the nature of consciousness and is therefore incapable of modelling the SOSP from either a psychiatric or biological perspective. But as we will show in ensuing sections these are not the approaches where the answer lies. Sexual preference relates to the structure and operation of the soul (“*The spirit and the body is the soul of man*”)^[60] and component Jungian archetypes^[13,14]. By this definition, soul with a component cognitive domain, the psychosphere^[3] has a physical field, which is mediated by UFM forces^[39].

The currently dominant view of mind and body called Cognitive Theory goes so far as to call understanding the mind a *hard problem* beyond the current tools of the scientific method^[3,61,62]. With the recent discovery of mind by tenets of noetic cosmology (compatible with LDS doctrine which claims the spirit of God is a physically real field) new principles are introduced applicable to explaining conditions relative to the SOSP. Transpersonal Psychology is the only school of psychology that can be merged with anthropic noetic principles excluded from contemporary allopathic (scientific) medicine (includes psychiatry) and the cognitive approach to biology and psychology. We call the resultant of this long-anticipated evolution in scientific terms - ‘*Integrative Noetic Psychology*’. Noetic Psychology is a new discipline integrating the soul and spirit of God in addition to principles of biology, transpersonal psychology and a new physical cosmology that includes theology. The theological basis for derivation of the noetic model of anthropic multiverse cosmology^[63] is in the 88th section of the LDS Doctrine and Covenants:

“... *Which truth shineth. This is the light of Christ. As also he is in the sun, and the light of the sun, and the power thereof by which it was made. And the light which shineth, which giveth you light, is through him who enlighteneth your eyes, which is the same light that quickeneth your understandings; Which light proceedeth forth from the presence of God to fill the immensity of space - The light which is in all things, which giveth life to all things, which is the law by which all things are governed, even the power of God who sitteth upon his throne, who is in the bosom of eternity, who is in the midst of all things ...*”^[60].

This noetic scenario could have come from anywhere; but in most Eastern philosophies mind is ineffable, and most theologies consider the spirit of God as nonphysical. To best of my current knowledge only LDS Doctrine considers the spirit of God or life principle physically real.

13 Advent of the New Science of Consciousness - Psychophysical Bridging

Until now the so-called Neural Correlates of Conscious-ness (NCC) posited by the cognitive approach to the mind-body problem^[12] have remained obscure and the concept of Psychophysical Bridging has remained little more than a philosophical argument supporting the theory. But with the discovery of mind by noetic field theory (NFT) this is about to change^[3].

When western allopathic (scientific) medicine began to be highly successful, about a hundred years ago the last remnants of a life principle or *spirituality* were removed and banished as *primitive foolishness* or called *folk medicine*. However, as we hope the reader already knows there is significantly more to the human condition than currently covered by the treatment philosophy of the tenets of western allopathic medicine as applied in terms of the pharmacopeia and surgical techniques of psychology and biology.

About a hundred years ago our understanding of the universe switched from Newton's classical mechanics to quantum mechanics creating a new age of discovery. Now we are in the process of incorporating unified field mechanics leading to the next age of discovery which includes *Discovery of the Mind*^[3,63].

Some of the diseases and abnormal conditions covered, like the approximately 400 autoimmune conditions are currently considered incurable by allopathic techniques; but this is about to change with the empirical introduction of a new nonlocal action principle that effects the evolution of living systems. This new class of diseases will be seen as disorders of consciousness.

Until now it has not been possible to define consciousness (awareness) other than as the abstract content of the mind or the state of wakefulness. The actual nature of *consciousness* is much deeper than the confines of *black box* psychology and mechanical and biochemical aspects of biology and will be shown to require new physical principles entailed in a whole new physical cosmology for explanation. Historically, just as quantum principles were unavailable to the tools and understanding during the age of Classical Mechanics, likewise the new principles of Unified Field Mechanics are now immanent.

The advent of Noetic Psychology which introduces a better definition of the nature of living systems based on the work of Maturana and Varela^[64] called Complex self-organized Living Systems by introducing a cosmological basis for an Anthropic Principle promises to elevate Psychology from an art to a hard, physical science because the life principle is a physically real empirically testable action principle amenable to engineering techniques. The main reason a cosmology of mind allows this to happen is because as philosophers of mind like Chalmers^[61,62] say, '*the problem of qualia is equal to solving the problem of consciousness itself*'. Qualia is defined as the feeling of awareness or the sensation of experiencing *redness* for example. As outlined more clearly elsewhere, the noetic theory is able to physically quantify qualia and go so far as to breakdown the 1st person 3rd person barrier^[3,4,39,40].

13.1 Introduction to Integrative Noetic Psychology

It could be said that Integrative Noetic Psychology is a branch or unifying force of the school of Transpersonal Psychology. Transpersonal Psychology is the only major school of psychology that has come close to introducing a life principle; however, it is not until now that the life principle

can be formalized physically. Transpersonal Psychology is a young discipline that began with founding *The Journal of Transpersonal Psychology* in 1969 and the Association for Transpersonal Psychology in 1971; it draws upon mystical principles drawn from multiple spiritual traditions. Transpersonal psychology attempts to integrate timeless wisdom or the so-called Perennial Philosophy with modern Western psychological methods and translate spiritual principles into scientifically grounded, contemporary language to address the full spectrum of human psychospiritual development from the most basic fundamental temporal human needs, to the highest existential crisis of the human being, to the most transcendent eternal capacities of the evolution of consciousness. The Perennial Philosophy claims that if there is a God he has provided a path for us to find him. Sadly however, currently the field of Transpersonal Psychology has become saturated with vapid *New Age pseudoscience*, essentially losing the vision of its founding light, A.H. Maslow^[65].

Another key element added to Integrative Noetic Psychology is the principle of nonlocal quantum physics related to what physicists call entanglement between quantum states. In terms of Jungian psychology this was the basis of a relationship called Synchronicity^[66]. Synchronicity is another key element in our SOS model as we will show synchronicity in the collective unconscious of a husband and wife can have a positive or negative effect on embryonic and psyche development.

13.2 A New Ontology of Awareness

The perinatal matrix is defined as a four-stage experiential sequence up to and including birth that continues to *resonate* throughout the lifespan, generating a subliminal bias for conscious action and precipitating re-enactive behavior whenever events in the external world reactivate the unconscious emotional legacy of each critical stage of morphogenesis - source of that unconscious alienation that is our common heritage of birth^[67].

Since 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. We introduce another whole class of etiological conditions relating to another 3rd regime domain of human ontology with its own set of causal action and resultant effects. We call these ontological conditions to define a duality between the current outer *phenomenological* domain and the newly defined inner or deeper *ontological* noumenal domain of UFM. Some of these ontological-autoimmune conditions like colitis or Alzheimer's disease^[59,68,69] are currently considered incurable; but this will change as noetic theory advances. The new class of diseases will be seen as disorders of consciousness as mediated by the life principle inherent in the unified field^[70,71].

This is partly a definitional problem; consciousness is currently not defined other than as the abstract nonphysical content of the mind or the state of wakefulness. The actual nature of *awareness* is much deeper than the confines of psychology and biology and will be shown to be a whole physical cosmology. Let's be very clear here as this is one of the essential points of this model: 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 marginalized or ignored by scientists, justly so by scientific definition.

The APA for the most part succumbed to political pressure and only by a fluke turned out to be correct about homosexuality; 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 psychosocial make up still provide key causal factors in creation of the homosexual matrix from the noetic point of view. 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 and now epigenetic causality.

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*^[61,62], a model over 93% of scientists embrace; this is a naive position that makes understanding consciousness impossible^[3,6] since mind is more than brain. This current cognitive model defines mind as an abstract and nonphysical emergence of neurodynamics with no extra-corporeal properties^[72] a hard problem too difficult to research^[61,62]. In the noetic theory, consciousness is more than brain - 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!

14. Noetic Field Theory: Foundation for Cosmology of Mind in an Anthropic Multiverse

Recent popular literature^[73,74] lists consciousness among the great unanswered questions; and as science's greatest mystery. "*It will be our proudest achievement if we demystify consciousness*"^[75]. The very foundations of science itself need to be ripped apart and reformed^[3,7] to include a broader metaphysics^[76,77] to reach the deeper ontology of the noumenon of consciousness.

Noetic (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^[78] 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 unified field^[84,85] which is a key element required for understanding the cosmology of consciousness and mind.

14.1. The Noetic Model of Mind

The tenets of Noetic Field Theory (NFT)^[3-8,39,40] suggest: Mind, $|\Psi_M\rangle$ is a continuous-state cycle, a complementarity of continuous and discrete properties including a dualism of both local temporal and nonlocal eternal aspects^[70,71]. The 5D Planck-scale Kaluza-Klein dimension is cyclical, however, NFT cyclicity is large-scale additional dimensionality (LSXD). This noumenon of consciousness is composed of three (Fig. 11) 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*")^[86],

2. Cosmological ordering principle, $|\psi_c\rangle$ which is related causally to the vital noetic field that is mediated by a UFM quadrupole photon/graviton complex^[7,83,87] 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 UFM *spark of life* and the *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.

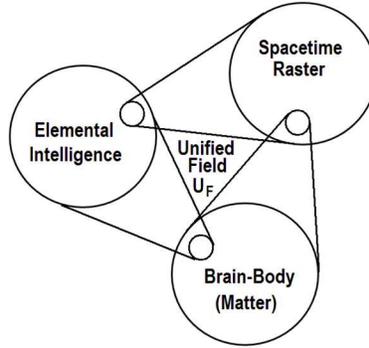


Figure 11. Unlike cognitive theory where mind = brain is a single entity; for noetic interactive dualism, mind has a triune complementary local-temporal and nonlocal-eternal structure.

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

$$\Psi_M = |B|\psi_b\rangle + |\bar{\psi}_e\rangle + |\bar{\psi}_c\rangle \quad (1)$$

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

$$|\Psi_M\rangle = \sum_i^{Z^\alpha \bar{Z}_\alpha} N_i |\Psi_i\rangle \quad (2)$$

Most scientists today believe that the brain is the organ of mind with neural processes as the basis of mental life^[61,62,72]. This is incorrect!^[79-81]. The brain is a form of naturally occurring conscious quantum computer^[3,6,82] *Only*:

1. Managing physiology, metabolism: anabolism-catabolism 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 (NFT); because a physically real *res cogitans* does not violate thermodynamics or the law of conservation of energy.

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 (Fig. 11), This is a 12D hyperstructure of three Minkowski spacetime packages, not just the one 3(4)D spacetime as in the standard model^[3,6,83]. This domain contains the totality of an individual's 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 brane topological space activity within the boundary conditions of elemental intelligence. The transduction of data or interaction of mind and body occurs through Fermionic quasiparticle formations that cohere into Bose condensation^[78] by noeton mediation.

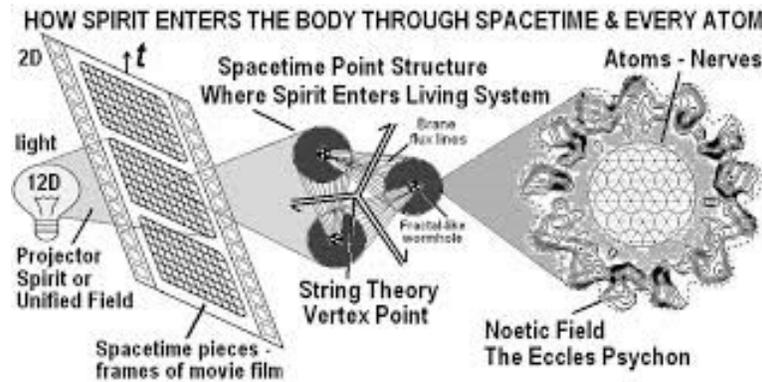


Figure 12. Mind does not reduce to brain, algorithm, or information processing as the current reductionist standard model of existence would have us believe.

Figure 12 is a conceptual view of noetic field theory. In the center, we see that singularities do not reduce to Planck scale discrete points; but have a complex HD structure. The 2nd and 3rd 3-spheres are hidden from classical measurement by the uncertainty principle^[3,6,83]. The domain is 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 moving at a few cm per second are not seen while watching a movie. All matter in the universe is made of either Bosons or Fermions. Fermions are the substance of discrete material objects like protons or quarks and Bosons the substance of light-like phenomenological field quanta and energyless ontological topological charge. Fermions must obey the Pauli exclusion principle (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 quasiparticle symmetry so that they can act as if they were Bosons. In simplified terms, this is the mechanism, an intermediary quasiparticle transition whereby external sensory or other physiological information in the Fermi brain states are transduced into the Bose content of the mind^[5]. This is the fundamental basis of the substance dualism of the interactionist model. Intentional action of course is the reverse of this process.

This bidirectional (bottom-up top-down) pathway is a microcosm of general scale-invariance in the anthropic multiverse. Think of this Bosonic *grid of light* ubiquitously tessellating nonlocal space holographically with interacting local loci pervading the brain/body confines of the individual psychosphere as an *ocean of mental light*. The nonlocal domain of the multiverse [7,40,63,78,83] is a hyperdimensional collective light similar to a Wheeler geon^[88,89] except the geon is photonic, whereas in noetic theory the light is the noeton of the unified field. See^[60] or quote in Sect. 12 above. Wheeler’s proposal was a classical geon, 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 be easy to imagine the nonlocal realm as an infinite hyper-hologram of pure UFM noeton light energy as a de Broglie-Bohm teleological ordering principle of matter, spacetime, and life governing aspects our virtual 3-space domain of reality.

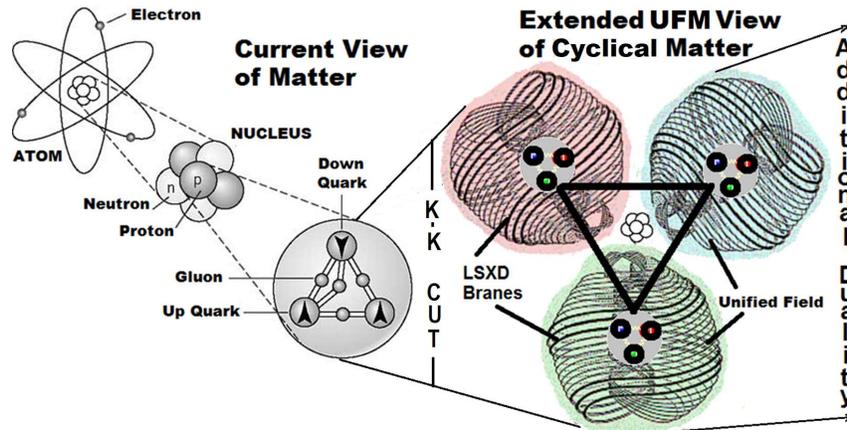


Figure 13. Passing beyond the 4D limit of the uncertainty principle reveals a radical new UFM M-Theoretic cyclical brane picture of matter (an extension of the Kaluza-Klein 5D model).

In the standard Darwinian Big Bang model of cosmology, the higher dimensions (XD) were compactified ~15 billion years ago at the beginning of time. In the anthropic multiverse, compactification is a continuous dynamic process occurring at every *singularity* in spacetime (Actually creating and recreating emergent spacetime at each moment). Figure 12 is best model we have so far to illustrate space-spacetime cyclicity. 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 atemporal eternity. This is also the reason for the fundamental stochastic barrier of uncertainty that limits observed reality to the virtual 4D 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^[63]. This is a key element of an anthropic multiverse. Within this continuous cycle of collapse and recollapse, noetons of 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^[60,63].

For NFT 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 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 NFT has done is to integrate all of these pieces into a comprehensive physical theory^[3] that formalizes the Eccles psychon. Until now vitalism has been cast out of science because it has not been integrated into a comprehensive physically real dualistic theory. As we hope to 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. There can be no local domain that contains a Jungian collective unconscious, which as should be obvious by now, is key to understanding the noetic origin of sexual preference.

15. Cosmology of the Noetic Psychosphere

The psychosphere represents the total domain of both mind and conscious awareness as it relates to a living entity^[3]. It is a structural-phenomenological domain comprised of:

- A physical noumenon - the local-nonlocal temporal-eternal dual cosmological structure; and
- The associated interacting phenomenology/ontology - the content of mental activity and soul.

The psychosphere is comprised of a 12D hyperstructure^[3] that includes not only the brain holoscape, but also nonlocal domains of eternal elemental intelligence (in this case supralocal because nonlocality is not a temporal subspace associated with the Copenhagen regime of quantum theory; the domain of elemental intelligence is eternal with a root in causal separation from 4D reality. The psychosphere is the structural-phenomenological sum of all boundary conditions housing the individuality of mind. It includes the local complex multi-tiered holoscape of brain activity in complementarity with the standard nonlocal and additional UFM elements of mental activity. The noetic field is not just coupled to the brain but all cells, atoms, molecules and spacetime regions associated with a given self-organized complex living system. It is within this complex domain of the psychosphere that qualia can be described in physical terms^[3-8].

The central tenets of Noetic Field Theory (NFT) suggest that consciousness is a quantifiable condition of an anthropic multiverse cosmology^[3], with both the mind and thought having complementary features in the sense promoted by Bohr; but as well-known Bohr's rendition of quantum theory was too limited to apply to biological systems. It is for this reason that NFT is required to utilize extensions of all standard models of science.

Equation (2) is a primitive generalization of a mental base state in the 1st term summed over Descartes *res extensa* and *res cogitans*, in the second part a generalization of the three base states comprising the triune nature of the least cosmological unit (LCU) of awareness in noetic cosmology, and the 3rd rendered as a twistor singularity originating in nonlocal projective space. The equation shows linear sums for illustration purposes; in reality, an expanded equation would have nonlinear characteristics to handle the complex self-organized mental action modalities. Ensuing work presents a mathematical description of noeon action in terms of a holophote pumping field and includes HD modes in the light cone of reality^[63]. Research avenues for noeon particle isolation are suggested. The mantra of NFT is: *If one assumes that qualia is a tensor psychon, the leading light cone singularity is modulated by a phase of the noeon psychon field...*

15.1 Causation

Causation is a challenging term for the physics of consciousness, particularly in complex systems with feedback loops and multifactor inputs. Furthermore, the agency of change in quantum systems is as fundamental as spacetime itself. The quantum concept of causality thus differs from its classical counterpart in that it necessarily links relationships between spacetime events, and thus has a kind of self-referencing aspect. Worse, it is essentially probabilistic at the outset, which makes cause less tangible. Freeman claims that chaotic dynamics can create information in the Shannon-Weaver sense. This finds its correlate as the Gabor logon. The logon is a kind of quantum of information first defined by Gabor and later used by Pribram^[90] in the holoscape. The question remains as to whether consciousness originates from a kind of qualia recall panexperientialism at the level of the quantum domain. There has been general skepticism of quantum effects having any relevance to such a hot entropic matrix as the brain. When a dissipative structure open system such as the brain is pushed to the limit, a new structure can emerge from the fitness landscape. As such, a new template might emerge from lower order inputs, crystallizing into higher order structures which then superimpose limit cycles back on the chaotic regime.

Fröhlich's original idea was that dynamical equilibrium represented by a limit cycle could be tuned by chemical electrical stimuli and cause the collapse of the limit cycle. The triggered release of energy could then be harnessed to invoke large scale molecular events such as changes in the geography of Quantum Brain Dynamics (QBD)^[3]. A precondition for consciousness is the ordering and storing of information in the face of randomization in the quantum heat bath. The challenge is to see if quantum systems self-organize. Bose-Einstein condensates have the unique property of making coherent wholes by summing the behavior of many component parts which feedback on their elements and create an entangled community. This speaks to the binding problem^[3,90] in consciousness where many neurons create a unitary self that doesn't seem reducible to any one part. When cell membranes vibrate sufficiently to be drawn into the Bose-Einstein psychon matrix they are forming a coherent whole which resists degeneration by thermal chaos. That is, something must supply the jiggling and something must supply the ordering - one arises out of the other and then feeds back through the system. If electrical activity of the neuron provides the energy to jiggle molecules which in turn emit photons, then these photons can synchronize jiggling and further photon emissions through superradiance. This is analogous to the pumping of a laser. The shift into the condensed phase depends on this molecular photon interaction. It is here where quantum wholeness radiates out over the entire structure. All this superstructure is built into the self-organized cosmology of living system. However, there has been no access or discovery of a *res cogitans* in this closed regime. The focus of the noetic effect's stressor requires 3rd regime physics.

16. Mind - Body: Casimir-Like Role for the Noetic Formalism

Science, physics especially, accepts nothing immeasurable as real. In this section, the Psychon is integrated with Pribram's neural wave equation (similar to the Schrödinger equation for a particle moving on a manifold with the addition of a term like the de Broglie/Bohm quantum potential for the neural potential^[90] and the fundamental noetic equation^[91-93] to provide a Cartesian interactionist solution to the mind-body problem. Because mind is defined as a physical entity in the noetic formalism the putative interaction is open to empirical tests^[94,95,114-116]. Usage of the term Psychon as the unit of mental experience must be expanded because Eccles left the term mostly undefined as an empty philosophical construct. The phenomenological part of the Psychon

unit postulated as quantities of Bose-noeons gives physicality and work functions to thought processes and the Noetic Effect. The physical unit called the Einstein (one Mole or Avogadro's number - 6.02×10^{23} of photons used in photometry to measure photosynthesis) is adapted for use in a new unit of measure for awareness called the Psychon in honor of Nobelist Sir JC Eccles, signifying a mole of Bose-noeons of the unified field which are probably spin-4^[96]. We define the Noetic Effect as the cosmological complex self-organized mind-body interaction process. This Noetic Effect will one day have profound influence on medicine and psychology^[97]. The mathematical method used here to integrate the Eccles Psychon with brain dendrons and the existing holonomic theory of Pribram is a variation of the Lagrange operator of least action utilizing not only the *static* Casimir effect^[99], but a duality between its *dynamical* counterpart first described by Schwinger^[98]. Thus, the noetic effect governs energized boundary conditions as described by the Noetic Field Equation $F_N = \aleph / \rho$ ^[91-93] taking the same form as the string tension formalism and can be said to be an alternative derivation of it^[92]. F_N is the noetic force, \aleph the nonlocal Casimir energy in UFM noeons and ρ the coherence length of the associated domain.

The thrust of this treatment is to account for the action of spontaneous particle production, in this case UFM Bose noeons, from the zero-point energy fluctuations of the polarized Dirac vacuum, as noeons, and from the zero-point *vacuum* potential as Psychons. These noeons, rather non-radiative scattered Bose potentials confined like quarks in the HD topology of the spacetime metric can be constrained in a Gabor-like manner. The Casimir effect was initially used to account for the resonant force between separated parallel uncharged capacitance plates due to an all pervasive em-field in the interstice. This Casimir-Polder force is one example of a very general phenomenon in which objects impose boundary conditions on the quantized field; but as an extended Bohmian quantum potential (a super quantum potential^[100,101] the noeon of the unified field applies to both quantized noncommutative and unquantized commutative energy. We are most interested in the generalization to parallel interfaces between dielectric media as occurring in the holoscape dendrons and topology of spacetime. More recently Schwinger^[100-103] has proposed a mechanism for the dynamical counterpart of the static Casimir effect based on the precise measurements of coherent sonoluminescence, where dielectric media are accelerated and emit light. In these experiments, a bubble in water, a hole in a dielectric medium, undergoes contraction and expansion in response to a strong acoustic field. Schwinger's Casimir function formalism utilizes a phase space similar to that of the Gabor function^[104] to trap a psychon-noeon bundle and channel it into the previously described quasi states in the quantum holoscape where Bose condensates integrate in the Heisenberg matrix. Thus, we begin to see the framework where constructive (nominal) interference and destructive interference of the noetic effect stressor can lead to a sufficient phase change to reverse the polarity of the Jungian anima-animus archetypes.

Sandwiched dipole polarizations account for pulsatile interactions of neurons. The network is composed of overlapping Gabor elementary functions generating a pixel like-lattice of spacetime storing and processing information. The notion of perpendicularly arranged dipoles of polarization generated within dendrons^[105] is intriguing. By modifying the dynamics of the static-dynamic Casimir effect^[99] we can see parallels between the Eccles' Psychon and Gabor relation. Casimir outlined the influence of retardation on London-van der Waals forces between neutral atoms. Instantaneous dipoles account for interactions between electric double layers separated by large distances. The interaction energy of a neutral atom by analogy, here the Psychon noeon sheaf with a perfectly conducting wall and, the holoscape manifold is given by the atomic dipole with its

image. Retardation effects are expected when the distance from the wall becomes large, according to Cavity-Quantum Electro-dynamics (C-QED). The asymptotic expression of ρ contains Planck's constant and the static polarizability of the atom as the only quantities. Casimir confined the neutral atom within a perfectly conducting plane wherein the eigenstates of the em-field are described by Maxwell's equations and treated as if the atom were a quantum particle in a box. The box in our case of dynamic-static complementarity is a system or domain of fundamental least units (a form of sphere packing tiling the spacetime backcloth) that are the continuously changing boundary conditions of the systems dynamics in quasiparticle Translation. Total energy interaction between the wall and the atom is^[99]

$$\Delta_i E = \Delta_d E + \Delta_e E . \quad (3)$$

Second order interactions of the atom with a radiation field give vector potentials which can be manipulated with the Heisenberg method where the electromagnetic field is treated as a matrix^[99]. Perturbation of the radiation field by a charge assigns vector potentials as elements of the matrix, and uses a simplified wave equation for the oscillating dipoles. This method has been used to account for atomic spectra of helium Rydberg atoms, macroscopic conductors, long range atom surface interactions, dielectrics and liquid thin films. To understand the origin of the Casimir effect requires QED. It is well known that electromagnetic radiation is quantized photons, and that these emitted photons can interact with atoms. Radiation in free space can be thought of as a superposition of many modes of oscillation within a box of arbitrary size. The energy of each mode is like a harmonic oscillator and restricted with a set of discrete energy values. The level of spacing between energy states corresponds to one photon so that the emission of a photon is simply a process in which the energy field frequency is increased by one unit. We have experimental work in mind looking at the Aharonov-Bohm effect^[106] and quantum Hall effect^[107].

The quantum mechanical oscillator has energy gaps given by Planck's constant times the oscillator frequency has a minimum, called zero-point energy. These fluctuations are apparent in the Lamb shift due to changes in atomic energy levels attributable to proximity to atomic nuclei. The force arising from vacuum fluctuations, Sukenik^[108] is modified by proximity to a conducting plate with no electric field applied. Near a conducting plate the number of modes of the radiation field are reduced by the boundary condition such that the electric field at the surface must be zero, so the atomic energy decreases close to the conducting surface leading to an attractive force. The van der Waal potential between two atoms, which begins as r^6 becomes a potential that varies as r^7 when the atoms are separated by distances greater than several Bohr radii.

A related prediction is that the interaction between a neutral atom and a conducting wall changes from an initial r^3 to an r^4 potential when an atom is far enough from the wall. This interaction can attract even neutral atoms to each other due to the quantum fluctuations. Classically the electric dipole moment of a neutral spinless atom is exactly zero but in quantum mechanics only the *expectation value* is zero. Probability allows that there can be a nonzero dipole momentarily. If a photon can propagate fast enough between two atoms their instantaneous dipole can be correlated and the result is an attraction or ordering between the two atoms. For distant atoms photon exchange time cannot be ignored. Sufficiently long intervals destroy the dipole correlation.

The limit, as always is set by the uncertainty principle which relates the lifetime of the excited state of the nonzero dipole energy to its energy. Beyond which neutral atoms can still interact via instantaneous polarization of the quantum vacuum. The vacuum fluctuations can be thought of as oscillators with wavelengths long enough to communicate with both atoms. It is no longer wavelengths that mediate the interaction as the distance increases. This separation introduces a $1/r$ multiplier to the potential r . The retarded force can also be considered a variance in the zero-point energy, a phenomenon evident in the Lamb effect. More importantly, although QED fluctuations for Maxwell's equations within a box can account for the Casimir force, one can handle these Casimir-Polder interactions with standard methods of quantum mechanical perturbation theory without resorting to zero-point energy. In this case, the long-range Casimir forces depend on the exchange of two photons leading to a format to integrate the Psychon with dendron QBD.

Quantization of the radiation field by means of traveling waves with a period L can be written for the vector potential^[99]

$$A = \sum_{k,\lambda} cC_k e(K, \lambda) \times [AK, \lambda e^{-i(\omega t - kr)} + e^{i(\omega t - kr)}] \quad (4)$$

to which the values of the components of the wave vector k are restricted. Elementary charge e is the perturbation parameter arising from an interaction of G of the charged particle with the radiation field. Electrons in stationery states do not radiate. The matrix elements, with G as a perturbation operator, are written for the zero-state radiation field and an atom as^[99]

$$\Psi'(0; 0\dots) = \Psi(0; 0\dots) + \sum_{n,k,\lambda} \frac{eC_k (e(k, \lambda) p_n; 0)}{k_n + k} \Psi(n; 0\dots 1_{k\lambda}\dots). \quad (5)$$

In Anthropic Multiverse cosmology^[109,110] there is an inherent continuous-state acceleration (an alternative interpretation of the Big Bang expansion/inflation scenario) occurring as part of the compactification process of our virtual reality^[63].

The electrostatic interaction between neutral atoms A and B is shown in eq. (5)

$$Q = \frac{qAqB}{R^3} - \frac{3(qA^R)(qB^R)}{R^5} \quad (6)$$

The second order perturbation energy can readily be shown as^[99]

$$\Delta_q E = -\frac{1}{R^6} \sum_{l,m} \frac{(q1^x qm^x)^2 + ((q1^y)^2 + 4(q1^z qm^z)^2)}{hc(kl + km)} \quad (7)$$

As noted, the thrust of this treatment is to account for spontaneous particle production, in this case photons, from the zero-point energy fluctuations of the quantized vacuum. Schwinger^[98,102,103] proposed a mechanism for a *dynamical counterpart of the static Casimir effect* where dielectric

media are accelerated and emit light. The commonality for static and dynamic Casimir effects are probability amplitudes for preserving the photon vacuum state as illustrated in eq. (8)^[98].

$$\langle 0_{t_1} | 0_{t_2} \rangle = \exp[iW_0] \quad (8)$$

Light emission occurs by the reversible collapse of a cavity in a dielectric medium into a vacuum. Schwinger's starting point is the action W a resultant of scalar electric e and magnetic m -fields where X is the spacetime dielectric constant in eq. 9 below^[98]

$$W = \int (dX) \left[\frac{1}{2} \varepsilon(X) (\partial_0 A)^2 - \frac{1}{2} (\bar{\nabla} A)^2 + AJ \right]_e + \int (dX) \left[\frac{1}{2} (\partial_0 A)^2 - \frac{1}{2} \frac{1}{\varepsilon(X)} (\bar{\nabla} A)^2 + AJ \right]_m \quad (9)$$

A and J are related by a Green's function which eventually leads to the volume nature of this effect. Conditions under which volume effects dominate surface effects during photon pair production can be formulated by the differential equation^[102]

$$\delta W_0 = -T \delta E = \frac{1}{2} Tr [\delta_0 \delta \varepsilon \partial_0 G], \quad G = [\partial_0 \varepsilon \partial_0 - \nabla^2 - i0]^{-1}, \quad (10)$$

in which θ is the toward zero approach from positive values.

The dielectric energy relative to vacuum zero point is derived as^[102]

$$E = -V \int \frac{(d\bar{r})(d\bar{k})}{(2\pi)^3} \frac{1}{2} k \left(1 - \frac{1}{(\varepsilon(\bar{r}))^{1/2}} \right) \quad (11)$$

where the Casimir energy is negative for a uniform dielectric medium. The energy relation of the two dielectric regions is proportional to the volumes where $1/e^{1/2}$ demarks the $e > 1$ area from the vacuum.

We propose that The Noetic Effect, through the mediation of the noeon, couples an active psychon to its holoscape dendron, the dielectric medium of the brain. This will release a Casimir energy potential for binding the psychon to a donor acceptor cavity of mixed states akin to that found in spin glasses. The release of the Casimir energy potential parallels the electromagnetic emission of photons or the scattering of photon energy into the oscillating dipole medium during cavity translation. According to Schwinger^[102] the average number of photons released for cavity radius R is revealed in the equation

$$N = \frac{4\pi}{3} R^3 \int \frac{(d\bar{k})}{(2\pi)^3} \frac{1}{2} (e^{1/2} - 1) = \frac{1}{9\pi} (RK)^3 (e^{1/2}). \quad (12)$$

A key consideration about this relation is the experimental fact that the force is measurable. It is not merely speculation about quantization of zero point energies. Also, finding a likeness between

parallel plates and microtubules is not much of a stretch. Arthur Young's suggestion that the photon as the principle of action is synonymous with purposive behavior is relevant to our discussion. This teleological aspect of light derives from the idea of least action, which in turn comes from *wholes* and first causes. Action is the whole, of which the three parameters mass, length and time are parts. First promulgated in 1976, we see Young's idea as prescient. Young develops a hierarchy where the uncertainty of the photons, or quantum of action, is its capacity to cause something new, i.e., within light is the essence of causality^[111,112].

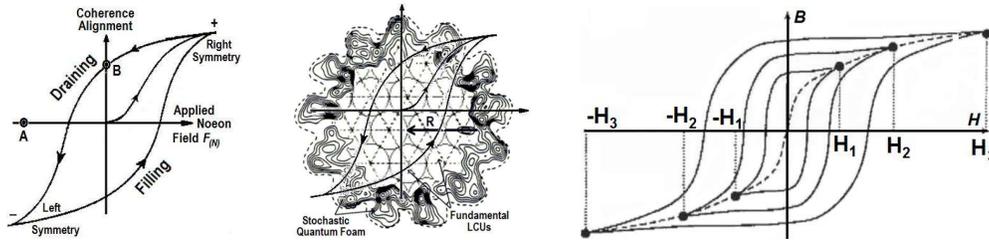


Figure 14. Relation of static-dynamic Casimir-Polder spacetime boundaries. a) General 2-space concept of noeon charge oscillation. b) To illustrate noeon-Psychon gating of life energy from nonlocal UFM arena into local brain dendron. c) An oscillation of static-dynamic brane boundaries would be measurable and thresholds for Jungian archetype field reversal measured.

In Fig. 14. We see how oscillation of noetic forces as static-dynamic noeon hysteresis loops can be shown to measure and demonstrate the noetic model of SOSP experimentally.

17. Yang-Mills Kaluza-Klein Equivalence: Path to Integrative Noetic Science

In recent work, we have shown that Yang-Mills Kaluza-Klein equivalence^[113] provides an empirical path extending standard 4D model of particle physics to include 3rd Unified Field Mechanical (UFM) regime for a noetic science of mind-body^[114-116]. We begin with Einstein's 1905 realization that Maxwell's equations obey the special relativity principle - The laws of physics are the same for all observers in uniform relative motion, with coordinate metric

$$x^\mu = (x^0, x^1, x^2, x^3) = (t, x, y, z); \quad (13)$$

Which he continued in 1916, with the principle of general relativity where the laws of physics are the same for *all* observers, described by a gravitational field with two indices, $g_{\mu\nu}(x)$, where the infinitesimal line element ds between two 4D points is,

$$ds^2 = g_{\mu\nu}(x)dx^\mu dx^\nu. \quad (14)$$

In 1919, Kaluza made his attempt to combine electromagnetism and general relativity by postulating a 5th dimension with the new coordinate, θ denoted collectively as

$$x^M = (x^0, x^1, x^2, x^3, x^4) = (t, x, y, z, \theta). \quad (15)$$

Kaluza's 5D Riemann metric tensor line element, $d\hat{s}$ was

$$d\hat{s}^2 = \hat{g}_{MN}(x)dx^M dx^N \quad (16)$$

where he then made a 4D + 1D split

$$\hat{g}_{MN} = \begin{pmatrix} g_{\mu\nu} + \Phi A_\mu A_\nu & \Phi A_\mu \\ \Phi A_\nu & \Phi \end{pmatrix} \quad (17)$$

identifying $g_{\mu\nu}(x)$ with Einstein's G-field and $A_\mu(x)$ with Maxwell's em-field; at the time Maxwell's em-theory was seen to be a consequence of general relativity in 5D^[117].

The problems associated with Kaluza's work were solved in 1926 by Klein^[118,119] by assuming the 5th dimension had circular topology so that the coordinate, θ is periodic, $0 \leq \theta \leq 2\pi$. It is this *circular* topology that is embraced and extended in a version of M-Theory compatible with 12D unified field mechanics^[40,71,72]. The periodicity in θ means that the fields $\hat{g}_{MN}(x, \theta)$ may be expanded^[117], which we do with additional coordinates some of which are infinite size^[70,71]. The UFM M-Theoretic requirements for a unified field theory are:

Mirror/Supersymmetry, Topological bane dynamics
 Manifold of Uncertainty (MOU) of finite radius
 Additional dimensions
 Extended material objects and
 UFM force of coherence.

18. Toward Experimental Design and Empirical Tests

A photon, 2-component, 2D traveling plane *wave* projecting at right angles to the direction of propagation has a *particulate radius* not able to pass a slit $> \lambda$. We propose that behind the inherent backcloth of cyclic bumps and holes in the polarized Dirac vacuum, the uncertainty principle is hiding the XD topology of the MOU, which is not singular as in the SM because cyclic boost-compactification occurs continuously from asymptotic virtual \hbar (shadow of uncertainty, to the Larmor radius of the hydrogen atom, making correspondence to dynamical Type-II M-theoretic Calabi-Yau florets (multiply-connected Kahler manifold) undergoing translation, rotation, reflection as part of the process. Spectral lines characterize atoms by, $E = \hbar\nu = \hbar c / \lambda$ or wave number, $\sigma \equiv 1/\lambda = E/\hbar c$ by discrete wavelengths confirmed by monochromatic x-ray bombardment. Excited states, E_2 decay to lower states, E_1 by emission of photon energy, $E_2 - E_1$ frequency, ν , wavelength, λ and wave number,

$$E_2 - E_1 = \hbar\nu = \hbar c / \lambda = \hbar c \sigma . \quad (18)$$

By conditions hinted at by Kaluza-Klein cyclicity in hyperspherical dimensions we propose

additional spectral lines *below* the lowest (ground state) Bohr orbit. Kowalski's interpretation from laser experiments^[120] shows that emission and absorption between Bohr states takes place within a time interval equal to one period of the emitted-absorbed photon wave, the corresponding transition time is the time needed for the orbiting electron to travel one full orbit around the nucleus. We note that the same Lorentz conditions denoted in our tachyon measurement experiment apply directly to the TBS experiment with slight phase control alterations in the Cramer-like standing-wave oscillation of the HD Calabi-Yau mirror symmetries^[121]. Standard Hypervolume values for increasing n -dimensionality and radius, r of a unit sphere or n -ball equal to 1 can be used to initially predict two TBS spectral lines hidden within the 6D Calabi-Yau dual 3-torus, the putative wavelengths of can be calculated from the general hyperspherical n -volume equation, of $(1/2\pi^2)$, 4.9346 units for 4D, and $(8/15\pi^2)$, 5.2638 units for 5D. If Randall-Sundrum^[122] are correct, the 6D cavity will be degenerate, and the signal escape to infinity. We postulate a Manifold of Uncertainty (MOU) with a finite dimensional radius corresponding to what string theory calls T-Duality. For preliminarily predictions we could calculate hyperspherical volume or surface area of 2D-5D MOU. The general n -volume equation is

$$V(n,r) = \pi^{\frac{n}{2}} r^n / \Gamma(\frac{n}{2} + 1), \quad (19)$$

where $V_{n,r}$ is volume per number of dimensions, n of radius r and Γ a factorial constant. These n -volume equations relate to volumetric properties of the MOU for calculating an HD C-QED hierarchy for predicting new Tight-Bound State (TBS) spectral lines in hydrogen^[4]. If LSXD exist, degeneracy would occur at the limit of r discovered in the same manner the outermost energy level of an atom is detected when an outer electron acquires sufficient energy to escape to infinity.

19. Programming the Dirac Vacuum: Accessing the Noetic Field

In a homogeneous magnetic field, forces exerted on opposite ends of the dipole cancel each other out and the trajectory of the particle is unaffected. if the particles are classical "spinning" particles then the distribution of their spin angular momentum vectors is taken to be truly random and each particle would be deflected up or down by a different amount producing an even distribution on the screen of a detector. instead, quantum mechanically, the particles passing through the device are deflected either up or down by a specific amount. this means that spin angular momentum is quantized (also called space quantization), i.e. it can only take on discrete values. There is not a continuous distribution of possible angular momenta. this is the usual fundamental basis of the standard quantum theory and where we must introduce a new experimental protocol to surmount it. This is the crux of our new methodology: If application of a homogeneous magnetic field produces quantum uncertainty upon measurement, then "*do something else*"!

Of the three types of spin-spin coupling, this QC protocol relies on the hyperfine interaction for electron-nucleon coupling, specifically the interaction of the nuclear electric quadrupole moment induced by an applied oscillating rf-electric field to act on the nuclear magnetic dipole moment, μ . When the electron and nuclear spins align strongly along their z -components the Hamiltonian is $-m \cdot B$, and if B is in the z direction

$$H = -\gamma_N I \cdot B = -\gamma_N B I_x \quad (20)$$

with $m = \gamma_N I$, γ_N the magnetogyric ratio $\gamma_N = e\hbar/2m_p$ and m_p the mass of the proton.

Radio frequency excitation of the nuclear magnetic moment, μ to resonance occurs for a nucleus collectively which rotates μ to some angle with respect to the applied field, B_0 . This produces a *torque* $\mu_i \times B_0$ causing the angular momentum, μ itself to precess around B_0 at the Larmor frequency $\omega_L = \gamma_N B_0$. This coherent precessing of μ can also induce a ‘voltage’ in surrounding media, an energy component of the Hamiltonian utilized to create interference in the structure of spacetime^[63].

Metaphorically this is like dropping stones in a pool of water: One stone creates concentric ripples; two stones create domains of constructive and destructive interference. Such an event is not considered possible in the standard models of particle physics, quantum theory and cosmology. However Noetic science uses extended versions of these theories wherein a new teleological action principle is utilized to develop what might be called a *transistor of the vacuum*. Just as standard transistors and copper wires provide the basis for almost all modern electronic devices; This Laser Oscillated Vacuum Energy Resonator using the information content of spacetime geodesics (null lines) will become the basis of many forms of Noetic Technologies especially QC.

Simplistically in this context, utilizing an array of modulated tunable lasers, atomic electrons are rf-pulsed with a resonant frequency coupling them to the magnetic moment of nucleons such that a cumulative interaction is created to dramatically enhance the Haisch-Rueda inertial back-reaction^[63]. The laser beams are counter-propagating producing a Sagnac effect Interferometry to maximize the violation of Special Relativity. This is the 1st stage of a multi-tier experimental platform designed (according to Noetic Field Theory) to ‘open a hole’ in the fabric of spacetime in order to isolate and utilize the force \hat{F}_U of the Unitary Field.

The interferometer utilized as the basis for our vacuum engineering QC platform is a multi-tiered device. The top tier is comprised of counter-propagating Sagnac effect ring lasers that can be built into an IC or Q-dot array of 1,000+ ring lasers. If each microlaser in the array is designed to be counterpropagating, an interference phenomena called the Sagnac Effect occurs that violates special relativity in the small scale^[63]. This array of rf-modulated Sagnac-Effect ring lasers provides the top tier of the multi-tier QC unit. Inside the ring of each laser is a cavity where quantum effects called Cavity Quantum Electrodynamics (C-QED) may occur. A specific molecule is placed inside each cavity (we propose a xanthine). If the ring laser array is modulated with resonant frequency modes chosen to achieve spin-spin coupling with the molecules electrons and neutrons, by a process of Coherent Control^[63] of Cumulative Interaction an inertial back-reaction is produced whereby the electrons also resonate with the spacetime backcloth in order to ‘open an oscillating (periodic) hole’ in it.

The first step in the interference hierarchy (Fig. 15) is to establish an inertial back-reaction between the modulated electrons and their coupled resonance modes with the nucleons. Following the Sakarov and Puthoff conjecture^[63] the initial resistance to motion, are actions of the vacuum zero-

point field. Therefore the parameter m in Newton's second law, $f = ma$ is a function of the zero-point field^[63]. Newton's third law states that 'every force has an equal and opposite reaction'. Haisch & Rueda^[63] claim vacuum resistance arises from this reaction force, $f = -f$. This inertial back-reaction is like an electromotive force (Electromotive force, E : The internal resistance, r generated when a load is put upon an electric current, I between a potential difference V , i.e. $r = (E - V)/I$) of a de Broglie matter-wave field in the spin exchange annihilation creation process inherent in a hysteresis of relativistic spacetime fabric. We further suggest that the energy responsible for Newton's third law is a result of the continuous-state flux of the ubiquitous noetic U_F ^[63]. For vacuum experimental implementation we assume the Haisch-Rueda postulate is correct

$$f = \frac{d\rho}{dt} - \lim_{\Delta t \rightarrow 0} \frac{\Delta\rho}{\Delta t} \equiv \frac{d\rho_*}{dt_*} - \lim_{\Delta t_* \rightarrow 0} \frac{\Delta\rho_*}{\Delta t_*} = f_* \quad (21)$$

where $\Delta\rho$ is the impulse given by the accelerating agent and thus $\Delta\rho_*^{zp} = -\Delta\rho_*$ ^[63].

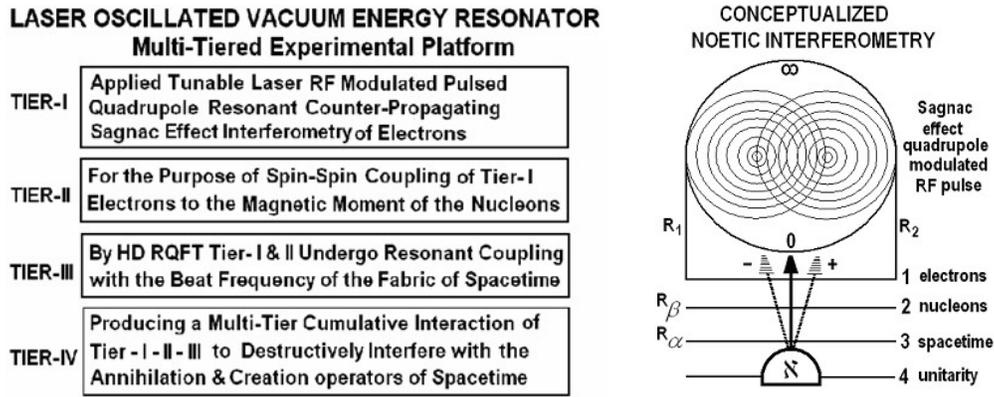


Figure 15. a) Design elements of the Noetic Interferometer postulated to constructively-destructively interfere with the topology of the spacetime manifold to manipulate the U_F . The first three tiers set the stage for the critically important 4th tier which by way of an incursive oscillator punches a hole in the fabric of spacetime creating a holophote or lighthouse effect of the U_F into the experimental apparatus momentarily missing its usual coupling node into a biological system. **b)** Conceptualized Witten vertex Riemann sphere cavity-QED multi-level Sagnac effect interferometer designed to 'penetrate' space-time to emit the 'eternity wave, \aleph ' of the U_F . Experimental access to vacuum structure or for surmounting the uncertainty principle can be done by two similar methods. One is to utilize an atomic resonance hierarchy and the other a spacetime resonance hierarchy. The spheroid is a 2D representation of a HD complex Riemann sphere able to spin-flip from zero to infinity continuously.

The cyclotron resonance hierarchy must also utilize the proper beat frequency of the continuous-state dimensional reduction spin-exchange compactification process inherent in the cyclic symmetry of noetic spacetime 'tuned' so the speed of light $c \equiv c$. With this apparatus noetic theory suggests that destructive-constructive C-QED interference of spacetime occurs such that the noetic eternity wave, \aleph of the U_F is harmonically (holophote) released into the detector cavity

array. Parameters of the Dubois incursive oscillator are also required for aligning the interferometer hierarchy with the beat frequency of spacetime.

As illustrated in Fig. 15 the coherent control of the multi-level tier of cumulative interactions relies on full utilization of the continuous-state cycling inherent in parameters of Multiverse cosmology^[63]. What putatively will allow noetic interferometry to operate is the harmonic coupling to periodic modes of Dirac spherical rotation in the symmetry of the HD geometry. The universe is no more classical than quantum as currently believed; reality rather is a continuous state cycling of nodes of classical to quantum to unitary, $C \rightarrow Q \rightarrow U$. Space does not permit detailed delineation of the parameters of Multiverse cosmology here; see^[63]. The salient point is that cosmology, the topology of spacetime itself, has the same type of spinorial rotation and wave-particle duality Dirac postulated for the electron. Recall that the electron requires a 4D topology and 720° for one rotation instead of the usual 360° to complete a rotation in 3D. The hierarchy of noetic cosmology is cast in 12D such that the pertinent form of relativistic quantum field theory has significantly more degrees of freedom whereby the modes of resonant coupling may act on the structural-phenomenology of Dirac ‘sea’ itself rather than just the superficial zero-point field surface approaches to vacuum engineering common until now. 12D is the minimum to surmount uncertainty because the ‘mirror image of the mirror image in HD space is causally free of the 3D quantum particle!

The parameters of the noetic oscillator (Fig. 15) may best be implemented using a form of de Broglie fusion. According to de Broglie a spin 1 photon can be considered a fusion of a pair of spin 1/2 corpuscles linked by an electrostatic force. Initially de Broglie thought this might be an electron-positron pair and later a neutrino and antineutrino. “*A more complete theory of quanta of light must introduce polarization in such a way that to each atom of light should be linked an internal state of right and left polarization represented by an axial vector with the same direction as the propagation velocity*”^[123]. These prospects suggest a deeper relationship in the structure of spacetime of the Cramer type^[63,121]. The epistemological implications of 12D must be delineated. The empirical domain of the standard model relates to the 4D phenomenology of elementary particles. It is the intricate notion of what constitutes a particle that concerns us – objects emerging from the quantized fields defined on Minkowski spacetime. This domain e is insufficient for our purposes.

For a basic description, following de Broglie’s fusion concept, assume two sets of coordinates x_1, y_1, z_1 and x_2, y_2, z_2 which become

$$X = \frac{x_1 + x_2}{2}, \quad Y = \frac{y_1 + y_2}{2}, \quad Z = \frac{z_1 + z_2}{2}. \quad (22)$$

Then for identical particles of mass m without distinguishing coordinates, the Schrödinger equation (for the center of mass) is

$$-i\hbar \frac{\partial \psi}{\partial t} = \frac{1}{2M} \Delta \psi, \quad M = 2m \quad (23)$$

Equation 23 corresponds to the present and Eq. 24a corresponds to the advanced wave and (24b) to the retarded wave^[121].

$$-i\hbar \frac{\partial \phi}{\partial t} = \frac{1}{2M} \Delta \phi, \quad -i\hbar \frac{\partial \phi}{\partial t} = \frac{1}{2M} \Delta \phi. \quad (24)$$

Extending Rauscher's concept for a complex 8-space differential line element $dS^2 = \eta_{\mu\nu} dZ^\mu dZ^{*\nu}$, where the indices run 1 to 4, $\eta_{\mu\nu}$ is the complex 8-space metric, Z^μ the complex 8-space variable and where $Z^\mu = X_{\text{Re}}^\mu + iX_{\text{Im}}^\mu$ and $Z^{*\nu}$ is the complex conjugate^[63], to 12D continuous-state spacetime; we write just the dimensions for simplicity and space constraints

$$x_{\text{Re}}, y_{\text{Re}}, z_{\text{Re}}, t_{\text{Re}}, \pm x_{\text{Im}}, \pm y_{\text{Im}}, \pm z_{\text{Im}}, \pm t_{\text{Im}} \quad (25)$$

where \pm signifies Wheeler-Feynman/Cramer type future-past/retarded-advanced dimensions. This dimensionality provides an elementary framework for applying the hierarchical harmonic oscillator parameters suggested in Fig. 15 to operate a QC without decoherence.

20. Epigenetics and the Noetic Effect

Epigenetic mechanisms are affected by several factors and processes including development in utero and in childhood, environmental chemicals, radiation, drugs and pharmaceuticals, aging, and diet. DNA methylation is what occurs when methyl groups, an epigenetic factor found in some dietary sources, can tag DNA and activate or repress genes. Histones are proteins around which DNA can wind for compaction and gene regulation.

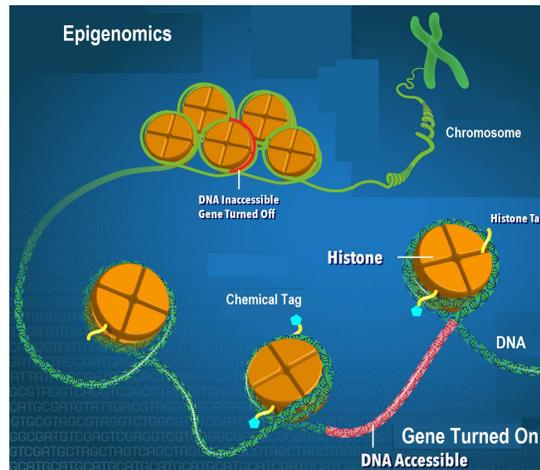


Figure 16. Histone modification occurs when epigenetic factors bind to histone tails altering the extent to which DNA is wrapped around histones. NIH Public Domain figure^[124].

Histone modification occurs when the binding of epigenetic factors to histone “tails” alters the extent to which DNA is wrapped around histones and the availability of genes in the DNA to be

activated. All of these factors and processes can have an effect on health and influence health possibly resulting in cancer, autoimmune disease, mental disorders, or diabetes among other illnesses.

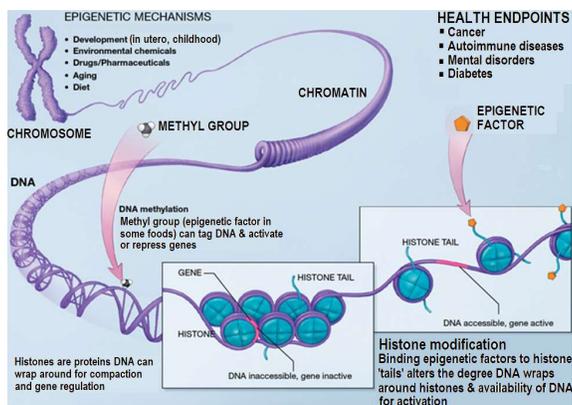


Figure 17. Epigenetic mechanisms occurring when epigenetic factors bind to histone tails altering the extent to which DNA is wrapped around histones. NIH PD figure^[124].

Transgenerational epigenetic inheritance is the transmittance of information from one generation of an organism to the next (e.g., parent-child transmittance) that affects the traits of offspring without alteration of the primary structure of DNA (i.e., the sequence of nucleotides)^[125-127] in other words, epigenetically. The less precise term *epigenetic inheritance* may be used to describe both cell-cell and organism-organism information transfer.

Four general categories of epigenetic modification are known^[125]:

1. Self-sustaining metabolic loops, in which an mRNA or protein product of a gene stimulates transcription of the gene;
2. Structural templating in which structures are replicated using a template or scaffold structure on the parent; e.g. the orientation and architecture of cytoskeletal structures, cilia and flagella, proteins that replicate by changing the structure of normal proteins to match their own
3. Chromatin marks, in which methyl or acetyl groups bind to DNA nucleotides or histones thereby altering gene expression patterns
4. RNA silencing, in which small RNA strands interfere (RNAi) with the transcription of DNA or translation of mRNA; known only from a few studies.

21. Epigenesis and Beyond: Mechanisms of Histone Modification by the Noetic Effect

The epigenome is involved in regulating gene expression, development, tissue differentiation, and suppression of transposable elements. Unlike the underlying genome which is largely static within an individual, the epigenome can be dynamically altered by external and as we propose UFM noetic conditions involved as a form of periconceptive trauma on nonlocal field parameters such

as such as physically real aspects of archetypes of Jung's collective unconscious. Periconception, meaning around conception, is usually considered to be 2 to 3 months before and after conception and the beginning of pregnancy. Within the first few days of conception the embryo has been found to be susceptible to the influence of fields.

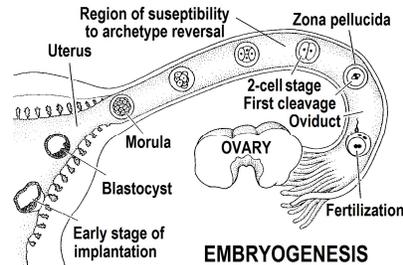


Figure 18. Human embryonic development from fertilization to implantation in the uterus where the egg *hatches* from the zona pellucida (which probably prevents adhering to the oviduct) when it reaches the uterus. Figure adapted from^[128].

Although all cells in the body contain essentially the same genome, the DNA marked by chemical tags on the DNA and histones gets rearranged when cells become specialized. The epigenome can also change throughout a person's lifetime by the mechanisms shown in Fig. 17.

Lifestyle and environmental factors (smoking, diet and infectious disease) cause stressors that producing chemical responses. These responses, can lead to changes in the epigenome, some of which are damaging. But, the ability of the epigenome to adjust to life stressors appears to be required for normal health. Some diseases are caused by malfunctions in the proteins that read and write epigenomic markers.

21.1 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). As in the solar flare metaphor where pulsing magnetic fields acting on the Earth's dynamo core periodically reverse the North and South poles, stones dropped in a pool of water creates smooth ripples; while two stones create areas that 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.

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 here.

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 noetic telergy later.

The author realizes the difficulty in accepting and comprehending the ultimate action of a Cartesian *light of consciousness* at this point in the development of noetic theory, especially as experimental confirmation is awaited^[4]. 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. How could that be measured?

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 physical unitary 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.

An instant of telergic commerce also defined as the *Noetic Effect* where subject one, 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. People appear separated in the 3-space of our perceptual reality; but in the additional nonlocal dimensions, wormhole-like topological branes 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. The dominant individual changes the energetic boundary conditions that mediate the flow of the noetic field between them. S_2 does not have easy access to the interpersonal higher flux modes; while S_1 has full access to a significant portion of S_2 because of the firmament S_1 's dominance creates in the interpersonal nonlocal space. This may seem incomprehensible to many at first because it is outside the realm of experience and not yet incorporated scientifically; 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.

22. The Ontological Origins of Sexual Preference

A further discussion of the noetic effect is needed before going on. In the ideal case of elemental intelligence where there is no separation or hierarchy, these nonlocal noetic *stressor* effects do not occur because of the perfect harmony or unity. Meaning that when the force of the noetic effect does not exist (zero), 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 of people with personality disorders.

The anima and animus, in Jung's school of analytical psychology are the two primary anthropomorphic archetypes of the unconscious mind. The anima and animus are described by Jung as elements of his theory of the collective unconscious, a domain of the unconscious that transcends the personal psyche. In the unconscious of a man, this archetype finds expression as a feminine inner personality: anima; equivalently, in the unconscious of a woman it is expressed as a masculine inner personality: animus.

The anima and animus can be identified as the totality of the unconscious feminine psychological qualities that a man possesses or the masculine ones possessed by a woman, respectively Jung focused more on the man's anima and wrote less about the woman's animus. Jung believed that every woman has an analogous animus within her psyche, this being a set of unconscious masculine attributes and potentials.

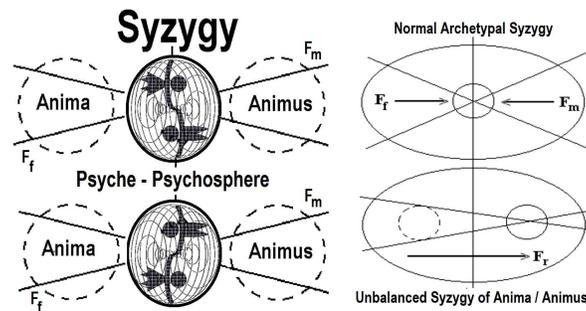


Figure 19. a) Conceptualization of the Psychosphere of a woman top, and man bottom, showing the nonlocal and local hyperstructure where action of the noetic field orders and maintains the dynamics of the psyche and the soul. The Psychosphere is the cosmological bound of an individual's mind - brain, elemental intelligence and spirit or noetic field, which is mediated by the Unified Field through a system of hyperdimensional wormholes. F_f and F_m are noetic force of father and mother respectively. b) Top, normal Syzygy of the Anima & Animus where the psyche, psychosphere and telergic effects are in balance. (Astronomical Syzygy occurs when the Earth and two other celestial bodies are in a straight line of either opposition or conjunction).

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 3rd 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'.

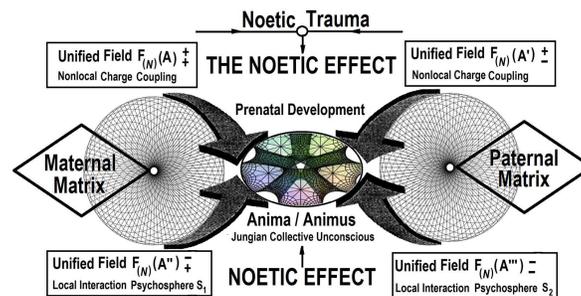


Figure 20. Action of the Noetic Effect on prenatal development is a dynamic resultant of the nonlocal noetic field, and the local action of the psychosphere and telergic factors.

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.

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 someday 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”*^[129]. (*editorial note added)

The theory presented here, the ‘day’ Hebb anticipated, where *the mystic/mysterious in psychology* finally become empirically testable physical science^[4,114-116]. 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 (*élan vital*) and 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 telergic influences (action one brain/mind has over another, by means of a nonlocal Cartesian noetic mental energy), 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 mediated by familial epigenesis. This is a reasonable metaphor for illustrating the noetic theory of mind^[3], to be further elucidated in future writings.

The crux of the explanation of the *noetic origin* of sexual preference arises from the action of a stressor called the ‘noetic effect’ 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 and in personality disorder (not addressed here). This happens at a stage in the process of hierarchical ordering and polarity formation of the *spirit and the body* for this particular personality archetype. Thus, causing a man to have a more feminine disposition and needs, and a woman to have more masculine needs, if this ordering of the anima/animus archetypal field is reversed. It is important to note that the noetic effect is an additional nonlocal Cartesian parameter not included in current usage of epigenesis until now.

The new noetic cosmology made it evident that the purpose of the higher or additional 8D is to mediate and interface the dynamics of the eternal-unified with the temporal subspace of our 4D reality. The significance of this fact is the complementarity between body and spirit at the local and nonlocal domains. Because of the nature of time^[7] and the complexity of hyperspherical geometry there is an orientation and dynamics to the gate within which energy propagates. This 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 UFM noeon complex and mediated by its teleology!

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. Another difficulty or complexity is the telergic component that can act as a power factor for the noetic stressor. This means there is a threshold before the noetic stressor produces 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 anthropic multiverse^[7,63] 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.

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 vacuum tube (CRT) 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. The aluminum vanes in the cathode ray gun are sufficiently delicate that the force of the magnet permanently bends them out of shape and the image on the screen remains distorted. This is a clear metaphor for the action of *the noetic effect*. 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.

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^[3]. In this case, it is the action of the noetic field that produces the deviation in the loci of the geodesic.

Only a generalization of the personality types that produce the geodesic deviation^[3] 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.

23. Parting Remarks

The noetic theory presented based on unified field mechanics proposes a new class of epigenic stressor based on the interaction of topological charge in M-Theoretic branes related to physically real Jungian archetypes, building upon recent work on extended models in a number of related disciplines. Science usually advances with hundreds or even thousands of constant tiny steps; and then occasionally every decade, fifty or hundred years as the case may be, dramatic advances occur leading to a new paradigm shift in the understanding of fundamental theory. The noetic theory is a vanguard of such a moment in the history of human epistemology to a 3rd regime of Natural Science with access to Descartes *res cogitans*. It will become one of the greatest shifts because it will revolutionize so many aspects of science, life and society all at once.

Until now all physical observation has occurred in 3-space, with access to additional dimensionality blocked by the quantum uncertainty principle. A better theoretical understanding of the Dirac polarized vacuum and the ability to manipulate it in a manner surmounting uncertainty has revealed hidden cyclic K-K parameters relating to matter and mind. Noetic theory is not raw speculation as some would surmise, but is empirically testable; which will happen soon enough...

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