

**A PERSONAL AND PROFESSIONAL LEADERSHIP  
PERSPECTIVE ON THE EXPERIENCED REALITY OF  
'SUBTLE ENERGY'**

**by**

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## SYNOPSIS

The objective of this study was to investigate the problem surrounding the concept of 'Subtle Energy'. The problem being that subtle energies in relation to physiology and health, are not well defined, "*suffered confusion*", and could not be explained through the traditional doctrines of scientific facts. The problem arose from the dissonance created between existing phenomenological proof that 'subtle energies' act as a causal factor in alternative healing modalities, and the scientific establishment which inversely denied such claims, simply due to a lack of validated scientific evidence. This study focuses on providing a clear understanding surrounding the concept of 'subtle energies' and in addition, an attempt was made to search for validation of subtle energies in terms of our existing knowledge of science.

The research strategy used in the study includes an explorative descriptive strategy.

The research methods that were used included:

- A concept analysis of the term 'subtle energies'.
- A phenomenological analysis of specific characteristics and properties of 'subtle energies'.
- A literature study to find scientific substantiation for the concept, 'subtle energies'.

The following are the most important findings of the study:

- Subtle energies is defined as representative of all energies beyond the four types of energies already recognised by physics.
- Throughout history, it has been seen that subtle energies was attached as an attribution to various healing modalities in philosophy, religious dogma and cultural healing practices.
- Concepts such as 'human energy fields', 'resonance', non-locality and 'synchronicity' were extracted as the characteristics ever prevalent in the appearance of psychic healing.
- Current constructs of physics, endow the concept subtle energies with a realistic perspective in our need to comprehend its healing influence on humans.

## OPSOMMING

Die doel met hierdie studie was om huidige probleme rondom die konsep 'Subtiele Energie' te ondersoek. Die huidige probleme bestaan hoofsaaklik uit die bestaande ontoereikende begrip van die konsep 'Subtiele Energie' rakende die fisiologiese aard daarvan en sekere helingspraktyke. Gepaardgaande bestaan verwarring oor die konsep, juis oor die onvermoë van die wetenskap om betekenisvolle en alomaaanvaarde konsepbekrywings daaraan te heg. Die probleem het ontaard vanweë die dissonans tussen bestaande fenomenologiese verskynsels naamlik, dat subtiele energie wel as oorsaaklike faktor in alternatiewe heling geld en die wetenskaplike bedryf wat omgekeerd enige sodanige verskynsels ontken, bloot net om gebrek aan berekenbare wetenskaplike teorieë. Hierdie studie fokus op die daarstelling van 'n duidelike konseptualisering van die term 'Subtiele Energie'. Verder word gepoog om die bestaande wetenskaplike inligting te ondersoek ten einde 'n moontlike wetenskaplike verklaring van 'Subtiele Energie' te staaf.

Die navorsing strategie wat in die studie gebruik is, is 'n verkennend-beskrywende strategie. Die navorsingsmetodes waarvan gebruik gemaak is, is naamlik:

- Konsepanalise van die term 'subtiele energie'.
- 'n Fenomonologiese analise rondom die verkryging van spesifieke eienskappe eie aan 'Subtiele Energie'.
- 'n Literatuurstudie op soek na wetenskaplike inligting en teorieë ter staving van die konsep 'Subtiele Energie'.

Die volgende is van die belangrikste bevindinge van die studie:

- Subtiele energie word gedefinieer as verteenwoordigend van alle oënskynlike energie wat nie onder die bestaande vier tipes energie tel, wat deur die fisika erken word nie.
- Regdeur die geskiedenis, is subtiele energie gesien as deel van verskeie helingverskynsels naamlik in filosofie, godsdiensoortuiging en kulturele helingspraktyke.

### iii.

- Konsepte soos, 'menslike energieveld', resonansie, gelyktydigheidsbeginsel en 'sinkronisasie' is onderskei as eienskappe teenwoordig in die verskynsel van alternatiewe helingpraktyke.
- Huidige konstrakte van fisika ondersteun die konsep van subtile energie as 'n realistiese perspektief in die poging om die invloed van alternatiewe heling op die mens te kan verstaan.



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# CHAPTER 1

## ORIENTATION AND RESEARCH DESIGN

**"We begin by distrusting what we already believe, by actively seeking the threatening and unfamiliar, by deliberately challenging the validity of what we have previously been taught to hold dear. The path to holiness lies through questioning everything."**

**(S.Peck, The Road Less Traveled)**

### 1.1 CONTEXT

#### 1.1.1 Focus of study

*"...a subject that has suffered from too many confusing and incomplete efforts to explain it – is our understanding of energy and our nature as beings of energy"*  
(Collinge,1998,xi).

*"...exactly what the role is of electromagnetic energy as related to the body, or how it develops, or what affects it, medical science cannot say precisely"* (Levin, 2001:49).

This study will attempt to project realistic light on the subject of 'subtle energies'. Our present day experiences and understanding of subtle energies are restricted to the distorted perceptions of our cultured, orthodox doctrines.

The quotes above show that the experience of subtle energy, as reality, is inexplicable through the traditional doctrines of scientific facts. The following overview illustrates the dissonance that exists between subtle energies as an experienced reality, as opposed to that which science could provide through cogent evidence.

#### 1.1.2 Overview

The idea that an energy exchange of some type occurs between individuals, is a central theme in many healing techniques. This concept has often been disputed by Western science due to the lack of a plausible mechanism to explain the nature of this energy, or how it could affect or facilitate the healing process.

. *“..a key challenge facing science in understanding the functioning of the body is how to chart the relationship between energy, the information it carries and the matter it influences – our bodies”* (Levin, 2001:50).

While the existing medical understanding offers no mechanism that might account for energy, healing, science in general is continually discovering startling possibilities regarding how we think, feel, love, heal, and find meaning in our lives (Shlitz & Lewis, 2000:32). Scientific research suggests that we, through complicated biological processes, relate to a mysterious, extremely powerful, but very subtle energy with properties unlike any other known force (Pearsall, 1998:4).

Energy Healing as practised through ancient healing methods have been little understood in modern times where illnesses in the West were treated through the science of molecular biology. The molecular-biology model suggests that physicians could treat all human illnesses if they only knew the specific molecular causes of diseases (Gerber, 2000:9).

The problem that arises, is that most of us who have a specific problem receive treatment from a physician to “fix” the problem. In most of these cases, patients receive a drug that chemically switches metabolic pathways on and off, blocking or triggering the required chemical reactions (Gerber, 2000:9). The underlying cause of the problem remains unsolved. *“... the practice of diagnosis and treatment of physical symptoms is likely to separate us by one more step from ourselves and our deeper truth”* (Brennan, 1993;34).

Our system (being) continually re-adjusts in the process of establishing balance. Pearsall (1998:211) conveys that all of us are sick and healthy at the same time all the time because we are chaotic energetic systems in the process of self correction. Our bio-energetic system interacts with other energetic systems in the universe which have an influence on the balancing of our own energetic system thus the ever chaotic energetic system attempts to continually re-adjust to a balanced system.

Since the dawn of humanity, concepts related to spirituality, consciousness, and intentionality have been central to healing systems of shamans, priest-healers, medicine men, religious and lay healers. The development of modern medicine has



overshadowed these practices, but rising public interest in a variety of healing modalities suggests the time is ripe for serious consideration as to what exactly provides the healing for “alternative healing” techniques (Shlitz & Lewis, 2001:30).

It is clear from the preceding text that a gap persists between what humans experience/perceive as the reality of subtle energy against that of which science could provide through cogent evidence. Could subtle energies be the core causal agent for alternative healing? Therapeutic touch, homeopathy, and use of non-conventional ‘energies’ such as chi’s, kundalini, prana amongs others all fall within this realm. These complex phenomena take science to the borders where consciousness and biological matter interact (Shlitz & Lewis, 1997:38).

## 1.2 THE PROBLEM

The fact is that history has shown us, that every known generation were represented by those who had enquiring minds and who questioned our physical world. Thoughts like: What makes the machinery of the universe work? What generates light? Why does gravity holds us down? What forces holds matter together? (Hawking, 1988: ix), and how consciousness relates to matter and being, is as relevant today as centuries ago. One of the most notable physicists of recent times states:

*“My scientific knowledge of the events in it comprises hundreds of millions of years. Yet in another way it is ostensibly contained in a poor seventy or eighty or ninety years granted to me – a tiny spot in immeasurable time, nay even in the finite millions and milliards of years that I have learnt to measure and to assess. Whence come I and whither go I? That is the great unfathomable question, the same for every one of us. Science has no answer to it”*  
(Schroedinger, E: 1964).

A statement such this acknowledges the infinite expansion of our physical knowledge, but also recognises the confining scope of science. From Impedocles who in the fifth century BC, composed the idea that everything consisted of the four ‘elements’ (earth, air, fire, and water), Plato, Archimedes, Newton, Einstein, - to the current thought of Quantum Field Theory, presents an epitome on how modern thought revolutionised (Gribbon, J. 1995:31). We have at the moment classical physics, general and special relativity theory, chaos theory, quantum mechanics,

quantum electrodynamics, quantum field theories amongst others. In modern times we are witnessing efforts from various knowledgeable scientists and the ignorant alike, to marry physics with Eastern mysticism. What is the relation, if any, between modern physics and transcendental mysticism: Bootstrap theory, Bell's theorem, the implicate order, the holographic paradigms? Is this not only part of oversimplified reductionism? **Which and what is 'Reality'?** Does physics even deal with 'Reality', or is it necessarily confined to studying the perception shadows of Plato's cave (Plato, 1986:256; Honderich, 1995:128). A sober understanding of physics will prove that physics could only deal with – *"the world of shadow-symbols, not the light of reality beyond the shadowy cave"* (Wilbur, 1969:10). Wilber further states *"physics deals with shadows; to go beyond shadows is to go beyond physics; to go beyond physics is to head toward the meta-physical or mystical."*

Physical theories which attempt to explain the mysteries of 'reality' branches in interminable directions in its endeavour to speculate around mysticism and causality. It is a matter where epistemological thoughts are transformed into presupposed ontological thought.

Could the gap between our understanding of the physical world (science) and our experience (reality) of subtle energies be bridged?

### 1.3 THE RESEARCH PROBLEMS

It is with the aforesaid in mind, that I propose that any theories presented which deal with 'subtle energies' hold central the supposition that 'reality' as we experience it, cannot be completely explained by our existing knowledge of physics." *Some of these energies are known and recognized by physics, while others cannot be explained by science – yet we experience them as no less real"* (Collinge, 1998:2).

Subsequently the research question could then be posed as:

- What is meant by subtle energy? How are subtle energies experienced as reality?
- What, if any, premises exist in the form of scientific philosophical theories which could explain the experienced reality of subtle energies?

## 1.4 THE OBJECTIVE

In view of the research question, it is clear that subtle energies as an experienced reality should be defined. In addition, an attempt should be made to validate subtle energies in terms of our existing knowledge of science.

## 1.5 A PERSONAL AND PROFESSIONAL LEADERSHIP (PPL) PERSPECTIVE

PPL, in its task to establish a continuous self-awareness development with people, could make a contribution in lending a greater awareness on the intrinsic value of subtle energies and its healing potential. Through knowledgeable insight a PPL practitioner presents a person with an array of possible solutions and information for realising his/her full potential, whether in his/her emotional, spiritual or in health dimensions. Since optimism and positive attitude/thinking stands central in PPL's explanation of self-improved health, any information that assists the explanation of the subtle miracles of energy collaboration with human consciousness would contribute to a person's increased level of immunity. This is evident in the study of psycho-neuro-immunology which is concerned with the study of the relationship between the brain, immune system, and the human experiences of the outside world. A puritanical understanding, therefore, on subtle energies and its effect on health is of great importance for the ethical PPL practitioner, since his/her facilitating/counselling role to society could help facilitate the transition of an expanding conceptual framework to incorporate alternative healing modalities into an integrated health model. This would offer people better and more flexible healthcare options. (Shlitz & Lewis, 2001:30).

*“Aside development of your subtle energetic bodies and creation of your personality ... you can also develop ability to ‘regulate’ and ‘modulate’ energy fields around you and other people...thus influencing their physical and subtle bodies with healing energy relieving imbalances in energy fields and bringing health and energetic balance” (Nudel & Nudel, 2000:17).*

This study intends to provide current information from various science disciplines in a coherent manner regarding subtle energies, available to the PPL practitioner. *“Using*

*the language of energy and understanding the human energy system will give you a new view of your personal power” (Myss, 1998:7).*

## 1.6 RESEARCH METHODOLOGY

The research strategy – the strategic plan that directs one’s study and determines the methods to be used – (Smith, 1993:19) will be integrated with various research methods on how one will go about finding answers to the research questions in an attempt to meet the study’s objective (Smith, 1993:20). When successful, this in turn, will result in the research question being answered.

An **explorative descriptive strategy** (Smith, 1993:35) will be used in the sense that

- the reality of subtle energies, as experienced and perceived by man, will be portrayed from a scientific perspective. Any phenomenological evidence presented in support of the reality of subtle energies, would be done as a descriptive essence of the scientific study of this phenomena.
- ultimate reality forms the foundation of philosophical inquiry. Thus scientific theories dealing with ‘experienced reality’ of subtle energies must be classified under Philosophy of science (Honderich, 1995:809). Metaphysics as one of two broad areas of Philosophy of science will be examined - “The metaphysics of science discusses philosophically puzzling aspects of the reality uncovered by science” (Honderich, 1995:809). It is then under this premise that I shall give a description of modern scientific theories dealing with the prospect of ‘subtle energy’. In my attempt to narrow the gap between science and the experienced reality of subtle energies, it may provide a unified conception on how subtle energy is experienced as reality, from an observer’s point of view.

Within this strategy, use will be made of the following **methods** to convey the chosen literature in a logical and systematic way:

- **Concept analysis** as research method will be used to clarify the meanings of central concepts in this essay, so as to give the researcher and the reader a better understanding of the various meanings, characteristics and connotations of relevant concepts (Smith, 1993:43-44).
- The extensive **literature study** to be conducted will not only grant the researcher access to the conceptual definitions, but also sharpen and deepen the theoretical framework of the study. Relevant publications, dissertations, books and articles will be used as resources to the study, which will assist the researcher in gaining the necessary background information, so as to meet the study's objective (Smith, 1995:23-25).
- The **phenomenological analysis method** (Smith, 1993:45) will be directed at the systematic presentation of the phenomena of subtle energies as experienced by man, from a scientific perception.

## 1.7 OUTLINE OF THE STUDY

**Chapter 1** primarily has an orientation function. It details the research design and focuses the rest of the study by providing the context, research problem, objective, and the perspective of the study, as well as the research methodology to be used.

In **Chapter 2** the concept of subtle energies will be analysed and placed into perspective. This chapter will also provide a phenomenological analysis on subtle energies in respect to its experience of reality. A literature study on mostly scientific literature will be conducted that conclusively show that subtle energies are an experience of reality. This chapter will attempt to answer the first part of the research question.

**Chapter 3** purports to provide answers to the second part of the research question. The study will provide up to date, scientific and metaphysical theories, dealing with subtle energies. A wide spread search of scientific literature will show that science has gone a far way in validating some of the mystical experiences of mankind relating to subtle energies.

**Chapter 4** will provide a summary of the essay. It will also highlight the findings of the essay which would be the culmination of information as researched and reported on in chapters 2 & 3.




## CHAPTER 2 – SUBTLE ENERGY ELUCIDATED

***“Reality is what we take to be true. What we take to be true is what we believe. What we believe is based upon our perceptions. What we perceive depends upon what we look for. What we look for depends on what we think. What we think depends upon what we perceive. What we perceive determines what we believe. What we believe determines what we take to be true. What we take to be true is our reality.”***

**(Zukav, 1991;328)**

In **Chapter 2** the concept of subtle energies will be analysed and placed into perspective. This chapter will also provide phenomenological analysis on subtle energies in respect to its experience of reality. A literature study on mostly scientific literature will be conducted which will show that subtle energies are an experience of reality. This chapter will attempt to answer the first part of the research question.

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- 2.1 INTRODUCTION**
  - 2.2 SUBTLE ENERGY – CONCEPT ANALYSIS**
  - 2.3 HISTORY OF SUBTLE ENERGIES**
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  - 2.5 CONCLUSION**

## 2.1 INTRODUCTION

The search for a specific unknown energy, an energy with the power to heal, has obsessed the human mind and spirit since the beginning of civilisation. For centuries, men of genius have tried to harness this strange, enigmatic force. Thus far, however, it has remained slightly out of grasp. I aim, to provide a discourse on healing energies identified as subtle energies in that which follows. An objective observer approach was followed, interpreting the phenomena of experienced reality pertaining to energy healing. The objective, however, was to obtain cogent evidence which will place subtle energy into a perspective as a validated source to healing modalities / therapies.

*“The concept of the body as a complex energetic system is part of a new scientific worldview gradually gaining acceptance in the eyes of modern medicine. The older, yet prevailing, view of the human body is still based upon an antiquated model of human functioning that sees the body as a sophisticated machine. In this old worldview, the heart is merely a mechanical pump, the kidney a filter of blood, and the muscles and skeleton a mechanical framework of pulleys and levers” (Gerber, 2000:7).*

This Chapter will provide the following researched information in its endeavour to answer the first part of the research question:

- This study deems it essential (for further reference and context) to obtain and establish a clear concept understanding of the phenomena termed ‘Subtle Energies’. The words forming the concept of ‘Subtle energies’ are consequently analysed.
- Providing a punctilious and complete historical record of the phenomena of subtle energies could not be covered in the context and restrictions of this study. Therefore, just the essential broad historical background is provided for context purposes.
- A few fundamental properties forming the essence surrounding ‘subtle energies’ which elucidate the phenomena of ‘subtle energies’ as an unfeigned experience of reality were identified and explored.



## 2.2 'SUBTLE ENERGY' - CONCEPT ANALYSIS

**Subtle** takes its origin from the French word *sutil* and it from the Latin word *subtilis* which is derived from the two Latin words *sub* (beneath)+ *tela* (weaving) with an underlying idea of "finely woven" (Encarta,2001) & (Bohm, 1990:271). Dictionaries describe it as "*difficult to detect or grasp by the mind*" and "*Faint and difficult to analyze*".

**Energy** from a scientific perspective is the ability to do work. It is the force that moves things, including atoms, molecules, cellular processes, consciousness, and bodies of all shape and sizes, from plants to fingers (Pearsall, 1998:40).

From an apple to a rock to a human being, from sound to pressure to temperature, all involve energy in some way. Science describes energy as a spectrum made up of frequencies. There are different kinds of energy. When examining the body and the heart, for example, there is electrical energy, which cardiologists measure with an electrocardiogram (ECG). The heart's electrical energy is a signal that can be picked up by electromagnetic energy three metres away (Levin,2000:49).

Every atom in the body is a sub-microscopic electromagnetic device. Gerber (2000:14) relates to humans as the '*multidimensional energy system*'. The different forms of energy systems helps in nutrition, information processing, and maintaining general health. The human body uses 'Metabolic energy' to extract energy from food. More than 50 percent of all the calories one eats is translated to electrical energy just to maintain an electric potential gradient across the membrane of each cell, the basic unit of all life. Without this electrical charge, the cells would collapse and die (Pearsall, 1998:41).

Your every thought, every sensation, every emotion, every intention is accompanied by electromagnetic energy activity in your brain. This organ, representing only two percent of body weight, consumes the energy of approximately 20 percent of all that one eats. Every beat of the heart is triggered by electromagnetic impulses which cascade in swift and perfect rhythm, the length of every artery and vein in the body. Every muscular movement, even the smallest involuntary twitch, requires electromagnetic signalling and action. And all of this can be recorded on the surface

of the skin-by the electroencephalograph (EEG) for the brain, the electrocardiograph (EKG) for the cardiovascular system, and the electromyograph (EMG) for the muscles. These electromagnetic fields are not limited to the skin's surface, there are instruments sufficiently sensitive to measure one's cardiovascular activity several centimetres away from one's body (Gerber,2000:6; Leonard,1997:8).

There is now a large body of experimental data in the general area of psycho-energetics (*Part of the science field psycho-neuro-immunology*) associated with the directed focus of human intention (Nunley, 1998). Remote influence experiments with healers, remote viewing experiments, investigations of psycho kinetics, clairvoyance, homeopathy, and other phenomena as an experience of reality confound the established picture of natural laws, but attest to the existence of processes requiring the involvement of **some form of energy** with emotional, mental and spiritual domains (Cooperstein, 1996:6).

According to conventional physics, there are only four kinds of energy (forces) in existence: electromagnetic-, gravity-, and two subatomic forces called the strong- and the weak force. (Gibbon,1998:57) Yet, consistent with the worldviews of indigenous cultures, the human body appears to be a multidimensional reality (Gerber, 2000:10), one in which humans experience a whole spectrum of energies, some from the physical dimension and some from the yet unknown (Collinge, 1998:16).

Energy forces beyond that which science could conclusively validate, might best be grouped into a category called 'subtle energies' (Tiller 1999). Also the 'Fifth Force' (Pearsal, 1998;38). For now, subtle energies can be defined as all those energies beyond those presently acknowledged in physics (Tiller 1993;34; Pert,1997;252).

Seaward as quoted in Pert (1997: 307) on the question on what he perceives subtle energy to be:

*"I believe subtle energy is a kind of universal life force that flows through us from the divine. According to Eastern wisdom, everyone has an aura, a field of this energy surrounding the physical body, and flowing through it as well, travelling along lines called meridians by the Chinese or radiating out from the seven body centres called chakras by the practitioners of yoga. Westerners even have a version of it in Christianity, as a halo surrounding the crown of the head, often depicted on saints and angels in medieval art. But you don't have*

*to be a saint, an angel, or yogi to acknowledge this subtle energy. It's in everyone and can be force for healing.”*

Larry Dossey (1997) on his perception of subtle energies:

*“It may turn out that some form of energy may indeed be discovered in the future. Because this can't be ruled out, we are justified in using the term “subtle energy” in a provisional, qualified, metaphorical way. But as far as I can tell, almost nobody who speaks about “subtle energy” believes it is a metaphor, and they don't use it provisionally. They imply that it **real**, that it has already been demonstrated, and that it is a concrete **reality**.”*

### 2.3 HISTORY OF SUBTLE ENERGY

The subtle energies associated with the human body have been part of cultures for at least 5000 years now. These subtle energy observations were commonly found among ancient religious mystics. Each culture had a different name for these phenomena. (Table 1)



**Table 1 - Historical references to a Universal Energy Field**

Time	Place/Person	Name of energy	Properties Attributed to it
5000BC	India	prana	The basic source of life
3000BC	China	chi yin and yang	Present in all matter Composed of 2 polar forces; balance of 2 polar forces = health
500BC	Greece: Pythagoras	vital energy	Perceived as a luminous body that could produce cures
1500s	Europe: Paracelsus	Illiaster	Vital force and vital manner; healing; spiritual work
1600s	Gottfried Wilhelm Von Leibnitz	Monads	Centres of force containing their own wellspring of motion
1700s	Franz Anton Mesmer	Magnetic fluid	Could charge animate and inanimate objects; hypnosis; influence at a distance
1800s	Wilhelm von Reichenbach	Odic force	Comparison to electromagnetic field
1911	Walter Kilner	Aura Human atmosphere	Used coloured screens and filters to see 3 layers of the aura; correlated auric configuration to disease
1940	George De La Warr	Emanations	Developed radionics instruments to detect radiation from living tissues; used it for diagnosis and healing from a distance
1930-50	Wilhelm Reich	Orgone	Developed a mode of psychotherapy utilizing the orgone energy in the human body; studied energy in nature and built instruments to detect and accumulate orgone
1930-60	Harold Burr and	Life field (LF)	LF directs organization of an organism; developed idea of

	F.S.C. Northrup		circadian rhythms
1950s	L.J.Ravitz	Thought field (TF)	TF interfered with LF to produce psychomatic symptoms
1970-89	Robert Becker	Electromagnetic field	Measured direct current control systems on the human body; correlated results with health and disease; developed methods to enhance bone growth with electrical current
1970-80s	John Pierrakos, Richard Dobrin, Barbara Brennan	Human Energy Field (HEF)	Correlated clinical energy field observation with emotional response; low-light-level darkroom measurements correlated to human presence
1970s	David Frost, Barbara Brennan, Karen Gestla	HEF	Laser bending with HEF
1970-90	Hiroshi Motoyama	Chi	Electrically measured the acupuncture meridians; used for treatment and diagnosis of disease
1970-90	Victor Inyushin	Bio plasma	HEF has bio plasma composed of free ions; fifth state of matter; balance of positive and negative ions=health
1970-90	Valerie Hunt	Bio field	Electronically measured the frequency and location of the bio field on human subjects; correlated results with aura readers
1960-90	Andria Puharich	Life-enhancing field	Measured life-enhancing alternating magnetic fields (8 Hz) from healer's hands; found that higher or lower frequencies are detrimental to life
1980-90	Robert Beck	Schumann waves	Correlated healer's magnetic pulses with pulsations of earth's magnetic field, the Schumann waves
1980-90	John Zimmermann	Brainwaves	Showed that healer's brains go into right/left synchronization in alpha, as do patients

Adapted from Brennan (1993:17)

5000 years ago, the ancient spiritual tradition of India spoke of a universal energy called 'prana'. This universal energy was believed to be the source of all life. The breath of life moves through all forms to give them life. Yogis work with this energy by using breathing techniques, meditation, and physical exercise to produce altered states of consciousness and longevity (Mitchell, 1998:9).

3,000 years ago, the ancient Qigong masters in China practiced their meditative discipline to balance and invigorate the human energy field (Mitchell, 1989:22). The Qigong masters called this vital energy, that pervades all forms, both animate and inanimate, 'chi'. The 'Qi' (chi) is the vital energy of the body; while 'gong' means the skill of moving this 'chi' and working with it. Practitioners use mind control to move and control the 'chi' to not only improve health and longevity, but also to enhance awareness, psychic powers, and spiritual development (Brennan, 1988:29).

The ancient Qigong masters also developed Tai Chi, Kung Fu, and the martial arts. In addition, they made the first model for acupuncture. Acupuncturists insert needles, or put magnets at specific acupuncture points to balance the yin and yang of the human energy field. When the chi is balanced, the entity has good health. When the chi is unbalanced, the entity has poor or impaired health (Coddington, 1981:143).

The Kabbalah, the Jewish mystical teachings written about 538 B.C., calls these energies the astral light (Berg, 1988:95). Later on, Christian paintings and sculptures show a halo around the head of Christ and other spiritual leaders. Similarly, we see this halo on statues and paintings of Buddha, and also see energy or light coming from the fingers of many of the gods of India. There are references made to the phenomenon of the human energy field (HEF) or the aura of the body, in ninety seven (97) various ancient to modern cultures, according to John White in his book "*Future Science*" (Talbot, 1991:165).

Today, everyone knows that humans see only a small fragment of the electromagnetic spectrum and hear only a small fragment of the sound spectrum. Thus, it should not seem too unreasonable to propose that, on average, humans currently perceive only a small fragment of the reality spectrum (Louw & Edwards, 1993:119-142). Although many will have no problem concerning the possible existence of distinctly different bands of reality in the overall spectrum of reality, most humans, have difficulty with cognitively accessing bands other than the physical band (Tiller 1999a).

One mystical phenomenon that appears to involve the required ability to see a fuller frequency spectrum is the aura, or human energy field (HEF). The notion that there is a subtle field of energy around the human body, a halo-like envelope of light that exists just beyond normal human perception, as found in many ancient traditions of which some is listed above and in table 1 contravenes modern logic thought (Talbot, 1992,165). Clairvoyant persons on the other hand lay claim through ESP (Extra Sense Perception) that through a process of spiritual development, **consciousness** evolves to a higher sense perceivment. In respect to the 'Human energy field' (HEF) (Brennan 1988;40) states: "*It pulsates and can be sensed by touch, taste, smell and with sound and luminosity perceivable to the higher senses.*"

The effect of some persons to perceive, conceive and manipulate an illuminating energy field around living organisms rendering a wide range of psychic modalities is in the fore front of scientific experimentation today. Apart from the fact we know that energy is radiated by living organisms, it is difficult to conceive that such a field could be sensed and that it has an influence on living and non-living matter alike.

## 2.4 SUBTLE ENERGY AS AN EXPERIENCED REALITY

### 2.4.1 Kirlian Photography

Kirlian photography provides an indirect visual means to observe the **reality of subtle energies** with the naked eye. Kirlian photography deals with high-voltage electrical fields. The influence that objects and living organisms have on the discharge pattern in the field can be photographed using the Kirlian method.

As life on earth developed and is developing in electromagnetic fields, the influence of electric fields and the parameters that control them entail connections that can be visualised with Kirlian photography (Iovine,2000:81; Gerber,2000:26).

Dr Thelma Moss carried out studies - using the Kirlian photography methods - involving people who were expert gardeners as flowers flourished under their care.

*“The hypothesis being tested was that in an interaction between a person’s hand and an injured leaf, there would be a rejuvenation of the leaf’s energy field, whereas the Control leaf (an injured leaf with no human interaction) would not show any change in its Kirlian energy field.” The result shown: “the experimental leaf had become vividly brilliant and bubbly post-treatment, while the Control leaf had remained lack-lustre, with black spots. Thus, the hypothesis that bio energy from a person can revitalise a leaf seemed demonstrated” (Moss,1981:99).*

This study became known as the ‘*Green Thumb*’ study. She also did tests with a person who stated that plants were always dying around him. The leaves that had been ‘treated’ by this person showed no corona. This, then became the ‘*Brown Thumb*’ study.

On occasion Moss photographed a broken finger of a person together with the corresponding healthy finger on the other hand:

*“Clearly, the broken finger gave a far bigger and brighter corona than the healthy one – a finding straight out of acupuncture theory, which states that in*

*a healthy body there is a **balanced flow of energy**, but when there is trauma or injury, the flow of **energy becomes imbalanced**” (Moss,1981:107).*

One of the most remarkable effects Kirlian photography lay claim to is known as the ‘Phantom leaf effect’. This phenomenon realises the full corona image of the leaf when photographed after a portion of the leaf is cut off (Brennan, 1988:39; Moss,1979:196). Gerber (2000:29) explains Kirlian photography and the related phantom effect as the result of “**harmonic resonance**”, where the lower octaves of Kirlian electrical energy **resonate** with higher octaves of the bodies subtle energies.

#### **2.4.2 Resonance in Subtle energy**

Resonance is a widespread phenomenon in nature.

*“All manner of physical systems, whether mechanical, electromagnetic, fluid dynamical, quantum mechanical, or nuclear, display capacities for synergistically interactive vibrations with similar systems, or with their environment. Coupled harmonic oscillators, all common musical instruments, radio and television circuitry, atomic components of molecules, all involve this ‘**sympathetic**’ resonance, from which strikingly different properties emerge than those that characterize their isolated components.” Jahn.R, cited in (Dossey, 2002:269).*

Dossey (2002;69) refer to Lyall Watson’s *The Nature of Things* which suggests that a general kind of **resonance** may pervade the natural world to an almost unthinkable degree. Watson describes how inanimate objects and lower organisms – stones, cars, bacteria, may ‘**resonate**’ with humans by taking on one’s ‘emotional fingerprints,’ as Watson puts it, as a result of prolonged, intimate contact with humans. When they do so, they may behave in surprisingly lifelike ways and lead to what Jung (1985) called ‘**synchronicities**’.

Robert G. Jahn, director of the Princeton Engineering Anomalies Research (PEAR) laboratory, has observed millions of trials in which individuals attempted to influence the performance of sophisticated electronic instruments such as random-event generators. Their results indicate that ordinary individuals can mentally exert a

statistically significant effect on the machines performance under controlled conditions. These effects were also proven to be **non- dependent on time and distance**. Thus **non-local** (Jahn & Dunne, 2000:499; Jahn & Dunne,1999:6). Jahn (1996;38) attach '**resonating bond**' as primary requisite for the exchange of such energy.

*"...spiritual healing and diagnosis, holistic health strategies, placebo effects, hypnotic techniques, pet therapy, plant care, and various psycho-therapeutic procedures seem to entail the same two common denominators we find in the physical system anomalies, namely the roles of resonance and volition"* (Jahn & Dunne (1987:326).

### 2.4.3 Subtle energy and Synchronicity

The concept that the **resonating** of subtle energies could be a causal factor in the creation of synchronicities may be perceived in some way as peculiar. This might just be the concept which Psychologist Carl Jung was looking for in the meaningful relationship between two events which he termed 'synchronicity' (Jung, 1985:8).

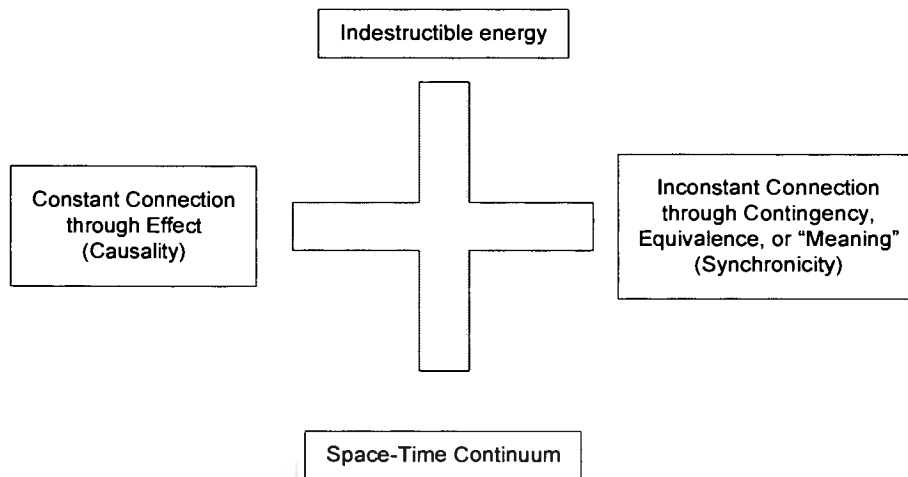
Jung felt that the conscious and unconscious form one energetic system, and that psychic energy, in a way in analogy to the energy that physics knows, could not be destroyed, and therefore must have fallen into the unconscious. This he verified by observing the contents of the unconscious. Some of them were activated in synchronicities.

Synchronicity is commonly known as '**meaningful coincidence**' It is coincidences that are so unusual and so meaningful that they could hardly be attributed to chance alone. It appears to be the exact opposite of fortuity appearances. Everyone experiences such incidents at some point in life. *(I personally relate to a great deal of occasions while writing this essay where my thought on a specific idea was clarified by simply randomly picking one of several dozens of books in front of me, opening it and finding associative concepts relative to my idea.)* Synchronicities reveal, in particular, links between **inner mental patterns** and events in the external world (Peat, 1999;3).



Jung who associated ESP with synchronicity, were frustrated with the current knowledge of resources available to explain this phenomena, stated, "... for "effect", cannot be understood as anything except a **phenomena of energy**" (Jung, 1985:27).

Jung, (1985:137) postulated after collaboration with the physicist W. Pauli, a model for understanding synchronicity which includes the concept of '**Indestructible energy**' that conforms with physics as understood at the time:



"...increasing understanding of the immune system has led some doctors to become interested in the question of the **meaning** of a person's life and it's role in the movement towards health" (Peat, 1989). Meaning in this context entail, non-local as implied by the term "Meaningful coincidence. " ...the basic idea underlying **meaningful coincidence**: it is possible because both sides have the same meaning. Where meaning prevails, **order** results" (Jung, 198:99). Talbot (1993:122) states that phenomena related to subtle energies is the result of non-local "**resonance of meanings**".

It would not be absurd to suggest that healing modalities of energy healers (*Providing real case studies convincing sceptics on the workings of non-local healing such as 'healing through prayer', 'healing through touch', or any form of psychic healing is beyond the scope of this essay and the writer refer the reader to books such as (Brennan, 1988:1993), (Myss, 1997), (Mozt, 2000), (St. Aubyn, 1983), (Dearing, 1979), (Moss, 1979), (Lawson, 1997) and (Sherman, 1969) ) are realised by a causal factor such as subtle energies* for which the underlying formal cause could be the

**resonance of meanings.** These non-local meanings could be a form of **collective patterned consciousness.**

## 2.5 CONCLUSION

To progress towards comprehension of the role of subtle energies in anomalous healing, one needs to appreciate that humans are oscillating fields within larger fields. The human brain respond to rhythms of sounds, pulsations of light, specific colours and tiny changes of temperature. In addition, subtle energies transcend these levels to go beyond that of the individual sphere to connect collectively with other entities. Subtle energy could thus be considered as the link between the physical and non-physical, the connection of our individual unconscious with a collective unconscious.

In the unconscious drive for well-being, subtle energies are used as a vehicle in conveying important information required in the creation of health. The human unconscious and consciousness play a major part in human well-being, and are therefore widely accepted and documented. The human consciousness in its ability to process information via sending and receipt of sympathetic resonance, translate these information to the human physiological systems via the biological networks. Jahn (1996:37): *“Through an amazing array of hard-wiring, soft-wired, and-in all likelihood-wireless connections and activators, the mind and body have elaborate options for guiding, protecting, and providing for each other to the higher welfare of the whole.”*

Key characteristics of subtle energies, as reviewed in this chapter, such as energy fields, resonance and synchronicity of the unconscious, play fundamental roles in the human body's conveying of information. These would enable the subtle energies of the human body to balance towards a physiological state of homeostasis. The inherent autogenous functions of these characteristics are rarely noticeable without the keen awareness of its potential influence in once life. It is therefore more often than not, aspects which are degraded into oblivion by the prevalent scientific establishment. This in itself, establishes the importance in creating scientific platforms from where subtle energy phenomena could be perceived as a viable view of reality.

These views may prove to be in contrast to the existing materialistic/mechanistic paradigm, but will provide an all encompassing paradigm of reality which includes anomalous phenomena.

The ensuing context of this study examines the role of physics in relation to subtle energies. It is into the mystical micro-scopic world of physics that we found phenomena of which behaviour is as supernatural as those presented by human energy fields, sympathetic resonance and synchronicities. In describing effects and theories that explain the strange phenomena of the micro-scopic world, one may come to understand the workings of subtle energies as experienced in the macro-scopic world.



## CHAPTER 3 – SCIENTIFIC APPROACH

***“Recent decades have taught us that physics is a magic window. It shows us the illusion that lies behind reality – and the reality that lies behind illusion. Its scope is immensely greater than we once realized. We are no longer satisfied with insights only into particles, or fields of force, or geometry, or even space and time. Today we demand of physics some understanding of existence itself.”***

***John Wheeler***

**Chapter 3** in its effort to provide answers to the second part of the research question, the study will provide up to date, scientific and metaphysical theories, dealing with subtle energies. A wide spread search of scientific literature will show that science has gone a far way in validating some of the mystical experiences of mankind relating to subtle energies.

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### 3.1 INTRODUCTION

“...quantum physics reflects a species that is becoming aware of the relationship of its consciousness to the physical worlds.” (Zukav,1990;67)

This chapter poses to provide an answer to the second part of the research question, which is:

- What, if any, premises exist in the form of scientific philosophical theories which could explain the experienced reality of subtle energies?

This chapter in essence, will sketch established principles and theories of physics which in itself attempts to explain reality. The focus will fall on the principles and theories which in particular lend themselves towards the explanation of anomalous effects of psychic healing. Whether metaphorically, or by direct implication, the explained reality of subtle energies through physics in this chapter, will demand the expansion of prevalent paradigms of orthodox healing perceptions.

Jung as quoted by Jahn & Dunne (1986:767) commented,

*“...The microphysical world of the atom exhibits certain features whose affinities with the psychic have impressed themselves even on the physicists. Here, it would seem, is at least a suggestion of how the psychic process could be ‘reconstructed’ in another medium, in that, namely, of the microphysics of matter.”*

This chapter establishes a broad framework, from the early development of physics, through to the more complex theories of quantum physics, in order to construct a perception, on how realities of the micro-scopic world could explain the perplexed phenomena of subtle energies in the macro-scopic world.

### 3.2 NEW SCIENTIFIC PARADIGM

One of the most problematic situations scientists and philosophers have struggled with over the centuries is to understand the nature of reality (Honderich,1995:746). There has been no satisfactory answer to this inquiry until now, although progress in

understanding the inanimate segment of reality has been made. Because of this relative success, scientists have also tried to explain reality in a materialistic / mechanistic framework. One block to the creation of a truer paradigm of reality, integrating physical, psychic and spiritual aspects of existence has been the scarcity of solid, ambiguous scientific evidence for an alternative to the materialistic / mechanistic view. In many cases, materialistic / mechanistic explanations of reality are insufficient to explain certain observed physical and biological phenomena, yet the materialistic / mechanistic view still prevails in science (Bohm & Peat,1989:55).

Overtime paradigms change. For nearly two thousand years Plato's belief in the perfection of circular motion dominated the science of mechanics. In the seventeenth century Newton's Laws of Motion became the new paradigm (Bohm,1989:28). Today, Einstein's Theories of Relativity are regarded as a more accurate description of reality (Bohm,1984:4). Unfortunately paradigms do not change easily. They are so deeply embedded in the scientific and wider culture that they are seldom questioned. Evidence that contradicts the current view is overlooked or rejected. Believers in the old paradigm will not give up their assumptions about the nature of reality. An example is Sir Rudolf Peierls's answer to the question of whether the Copenhagen Interpretation of Quantum Mechanics is the Official view. "*I object to the term Copenhagen interpretation ... it sounds as if there were several interpretations of quantum mechanics. There is only one*" (Davies & Brown,1986:71) and Lord Kelvin's statement: "*There is nothing new to be discovered in physics now. All that remains is more and more precise measurement*" Cited in (Davies & Brown, 1988:4).

The current materialistic / mechanistic scientific world-view holds that physical energy (the four known forces mentioned before) are the primary reality (Davies et al, 1988:26). When we fully understand the functioning of the physical world, we will, according to this view, be able to explain everything – including the human mind. This is more than just a paradigm within a particular field of study, it is a belief common to almost every branch of science. Little wonder that any evidence for telepathy, clairvoyance, precognition, healing, prayer, or any other phenomenon that suggest consciousness is non-dependent or non-relative to matter, is either ignored or ridiculed by the current main-stream scientific establishment. Within the accepted world-view, it simply cannot be true (Ferguson,1987;:174). Halton Arp (2000;:450) reiterates this view when he states "*The most harmful aspect of what science has*

*become is the deliberate attempt to hide evidence that contradicts the current paradigm.”*

A new scientific paradigm is required, one that integrates the transcending view of reality (Ferguson, 1987:162). It is realised that such a paradigm is yet only a conscious reality, nonetheless, it took the world several centuries to break through the dark era of the middle ages to continue where the science of the mind was in general neglected since the fall of the Roman era (Bohm, 1989:26).

The present scientific paradigm where subtle energies are allowed no role as **causal agents** or explanatory factors in physics and biology, is now under siege from many directions. But the old materialistic / mechanistic worldview will not collapse until there is a new, more comprehensive scientific structure and worldview to replace it.

In view of the above enigmas that exist in today's scientific-world, I set out to uncover existing established scientifically validated theories dealing with reality from a metaphysical perspective. These in itself attempt to provide a fuller explanation of reality as we experience it, rather than what the conservative materialistic paradigm presents. These theories, as will be seen, follow a golden thread, in which the full realisation of the mysteries of subtle energies are not yet completely explained and understood, but what it does reveal is a definite path. A path with distinct direction which allows one to contemplate a fuller understanding on how subtle energies might come into existence to creatively give life to seemingly life-less matter.

### **3.3 THE REDUCTIONISM VS. VITALISM VIEW**

Reductionism is the analysis of complex things into simpler constituents. As theory reductionism states that all complex systems can be completely understood in terms of their components (Davies et al, 1988:1; Honderich, 1995:750). There is a great following in the holistic arena for the explanation of true reality and for that matter subtle energy, from a perspective that all things are ultimately made of subatomic particles, and since subatomic particles are mutually interrelated and holistic, all things are holistically one (Wilbur 1969: 27). Hayward & Verela (1992; 12) gives the following explanation on reductionism:

*“... that science is really able to find out the truth about the real world. An aspect of this view is what we called reductionism. Reductionism builds on the idea that the objective world is fundamentally space, time, and material particles, and nothing else. The study of how these material particles behave is physics, and how they combine to make bigger particles is, very simply speaking, chemistry. The study of how those bigger particles combine to become living particles is biology, and how the living particles become more complex so that they appear to feel is the study of physiology and neurophysiology. The study of the way those even more complex particles behave in such a way that they seem to have what we call intelligence is psychology.”*

The problem that arises from the traditional reductionistic view is that it does not incorporate the idea of **conscious interaction** (subtle energy or fifth force) between matter. The view of no conscious interaction between matter was called ‘*objective reality*’ by Einstein as apposed to ‘*subjective reality*’ which made room for theories which included the conscious interaction between matter (Davies,1986:20). This is where **vitalism**, expatiates from. Vitalism asserts that the phenomena of life cannot be fully understood in terms of physical laws derived from the study of lifeless matter only, but that an additional **causal factor** is at work in living organisms (Sheldrake, 1981:43; Honderich, 1995:901). Many would argue that this **causal factor** is related to our **consciousness** (Honderich, 1995:153). What the causal factor could be is highly debatable. Empiricism might call for the causal factor to be some sort of **force**. Physicist Nick Herbert, in his book *Elemental Mind* asserts “*I propose that consciousness is a fundamental force that enters into necessary cooperation with matter ...*” cited in (Dossey,2002:122). Robert Giller predicates:

*“This vital force which circulates through our bodies may be what determines life and death, health and disease...This life force is manifested in our body – in our heartbeat, our respiration rate, our metabolism, our acid-base balance”* Cited in (Coddington,1981:19).

From the aforesaid it has become clear that “subtle energies” is prey to anamorphosis where we need to elucidate the phenomenological aspect of subtle energies in terms of the parallel realities that exist between physics and the noumena



of energy healing. The latter part of this chapter conclusively indicates that physics presents a premise of **Quantum potential** in which the **efficient causal factor** could be 'subtle energies' as some form of **individual and collective unconscious**.

Hence the search of theories that endeavour to start at the development of the sub-atomic level progressing to the conscious interaction between matter and further towards the understanding of the experienced reality of the macroscopic world as described in Chapter 2.

### 3.4 THE NEWTONIAN PARADIGM

Newton and his contemporaries established the **first modern scientific paradigm, or model, of reality**. This shows that the universe obeys precise rules, or laws, and that events as different as the motion of the planets around the sun and the bending of a light beam could be the application of these rules, rather than by ancient gods (Gribbon, 1995:46).

The world view which was changed by the discoveries of modern physics is based on Newton's mechanical model of the universe. The elements of the Newtonian world which moved in absolute time were material particles. Newton saw them as small, solid, and indestructible objects out of which matter was made. Newton also described a **force** acting between these material particles. This force is very simple, depending only on the masses and the mutual distances of the particles. It is the **force of gravity**, and it was regarded by Newton as **rigidly connected** with the bodies it acted upon, and as **acting instantaneously over a distance**. The particles and the forces between them were seen as created by God and thus were not subject to further analysis (Hawking, 1992:16). In Newton's words:

*“ It seems probable to me that God in the beginning formed matter in solid, massy, hard, impenetrable, movable particles, of such sizes and figures, and with such other properties, and in such proportion to space, as most conduced to the end for which he formed them; and that these primitive particles being solids, are incomparably harder than any porous bodies compounded of them; even so very hard, as never to wear or break in pieces; no ordinary power*

*being able to divide what God himself made one in the first creation” Cited in (Crosland, 1971:76).*

Newtonian mechanics successfully describe the motions of the planets, mechanical machines, fluids in continuous motion (**the macroscopic aspects**) and the refraction of light. Newton’s laws of motion and forces of gravity were viewed by early scientists as the **universal laws** of nature (Gribbon, 1998:14). Newtonian physics helped bring **order to the universe** in the minds of the early scientists. It provided a conceptual model for the understanding of the world and everything in it in terms of a supreme clockwork, with all component parts of the universe following **orderly laws** of action and reaction (Gerber, 1999:36). Newtonian physics represented an macroscopic model where everything that is visible could be explained according to laws. Newton’s laws were quite useful but they were found to have extreme shortcomings when the new forces of electricity and magnetism were explored.

Faraday in the latter part of the 19<sup>th</sup> century produced an electric current in a coil of copper by moving a magnet near it, and thus converted the mechanical work of moving the magnet into electric energy (Bueche, 1986:488). Maxwell’s theoretical speculations around this phenomena, eventually, resulted in a complete theory of electromagnetism (Bueche, 1986:609). They replaced the concept of a force by that of a **force field**, and in doing so, they were among the first to go beyond Newtonian physics (Davies et al, 1988;26). Brennan (1988:22) on the metaphysical consequence of this phenomena:

*“We are just beginning to admit that we ourselves are composed of **fields**. We sense another presence in the room without seeing or hearing them (field interaction); we speak of good or bad vibes, of sending energy to others or of reading each other’s thoughts. We immediately know whether or not we like someone, whether we will get along with him or clash. This ‘knowing’ can be explained by the harmony or disharmony in **our field interactions**.”*

This was a most profound change in our conception of physical **reality**. In the Newtonian view, the forces were rigidly connected with the bodies they acted upon. Now the force concept was replaced by the much **subtler** concept of a field which had its own reality and could be studied without any reference to material bodies

(Davies et al, 1988:4). The culmination of this theory, was part of the final realisation that light is nothing but a rapidly alternating electromagnetic field travelling through space in the form of waves. Today we know that radio waves, light waves or x-rays, are all electromagnetic waves, oscillating electric and magnetic fields differing only in the frequency of their oscillation, and that visible light is only a tiny fraction of the electromagnetic spectrum (Davies et al, 1988:9). This is in contradiction to the Newtonian physicists who believed that light required a medium 'ether' to travel through.

### 3.5 EINSTEINIAN PARADIGM

The first three decades of the 20<sup>th</sup> century changed the whole situation in physics radically. Albert Einstein in 1905 initiated two revolutionary trends of thought. One was his special theory of relativity, the other was a new way of looking at electromagnetic radiation which was to become characteristic of quantum theory. The complete quantum theory was worked out twenty years later by a team of physicists. Relativity theory, however, was constructed in its complete form almost entirely by Einstein (Bueche, 1986:726).

According to relativity theory, space is not three-dimensional and time is not a separate entity. Both are intimately connected and form a four-dimensional continuum, 'space-time'. In relativity theory, therefore, we can never talk about space without talking about time and vice versa. Brennan (1988;23) on the metaphysical consequence of this phenomena states:

*"we see that time is relative when we experience a very long, frightening period just before our car crashes or barely misses another, oncoming car. This time, measured by the clock, is a few seconds; however, to us, time appears to have slowed down. Experienced time is not measurable by a clock because a clock is a Newtonian device designed to measure the linear time defined by Newtonian mechanics"*

The concepts of space and time are so basic for the description of natural phenomena that their modification entails a modification of the entire framework that we use to describe nature. The most important consequence of this modification is

the **realisation that mass is nothing but a form of energy**. Even an object at rest has energy stored in its mass, and the relation between the two is given by the famous equation  $E=mc^2$ ,  $c$ , being the speed of light (Davies et al, 1988:10).

This constant  $c$ , the speed of light, is of fundamental importance for the theory of relativity. Whenever we describe physical phenomena involving velocities which approach the speed of light, the description has to take relativity theory into account. This applies in particular to electromagnetic phenomena, of which light is just one example and which led Einstein to the formulation of relativity theory (Bueche, 1986:712).

Einstein's theory of the uniformity of matter and energy has revolutionised scientific understanding of the world, especially at sub-microscopic level. For **energy healing** it is an especially interesting theory, as its concepts appear to be remarkably similar to the roots of Ancient Eastern philosophies. These consider that the material world is "condensed" out of a universal energy of which the cosmos is composed. These principles support theories of consciousness, psychic experiences, and that of **life force**. Harold J. Morowitz, a molecular biophysicist, cited in Friedman (1993:24) illustrates this point:

*"We are now in a position to integrate the perspectives of three large fields: psychology, biology, and physics...[resulting in] a **picture of the whole** that is quite unexpected."*

## 3.6 INTO THE MYSTICAL MICROSCOPIC WORLD

### 3.6.1 Quantum physics

Quantum physics was born of an intense and cumulative effort to understand the nature of physical light. Max Planck in 1900, discovered that energy of heat radiation is not emitted continuously, but appears in the form of 'energy packets' (Bueche, 1986:779). Einstein called these energy packets 'quanta' and recognised them as a fundamental aspect of nature. He postulated that light and every other form of electromagnetic radiation could appear not only as electromagnetic waves, but also in the form of these quanta. The light quanta which gave quantum theory its name

have since been accepted as bona fide particles and are now called photons. These are particles of a special kind, which are however, mass-less and always travel with the speed of light.

In 1923 Louis de Broglie suggested that not only electromagnetic radiation but matter could also have wave as well as particle aspects (Bueche, 1986:753). The appeared contradiction between particle and wave (**Wave-particle duality**) was solved in 1926 when Werner Heisenberg formulated his famous **uncertainty principle**, which postulate that we cannot know both the position and the momentum of a particle with absolute precision (Bueche, 1986:760). We cannot know both, approximately, but the more we know about one, the less we know about the other (Miller, 1989:10). De Broglie, thus discovered that **all** matter whether an electron or the entire universe, has wavelike aspects. However, because the mass of a body in macro reality is so large, the wavelength is too short to be detectable, so everyday items are not generally comprehended as waves.

Werner Heisenberg, Max Born, Ernst Pascual and Erwin Schrodinger developed Broglie's idea into a mathematical form capable of dealing with a number of physical phenomena and with problems that could not be delt with by classical physics. This new theory is called **Quantum mechanics** (Davies et al, 1986:3; Miller, 1989:7).

Summarisation of Quantum mechanics from David Bohm's (1990:271) perspective implies:

- That **all material systems have what is called a wave-particle duality** in their properties. Thus, electrons that in Newtonian physics act like particles can, under suitable conditions, also act like waves. This dual nature of material systems is totally at variance with Newtonian physics, in which each system has its own nature independently of context.
- All action is in the form of definite and measurable units of energy, momentum and other properties called quanta, which cannot be further divided. **When particles interact, it is as if they were all connected by indivisible links into a single whole.**

- There is a strange new **property of non-locality**. Under certain conditions, **particles that are at a distance from each other appear to be able, in some sense, to affect each other, even though there is no known means by which they could be connected.**

Can we **assume any kind of force whatsoever** (subtle energy) to explain these type of connections? Such non-local interactions are basically foreign to the general conceptual scheme of classical (Newtonian) physics. Gribbon (1995:14) view on the non-locality phenomena in Quantum mechanics is the following:

*“It seems that the electrons are aware of more of the world than their immediate locality. They are aware of conditions not just at one hole, but throughout the entire experiment. This **non-locality is a fundamental part of quantum mechanics** ... What matters is the whole experimental set-up, including the electrons, the two holes, the detector screen and the human observer. It is impossible to say that an electron ‘is’ a wave or ‘is’ a particle. “*

All of this can be summed up in a notion of **quantum wholeness**, which implies that the world cannot be analysed into independently and separately existent parts as described by Capra (1991;78):

*“Quantum theory thus reveals a basic **oneness of the universe**. It shows that we cannot decompose the world into independently existing smallest units. As we penetrate into matter, nature does not show us any isolated ‘basic building blocks’, but rather appears as a complicated web of relations between the various parts of the whole. These relations always include the observer in an essential way. The human observer constitutes the final link in the chain of observational processes, and the properties of any atomic object can only be understood in terms of the object’s interaction with the observer.”*

With the Quantum theory, physics was moving closer and closer to **perceived reality of energy-healing**. For the first time in science it was recognised that the **consciousness of the observer** in the act of observing, affects the outcome. An implication from this is that we observe what we set out to observe: **consciousness becomes an influencing factor**. This opens the possibility that thought has an effect

on what happens physically (Bohm, 1992:x), **making the energy-healing observation – that mind, consciousness, or thought can influence our physical selves – more scientifically acceptable.**

### 3.6.2 Copenhagen Interpretation

How Quantum Theory accounts for its peculiarity, has been a long standing point of philosophical discussions. The standard and wide spread interpretation of what is going on in the quantum world is known as the **Copenhagen Interpretation** largely developed by Niels Bohr (Bueche,1986:770).

In seeking to explain how an entity such as a photon or an electron could 'travel as a wave but arrive as a particle', Bohr said it was the **act of observing** the wave that made it '**collapse**' to become a particle. This is apparent in the electron version of the experiment with two holes – the electron passes through the experiment as a wave, then 'collapses' into a single point (particle) on the detector screen (Davies,1986:11; Bohm, 1989:91).

How the wave of a single electron interferes with itself, and how it chooses which point on the screen to collapse onto as explained by the Copenhagen Interpretation, is because what actually passes through the experiment is a wave of probability, not a material wave at all. *"The electron seems to spring into existence as a real object only when we observe it!"* Pagels as quoted in Gribbon (1998:15) *" Take the Copenhagen Interpretation literally, and it tells you that an **electron wave collapses to make a point on a detector screen because the entire Universe is looking at it.**"* Gribbon (1998:15). From this picture, an **electron that is not being observed literally does not exist in the form of a particle** at all.

### 3.6.3 Many Worlds Interpretation

According to the Everett-Wheeler theory (1957), at the moment the wave function "**collapses**", the universe splits into two worlds. Each of them is doing something different, and each one of them is unaware of the other. Nor will their paths ever cross since the two worlds into which the original one splits are forever separate branches of reality. Where the Copenhagen Interpretation generates endless

proliferating number of possibilities the Everett-Wheeler-Graham theory generates an endlessly proliferating number of different branches of reality.

The Many Worlds Interpretation of Quantum Mechanics says that different editions of us live in many worlds simultaneously, an uncountable number of them, and all of them are real (Davies et al,1986:34).

#### 3.6.4 The EPR Effect

In 1935, Einstein, Podolsky, and Rosen (EPR) published their thought experiment in a paper entitled, "*Can Quantum-Mechanical Description of Physical Reality be Considered Complete?*" The message that Einstein, Podolsky, and Rosen wanted to convey to their colleagues was that the quantum theory is **not** a "complete" theory because it **does not describe certain important aspects of reality** which are physically real even if they are not observed. The message that their colleagues received however, was quite different, that the particles in the Einstein-Podolsky-Rosen thought experiment somehow are connected in a way that transcends the usual ideas about **causality**.

Einstein, Podolsky, and Rosen's thought experiment inadvertently illustrated an inexplicable **connectedness between particles in two different places**. The EPR effect indicates that **information can be communicated at superluminal speeds** (faster than the speed of light) are contrary to accepted ideas of physicists of the time (Davies et al, 1986:14).

*"If the two particles in the Einstein-Podolsky-Rosen thought experiment somehow are connected by a signal, that signal is travelling faster than the speed of light. Einstein, Podolsky and Rosen may have created **the first scientific example of superluminal connection**" (Zukav, 1991:304).*

#### 3.6.5 Causal Interpretation

In terms of the Copenhagen interpretation, motion was a series of observations (collapsing wave functions) dependant on the physicists being present to do the observations. Some physicists suggested an **agent (causal factor)** is required to



make a choice among the probabilities for the wave to collapse. Some identified this agent as **sentient consciousness**.

David Bohm – former professor of physics at Birkbeck College, University of London, and former colleague of Einstein, who mutually expressed their discontent on the Copenhagen Interpretation – gave suggestions in the early 1950's on the hidden variable theory (The assumption being that there are variables not yet known that will explain the probabilistic aspects of events) was called the “**causal interpretation**”. *“... this interpretation opens the door for the creative operation of underlying, and yet subtler, levels of reality”* (Bohm, 1989:88). The basic proposal of the causal interpretation is that, in addition to the classical potential, there also exists a new potential, called the **quantum potential**. *“an extra potential results that represents a new type of ‘force’ acting on the particle. Bohm labelled this ‘quantum potential’* (Friedman, 1993:45). The reality that the Quantum potential postulated, was not one in which subatomic particles were separate from one another and moving through the void of space, but one in which all things were part of an unbroken web and embedded in a space that was real and rich with process as the matter that moved through it (Bohm, 1989:88; Bohm, 1990:271).

*“...we see that each human being similarly participates in an inseparable way in society and in the planet as a whole. What may be suggested further is that such participation goes on to a **greater collective mind**, and perhaps ultimately to some yet **more comprehensive mind** in principle capable of going indefinitely beyond even species as a whole”* (Bohm, 1990:271).

Bohm suggested a **field** that does not inhabit space-time, a transcendental realm in which all places and all times are merged. An “**unbroken wholeness**”. These revolutionary ideas provided the impetus for John Bell's development of the Bell's Theorem.

### 3.6.6 Bell's Theorem and proof of Non-locality

In a celebrated paper "On the Einstein-Podolsky-Rosen Paradox" published in 1964, John Bell, an Irish physicist who worked at CERN in Geneva showed that quantum theory itself is irreducibly **non-local**. Bell showed that non-locality is implied by the

predictions of standard quantum theory itself. Thus if nature is governed by these predictions, then nature is non-local (Davies,1986;15). **That nature is non-local, has been established by many experiments**, the most conclusive of which is perhaps that of Aspect (Aspect, Dalibard, Roger, 1982:1805; Friedman,1993:35; Gribbon, 1995:117). This non-local behaviour has been proved to occur, by real experiments carried out with photons. Pearls (1998;42) give his comprehension of non-locality as conceived by Quantum Physics:

*“The quantum physics principle of non-locality says that, in the minuscule buzzing quantum world of which our body’s cells are a part, there is no barriers, time is relative, that mass, energy, and information are one and the same, that objects once connected forever retain the **info-energetic memory** of that connection, and that separateness of any kind in the world, human or otherwise, is mere illusion... **Non-locality refers to the energetic intelligence field of which all that is or has been or will be is forever a part...** While most of us seem to know in our heart that space and time are not limits to love, prayer, and caring, **our brain insists on its privatizing of its existence and prefers to deal with forms of energy its technology can measure.**”*

The remarkable scientific proof of non-locality provided contradiction to Einstein’s supposition that light travels at the fastest speed in the Universe. Aspect’s experiments validated the notion that **information is transmitted instantly**. This progression of quantum physics brings **science into line with the ideas of energy healing**. Mystical tradition around the world considers that everything in the world is connected and many energy-healing practitioners use the concept to explain how energy used in healing can be effective and instantaneous, when supplied at a distance.

*“Superlumina quantum connectedness seems to be, on the surface at least, a possible explanation for some types of psychic phenomena. Telepathy, for example, often appears to happen instantaneously, if not faster. Psychic phenomena have been held in disdain by physicists since the days of Newton”* (Zukav, 1991:317).

### 3.6.7 The Implicate Order

Bohm proposes that quantum physics is, in fact, based upon a **perception of a new order**. He developed the notion of the **enfolded or implicate order**. The essential feature of this idea was that the **whole universe is in some way enfolded in everything and that each thing is enfolded in the whole**. From this it follows that in some way, and to some degree, **everything enfolds or implicates everything**, but in such a manner that under typical conditions of ordinary experience, there is a great deal of relative independence of things. The basic proposal is that this enfoldment relationship is not merely passive or superficial. Rather, it is active and essential to what each thing is. It follows that **each thing, is internally related to the whole**, and therefore, to everything else, an “**Undivided Wholeness**”. The external relationships are then displayed in the unfolded or explicate order in which each thing is seen, as relatively separate and extended, and related only externally to other things. The **explicate order, which dominates ordinary experience as well as classical (Newtonian) physics**, thus appears to stand by itself. But actually, it cannot be understood properly apart from its ground in the **primary reality of the implicate order** (Bohm, 1983:140-157). Bohm expands his theory in comparing it metaphorically to that of the hologram. *“To indicate a new kind of description appropriate for giving primary relevance to implicate order, let us consider once again the key feature of the functioning of the hologram”* (Bohm, 1983:130). Bohm summarises this comparison as follows:

*“Because the implicate order is not static but basically dynamic in nature, in a constant process of change and development, I called its most general form the **holomovement**. All things found in the unfolded, explicate order emerge from the holomovement in which they are enfolded as **potentialities** and ultimately they fall back into it... All of this can be summed up in terms of a new notion of **quantum wholeness**, which implies that the world cannot be analyzed into independently and separately existent parts”* (Bohm, 1991:271).

Bohm’s theory is compatible with Bell’s theorem. Bell’s theorem implies that the apparently “separate parts” of the universe could be **intimately connected at a deep and fundamental level** (subtle energies or fifth force). Bohm asserts that the most

fundamental level is an “**unbroken wholeness**”. Capra (1991: 227) interpretation of these types of Quantum phenomena as: “*Quantum theory has shown that particles are not isolated grains of matter, but are ..., **interconnections in an inseparable cosmic web...***”

### 3.6.8 The Holographic Universe

For perspective, a short explanation on what an hologram is. A hologram is a three-dimensional photograph made with the aid of a laser. To make a hologram, the object to be photographed is first bathed in the light of a laser beam. Then a second laser beam is then bounced off the reflected light of the first and the resulting interference pattern (the area where the two laser beams commingle) is captured on film.

When the film is developed, it looks like a meaningless swirl of light and dark lines. But as soon as the developed film is illuminated by another laser beam, a three-dimensional image of the original object appears.

The three-dimensionality of such images is not the only remarkable characteristic of holograms. **If a hologram of a rose is cut in half and then illuminated by a laser, each half will still be found to contain the entire image of the rose.**

Even if the halves are divided again, **each small piece of film will always be found to contain a smaller but intact version of the original image.** Unlike normal photographs, **every part of a hologram contains all the information possessed by the whole.**

**The ‘whole in every part’ nature of a hologram provides us with an entirely new paradigm of understanding reality.** Bohm contemplated on the concept of the hologram and realised it as a perfect metaphor for understanding order. A piece of holographic film and the image it generates are also an example of an implicate and explicate order. The film is an implicate order because the image encoded in its interference patterns is a hidden totality enfolded throughout the whole. The hologram projected from the film is an explicate order because it represents the unfolded and perceptible version of the image.

Because the term hologram usually refers to an image that is static and does not convey the dynamic and ever active nature of the incalculable enfoldment of moment by moment creation of the universe, Bohm prefers to describe the universe not as a hologram, but as a “**holomovement**” (Bohm,1983;150).

The existence of a deeper and holographically organised order also explains why reality becomes non-local at the sub-quantum level. When something is organised holographically, all semblance of location breaks down. By presenting every part of a piece of holographic film which contains all the information possessed by the whole, affirms that information is distributed non-locally.

From the above holographic perspective, one can draw various correlations between holistic experiences of reality against that which the holographic model provides. Here follows some of Brennan’s views:

*“ From the holographic framework of reality each piece of the aura not only represents, but also contains, the whole. Thus, we can only describe our experience with a phenomenon that we both at the same time observe and create. Every observation creates an effect on the observed pattern. We are not just part of the pattern; we are the pattern”* (Brennan, 1998:26).

*“ I suggest that since we are inseparable parts of that whole, we can enter into a holistic state of being, become the whole, and tap into the creative powers of the universe to instantaneously heal anyone anywhere”* (Brennan, 1998:28).

### **3.7 CONCLUSION TO CHAPTER 3**

The precept explored in this chapter is that physics, as the study in search for reality, has established conjoined principles relating the phenomena of subtle energies. These principles and theories form the foundation into understanding the mysterious mechanism of subtle energies as the underlying explanation of psychic healing.

From the above subtle energies becomes a construed construct of how alternative medicines and distant healing could interact with the human physiological system in the unconscious drive of wholeness. Physics, as the study in seeking understanding

of reality, provide essential information towards our conceptualising of the idea of subtle energies.



## CHAPTER 4 – SUMMARY, FINDINGS AND RECOMMENDATIONS

*“I do not forget that my voice is but one voice, my experience a mere drop in the sea, my knowledge no greater than the visual field in a microscope, my mind’s eye a mirror that reflects a small corner of the world, and my ideas – a subjective confession.”*

*Carl Jung (1933:254)*

**Chapter 4** will provide a summary of the essay. It will also highlight the findings of the essay which would be the culmination of information as researched and reported on in chapters 2 & 3.

### CONTENTS OF CHAPTER 4

- 4.1 INTRODUCTION
- 4.2 SUMMARY OF STUDY
- 4.3 FINDINGS OF STUDY
  - 4.3.1 What is meant by subtle energy and how are subtle energies experienced as reality?
  - 4.3.2 What, if any, premises exist in the form of scientific philosophical theories, which could explain the experienced reality of subtle energies?
- 4.4 RECOMMENDATIONS



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#### **4.1 INTRODUCTION**

This research essay focused on Subtle Energies from the perspective of Personal and Professional Leadership. Chapter four will conclude the essay by reflecting back on the study in order to indicate what the result of the study was, as was proposed in chapter one.

#### **4.2 SUMMARY OF STUDY**

The view of reality as presented in this study relates to a new view on perceiving reality. This view in contrast to mainstream scientific thought, realises subtle energies in permeating the universe in all living and non-living matter alike. These subtle energies, although observed in a wide array of experiences, under careful consideration, reveal certain distinct characteristics which allows the scientific world to attach credibility to this phenomena which it so desperately requires to convert the already distracted mechanistic scientific establishment. Selective characteristics of subtle energies such as resonance, non-locality, consciousness, physics and in

specific quantum- mechanics and theory, as shown in this study, all play a part in **integrating** the concept of subtle energies in a scientific understanding, where **everyone could accept alternative healing modalities**.

### **4.3 FINDINGS OF STUDY**

In order to formulate the findings of the study, the research questions of the study as set out in chapter one need to be highlighted. Chapter one indicated that the concept of 'Subtle Energies' in relation to physiology and health are not well defined, "*suffered confusion*", and could not be explained through the traditional doctrines of scientific facts. Research questions were set in order to achieve the research problem. The findings of the study will be discussed in relation to the research questions which follow.

#### **4.3.1 What is meant by subtle energy and how are subtle energies experienced as reality?**

Chapter 2 of this study looked at the concept of subtle energies, and have shown that subtle energies is defined as representative of all energies beyond the four types of energies already recognised by physics. Subtle energies should be seen as a synthesis of all anomalous phenomena with the appearance of some sort of unknown force -Subtle energies- as causal factor. The scope of such phenomena is extremely broad since it would, inter alia, include claimed phenomena such as, telepathy, out of body experiences, psychic healing, shamanism, elevation, clairvoyance, psychokinesis, amongst others. This study in particular concentrated on phenomena linked to alternative healing modalities due to its particular relevance to the PPL perspective.

Chapter 2 provided an abbreviated history of subtle energies and have shown that throughout history, it has been seen that subtle energies has been an attribution to various healing modalities in philosophy, religious dogma and cultural healing practices. It was seen as the basic source of life in ancient India, chi energy in China and the vital energy in ancient Greece. One characteristic in most, if not all of the ancient perceptions of subtle energies was its prevailing ability/requirement to provide healing and life. It is then surmised that subtle energies were perceived as an



essential force in life, the mystery being that little scientific evidence could be produced to substantiate these aeonian claims. The poignant fact is that something that has been accepted and lived out as a truth for so long is in the modern era mostly disregarded as heresy not due to the lack of evidence, but due to the inability to describe subtle energies through our existing perception/paradigm of reality.

In chapter 2 concepts like 'human energy fields', 'resonance', 'non-locality' and 'synchronicity' with their underlying principles were extracted from anomalous healing phenomena and isolated as the characteristics ever prevalent in the appearance of alternative healing. These characteristics possibly present the basic underlying principles in the potential understanding of the generic mechanisms of subtle energy as conceptual psychic/energy-healing attributes.

- Human energy fields which is the energy radiating around the body is seen through Kirlian photography to effuse and merge with other energy fields in an attempt to establish balance. Balance in energy creates a state of harmony between constituents which radiate and absorb energy. The harmonic functioning of these constituents is what necessitates a state of **wholeness**.
- Ferguson (1987;242): "*The search for self becomes a search for health, for wholeness...*" The convergent properties of energy fields, open endless potentialities in the explanation of how subtle energy interrelates with health and wholeness. One such rationale is that energy in its wave-like properties resonate with other energy waves, which establish what is called, harmonic resonance.
- Resonance occurs when two objects have frequencies of oscillations that are close to each other. When two such systems are in proximity, they will resonate at the frequency dictated by the stronger of the two oscillations. For example, when a guitar string is plucked, any string which is at a nearby resonance will start oscillating at the driven frequency. This *raison d'être* is used in describing how two entities can inter-connect through space, simply due to their inherent ability to energetically resonate with each other. Harmonic resonance is then subtle energies which interact and cohere with surrounding subtle energies to synchronise in harmony. Jahn (1987:255) refers to a "*state of resonance between operator and device*" in their experiments which

provides proof beyond that of chance that the human consciousness could inflict non-local interaction with physical devices.

*"...each **consciousness** has its own private margin of reality to play with, consistent with its own innate statistical sense and information-processing style, and scaled by its ability to **achieve a resonance with its environment.**" (Jahn, 1987:313)*

- Jung proposed a **collective unconscious** state which endow a mind-like quality to the world, a quality which links one with the natural environment in a special way. Jung termed it synchronicity. Synchronicity as the phenomena of **meaningful** coincidences is by way of speaking resonating 'mental energy' with the outside world (Dossey, 2002:127). Synchronicities could then be suggestive of humans having the potential to merge their individual subtle energies to external subtle energies. This process would be indicative of the patterns of the human unconscious resonating via subtle energy with external patterns of subtle energies. The resonating ability of two or more **patterns** of subtle energies would give it the characteristic of **meaning**. It could then be further inferred that our unconscious could tap into a collective unconscious in its desire to reach **wholeness**.

It is evident from the above that these characteristics provide meaningful realisation on subtle energies and its influence on the human inherent instinctive drive for well-being.

#### **4.3.2 What, if any, premises exist in the form of scientific philosophical theories, which could explain the experienced reality of subtle energies?**


Chapter 3 argued the need for change in how the traditional materialistic / mechanical scientific establishment perceives reality. Although recent times have seen scientists take a leap into the unknown, the existing scientific establishment at large still denies the existence or evidence relating to phenomena such as remote viewing, telepathy, precognition, psycho-kinesis, synchronicities, amongst others.

The objective in Chapter 3 was to indicate, through existing validated scientific theories, that anomalous phenomena could be explained where consciousness as a

causal agent formalise subtle energies and actively possess the qualities in realising the so-called anomalous phenomena of subtle energies. The task was to search through the widely dispersed body of scientific knowledge in attaining fertile ground where the concept of conscious driven subtle energies could be scientifically understood.

- The starting point was the establishment of the basic assumption that a **causal factor** exists in all organisms. This causal factor tied to **consciousness would be the link** that establishes the potential of conscious interaction between matter. The precept adopted was to build an encompassing concept of physics's crucial early developments through to the world of micro-physics. Some of the basic characteristics and qualities of physics predicate the notion of **subtle energies as an aspect of consciousness**. Further development into Quantum physics and theories, enhances the mystical concept surrounding anomalous phenomena as experienced in nature.

Some principles and aspects of physics prognosticating the functions of subtle energies and psychic healing:

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- Faraday's establishment of energies characteristic to act as a field works on the premise that **conscious driven subtle energies** could be realised beyond that of human sensory abilities, and that the individual energies transduced from once consciousness can exert a force on another similar body not in contact with it.
  - Newton believed that the world and the universe functions around certain pre-determined laws of nature. Although most of his theories apply and hold water in the macroscopic world, they are not a verity of what occurs at a microscopic level of life. Notwithstanding this, his laws metaphorically infer characteristics of subtle energies. His third law of motion: "*For every action there is an equal and opposite reaction*", could translate to the balancing of subtle energies. Once **intention** to provide healing is established, it will translate into energies and harmonise with a subject's disharmonic energies to create a balancing effect resulting in healing. Some sort of "karma".
  - Einstein developed the equation  $E = mc^2$  where he postulated that energy and mass are interrelated. This together with the wave-particle duality are

important principles for the comprehension of subtle energies. These assert the notion that subtle energies can connect with an object in a micro-scopic way and effect influence. This, for instance, renders claims for healing through distance, more legitimately. The construct being that if a healer's source could inflict "positive energy" or sympathetic resonance, this would conjoin with recipients disharmonious energies, establishing harmony, a state of wholeness.

- Bell's theorem, Aspect's non-locality experiments and Bohm's holographic theories, offer a model for understanding the connectedness between persons. According to these theories and experimental findings, the micro-scopic sub-world has an attribute of non-locality. Thus reality has to be interconnected. This interconnectedness is postulated to be through subtle energies which are forces beyond that, which could be presently validated by physicists. Thus, subtle energies which resonate with other energies.
- Bohm's Implicate Order theory relates to his causal interpretation of quantum mechanics. A paramount feature surrounding this theory is the fundamental principle of **undivided wholeness**. Bohm's (1983:3) explains wholeness as: "*...the word 'health' in English is based on an Anglo-Saxon word 'hale' meaning 'whole': that is to be healthy is to be whole.*" The view being that the universe cannot be seen as being made up of separate elements, the universe should rather be seen as a whole, from which one extracts aspects to examine. Non-locality is at the centre of Bohm's theories. The idea behind Bohm's wholeness is that we cannot separate particles as postulated in the EPR experiment. Particles cannot be treated as independent units, instead they should be envisioned as aspects of the whole. This enforces the concept of belief that **reality** is basically **whole** and that subtle energies resonating ability functions as information sharing construct of the **whole**.
- The 'holographic' theory effused from Bohm's principle of 'undivided wholeness'. The holographic theory in a nutshell says that our brains mathematically construct 'hard' reality by **interpreting frequencies** from a **dimension** transcending time and space. The brain is a hologram, interpreting a holographic universe. Understood from the perspective of subtle energies, this dimension **is** subtle energies, and our ability to resonate with its frequencies give our consciousness the potential to interpret it into cognition.

- Subtle energies is what Bohm termed 'Quantum Potential' as a new type of force (subtle energies). The Quantum potential postulated a force embedded in space which forms part of an unbroken web that interact with matter which moves through it. This postulation gives way to the conception that personal/individual subtle energies resonate with collective subtle energies in establishing harmony and balance. This is arguably in line with the first law of thermodynamics which is the law of conservation of mass-energy. It entails that colliding energies share (without loss to the system) to the extent where the respective and in-relation positive and negative energies tend to balance out.

The principles and theory of physics explained in this study, endow the concept subtle energies with a realistic perspective in our need to comprehend its healing influence on humans. These scientific perspectives provide a validated conception of subtle energies existence, in order to weigh the balance towards a universal acceptance of anomalous healing phenomena as legitimate alternative's to the prevalent molecular-biological view.

#### 4.4 RECOMMENDATIONS



Throughout this study the dissonance that exists between the perception to what appears to be reality and that which the scientific establishment claims to be reality, has been thoroughly discussed. This study has also argued that the prevalent paradigm in healthcare is due to the scientific establishment in general which choose to be ignorant towards phenomenological evidence that alternative healing modalities do provide improvement of health for many. Although phenomenological evidence is abundant, scientific evidence in general lacks to show conclusively that subtle energies provide the human consciousness to connect collectively in establishing wholeness.

In relation to the above, further studies are recommended as follows:

- A study which will provide a model to indicate the unconscious and consciousness connecting collectively through subtle energies in its desire for wholeness.

- Any further studies based on quantitative research methodologies, tracking the causal factors when psychic healing appears, would generate valuable scientific data in the search for validated cogent evidence in realising subtle energies in full comprehension.



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