

A Proposal for a Fourth Body

Ihde's Three Bodies and the Qi-Play Body

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Attestation of Authorship

“I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.”

Suzanne Darragh, May 2011

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Abstract

The concept of Qi in Chinese medicine is seen as the basis of all phenomena in the universe. Qi expresses the continuum of matter and energy, as it is now understood by modern particle physics. Macciocia (1989, p. 36)

This research examines how the concept of Qi, as understood in Taoism and traditional Chinese medicine, offers a model for understanding embodiment and play in online environments. The study tests whether and to what extent, Qi and play are embedded within the nexus of the body, embodiment and virtuality in online immersive environments.

The philosopher Don Ihde (2002) addresses the theme of virtual bodies in relation to the lived body. This thesis builds on the notion of Ihde's concept of three bodies and makes a case for a fourth body.

The theoretical framework for this discursive study is anchored in two distinct areas of knowledge. The first presents Qi and the holistic perspective of traditional Chinese medicine whilst the second area presents published texts from theorists concerning the nature of virtuality and embodiment in online immersive environments. Both domains are tested against ideas of 'play' acknowledging the existence of the universal Qi body. The argument for this thesis identifies parallels between the Qi body and the experience of play in online environments.

Introduction

The aim of this research is to investigate whether the ancient cosmological model of traditional Chinese medicine, specifically the acupuncture body and the concept of Qi, may offer a potential model for an understanding of embodiment and the shared online experience of play within online environments. A philosopher of technology, Ihde, discusses the concept of three bodies in his book 'Bodies in Technology' (2002). This thesis, whilst inclusive of bodies one, two and three, proposes a fourth body suggesting that, inherent to embodiment, there exists the Taoist notion of Qi. The Taoists' main focus is on the observable and natural laws of the universe and the implications for human relationships within this universe. The significance of the integration of the concept of Qi is that Taoism underpins the knowledge of traditional Chinese medicine, which is based on a synthetic method of analysis as compared to the analytical reductive method of Western science. This study questions whether the synthetic method of analysis of Taoism and Qi offers some understanding of embodiment and play in online environments.

Current and historic worldviews

Before examining this Taoistic world and whether there is a relationship between Qi, embodiment and online games, the mechanistic worldview of the analytical reductive method of Western science is reviewed. The evolution of technology and online games has developed through this scientific paradigm.

The mechanistic worldview is thought to originate from the Enlightenment in the seventeenth century and is an integral part of Western cultural heritage. This view presupposes that truth can be arrived at through empirical inquiry and the use of reason, thus suggesting that the best method by which knowledge about the world is acquired should come from the fields of sciences. Hence, in the mechanistic worldview, those truths that have been secured by scientific methods have highest validity. This perspective suggests that the observed physical world, including what is visualised through technological instrumentation, is all there is. It disallows the possibility of anything unable to be seen or measured, and implies that there is nothing beyond matter or beyond what is perceivable through the five senses, aided by technological instrumentation. The history of Western thought from the period of the Enlightenment and until recently, sees mind, body and environment as principally separate entities. A

prime example is the science of Western medicine. The Cartesian division between mind and matter and between the observer and the observed has reinforced a microscopic attention to detail leading to a vast knowledge of specialized disciplines in Western medicine with highly skilled practitioners and a large number of exciting medical breakthroughs. Surgery is one example of a specialized discipline and it has become common for people to have replacement knee, hip or heart valve surgery as body parts degenerate. An example of a consequential medical breakthrough is the discovery of penicillin to combat infection in the early twentieth century. As Lipton (2009) states, “civilization’s current awareness and, consequently, its behavior, are shaped by truths postulated under the roof of scientific materialism” (p. 342).

The medical system of traditional Chinese medicine is unlikely to be validated by Western paradigms because it is neither causal nor reductive but is associated with the idea of patterning. The traditional Chinese acupuncturist looks at the various patterns aligned with the theory of Chinese medicine in order to formulate a diagnosis. How does a person’s imbalance relate to the eight principles of internal or external, hot or cold, full or empty, yin or yang? What are the differentiations of syndromes according to the meridian channels and the four levels of Qi? What are the patterns of the Zang Fu organs? Nature is the template on which this patterning is grounded in traditional Chinese medicine. Connelly (1994), in her explanation of Chinese medicine, states that “the human being is a microcosm of the universe, and so the description of the energy that activates the cosmos is the same description for the human being” (p. 14).

More recently, discoveries in modern biology and physics affirm a way of perceiving the body beyond the mechanistic worldview and associated with the idea of patterning. This contemporary approach to perceiving reality is partially supported by Einstein’s mass-energy equation early in the twentieth century, which acknowledged a unity of energy and matter. Einstein’s unified field theory proposes “that the universe is one indivisible dynamic whole, wherein all physical parts and energy fields are entangled and interdependent” (Einstein cited in Lipton, 2009, p. 98).

This more contemporary approach to perceiving reality reinforces an ancient worldview. Five thousand years old, and aligned with nature, “oriental philosophy teaches that all of life may be understood as a function of a single force, an invisible energy called Qi in Chinese medicine. All of us and all existence is a manifestation of this one unifying force, obeying the universal laws of nature in a variety of forms,

essences and movements” (Hammer, 1990, p. 386). More recently, Noetic science talks about the power of human thought and its impact affecting the real world. “Noetic sciences are explorations into the nature and potentials of consciousness using multiple ways of knowing, including intuition, feeling, reason, and the senses” (Schlitz, Vieten, & Miller, 2010). Noetic science reflects this holism, that “in order for us to transcend the parts to see the whole, we must acquire an understanding of nature and the human experience” (Lipton, 2009, p. 341).

Subjective experience has become dulled partly because of a need in Newtonian science to verify truth through objectivity. Wilson (1993) uses the term ‘biophilia’ to describe “the innately emotional affiliation of human beings to other organisms” (p. 31). He proposes the possibility that the deep affiliations humans have with nature are rooted in our biology. The term ‘eco-psychology’ (Davis, 2007) integrates both ecology and psychology and offers insights into the notion that there is a deeply bonded and reciprocal relationship between humans and nature. Davis suggests that it is illusionary to consider that humans are separated from nature and that this idea of separation leads to both ecological devastation and human alienation. He proposes that “eco-psychology be deepened to a view that both includes and transcends the nature-as-family and nature-as-self metaphors, recognizing a fundamental non-duality in which both nature and psyche flow as expressions of the same ground of being” (Davis, 2007).

Lipton (2009) informs us that “Society cannot sustain itself by continuing to adhere to our current worldview” (p. 1). Developing the theme of the need for a different worldview, Jean-Christophe Vié (2009) states in the *International Union for Conservation of Nature Journal (IUCN)* “It’s time to recognize that nature is the largest company on earth working for the benefit of 100 percent of humankind, and it’s doing it for free. Governments should put as much effort, if not more, into saving nature as they do into saving economic and financial sectors”. Guattari (2000) reminds us “if no remedy is found to the ecological disequilibrium that has been generated by intense techno-scientific transformation on the earth, what is ultimately threatened is the continuation of life on the planet’s surface” (p. 27).

Geneticist Mae Won Ho (1999) states, “There is a mutual resonance between the macrocosm and microcosm and the coordinates between the inside and the outside of the body. The shared substrate is Qi that permeates the universe constantly

transforming itself. Qi is not only in constant flow but also in constant flux. The body and the environment cannot be dealt with as separate entities” (Ho, 1999). Erwin Laszlo (2004) suggests “To some extent and in some ways, all matter is conscious, and no consciousness is categorically immaterial. And if so, there is no categorical divide between matter and mind” (p. 146). According to Taoist philosophy, matter is a particularly dense form of energy or Qi, an energy form vibrating at a rather slow and stable speed. “Qi is the very basis of the universe’s manifestation of life, including minerals, vegetables and animals, including man” (Maciocia, 1989, p. 36).

Hence the concept of an inseparable body/mind/cosmos is one of the main characteristics of Taoism and traditional Chinese medicine. Laszlo (1999), recognised as founder of systems philosophy and general evolution theory, reinforces the science of inter-relatedness stating, “matter is vanishing as a fundamental feature of reality, retreating before energy; and continuous fields are replacing discrete particles as the basic elements of an energy bathed universe... Space and time are united as the dynamic background of the observable universe. The universe is a seamless whole, evolving over eons of cosmic time and producing conditions in which life, and then mind and consciousness can emerge” (p. 7). The embodied Qi body, in this universal context of an inseparable body/mind/cosmos and the shared online experience of play, is the focus of this study.

The Qi body in a Playful Universe

Johann Huizinga, anthropologist and renowned scholar of play in the twentieth century, alleges in his book, *Homo Ludens (Man the Player)* (1950), that the function of play has equal value to *Homo Faber (Man the Maker)*. Huizinga (1950) suggests that “Play is a free activity standing quite consciously outside ‘ordinary’ life as being ‘not serious,’ but at the same time absorbing the player intensely and utterly” (p. 13). Other characteristics of play include there being no material interest or profit to be gained by playing, that play has its own boundaries in time and space and its own rules. Huizinga (1950) reinforces the idea that play fosters the promotion of social networks and play takes place outside ordinary life sometimes either in disguise or in secret, marking the difference from the common world which players normally inhabit. Huizinga (1950) examines play as a cultural phenomenon. “The spirit of playful competition is, as a social impulse, older than culture and pervades all life like a veritable ferment. Ritual grew up in sacred play; poetry was born in play and nourished on play; music and

dancing were pure play [...] we have to conclude therefore that civilisation is in its earliest phases was played” (p. 173).

Play therapist Cattanach (1992) states that “this concept of the centrality of play and drama in our cultural life is an extension of the natural play of children who use spontaneous dramatic enactments from an early age to experiment and make sense of their experience” (p. 1). All children, given a safe environment, know inherently how to play and this is not something they learn from adults. Dramatherapist Jennings (1995), discusses the developmental process regarding children and play, defining the first level from birth to one year old as embodiment play, a sensory level experience. Beyond the first year, play becomes projective, when the child explores the use of objects, e.g. a broom becomes a horse. Around four years of age, the child is ready for ‘lets pretend’ play. “If we observe projective play, it gradually takes on more and more dramatic qualities and the child begins to experiment with roles through dramatic role-play” (p. 97). This role-play is the capacity for self-representation. Jennings (1995) states that “The passage through these three stages of embodiment, projection and role contribute to the emergence of character (p.97).

To play means to allow oneself to enter into a different space, ‘a magical space’, as coined by Huizinga. Within this space there is a micro-culture with rules, elements of uncertainty and risk, and a sense of illusion. Free from usual routines and circumstances, players are aware that the play is not real and if players do start to protest about behaviours or a situation within the game then the oft-stated point that ‘it’s only a game’ can be heard. Owing to the pleasurable nature of play it can be said to be aesthetic. Aesthetic illusion according to Cattanach (1992) means to “create a symbolic metaphoric world where the power to change or construct events belongs to the group or individual. We are making acts of representation through which we can interpret our own or others experiences in dramatic form” (p. 2).

Psychologist Winnicott (1971), in his classic *Playing and Reality*, characterizes play in humans as the vital connection between self and world that involves full imaginative engagement between inner and outer life. Inhabiting this in-between space of play, which Winnicott (1971) calls the potential or transitional space, is the source of all creativity and health. This magical or transitional space has no purpose apart from the play itself. It is not linked to progress or an outcome, it is literally a rest from usual

preoccupation and examination and in this sense is nearly the antithesis of the scientific paradigm.

Anthropologist David Handelman (1992) tells us, “Qualities of play are integral to the operation of the cosmos. To be in play is to reproduce time and again the very premises that inform the existence of this kind of cosmos” (p. 12). This cosmological idea of play is inherent in the essence of the philosophy of Taoism and traditional Chinese medicine. Qi is the play of life and is inseparable to everyone and everything in the universe and is part of the cosmology. Within the body itself, the acupuncture body represents this cosmology. The Qi energy is charted via the acupuncture points on the meridians. This cosmological inter-relationship via the notion of Qi signifies the idea of movement and inter-connection.

Play is movement, and in this context it is a verb, “it is the vital essence of life and it is what makes life lively” (Brown & Vaughan, 2009, p. 12). Related to this idea of movement and action, Heiner Fruehauf (2009) discusses the Chinese phenomenology of movement in Chinese classical thought. “Exponents of modern physics put the reductionist view of science into perspective by describing a universe that is the conglomerate of highly complex, dynamic, and unpredictable processes, and essentially affirming that, indeed, ‘everything moves’” (para 5).

Demonstrating a similar theme of movement, James Oschman (2003), biophysicist and cell biologist offers a more recent interpretation of the notion of the Qi body “We now recognise that the same living matrix that connects every part of the organism with every other part is the origin, the conductor and the interpreter of energetic vibrations that are known in the ancient literature as life force or Qi. This is the same signalling system that gives rise to and maintains the form of the organism. Taken together, the various regulatory messages travelling about within the living matrix comprise what we refer to as consciousness” (p. 271).

Thus a characteristic applicable to both the action of play and the energetic vibration of Qi is the idea of movement. This notion of movement leads now to a discussion on psychologist Csikszentmihalyi’s concept of ‘flow’.

Traditional Chinese medical theorist Fruehauf (2009, para. 6) instructs that “it is the Chinese who have left behind the most detailed documentation about the different states of the universal flow....”, recognising the importance of flow in Chinese thinking

and being. The notion of 'flow', used by the psychologist Csikszentmihalyi (1992) is defined as "the state in which people are so involved in an activity that nothing else seems to matter" (p. 4). Fruehauf (2009, para. 39) suggests that "Csikszentmihalyi's blueprint of well-being which describes the notion of 'flow' parallels the concepts of Taoism and other Eastern sciences". This 'flow' concept in Taoism reinforces the notion that free flowing Qi is synonymous with wellbeing. Generally, Csikszentmihalyi's (1992) explanation of 'flow' is characterized by "intense concentration, clarity of goals, and effortless action leading to a sense of inner growth through intrinsically rewarding interactions with some aspect of the outer or inner environment" (p. 4). Hence the concept of Qi is associated with the concept of Csikszentmihalyi's (1992) notion of 'flow'.

Csikszentmihalyi's description of 'flow' among other things as effortless action and being so involved in an activity that nothing else seems to matter, appears to be similar to an aspect of play defined by Huizinga (1950) as "absorbing the player intensely and utterly". When one is immersed in play, there is complete focus and engagement in the play or game itself whilst the usual parameters of reality and time are suspended. In other words, 'flow' exists to the extent that the player is utterly absorbed. If 'flow' was not present, 'play' would be halting or not flowing freely.

The above key concepts of movement, flow and play and the dynamic between them will be further established.

Research Process

A study of characteristics of the acupuncture Qi body indicates that it may have relevance to understanding the shared online experience of play in the virtual environment. Therefore this research reviews literature from multiple sources cited below, in order to test the thesis question of whether and to what extent, concepts of Qi and play are embedded within the nexus of the body, embodiment and virtuality in online immersive environments.

Research methodology

At the very core of this study is the human body and its relationship to the environment. Phenomenological concepts are drawn upon to investigate the relationship of the human body to the virtual. This non-dualistic focus of examination emphasizes a subjective, descriptive and interpretive approach (Denscombe, 2010, p. 93). The

subjective approach in this study is also aligned to the underlying philosophy of the nature of Qi and play. “Phenomenology is concerned with the study of experience from the perspective of the individual” (Lester, 1999). Concepts of Qi, play, embodiment and virtuality are explored via texts from specific theorists.

The notion of Qi and the holistic perspective of Chinese medicine and Taoism may have some relevance to the body in an online environment hence when exploring the academic literature, criteria for inclusion in the two areas of knowledge mentioned in the abstract has been limited to the following perspectives: 1) Theorists and philosophers with detailed descriptions of the body in relation to embodiment and virtuality. 2) Theorists, scientists and philosophers with narratives acknowledging either a cosmological or ecological perspective in relation to Qi and play. These perspectives are chosen because they have some relevance to the question of the study which asks whether the cosmological model of traditional Chinese medicine is related to embodiment and play in virtual environments.

There is an examination of Ihde's “Bodies in Technology” (2002), Hansen's "New Philosophy for New Media" (2004) and "Bodies in Code" (2006) along with Guattari's “Three Ecologies” (2000) and “A Thousand Plateaus” (1987). Further, I investigate the Qi body as described in traditional Chinese medicine along with a parallel exploration of associated concepts from Fruehauf's classical readings of the Chinese phenomenology of movement, Csikszentmihalyi's notion of ‘flow’ and Huizinga's body in play. There are also observations concerning the Qi body from current ecological theorists in biology and physics. These disparate themes are related to the acupuncture body via the cosmological model of traditional Chinese medicine and the notion of Qi.

Strategies and criteria for interpretation of the literature

The method in which information from the literature is gathered is both qualitative and inductive. The inductive approach is exploratory, leading to an observation of general patterns associated with the thesis question. Literature relating to concepts from the above theorists is evaluated. The evaluation sorts the discourses into a classification of themes. The discourses explain the phenomena of virtual embodiment in online environments and those explaining the Qi body and its relationship to ideas of play. The specific themes are embodiment, virtuality, non-locality, play and ecology.

Having then established the above thematic perspectives from the discourses, an interpretation of the concepts reveals central theories, which explain both the phenomenon of the experience of play in online environments along with the phenomenon of Qi and its relationship to play.

Literature relating to both areas of knowledge is discussed in both chapters two and three. The discussion in chapter four offers interpretations and connections of both Qi and play relating to embodiment and virtuality. Understandings of the chosen discourses along with the author's own arguments reveal the relationships concerning the thesis question.

In the final evaluation, new findings that embed Qi and play within the nexus of the body, embodiment and virtuality in online immersive environments are discussed. A description of the nature of the fourth body is portrayed and linked to the concept developed by Ihde in his three bodies.

Overview of structure

The introduction orientates the reader to this study. What follows is an outline of the chapters.

Chapter one offers a review of the literature and an overview of the key aspects of the study on two areas of knowledge. The first area of knowledge examines the Qi body in relation to Taoism and the medico-philosophy of Chinese medicine along with an examination of ideas from play theorists. Information relating to the Qi body from contemporary science theorists is also provided. The second area of knowledge examines selected theories from both ecological and technological philosophers concerning the nature of embodiment and virtuality.

Chapter two presents concepts of both embodiment and virtuality specifically relating to Ihde's concept of three bodies in technology, along with Hansen's ideas of embodiment and ecology theorist Guattari, who offers a different viewpoint of the body. These ideas are then discussed in relation to online play including the dramatic action of role-playing in games.

Chapter three describes in more detail the key concepts of Qi, Yin Yang and Wu Hing concerning the body in traditional Chinese medicine. These concepts are then linked to the body in play and associated narratives.

Following on from this exploration, chapter four defines an interpretation of the literature highlighting key findings of the study.

The implications of the study show conclusive findings offering a summary of the results and the potential for further research.

Chapter 1: Literature Review

1.1 Introduction

This discursive body of work is based on a range of ideas from relevant literature and introduces influential researchers within two areas of knowledge. The first presents the notion of Qi and the holistic perspective of Chinese medicine and Taoism whilst the second presents published texts from theorists concerning the nature of virtuality and embodiment in online immersive environments.

In his book ‘The Web that has no Weaver’, Kaptchuk (1983) offers an overview of the practice of traditional Chinese medicine which precedes the development of the World Wide Web by five thousand years yet uses similar narratives which could be applied to describe the networked nature of the World Wide Web. Descriptions of these narratives include ideas of an inter-linked connected mesh that is both communicative and non-local. The use of the word ‘web’ in the title of the book as well as the networked technology may be coincidental though could also be fortuitous in that there may be key parallel concepts that, despite antiquity, offer some relevance to the modern world. The current allopathic understanding of health and wellbeing is founded on analytic research that has resulted in the fragmentation of medicine into specialties. Hammer (1990), a medical physician, informs us that there is “no unifying matrix in Western medicine” and “no whole living thread of cohesiveness” whilst furthermore “the human body is an entity unto itself, with little connection to the outside world”(p. 384).

1.2 Qi and the Holistic Perspective of Traditional Chinese Medicine

Chinese medicine highlights the unity of relationships between body and mind, between body and spirit, and between the human being and the world/universe at large. According to Chinese medicine, “the Heart is the residence of the Mind (Shen)” (Maciocia, 1989, p. 72). This includes all mental activity including consciousness (Maciocia 1989). According to Chinese medicine, heart (spirit or shen), soul (mind/emotions), and the physical body are entwined as one. This notion of interrelatedness underpins the medico-philosophy of traditional Chinese medicine. Further to the idea of inter-relatedness, is the fundamental concept of movement described in ancient Chinese philosophy.

The key Chinese classics relating to scientific thought can be described as “texts which expound universal paths of movement, whether it is the path of the sun and the moon in the Yi Jing (The Chinese Book of Change), the path of human beings in the Dao de Jing (Tao Te Ching) or the path of human Qi and body fluids in the Nei Jing (The Yellow Emperor’s Classic of Internal Medicine)” (Fruehauf, 2009).

“The Yi Jing can be interpreted as the Classic on the Principles of Ease, or the Path That Things Have to Move On In Order to Be at Ease” (Fruehauf, 2009, para.7). It is this path of ease that illustrates the Qi body and through the notion of flow, is associated with the body in play. Qi is the pattern that connects, it is associated with the Tao or way or path that things have to move on in order to be at ease. The bodily experience of being at ease is the subjective experience of being comfortable within one’s own body. The ‘Classic of Difficulties’ states, “Qi is the root of the human being” (cited in Maciocia, 1989, p. 37). Continuing with this idea of movement and inter-relatedness is Lao Tzu, the ancient sage who is accorded the authorship of the Dao de Jing in the sixth century. He acknowledges “it is the nature of nature to issue from an inextricable relationship of every part to the whole. To live life in accord with the Dao is to be in harmony with all others, with the environment and with one’s self” (Dale, 2002, p. xi). This Taoist origin of Chinese medicine strongly grounded in the natural world, offers an ecological worldview related to the body and represented by ‘The Yellow Emperor’s Classic of Internal Medicine’ or ‘Huangdi Neijing’, the most fundamental doctrinal source for Chinese medicine over the past five thousand years. It comprises the Su Wen, basic questions between the Yellow Emperor and his cohorts and the Ling Shu, a detailed discussion on acupuncture therapy (Veith, 1949).

Ideologically, “Chinese medicine is a medicine-philosophy, which considers the total person in a dynamic interplay with their total environment. As a form of medicine, it reflects and then contributes to a unified concept of human life, within each person, and with the entire universe” (Hammer, 1990, p. 383). Hence Chinese medicine emphasizes the relationship between body and mind and between human beings, nature and the universe.

Aligned to these same principles, the body is the expert in traditional Chinese medicine, and it is the innate intelligence or Qi of the acupuncture body, which restores equilibrium, along with the skill of the acupuncturist. The main channels of communication and energy distribution throughout the acupuncture body are the

meridians woven like a web or a net. These channels allow for the free flow of Qi, and when this flow is interrupted, symptoms of emotional, mental, physical or spiritual disequilibrium manifest. Imbalances in the flow of Qi are believed to cause illness. “Thirty-two distinct categories of Qi which have specific functions have been identified over the past two thousand five hundred years” (Kaptchuk, 1983, p. 36). The practice of acupuncture is the process of bringing the body into balance between heaven (sky) and earth and treating the whole person in mind, body and spirit via the meridians. The climate, the tides, the season and the time of day are all taken into account during the diagnostic process. The acupuncturist accesses Qi via the insertion of needles into specific acupuncture points on the body in order to rebalance the body.

Traditional Chinese medicine is reliant on the idea of patterning. Fruehauf (2009, para.10) states “traditional Chinese scientists saw the world as complex interference patterns, a perception shared by today’s quantum physics”. This perception describes a universe “...that is the conglomerate of highly complex, dynamic, and unpredictable processes, and essentially affirming that, indeed, “everything moves” (Fruehauf, 2009, para. 4). There is a continual inter-related patterned movement, which in traditional Chinese medicine is known as Qi. This Qi movement occurs at all levels of being, including animal, mineral and vegetable and the solar system. “The activating energy or Qi is the life force that flows through our bodies and the universe and is considered to be the vital force of all life ” (Connelly, 1994, p. 13).

Fruehauf in his discussion on Integrating the Classic Traditions and Quantum Science (2009) states “When Tao of Physics author Fritjof Capra summarizes the pioneering “holomovement” theory of his colleague David Bohm, he also spells out the core principle of traditional Chinese scientific thought: The holomovement is a dynamic phenomenon out of which all forms of the material universe flow. The aim of this approach is to study the order enfolded in this holomovement, not by dealing with the structure of objects, but rather with the structure of movement, thus taking into account both the unity and the dynamic nature of the universe” (para.13).

In summary, the above ideas of inter-relationship and movement relating to the Chinese classics suggest as Fruehauf (2009, para.13) states “it is the movement of things, which determines their nature. Or to put it more directly, things are movement”.

1.2.1 Qi body and link with Play

In play, there is something “at play” which transcends the immediate needs of life and imparts meaning to the action. All play means something.
Huizinga (1950, p. 1).

Huizinga (1950) defines play as “a voluntary activity or occupation executed within certain fixed limits of time and place, according to rules freely accepted but absolutely binding, having its aim in itself and accompanied by a feeling of tension, joy and the consciousness that it is ‘different’ from ‘ordinary life’” (p. 28). Play is an aspect of human experience that is about being fully engaged in the present moment.

The flow concept, mainly developed by Csikszentmihalyi (1992), has been adopted by Fruehauf (2009) in his translations of ancient Chinese classic texts relating to the characteristics of the Qi body. Fruehauf (2009) states that “although the research underlying Csikszentmihalyi’s flow concept is generally limited to the description and classification of psychological states, it can be used to illuminate the missing piece in a more comprehensive flow concept which transcends the boundaries of narrowly defined scientific fields”. Csikszentmihalyi states, “The integrated cells and organs that make up the human organism are an instrument that allows us to get in touch with the rest of the universe. The body is like a probe full of sensitive devices that tries to obtain what information it can from the awesome reaches of space. It is through the body that we are related to one another and to the rest of the world.” (cited in Fruehauf, 2009, para 24). Fruehauf’s linking of Csikszentmihalyi’s flow concept with that of the cosmological nature of Qi supports the paradoxical Taoistic principle of Wu-Wei (do nothing and everything is done), which is expressed through effortless action.

A different paradox to that of Taoism is seen in drama where “paradox lies at the heart of the dramatic experience” (Landy, 1993, p. 11). Drama is the space given to being ‘me and not me’ at the same time. Games and play, like drama, exist in “the space between being and nonbeing” (Landy, 1993, p. 252), between entering the game and finishing the game. The body in an online virtual reality game although taking place in a different medium has the same characteristics. These spaces in a sense offer the opportunity for another more relaxed body to surface. To play is to be ‘doing’ in the creative inner world of make-believe. It is different from ordinary life.

1.3 Ecological Theorists

Some discussion on ecology and bio-diversity is relevant to this study because ancient Taoism and traditional Chinese medicine evolved from the observation of the characteristics of nature and the universe.

Gregory Bateson (1979), biologist and anthropologist, asks the question “What is the pattern which connects all the living creatures?” (p. 8). He maintains we must learn to understand pattern instead of quantity if we are to comprehend the world around us. Felix Guattari (2000) echoes this sentiment when he says “it is as though a scientific superego demands that psychic entities are reified and insists that they are only understood by means of extrinsic coordinates” (p. 36). Guattari suggests that “mental ecosophy will lead us to reinvent the relation of subject to body, to phantasm, to the passage of time, to the mysteries of life and death” (p. 35). He queries, “is it really dangerous to let people speak of things as they feel them, and with their language, their passion, their excesses?” (p. xiii).

Vandana Shiva (1993), philosopher, environmentalist and ecofeminist, defines diversity as “the characteristic of nature and the basis of ecological stability. Diverse systems give rise to diverse life forms and to diverse cultures. The co-evolution of cultures, life forms and habitats has conserved the biological diversity on this planet. Cultural diversity and biological diversity go hand in hand” (p. 65). Shiva maintains that the earth is a self-regulating, self-organizing living system, and just as our bodies maintain their temperature, the earth’s equilibrium is maintained through ecological processes in which biodiversity plays a central role. “The lesson from biodiversity is cooperation, not competition. It is that the big depends on the small and cannot survive by exterminating the small” (Shiva, 2000, p. 14). This idea resonates with that of a former NASA scientist, James Lovelock (1995), who in 1979 put forward the Gaia Hypothesis, proposing that “the entire surface of the Earth including life is a self-regulating entity” (p. iv). The above ideas of patterning, cooperation and self-regulation appear to have similarities to the underlying philosophy of traditional Chinese medicine reinforcing a sense of inter-connection.

Guattari (2000) futurist and constructivist, reminds us that in this age of information and technology, if we don’t perceive ourselves as a part of nature, we are in danger of becoming intrinsic component pieces in a much larger machine. In ‘The Three Ecologies’, Guattari (2000) coins the word ‘ecosophy’, for three ecological

registers, “social ecology, mental ecology and environmental ecology” (p. 41). He perceives in the social ecosophy, “a need to reinvent the ways in which we live as couples and in the family, in an urban context or work environment, that we literally need to reconstruct modalities of group being” (p. 34). The reconstruction of these three ecologies signpost a need to reinvent ourselves and our communities so that we perceive ourselves as a part of nature rather than being separate from it.

1.4 Embodiment

Embodiment in the ordinary physical world reflects the body’s capacity to experience sensation directly. However, embodiment in the virtual world of an online environment is different. It is the capacity of the body to experience the world in a more performative way, through taking some action within that environment which leads to a sense of being embodied. The difference between direct embodiment and embodiment in the virtual world is that in order for one to be engaged in a virtual world, one needs to take some action. This could be as simple as communicating with someone in an online chat room in a conversation via computer technology or being part of a social network site growing virtual vegetables such as Farmville, where there are multiple online users in communication. Another way of experiencing the body in a more playful dramatic way in an online environment is through developing an avatar, a representation of oneself to use as a vehicle for interaction. When one creates a character or avatar, depending on the nature of the social networking site, one chooses a character defining race and culture with a specific look, age, name with specific likes and dislikes. This character is then further defined by the specific role taken within the online play.

Theatre director Augusto Boal (1992) reminds that theatrical language, which is the expressive language of the body is the most essential human language. The theatrical language of gesture, movement, together with costumes and props represents whomever the actor or avatar chooses to be. Boal (1992) suggests that the average man or woman on the street is not aware that they are Spect-Actors. All human beings are both actors and spectators. “Everything that actors do, we do throughout our lives, always and everywhere [...] the only difference being that actors are conscious they are using this language”(p. xxx).

The user who creates the avatar in an online environment is conscious that they have created an avatar or a representational figure. The inter-action with others during this role-enactment or gameplay enhances the experience of being embodied.

Through this communication there is an accompanied physical body reflexivity or feedback loop, which can enhance the user's conscious awareness of themselves. In an online environment, the body's capacity to experience sensation is dependent on taking action, which leads to a sense of being embodied.

Ihde (2002, p. xi), in his study of embodiment in cyberspace speaks of "bodies bodies everywhere" suggesting a multiplication of bodies in relation to our experiences of being embodied. Ihde (2002) argues that we are our bodies and we have a remarkable adaptability that is often brought out precisely in our relations with technologies. "Embodiment is always relativistic in the sense that it is a relation between the human and the technologies employed" (p. 137). Ihde (2002) explores how our orientation in the world and our own body sense is affected by various forms of information technologies. He proposes three layers, or states, of embodiment. Ihde (2002) identifies "body one as the perceiving, active, oriented being-a-body from which we experience the world around us. It is the experience-as-body that is a constant of all our experiencings" (p. 69). This meaning is interactively grasped through actively being in the world. Although "body one is the necessary condition of all situated knowledges, it is not in itself sufficient" to describe the totality of human embodiment. (p. 69). Body two has the memory of all the cultural and socially significant impressions that a person has experienced. Both body one and body two imply a "situatedness" (p. 71) in relation to the surrounding world. Ihde's notion of embodiment is further examined in chapter two.

In today's world, visibility and the power of the image are at the forefront of how one thinks about the body. Maurice Merleau-Ponty (cited in Sobchack, 2004) asserts that to see is to "have at a distance" (p. 189). His view is that this emphasis in modern culture combined with consumerism and material prosperity takes us away from our inner selves and impacts dramatically on what we perceive as being meaningful in our lives. We live in a visual world whose subtlety appears to remove us from our own bodily sentience. An example of this imaging is the popularity of appearance medicine and the current ethos of the gym culture where images of fitness and 'getting the right look' reward endurance and pushing the body. These narratives suggest that outside

experts are able to offer better information about improving body image than individuals could do themselves. Seidler (cited in Wood, 1998) reinforces this dichotomy saying, “due to the concepts of modernity, the current modern human being is displaced believing that truth is ‘out there’ hence undermining their relationships to themselves” (p. 25).

Sobchack (2004) suggests that “the current fascination with body as object (the body that we have) and the devaluation of embodiment and the lived body (the body that we are) is a consequence of an increasingly dangerous confusion between the agency that is “our bodies/ourselves” and the objective power of our incredible new technologies of perception and expression” (p. 174). Sobchack’s point here is that believing the objective visual fascination of ‘seeing and being seen’ devalues the lived body. This perceptual world created by our senses is so highly representational of the physical world that we tend to forget that it is mediated.

1.5 Virtuality

Woodward (1994) reminds us “techno bodies have no sympathy for human suffering hence no value can be placed on human life because techno bodies don’t suffer or feel pain” (p. 51). A techno body is without feelings. Shereen-Sakr (2008) speculates, “some might say that the body is obsolete, that we are in a post- human era, or simply that technology is inherently anti-body and actively destroys the body” (p.1).

With the advent of virtual environments there is a reconsideration of how the active body mediates our construction of the physical world. Pierre Levy, the French media philosopher, suggests that because it is “an essential part of the determination of every concrete biocultural body, the virtual is always an element of the body it serves to constitute and that virtualities are inherent to a being”(cited in Hansen, 2006, p.144). Levy here suggests that the virtual is only one step away from being actual. Hayles (1999) suggests that “we need to rethink the assumptions underlying virtuality” and that “we can recover a sense of the virtual that fully recognizes the importance of the embodied processes constituting the life world of human beings” (p. 20).

Our recent relationship with computer technology has created topical discussion around embodiment, disembodiment and a disconnection from nature. Questions are raised around who we are in virtual environments and whether technology is causing increased separation from the natural world. The virtual reality within the world's

computers and in computer networks, beguiles a relationship between the progressive vanishing of the body and the diminishing status of nature.

Boellstorff (cited in Schlitz, et al., 2010) states that “the formation of personal worldviews and social consciousness becomes even more complex in the information age and the reality of avatars and virtual identities”. One can choose to be anyone and this offers potential to be other than whom one is, offering an opportunity to be different. The virtual subject can be multiple by taking on many roles and personalities. “Every new situation provides new relations and new possible identities” (Ihde, 2002, p. 85). Ihde (2002) suggests that through cyber-technologies, we do not show ourselves directly as representations or images or pure objects, but rather it is in the space between these, “the interactions, the mutual questioning and interacting of the world and ourselves, the changing patterns of the life world that things become clear” (p. 86). “In this interconnection of embodied being and environing world, what happens at the interface is what is important” (Ihde, 2002, p. 87). This space between representation and images here discussed by Ihde, has parallels with the perspective of the exploration of relationships in the diagnostic process of traditional Chinese medicine. Hicks (2004) discusses the inter-relationships between the five phases as a key impression that the acupuncture practitioner of Chinese medicine needs to focus on. “Much of this focus is on the relationships between objects rather than the object itself” (p. 7).

Bodies in cyberspace interact at the interface between ones avatar and other avatars. It is the relationship between the objects rather than the objects themselves that gives meaning to the action. This exploration of relationships between objects is how one attributes meaning in the virtual world and has parallels to the inter-relationship and patterning, the focus of the nature of relationships in Chinese medicine.

1.5.1 Online play

The idea of play is highlighted today due to the increasing contemporary experience of play in online environments. A specific manifestation of cooperative sensibility in society is exemplified by people’s capacity to engage in play or watch games as a form of entertainment and relaxation. Although games may be competitive, in the context of a game there is a shared set of rules, a shared purpose and a system that everybody agrees to follow in order to play the game. Play theorists Salen and Zimmerman (2004), discuss the nature of online games including aspects of design. Every game inhabits a space of possibility that the players explore. Yee (2006) offers

demographic research relating to massive multiplayer online role players (MMORPHS). Laurel (1993) discusses the computer as a playful stage of interaction.

An aspect of human-computer interactivity is the online game. Laurel (1993) suggests that in the theatrical view of human-computer interactivity, “the stage is a virtual world, populated by agents, both human and computer generated and other elements of representational context such as objects or props like a teacup and a window” (p. 17). “These interactive representations are buried deep within us as playful instincts” (Laurel, 1993, p. 21) that engage online actors and children. Actors are engaged because of their acquired skill and flexibility of role and children due to their innate capacity for play. Engagement with this representational theatre uses similar elements that an actor embodies in a drama such as role, enactment, props, language and thought, all which allow the capacity for embodiment. Laurel (1993) compares Aristotle’s definition of drama as “the spectacle[...] all that is seen” (p. 50) with the inherent nature of theatre and aligns this with the nature of human-computer interactivity. Human-computer interactivity as an experience is much more comparable to drama than long narratives of story telling due to the need for action. Laurel (1993) suggests this link to drama is due to the capacity for ‘enactment’, the selection of incidents that “intensify emotion and condense time” (p. 93) and a “unity of action rather than episodic structures” (p. 95). Nothing happens in human-computer interactivity unless the user takes some action hence becomes engaged and therefore has the potential to be immersed in the play.

1.6 Summary

The above literature discussion offers an overview of the ideas examined in the current study. The concept of the acupuncture Qi body and the notion of ‘flow’ is introduced along with ideas from technological philosophers relating to notions of embodiment and virtuality. Linked to Qi and ‘flow’ are play and online games.

Chapter 2: Embodiment and Ihde's concept of Three Bodies

This chapter further explores embodiment and virtuality according to the theorists Ihde, Hansen and Guattari and identifies literature in relation to embodiment in online immersive environments.

Ihde (2002) in 'Bodies in Technology' outlines an original exploration of the way cyberspace affects human experience. Embodiment in cyberspace, human-computer interaction, and ideas for the integration of computers and technologies for humanity are problematised. Ihde (2002) terms 'whole body perception' as the way we interact with the world around us, claiming that our whole body perceptions are necessarily synthesized in our interactions with a 'world' (Ihde, 2002, p. 38). "Whole-body ordinary activities occur within complex environments in which much is simultaneously occurring" (Ihde, 2002, p. 38). Ihde examines how various forms of interaction affect the sense of our bodies and our orientation in the world. He defines three bodies; body one is the active body, body two is the culturally fixed and acted upon body, and body three is in seeing and being seen by the objectified gaze, a form of seeing that is technologically mediated. Along with Ihde's three bodies outlined below, Hansen's mind/body approach and Guattari's ecosophy are examined in relation to embodiment and virtuality. What then follows is a discussion relating to the experience of play in online environments.

2.1 Body One

Ihde's (2002) body one is a similar body to that which phenomenologist Maurice Merleau-Ponty describes as an "immediately given invariant," a "primary access to the world," the "vehicle of being in the world" (cited in Hansen 2006, p. 5). "The body forms an ultimate background, an absolute here, in relation to which all perceptual experience must be oriented". This is the living breathing body that experiences all felt sensation. "The body schema consists of countless sub-schemata, typical postures and movements of the body functioning on internal or introceptive sensations" (Selinger, 2006, p. 200). The awareness that attends the body as it engages the world is not a perception of the body. It is the felt, lived in body experience. "One learns one's embodiment by actively being in the world" (Ihde, 2002, p. 70). This capacity to be embodied is experienced through perceiving what is outside oneself through the

mediation of the senses. These senses of sight, smell, hearing, touch and feeling or kinaesthetic sensation are how one mediates the environment. Kinaesthetic sensations give the body both implicit and explicit awareness. Being connected to these sensations reinforces one's emotional intelligence and offers an internal locus of motivation in knowing what to do and how to live one's life. Daniel Goleman (1996) informs us " In the dance of feeling and thought the emotional faculty guides our moment-to-moment decisions, working hand-in-hand with the rational mind, enabling- or disabling thought itself" (p.28). To not be consciously aware or unable to decipher messages of sensation, suggests body dysfunction. The body schema of body one is not a representation of the body; it is the lived body with three distinctive characteristics: systems of possible movement, kinaesthetic body sensations, and the body's capacity to perceive its position in space and the surrounding environment. The body schema of body one as described above is distinguishable from Ihde's body two, which relates to the body image.

2.2 Body Two

Ihde's second body is what could be called the socially constructed body, constituted or constructed by cultural practices that inform and shape the body. This body has the various meanings of politics, culture and the social written into it. It is every singular body, female or male, of a certain age, from a certain culture and of a certain class; this body incorporates a cultural perspective as the embodied and cultural being that one is. Ihde (2002) points out that "for there to be a marked cultural body there must be a body that is markable" (p. 70). This body image arises from our conceptions and feelings about our body. This is the body represented as object such as looking in the mirror, gazing at someone else's body, or when a certain emotional attitude is assumed towards one's own body. This embodied experience is culturally constructed compared to the biological embodiment of body one.

Both bodies one and two are seen as the real or actual body, the 'embodied body'. Embodiment is a phenomenon that envelops both the located, perceiving the active body that is, and body two which is body one permeated with the cultural significances that are also experienced. Both these bodies underline a locatable "situatedness" within and in relation to the surrounding world.

2.3 Body Three: The Virtual Body

Within Ihde's (2002) three bodies classification, traversing body one and body two is a third dimension, the dimension of the technological. Ihde gives consideration to how machines or tools are related to the body in that they allow the body to become extended. Learning to use a tool involves a transformation in which a tool from outside the body becomes integrated into the body schema. In the past, perhaps the most familiar role within which we experienced and re-experienced being a body was what Ihde calls an embodiment relation, that is, a relational experience of something in the world through an artefact, a technology. "Such human-technology relations are often simple as in seeing through eyeglasses, nailing with hammers" (Ihde, 2002, p. xi). These technologies may be embodied, as Merleau-Ponty acknowledges, such as "the blind man's cane or the woman's feathered hat" (cited in Ihde, 2002, p. 7). In the example of the blind man's cane, the cane/roadway touch is what the walker experiences. His body is extended through the cane, which becomes part of his here-body experience (Ihde, 2002).

The very materiality of the technology allows this extendibility of the here-body in action. "Each of the missing elements can only be filled in by the full bodily sensory awareness that is part of the ordinary experience of the artefact user's world" (Ihde, 2002, p.7). In the case of the blind person, the full bodily sensory awareness of the textured resistance of the sidewalk cement is there with the click of the cane on the sidewalk. However, the missing visual element of the greyness of the sidewalk is not a part of this person's ordinary experience. The extended here-body in action can only be filled in by the sensory awareness that the body has already accommodated.

Technological artefacts that are embodied every time one uses or wears them are an integrated part of one's lived practical life. Olesen (cited in Selinger, 2006) tells us that "the world is sensed through this technology or instrument while a concurrent reflexive transformation of perceptual and bodily experiences occurs. This happens because of the impressions continuously thrown back on the body while using the instrument"(p. 239). When there is this extension of the here-body, one's sense of embodiment changes (Ihde, 2002).

The body as prosthesis is an example of where a distinction between VR (virtual reality) and RL (real life) becomes blurred. Prostheses from a simple crown for a tooth or an artificial leg after amputation are a viable way of maintaining the earlier habitual

life in the absence of what was or could have been, when the real thing is no longer possible. Despite the prosthesis being incorporated into bodily experience, due to the reflexive nature of the body, one is unable to feel a simple crown or an artificial leg. Areas around the crown or the artificial leg may be highly sensitive but these prostheses are virtual in that there is no felt sensation. Hence a prosthesis incorporated into the body schema is a technological extension.

Ihde (2002) analyses embodiment according to the ways in which we experience being embodied and then of being a virtual body. To illustrate the capacity for disembodiment in a simple non-technological scenario, Ihde discusses the idea of an embodied and disembodied self in an imagined parachute jump. For the embodied parachutist the sensory experience of the rush of wind in the face, the sense of vertigo in the stomach is kinaesthetic, a different experience from the visual perspective of the parachutist who imagines seeing someone or themselves jump and speed toward the earth. One cannot *feel* the wind in the disembodied perspective; hence the disembodied experience is a sensory abstraction of presumed body experience. This spectacle-like image body is a form of virtuality. Ihde (2002), differentiates this from the here-body full sensory embodiment perspective in bodies one and two as the real life body. Ihde's body three signifies through technological mediation.

Ihde (2002, p. 37) uses the term *visualism* to refer to the cultural habit of the sciences to "produce, display and reiterate what counts for evidence in visual form". The technological embodiment includes the entire spectrum of observation; from direct as in the embodied parachutist, or a translation of visual phenomena as in Galileo's telescope (not directly available to human perception) or techno-constituted imaging (second sight). Ihde (2002) informs that second sight refers to technologically constituted scientific vision including all instruments of visual magnification "including the infrared and ultraviolet ranges of the optical spectrum. These ranges, though beyond ordinary visual capacities, can be instrumentally translated into visible patterns" (p. 47), such as is used in medical imaging. A medical example is when a patient undergoes an MRI (magnetic resonance imaging) test. This diagnostic test shows an image relating to a specific area of the body not normally visually accessible to the physician. Through the MRI, the physician can either confirm or refute a diagnosis. Technology makes visible what is otherwise unseen. In relation to embodiment, this abstract power of sight reinforces one's capacity for seeing the world from an objective

perspective. Sobchack (2004) indicates “our vision removes and places us at a distance from the very incarnation we presently live and on which we gaze as an externalized, estranged and reductive version of ourselves” (p. 188).

2.3.1 Added Ideas and Arguments

Olesen (cited in Selinger, 2006) discusses the effect of another example of technological embodiment from the invention of the stethoscope in the nineteenth century. Stethoscopy made it possible to establish causal relations in the body between the sounds of the thoracic cavity and anatomic lesions. The stethoscope itself, a device placed between doctor and patient, meant a shift in distance was created whereby the doctor on a par with the stethoscope had to apply objective analysis rather than offer subjective opinion. Instrument-driven knowledge conceived as general and objective marked the beginning of the scientific experience in Western medicine. Olesen (cited in Selinger, 2006) states that through this instrument driven knowledge, medicine came to be more concerned with disease than with patients, the patient’s knowledge being “particular and subjective” (p. 236). This capacity for objective analysis through the tool of the stethoscope again places the locus of attention away from an embodied subjective intuitive analysis and into an objective examination of results.

Coming from a more body/mind integrated approach, Lenoir, writing the foreword to *New Philosophy for New Media* (cited in Hansen, 2004) informs us of Hansen’s notion that “part of the source of the virtual reality experience is grounded in the biological potential of human beings and that virtual reality is a body-mind achievement” (p. xxiii). The body is described as being modified through interaction facilitated by digital technology. Lenoir continues, “information requires a frame to be constituted as information, and this frame is provided by the active constitution and by assembly of human embodiment” (cited in Hansen, 2004, p. xxii). “Vision, indeed any system involving ‘information’ requires an interpreter, and that interpreter is the material human body grounded in the wetware of our sensorimotor system” (p. xxii). Lenoir asserts that “every imagery regime, including the digital is primarily enframed by an ‘embryonic’ connection with the human body” (cited in Hansen, 2004, p. xxii). The argument is that “visuality is shaped in terms of these more visceral bodily elements rather than by the abstract power of sight”, and Lenoir maintains “that the body continues to be the active framer of the image, even in the digital regime” (p.

xvii). Visuality is linked to digital interactivity because the latter is associated with sight. Visual cues are negotiated through digital interactivity.

Hansen (2004) suggests this “digital interactivity is the capacity to bring into correlation, two distinct virtualities, the virtualisation of the technosphere which in turn facilitates the virtualisation of the body”(p. 146). One can bring the force of the virtual to bear on one’s experience of the body only because the body is in ongoing interaction within a constantly evolving environment. Any technology used for any length of time such as reading with spectacles induces a concurrent reflexive transformation of perceptual and bodily experience. The body adjusts itself to the introduced technology and realigns itself accordingly. One only has to try reading without the spectacles to identify that the body itself has responded to the new technology and can no longer afford their absence. Ihde suggests that the experience of using online technologies may enable an automatic shift in how we perceive ourselves depending on the nature of the technology used.

Relating to the subject of technology, Guattari (2000) discusses “ecosophy, an ethico-political articulation linking three spheres of ecology, the environment, social relations and human subjectivity”(p. 28). Guattari redefines the conceptualization of the natural environment to include social and technological aspects linking the environment, humanity and society into a web of relationships. Now more than ever, according to Guattari (2000), nature cannot be separated from culture. Technology and nature interact in a highly complex and inseparable manner, and if one looks at all the interactions and relationships involved then one will better understand the environment. These three ecologies originate from a common “ethico-aesthetic discipline” (p. 17). Guattari in *Chaosmosis* (1995) states, “My perspective involves shifting the human and social sciences from scientific paradigms towards ethico-aesthetic paradigms” (p.10). This brings the subjective aesthetic-affect-sensation into the equation of how one practices and experiences everyday life. In this ethico-aesthetic paradigm, virtualization is the means by which we can bring the force of the virtual to bear on our experience. Guattari’s (2000) ethico-aesthetic appreciation refers to “a ‘futuristic’ and ‘constructivist’ opening up of the fields of virtuality based on a more subjective reality”(p. 38). This allows the possibility of bodily life as a constant work in progress needing to be continually reinvented with interactivity inclusive of the web of relationships of the environment, humanity and society. An aspect of this interactive

reinvention capacity is exemplified in the experience of play in online environments. One could be playing the role of a warrior with typical traits of strength and valour in an online game and yet this role in one's actual life could be very underdeveloped. Through the development of the warrior role in the online game, it demonstrates how to play the role and therefore offers an understanding of how to be the warrior in the actual world.

Another way of thinking about the body and its relationship to the virtual is offered by Deleuze and Guattari (1987) invoking the 'body without organs'. "The 'body without organs' is not a dead body but a living body populated by multiplicities" (p. 30). The body swarms with myriad forms of energetic configurations leading to multiple selves with many different layers of manifestation. These multiplicities are responsive to both the internal and external environment. This body is endlessly becoming and it needs to be created. The continual creation of this living body is due to a self that is in touch with the dynamic of its own physical, emotional, spiritual and mental capacity along with the capacity to understand and respond to the social environment.

Deleuze and Guattari's body without organs is adaptable to changing circumstances and in this way bears a resemblance to the Taoistic notion of Wu Hing and the Qi body in flow. The Qi body charts the energetic vibrational flow of energy through the meridians and could be perceived as a body without organs.

Deleuze and Guattari's ideas on embodiment detail that "the self and the body cannot be thought of as separate entities" (cited in Fox, 2002). Further, "the body upon which the social world impinges is not the physical body" (cited in Fox, 2002). Deleuze and Guattari (cited in Fox, 2002) suggest that "the use of the term 'body without organs' makes it clearer that the 'in-folding' of the social operates in a realm distant from the physical body, and the sense one has of a physical body is a result of this patterning of the body without organs"(p. 359). "Asking 'what can a body do' recognizes an active, experimenting, engaged and engaging body, not one passively written in systems of thought. Bodies are not the locus at which forces act, they are the production of the interactions of forces" (Deleuze and Guattari cited in Fox, 2002, p. 356)

For Deleuze and Guattari, (cited in Fox, 2002) "subjectivity is a consequence of the confluence between embodiment on one hand, and on the other, the physical and cultural worlds which impinge and limit, yet also make possible. Because of this,

human embodiment cannot be reduced to physiology”(p. 349). “Implicated in the construction of subjectivity, embodiment needs to be understood as an always-unfinished project, of conforming and transgression; while the true discipline of the body is political science, the study of diversity and resistance” (Deleuze and Guattari cited in Fox, 2002, p. 349). “This body is always in flux, as it is endlessly territorialized, deterritorialized and reterritorialized due to the dynamic relations between physical and psychosocial forces” (cited in Fox, 2002, p. 360).

An example of this changing relationship between a person and their environment is the experience of being hospitalised. Any hospitalisation produces a degree of vulnerability. One’s body is under investigation by medical experts. The patient may have an entirely different health perspective from the dominant health discourse relating to their condition. Although the patient has ‘rights’ there is a constant negotiation between what might be acceptable treatment versus either invasive procedures or potential side effects. Each time, the patient allows and accepts another procedure there is a concurrent shift in bodily deterritorialisation.

Ihde’s bodies, Hansen’s ideas on mind/body connectedness and Deleuze and Guattari’s ‘body without organs’ describe aspects of the multi-dimensional experience of the here-real-world embodied body.

2.3.2 Online play

The body in an online game can be seen as the space where imagination and reality meet. The mix occurring between fantasy and reality in online environments is the paradoxical nature of drama, which offers the potential for change or a shift in perspective. Brown (2009) clarifies this potential for change stating “Play allows ‘pretend’ rehearsal for the challenges and ambiguities of life, a rehearsal in which life and death are not at stake” (p. 32).

Online communities such as Second Life, a three dimensional virtual world accessible via the Internet, in many ways function as a themed virtual environment for social interactions. Turkle (2005) discusses how young people work through major life traumas through role playing in online games. Through the taking on of a role, which is different to one’s usual self, there is the opportunity for a new perspective. The role provides the space to be different and in this space one can enact what may even be largely unconscious material beyond the player’s conscious knowledge. Although it is

seen to be a game, the action played out in the role may offer catharsis entailing a release from what was originally repressed. In many online games, one can choose to be someone other than who one is, through selecting a character of a different age, gender, culture and role. This capacity to extend oneself through acting ‘as if’, originally a role played by an actor or in the imaginative play of children, allows this option of participation to anyone wishing to play a part. Implicit in this potential to reconstruct one’s self through an online game is the idea that the observer or player has a key role in defining the reality. As one player puts it, “you are what you pretend to be [...] you are what you play” (cited in Turkle, 2005, p.270). This ambiguity contributes to the games' capacity to be a place where issues of identity and intimacy are addressed and is a similar process to the idea of aesthetic illusion referred to in the experience of play. Jay Chaskes (1995) found through research pertaining to the ‘reinvention of self’ in multi-user dimensions that it is common practice for individuals to assume several identities, which are employed for different purposes throughout various virtual worlds. “As a disembodied entity, one may ‘appear’ as whatever one wishes” (Chaskes, 1995).

Regardless of the ‘pretend’ nature of play, McConnigal suggests that in online games there can be a sense of urgency, a focus, the desire to collaborate, confront obstacles, problem solve and sometimes an eventual outcome that is extraordinarily positive and beyond imagination (McConnigal, 2010). The sense of urgent optimism, a trusty social fabric built on trust through playing the game, productivity and epic meaning may ultimately be used for other ends, such as McConnigal’s (2010) intimation that “gaming can make a better world”. This idea stems from the hope that, depending on the design of the game, it may be possible that games can have a positive impact in addressing the challenging issues of the world today. The conscious awareness that one has of being a player among thousands of others and the capacity for ‘flow’ which happens when one is fully engaged in a game may ultimately be useful in helping address these challenging issues. McConnigal (2010) envisages that “in the next decade, there will be one and a half billion gamers, an entire generation of young people who are playing games”.

Nick Yee (2006), in the Daedalus project, (a long running study of massive multiplayer online role players) surveyed over thirty five thousand ‘massive multiplayer online role-playing games’ (MMORPG) players from the most popular US MMORPGS. Drama and intrigue can be seen as the crux of the MMORPG experience,

relationships are formed nearly opposite to the real world in that crises happen and players' befriend those who have shown loyalty and courage. It has been suggested that there are factors unique to MMORPGs that facilitate relationship formation. "The kind of high stress crisis scenario occurs with greater frequency in these environments under different guises. When paired with the degree of emotional investment users place in these environments, many relationships are in fact triggered by these trust building scenarios, analogous to boot camps and fraternity initiations in the material world" (Yee, 2006, p. 197).

"MMORGHs are not a new form of play as much as a different communication medium that affords contemporary forms of social identity and social interaction" (Yee, 2006, p. 203).

Both the body in play and the body in games share similar characteristics. Salen (2004, p. 311) declares that "games are a subset of play" and that "play is an element of games" suggesting that meaning, play and games are intimately related concepts and that "the goal of successful game design is meaningful play" (2004, p. 37).

In relation to online games, Salen (2004) summarises the three primary game design schemas as rules, play and culture. The forms of these implicit rules include etiquette, ethos, convention and context. The lusory attitude, which is characterized by adopting the rules of engagement for the game, applies not just to the formal rules of a game but to the implicit rules as well. When a player submits to the authority of a game, he or she is accepting its formal as well as cultural authority.

The following three aspects of game design associated with the science of complexity and information are acknowledged in this study because of a parallel with five phase theory of traditional Chinese medicine. Game designer and philosopher DeKoven (cited in Salen & Zimmerman, 2004, p. 174) points out that "uncertainty about the outcome of a game is a necessary ingredient in giving a game a feeling of purpose. One has to understand the basic mathematics of probability, how risks or chance will impact on the system and whether this leads to meaningful play". Uncertainty is a key component for meaningful play. Games as emergent systems create unexpected patterns of events out of a very simple set of rules due to the whole being greater than the sum of the parts. "Context dependent interactions change from moment to moment depending on what is happening in other parts of the system,

creating patterns that change dynamically over time”(Salen & Zimmerman, 2004, p. 171).

Conflict is an essential aspect of any drama and arises naturally from the interaction in a game. The player is actively pursuing a goal and encounters obstacles. Conflict is an intrinsic element of games. All games are both competitive and cooperative. The elements of drama include a location, characters, a problem or obstacle, something that helps and an outcome.

Lastly, culture is the larger context engaged with and inhabited by the gameplay. Games take place in a magic circle, which exists within an environment, a context, and a surrounding cultural milieu. Within the online environment, this magic circle like play in any environment locates the player in a place where the parameters of both time and space are different to ordinary time. Hence the nature of online play is described as a three dimensional virtual world with a themed virtual environment for social interactions offering the opportunity to take on varied roles, to interact socially and to be so engaged in playing the game that the experience of the body despite the virtuality is one of ‘flow’.

2.4 Summary

Ihde’s three bodies, Hansen’s integrated mind/body and Guattari’s three ecologies offer ideas around the nature of embodiment and virtuality. It is acknowledged that one’s mode of experiencing regardless of the capacity for technological extension is primarily via the body. Ihde’s classifications of bodies one, two and three describe this capacity to be embodied. The experience of online play furthers the idea of embodiment in the online environment to include the bodily experience of ‘flow’.

Chapter 3: Key concepts in Traditional Chinese Medicine

It is through the body we are related to one another and the rest of the world Mihaly Csikszentmihalyi (cited in Fruehauf, 2009a)

This chapter aims to look at the inter-relatedness of all things, material and virtual, that is found in traditional Chinese medicine embodied in the Qi body and linked to the Taoistic notion of play. An aspect of this inter-relatedness is that between the body and nature. There is a Taoist saying (Hicks, Hicks & Mole, 2004) that “the human body is the image of a country” (p.281). This is reflected in the Chinese acupuncture points on the body’s anatomical landscape named after streams, marshes, mounds, valleys, mountains, seas, burial grounds, treasuries, palaces and city gates. The medico-philosophy of traditional Chinese medicine is based on the notion that human life contains the co-operative aspect of Qi which constantly changes and which defies reason in the traditional Western sense. This aspect is the element of complexity (Pritzker, 2002), associated with the ancient Taoist notion of change. This element of complexity according to the view of modern physics is such that “...Reality is essentially an amalgam of interference patterns –vibrational base patterns that constantly merge with other vibrations to produce ever changing and new vibrational forms” (Fruehauf, 2009, para.13). This modern idea of complexity is related to the key Chinese classics acknowledged earlier as “texts expounding the universal paths of movement” (Fruehauf, 2009, para. 7). Within the Chinese medicine paradigm, the notion of change and movement shows how one can align oneself with the laws and rhythms of the natural world and honor ‘the ways’ of the elements.

What follows is a presentation of the structure of traditional Chinese medicine oriented around the key concepts of Qi, Yin Yang and Wu Hing and represented by what is known as the acupuncture body. Proceeding this is a discussion on Taoism, Qi and links to play.

The acupuncture body of Chinese medicine originating in Taoism is associated with the notion of constant change, is strongly grounded in the natural world, and offers an ecological worldview. It describes health and disease in terms of the forces and cycles that govern the entire natural cosmos.

3.1.1 Yin Yang

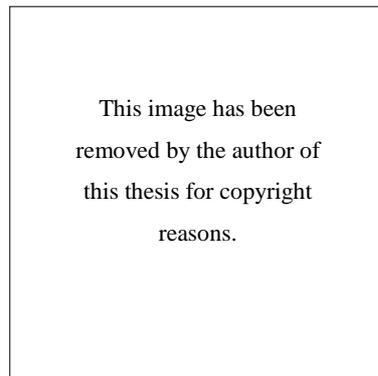


Figure 1: Yin Yang symbol

Source: Taoism.about.com

The tai-chi circle (see Figure 1) , which is the symbol for Yin and Yang, depicts the balance and harmony that are two primary and supreme forces in the universe. This archetypal pair forms the poles of nature, whilst the unification of these two forces expresses both paradox and polarity. According to Taoism, the entire universe is an oscillation of the forces of Yin and Yang referring to the two basic categories of negative and positive, and they are in constant flux. The phenomenon of Yin-Yang has permeated Taoist philosophy over the centuries; “the earliest reference attributed to one in the ‘Book of Changes’ (I Ching) around 700 BC” (Maciocia, 1989, p. 1). The Chinese characters for ‘Yin’ and ‘Yang’ represent the dark and sunny side of a hill. Yin and yang are two stages of a cyclical movement, one constantly changing into the other, such as the day giving way to the night and vice versa. Yin and Yang are essentially an expression of a duality in time, an alternation of two opposite stages in time, a motive for change and development affecting every phenomenon in the universe. Yang is heaven; Yin is earth. The day belongs to Yang but after reaching its peak at midday, the Yin within it gradually begins to unfold and manifest, always containing the seed of the opposite stage within itself whether Yin or Yang is utmost. “Yin and Yang also symbolise two opposite states of the aggregation of things. In its purest and most rarefied form, Yang is totally immaterial and corresponds to pure energy, and Yin in its coarsest and densest form is totally material and corresponds to matter” (Maciocia, 1989, p. 4).

“These complementary opposites are neither forces nor material entities, they are convenient labels used to describe how things function in relation to each other and to the universe. They are used to explain the process of continuous and natural change”

(Kaptchuk, 1983, p. 8). What may be taken as a basis of Taoism is an understanding of the cosmos as a concrete pattern of phenomena, which reflects the cycles in nature and the symbolic forms that were developed in correspondence within a context of cultural and historical significance. Traditional Chinese landscape painting exemplifies these ideas of balance, harmony and change as depicted in the Yin-Yang model. The landscape painting's composition is a unique configuration of the natural elements of earth, fire, water, air and wood. In a similar way each person is seen in Taoism as a miniature cosmos.

“In this system of thought all things are seen as parts of the whole” (Kaptchuk, 1983, p. 8). This “emphasis on the perception of patterns is basic to Chinese thinking and is different to that of western thinking where the final concern is always the creator or cause and the phenomenon is merely its reflection” (Kaptchuk, 1983, p. 14).

The nature of the Yin Yang symbol reinforces the subjective experience of ‘being’ a body and remains the essence of the Chinese idea of change. This is exemplified in practices such as Tai Qi and Qi Gong. The simple body movements that demonstrate the practice of Tai Qi and Qi Gong encourage the free flow of Qi in the body and the surrounding environment. The nature of this free flow of Qi in the body follows the Qi flow in the acupuncture meridians. Chinese acupressure massage is another feature of Chinese medicine. This form of massage specifically relates to reinforcing and balancing the meridians of acupuncture. Key acupuncture points are accessed on the skin to release the ‘flow’ of Qi. These practices along with many others encourage this ‘flow’ and bodily experience of being.



Figure 2: Image of character for Qi

Source: Orientalpathways.co.uk

3.1.2 Qi

“The character for Qi (see Figure 2) indicates that it is something which is at the same time, material and immaterial. The upper character means vapour, steam or gas, and the lower means uncooked rice” (Maciocia, 1989, p. 35). “Taoism is concerned with insight into the web of phenomena and lacks a creator. The desire for knowledge is the desire to understand the inter-relationships or patterns within the web, and to become attuned to the unseen dynamic” (Kaptchuk, 1983, p. 15). “Taoism maintains that humans are an integral part of nature and the Tao” (Hicks, et al., 2004, p. 1) and that there is a “unity of all phenomena in the universe. Qi is this insubstantial matter that underlies everything that is manifest” (p. 1).

In humans, the acupuncture body represents Qi. Qi flows through the channels as an invisible current, energizing, nourishing and supporting every cell, muscle, tissue, organ and gland within the body. When Qi is balanced and flowing freely, the body’s natural self-healing abilities are activated, enabling internal stability and harmony to occur. When Qi is stuck, blocked or interrupted, the reverse may occur. Hicks (2004) tells us that “Qi literally gives us our vitality”(p. 3). The goal of acupuncture is to stimulate the blocked areas, allowing Qi to flow freely so that the body can flourish and true health and wellbeing can be achieved and maintained. “In Chinese medical terminology, the terms “blood stagnation” and “phlegm” refer to structural accumulations, while “qi stagnation” implies the obstructed or inefficient transmission of bodily information” (Fruehauf, 2009, para.28). Thus the character for Qi above illustrates the notion that Qi is both material and immaterial at the same time.

“These meridians and their acupuncture points have no known relationship with anatomical systems in Western medicine, despite many attempts to search for

correlations” (Feinstein & Eden, 2008). However, Ho (1998) argues that a “body consciousness possessing *all* the hallmarks of consciousness; sentience, intercommunication and memory, is distributed throughout the entire body. Brain consciousness associated with the nervous system is embedded in body consciousness and is coupled to it” (1998, p.193).

Likewise Kaptchuk (1983) reinforces that “Chinese thought does not distinguish between matter and energy. We can perhaps think of Qi as matter on the verge of becoming energy, or energy at the point of materializing. Qi is perceived functionally, by what it does”(p. 36). There are three sources of normal Qi in the body. The first is original Qi transmitted by parents to their children at conception. This Qi is stored in the kidneys and is part of the inherited constitution. The second source is grain Qi derived from the digestion of food. The third is natural air Qi extracted from the lungs by the air one breathes. These three forms of Qi permeate the entire body. Functionally, “Qi is responsible for the physical integrity of any entity, and for the changes that entity undergoes” (Kaptchuk, 1983, p. 36). “Qi is the vibratory nature of all phenomena constituting the flow and trembling that is happening continuously at molecular, atomic and sub-atomic levels”(Maciocia, 1989, p. 36). Using this theory it would suggest that the notion of Qi would then have some link to embodiment and virtuality.

3.1.3 Wu Hing/Five Phases

Like Yin Yang, the five phase theory of acupuncture (see Figure 3) gives further descriptions of Qi energy as it goes through cyclic transformations. Jarret (1998) informs us that “Five phase theory is a purely relational system of thought that allows us to qualify the functional relationships which exist in any given moment and in any observable phenomena”(p. 131). In the ancient works of the ‘Great Transmission of the Valued Book’, “Water and fire provide food, metal and wood provide prosperity and the earth makes provisions” (cited in Maciocia, 1989, p. 16). “Health is seen to be the harmonious cyclic interaction of these phases and is maintained only when the energy flowing through each of the phases is clear and life-giving” (Connelly, 1994, p. 14).

Just as the Qi of heaven in the form of the seasons are seen to follow each other as in spring, summer, autumn, winter, the Qi of earth is also seen to follow the same cycle. Wood creates fire by burning, fire creates earth from ashes, earth creates metal by hardening (e.g. rock), metal creates water by containment, water creates wood by

nourishment. “The five phases of wood, fire, earth, metal and water represent the fundamental qualities of all matter in the universe” (Hicks, et al., 2004, p. 5). These phases symbolise the connection between humans, the environment and the inter-relationships between self and other, key concepts in this thesis. Patterns in nature are recapitulated at every level of organization, from the movement of planets to the behaviour of our internal organs. The organisation of the whole is reflected by each and every part.

The concepts of Yin-Yang and the five phases are based on the exploration and an understanding of these relationships. The most important relationships between the five phases are those controlled by the Sheng and Ke cycles. The Sheng cycle is known as the generating sequence whilst the Ke cycle is known as the controlling sequence. Maciocia (1989) conveys the idea that the controlling sequence ensures that a balance is maintained among the five phases. “The mutual generating and controlling relationships among the phases is a fine model of the many self-regulating balancing processes to be seen in Nature and in the human body”(p. 19).

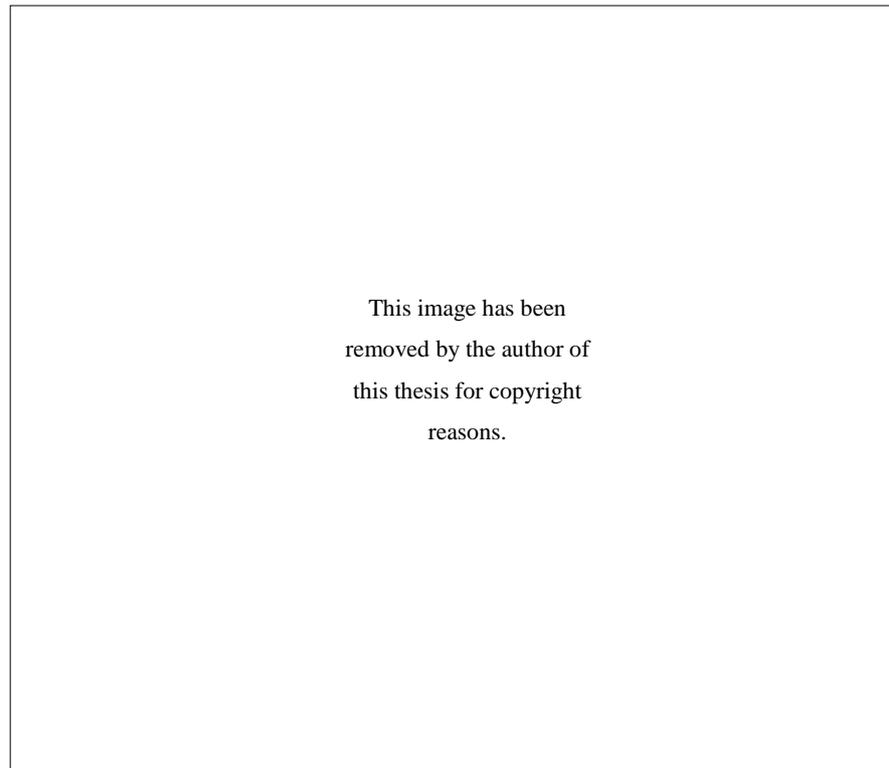


Figure 3: Wu Xing (Five Phase) illustration of Sheng and Ke cycles

Source: <http://www.naturalvet.org/tcvm.htm>

There are two other sequences in this five phase system. There is the overacting sequence when one phase over-controls another, causing one phase to be excessive in relation to another. Then there is the insulting sequence, which literally takes place in the reverse order to the controlling sequence. Both the overacting and the insulting sequence cause an imbalance in the body, which may eventually manifest as a health symptom. Hence the impact of these phases deemed to be controlling, co-operative, creating, overacting or insulting in the Qi body all need to be considered when developing a patient's clinical picture and defining appropriate treatment.

The relevance of yin-yang theory and five-phase theory and its relationship to embodiment and play is developed in the discussion section of this study.

The Correspondences of the Five Phases

The table of correspondences below (see table 1) describes the parallelism and synchronicity of events in the inner and outer world of the human organism. This correspondence thinking postulates that events occur in association with each other, linked by a mutual force regardless of their location in time and space. "Qi is the medium that links all events with each other, transcending time and space because

patterns are formed that persist beyond their moment of origin” (Beinfeld & Korngold, 1991, p. 36).

Table 1: The main correspondences of the Five Phases

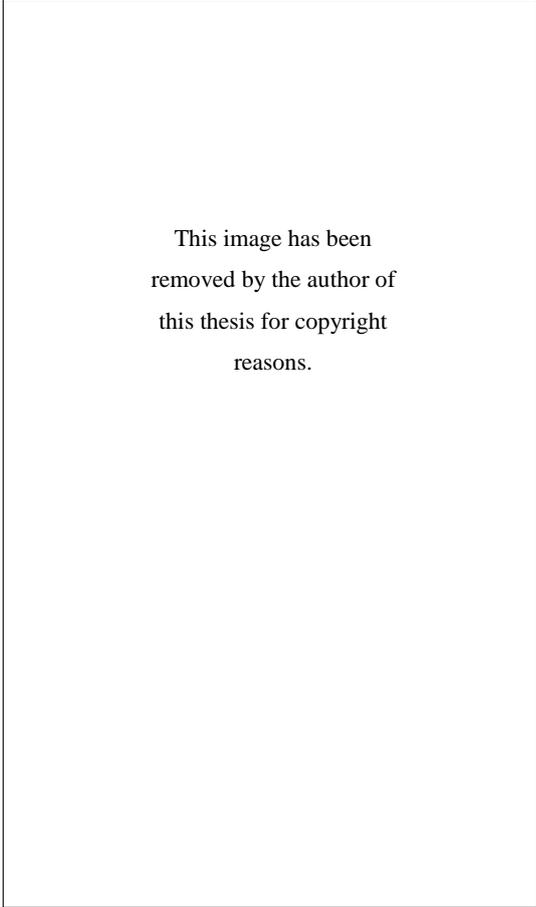
<p>This image has been removed by the author of this thesis for copyright reasons.</p>
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**At the end of each season, the energy goes back to the earth (Centre) for replenishment. For this reason, the earth does not correspond to any season in particular.*

Maciocia, G. (1989, p. 33). *The Foundations of Chinese Medicine*. New York.

Just as there are daily and seasonal changes in nature, there are cycles of change in the body. A person is Yin and Yang with each organ assigned to one of the five phases; the kidneys to water, the liver to wood, the lungs to air and metal, the heart to fire and the stomach/spleen to earth. Within each phase are aspects of all the other phases. The main channels of communication and energy distribution in the acupuncture body are like a net or a web and “though these channels are unseen, they are thought to embody a physical reality” (Kaptchuk, 1983, p. 77). These channels

connecting the interior of the body with the exterior are the basis of acupuncture theory implying that working with points on the surface of the body will affect what takes place inside the body. The points on the surface of the body are how the acupuncturist accesses the informational Qi during an acupuncture treatment (see Figure 4).



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Figure 4: Map of Meridians of anterior body

Source: reikihelp.com, acupuncture-meridians.gif

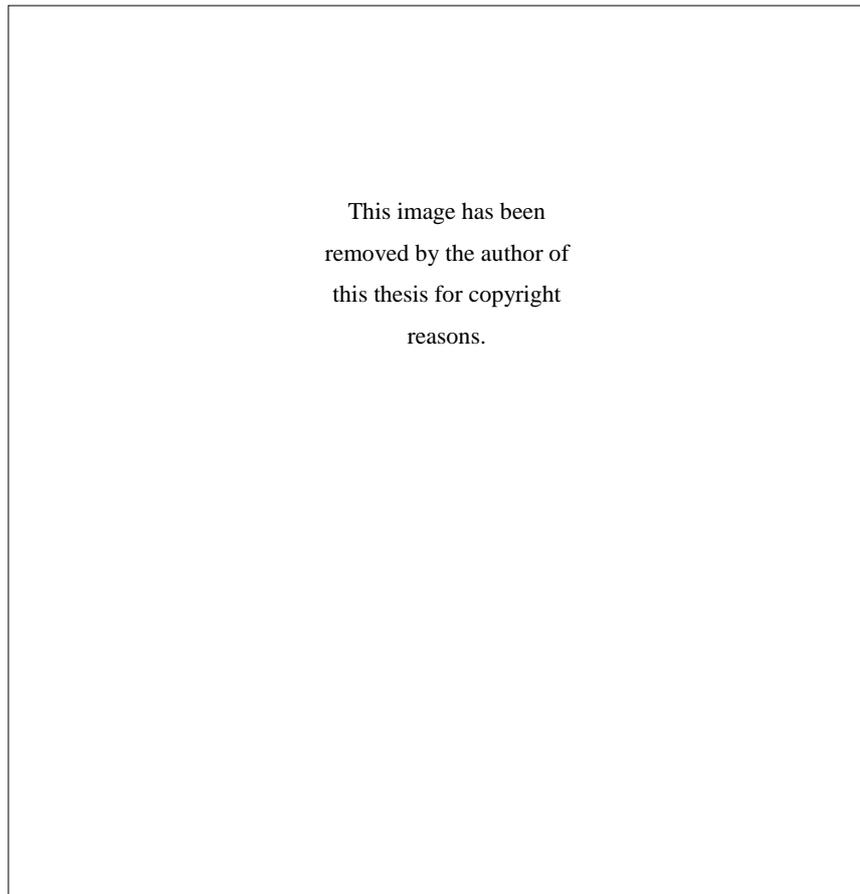


Figure 5: Auriculotherapy – Holographic image of body in ear

Source: yourgreensite.net

3.1.4 Micro-acupuncture and Non-locality

These main channels of communication in the acupuncture body are also part of a micro-system [see Figure 5]. The micro-system of acupuncture with its fractal-like nature of self-similarity, allows the acupuncturist to be effective in treating the whole body via specific points on the ear, the hand, the foot or the abdomen. This is because the whole body is reflected or mirrored in each part via the informational system of the meridian channels and the Qi. “An invisible electromagnetic field within the body offers not only a new understanding of the background of acupuncture and other forms of holistic medicine, but also quantitative evaluation of the degree of coherence of the body-mind system” (Laszlo, 2003, p. 46). This capacity for intercommunication leads us to viewing the body as a holograph. Lipton (2009) explains, “The principles of fractal geometry describe the structure of nature emphasizing that self-similar patterns of organization are found at every level of the universes’ structure” (p. 343).

An example of this fractal principle within the body is that one can use acupuncture Qi points in one micro-system such as the ear, to treat a condition of the body such as digestion, depression, asthma. Schjelderup (1992) defines this acupuncture micro-system in the following way. “Bio-Holographic acupuncture is based on the hypothesis that living organisms have a mosaic structure, being composed of parts that have embryonic properties and contain information relating to the whole organism” (Schjelderup, 1992). Bouevitch (2003) describes another derivative of the micro-acupuncture system as “ECIWO (embryo containing the information of the whole organism)” (para.1).

Hence the acupuncture micro-systems link to the idea of non-locality within one’s own body. Using the microsystem of auricular acupuncture, one can treat the whole body merely by treating points on the external ear or auricle. The entire body is projected onto the auricle, reflecting an image of it. In other words, the ear "mirrors" the whole body.

This principle of non-locality works within the body as follows. There are approximately three hundred and sixty five informational acupuncture points on the Qi body, all with distinctive characteristics. Each acupuncture point exists in a physical location. The acupuncture Qi point ‘Kunlun’ (Bladder 60), located on the bladder meridian channel is described. This acu-point lies behind the ankle joint in the depression between the prominence of the lateral malleolus and the achilles tendon. The anatomical geography of this point behind the ankle is such that the ancient Chinese associated the Qi energy here with the nature of the Kunlun mountain range in China, hence the name ‘Kunlun’.

The function of this fire point situated on the water meridian channel of the bladder is that it is able to clear fire, heat and excess energy from the upper body even though it is located at the ankle. It also traverses the entire posterior of the body alongside both sides of the spine (relational to the three thousand kilometre length of the origin of its name, the Kunlun mountain range). Deadman’s textbook (2007) asserts that the Kunlun point is selected “to clear heat in the head, redness and swelling of the eyes, nosebleed and toothache or epilepsy”(p. 318), despite it being at the opposite end of the body. The principle of ‘as above so below’ or in this context, ‘for diseases of the head select points from the feet’ is applicable here. At a more local level, Kunlun is

effective in treating the actual ankle for pain and stiffness. This description illustrates the characteristic of non-locality within the Qi body.

The Chinese understanding of movement recorded in the Yi Jing (cited in Fruehauf, 2009, para.10) discusses holism as the essence of the message in the Dao de Jing. An aspect of this holism is the movement of Qi, or energy rather than matter, which is under scientific scrutiny. Furthermore, Fruehauf (2009) suggests that traditional Chinese science is relational in that it “is the exploration of relationships; the relevant lines, numerical symbols, and verbal terminology used by its adepts, do not purport to enshrine the ‘true nature’ of things but rather express their relationship to us” (para.10).

3.1.5 Historical Link between Qi and Environment

The notion of Qi as an ecological force and therefore directly linked with one’s own body is summed up by Sun Si Miao (cited in Wilms, 2010), a Taoist hermit, medical thinker and philosopher from the sixth century: “When the constancies are lost, if Qi and essence steam upward, they cause heat in the body; if they are blocked, they cause cold; if they are bound, tumours and excrescences; if they sink, abscesses; if they scatter wildly, panting and shortness of breath; and if they are exhausted, scorching and withering. Their symptoms arise on the face, and their transformations move around in the body” (para.7). Sun Si Miao (cited in Wilms, 2010) then extends this analogy to the environment. He teaches that “unseasonable winter cold and summer heat” or what we would term climate change is due to the ascent or blockage of Qi and essence in the biosphere. Earthquakes and landslides are the “tumours and excrescences” of the environment whilst landslides and caved-in ground are the abscesses. “Scattered winds and violent rain are the panting and shortness of breath” of the biosphere and likewise “dried-up streams and parched marshes are the scorching and withering” of the earth. Thus, “the human body has illnesses that can be cured, and Heaven and Earth (the environment) has calamities that can be dispersed” (p. 7).

This environmental description of Qi as an ecological force is directly relational to the nature of the acupuncture diagnosis according to five phase theory.

Sun Si Miao’s assertion from the sixth century that environmental calamities can be dispersed via this concept of Qi may be applicable today. Both the overacting and the insulting sequences that cause an imbalance in the body also manifest in the global

environment. Laszlo (2006) offers the facts that “four fifths of the planet is under nearly catastrophic conditions relating to water shortages (p. 28)” and “the human impact on the atmosphere has reduced the atmosphere’s oxygen content and has increased the share of the other elements such as greenhouse gases” (Laszlo, 1996, p. 31). With the worldwide communication that now exists via the internet and the “power inherent in shared awareness, [...] humanity is now endowed with enough power to nurture and heal our planet and ourselves in a predictable way” (Lipton, 2009, p. 161). The inter-relatedness of vast numbers of people using networked technology along with a Qi body perspective reinforces the idea that with our thoughts, we co-create reality and because we are made up of earth, fire water air and wood, we are the same stuff as nature and consequently have a part to play in addressing the serious environmental issues of today. Because of its very architecture, if this Qi body was to be put into a technological frame, it could support a move towards ecological homeostasis.

“...Chinese thought is fundamentally a pattern of appearances that represents the natural environment of human beings on the earth”. Life conditions relating to natural phenomena such as heat, cold, dark, light act upon and affect the subject. “The subject as an organic corpus is at all times already formed, imprinted, and in-formed by the pattern of information which surrounds him/her” (Fiedeler, 1993, para.9).

“The evolutionarily logical principle of adaptation to the environment directly corresponds to Chinese thought in that it gives place to the manifest appearance of corporeal phenomena. It is not the object which gives rise to the object’s appearance, but rather the object’s appearance that precedes the object. “Appearance begets being. This means that phenomena are understood in terms of their subjective aspect with relation to the life-world. They are understood not as objects, but as participants in an “animistic” reality” (Fiedeler, 1993, para.10). Hence, “Chinese thought provides a systematic starting point for a genuine and philosophically sound environmental consciousness which is rooted in the structure of the environment itself” (Fiedeler, 1993, para. 9).

This overview of the fundamental principles and key concepts of traditional Chinese medicine includes a description of the idea of mirroring; how the Qi body mirrors the environment and how the structure of the cosmos mirrors the five phases. What is now examined is the universal Qi body and its links to the notion of play.

3.1.6 Taoism, Qi and Play

Forget the years, forget distinctions. Leap into the boundless and make it your home. Chuang Tzu (Zhuangzi), Basic Writings, 2003, p. 44

The notion of free flowing Qi is exemplified in the Taoist notion of ‘Wu Wei’. This idea of Wu Wei (Cooper, 2010) is one of “letting go, it is the principle of non-assertion, moving with the currents of life and nature and so avoiding friction and allowing the upsurge of the natural rhythms of life, both physical and spiritual” (p. 145). Schools for the practice of Tai Qi and Qi Gong along with other martial arts exist to encourage this body / environment balance. These practices essentially entail a series of “exercises that entice the qi to flow” (para. 39) by means of focus and consciousness control. Fruehauf (2009) affirms that “in order to induce the cherished sense of synchrony between our own rhythms and the universal pulse of universal movement, all of the schools in question teach how to “absorb” cosmic energy—qi, ki, or prana—in the most efficient manner” (para. 40).

In Taoist philosophy, paradox underpins the worldview of inter-relatedness. An example taken from the Dao de Jing states that “The meaning that one can invent is not the real meaning”. This suggests that words are concepts and do not ultimately convey the real truth. Taoism is described by Cooper (2010) as being “ritual-free, spontaneous and unconventional”(p. 147). The body according to Taoistic principles is itself an ecosystem and coupled with the concept of Wu Wei allows for the free flow of energy which is reflected in the expression of spontaneity and play.

Kardash (1998) informs that “going with the flow is a direct expression of this fundamental Taoist principle, which in its most basic form refers to behaviour occurring in response to the flow of the Tao”. “*Wu-wei* also refers to behavior that arises from a sense of oneself as connected to others and to one's environment. It is not motivated by a sense of separateness. It is action that is spontaneous and effortless”(Kardash, 1998). Fruehauf (2009) reports that this flow experience of being completely immersed in an activity or playing “induces a state of wellbeing including an uninhibited flow within all three of the presented realities of human existence. That is, the structural body, the energy field, and consciousness” (para. 36).

Implicit in the concept of Qi is the capacity for ‘flow’, and the body in ‘flow’ is associated with being engaged, as for example in the fully engrossing experience of

play. Taoistic games associated with this idea of Qi and play include ‘Go’ and ‘Wu Hing’.

The ancient Chinese game of ‘Go’ “is wildly popular in Asia, where there are more than one hundred million active players” (Garlock, n.d.). Katie Hafner (2002) in her article in the New York Times describes the nature of the game ‘Go’, stating that “along with intuition, pattern recognition is a large part of the game. While computers are good at crunching numbers, people are naturally good at matching patterns. Humans can recognize an acquaintance at a glance, even from the back”. ‘Go’ is easy to learn but takes a lifetime to master due to its depth and complexity. “To date, no computer has been able to achieve a skill level beyond that of the casual player”(Hafner, 2002). Like the martial arts alluded to earlier, values denoting respect and humility are inherent to the play along with skills of concentration, balance, and discipline.

Another game is Wu Hing, described by Beal (2005) as a strategy board game based on the five Chinese elements of wood, fire, earth, metal and water. The game pits Yin and Yang against each other to create, destroy and transform the elements in play. “Like any good strategy board game, the basic rules are simple to learn but difficult to master, with several layers of strategy to consider”(Beal, 2005).

Traditional Chinese medicine relating to the body itself is depicted as drama. The twelve organs are described as though they were ‘officials’ in a court, each with a particular ministry or role. Different roles for different organs are relegated throughout the twelve channels. “The Heart holds the office of lord and sovereign. The radiance of spirit stems from it. The lung holds the office of minister and chancellor. The regulator of the life-giving network stems from it. The liver holds the office of general of the armed forces. Assessment of circumstances and conception of plans stem from it” (Hicks, et al., 2004, p. 11). Thus the body as perceived in Traditional Chinese Medicine is a play in itself. It has at least twelve characters set in a location with five key elements or phases distinctly relating to inter-dependency, and a cybernetic system. “Cybernetics is the study of communication and control, typically involving regulatory feedback in living organisms, machines and organisations, as well as their combinations” (Prescott, 2007, para. 9). The two main connections of the five phases are referred to as the Sheng cycle and the Ke cycle. The working of these two relations produces a system of checks and balances that is referred to in modern terms as cybernetic. These relations are the normal everyday checks and balances. However,

they are also subject to going too far, in over-promotion, over-control and their reverse actions. In five phase theory, these cycles or checks and balances are known as the overacting, over controlling and insulting phases and lead to disharmony and ill-health.

The practice of Chinese wellbeing exercises such as Tai Qi, Qi Gong along with playing the games of Go, Wu Hing offer examples of embodying the play of Qi and the notion of 'flow' within the paradigm of Taoism.

3.2 Summary

The acupuncture Qi body offers a perspective that fosters an ecological understanding of oneself in relation to one's links with nature, the capacity for play and the interconnectedness of all things.

Chapter 4: Discussion

The study sets out to define whether Qi as understood in Taoism and traditional Chinese medicine offers a model for understanding embodiment and play in online immersive environments. The study builds on the notion of Ihde's concept of three bodies and makes a case for a fourth body.

In reviewing the literature, no previous information is found for any direct association between Qi, embodiment and play in an online environment. However, from the literature review, underlying themes concerning the material/immateriality of Qi and the principle of non-locality offer a perspective in relation to understanding embodiment and play in online environments.

A principle factor in the study is that the overall perspective suggests the idea of inter-relatedness. This differs from a mechanistic viewpoint where the mind, body and environment are perceived as principally separate entities.

The key finding in the study is the emergence of a fourth body.

4.1 The Fourth Body

The theoretical positioning of the fourth body is that it occurs in a different space/time paradigm than the usual day to day reality of human existence. The fourth body underpins Ihde's concept of three bodies and also affects them. The fourth body mirrors nature and resonates throughout the cosmos. It is inter-related with everything that exists, from the macrocosm to the microcosm. It is the combination of subject and object and it is associated with the notion of paradox.

Qualities of the fourth body relate to the concept of movement and change. This movement and change is reflected in animate and inanimate things. The fourth body is both local and non-local. It is material and non-material. It can be simple or complex in that there can be one body or many bodies.

4.2 The Fourth Body and Play

The fourth body and play are linked via the cosmos. There is a cosmological link between Qi and play beyond what is one's usual experience of being. Descriptions of the fourth body relating to Qi and the cosmos are offered by physicist Ho (1999) stating that "the vital energy, Qi, of traditional Chinese medicine corresponds to coherent

energy in living organisms, which is stored everywhere over the entire range of space-times”. Wang (2009) refers the cosmological nature of Qi back to the body when he describes Chinese philosophy as “a philosophy of body (p. 114)” observing that “the body is a starting point and a blueprint for cosmology” (p. 114). In relation to play, Gordon (2008) acknowledges, “Play is integral to an evolving cosmos [...] what we think of as playfulness in animals is actually the articulation and enhancement of the intrinsic playfulness of the cosmos” (p.16). The playfulness of the cosmos is inside and outside time and space, like the cosmos itself.

The fourth body and play are linked by the notion of ‘flow’. The characteristic applicable to both the action of play and the energetic vibration of Qi is based on the ancient Taoistic idea of movement. The literature reviewed in the study, identifies that the pattern that connects, that is the Tao or path, has shared characteristics to the notion of ‘flow’ as described by Csikszentmihalyi (1992). The Taoistic concept of movement and the notion of ‘flow’ both represent the path of free flowing Qi whilst the notion of ‘flow’ is inherent in the experience and theoretical descriptions of play. In this way, Qi and play are linked.

Psychologist Csikszentmihalyi’s (1992) explanation of ‘flow’ is generally characterized by “intense concentration, clarity of goals, and effortless action leading to a sense of inner growth through intrinsically rewarding interactions with some aspect of the outer or inner environment” (p. 4). This explanation of ‘flow’ has similarities to the experience of players in an online game. There is a key focus on action and awareness, total concentration and clarity of goals of the game plus the suspension of normal time. The intrinsically rewarding interactions are linked to the game play in the virtual environment.

Fourth body attributes of Qi and play share the characteristic of transcending space and time via the notion of ‘flow’. The relationship to Qi and play is associated with the ‘flow’ that happens when one is engaged in play. The ensuing ‘flow’ is embodied within the body via the movement of Qi.

4.3 The Fourth Body and Embodiment

The character for Qi is such that it is both material and immaterial and is described by Kaptchuk (1983) “... as matter on the verge of becoming energy, or energy at the point of materializing” (p. 35). Hayles (1999), in her definition of

virtuality states that “all material objects are interpenetrated by flows of information, from DNA coding to the global reach of the World Wide Web” (p. 14). Furthermore, in order for information to exist, it “must always be instantiated in a medium” (p. 13). Qi is substantiated in the human body and has the added characteristic of being immaterial. When one is focused on a screen in a virtual environment playing a game, then Qi, which follows mind, can be seen to be the interface between the material body and the virtual body. Wang (2009) makes the comment that “The Qi body is not simply physical flesh or a pure object of science but is a unity between subject and object, thinking and action, and oneself and the world. Qi provides “a continuity between coarse material forms and tenuous rarefied non-material energies” (Maciocia, 1989, p. 36). In relation to this study, the fourth body of Qi is the interface between the material body and the virtual body. The fourth body supports the notion of embodied being due to Qi being substantiated throughout the body.

Cultural theorist Woodward (1994), offers another angle on the body and embodiment when she suggests “technology serves fundamentally as a prosthesis of the human body, one that ultimately displaces the material body, transmitting instead its image around the globe and preserving that image over time” (p. 50). Technology may serve as prosthesis for the human body, however, as the Qi body is both material and immaterial, it can be seen to be the original prosthesis for the material body. Ho (1999) states that “The vital energy, qi, of traditional Chinese medicine corresponds to coherent energy in living organisms, which is stored everywhere over the entire range of space-times...” This suggests that the Qi body is the necessary condition of all embodied experience underlining Ihde’s concept of three bodies.

Paradox is another aspect of embodiment in the fourth body. Paradox represents the idea of aesthetic illusion in play, and the nature of yin/yang in Qi. In the practice of acupuncture, yin can be yang and yang can be yin depending on which perspective one is looking from. Accordingly, when one becomes a character in an online game, through playing a role, one is oneself and also not oneself. A player can have multiple characters and therefore be multiple selves and multiple non-selves. This is the idea of aesthetic illusion.

A character in an online game is suspended between three realities, the role of the actual biological living player who is playing the game, the role of the character within

the game who has the capacity to take on a role and communicate socially with the other actors in the gameplay and finally, the spectacle-like image body in the online environment. The character within the game is defined by the role one plays and the ensuing action one takes. The spectacle-like image body is how one appears to oneself and others. Due to its technological nature, the role of the virtual body in the online environment allows for a different social construct. That of embodiment without the sensory experience. The player creates and manipulates the spectacle-like image body but is unable to feel it; though at the same time acts as if connected and affected by the virtual environment. The senses are abstracted in this disembodied experience hence this spectacle-like image body is a form of virtuality. What is distinctive regarding the virtual body is that it can be multiple by taking on many roles and personalities with every new situation providing new relations and new possible identities.

Qi follows where mind goes and in this case the focus is on a screen interacting with a virtual character. Play and Qi comprise the fourth body and present an explanation for embodiment in the virtual environment. Through engagement with the gameplay, the actual player embodies the role of the spectacle-like image character.

4.4 The Fourth Body and Online Environments

The fourth body is local and non-local. “Non-locality tells us that all things in the world are interconnected and all are part of more integrated ensembles, meaning wholes. The whole universe is an entangled quantum system” (Laszlo, 2006, p. 91). Our bodies and technological networks are an aspect of this. Within the Qi body, this feature of non-locality is represented by micro-acupuncture. Micro-acupuncture implies that no part of the body is unrelated to other parts, even down to the single cell. “Chinese medicine recognizes that the human body functions like a hologram because every microsystem found in different parts of the body contains the information needed to treat the whole body” (Phillips, 2008, para. 15). This is represented by the practice of auriculotherapy, and other microsystems such as the hand, the abdomen or the metacarpal bone of the forefinger.

The non-local environment is elsewhere to that which one’s body inhabits. The link between this idea of non-locality and the fourth body relates to the earlier quoted Taoist maxim of ‘where the mind goes, Qi follows’ suggesting that whatever is the focus of one’s attention, the energy or Qi follows. Although the fourth body follows mind to the non-local environment, the fourth body also remains embodied locally.

Non-locality in the fourth body links to the notion of play through aesthetic illusion. Play takes place within a ‘transitional’ or ‘magical’ space allowing the player the capacity to be somewhere else and often within an online game, someone else.

Similarities between five phase theory of Chinese medicine to aspects of game design have emerged. They are both related via the idea of complexity. The five phase theory of the Qi body in the acupuncture system is a complex system as is the design of an online game. The scientific findings of theorists Laszlo, Lipton and Ho earlier in the study substantiate the existence of Qi aligning it to an understanding of quantum science. Fruehauf (2009) alludes to complexity when he suggests, “reality is essentially an amalgam of interference patterns—vibrational base patterns that constantly merge with other vibrations to produce ever changing and new vibrational forms” (para. 13).

In five phase theory there is a distributed networked system with a creative, controlling and destruction cycle, which manages life within and beyond the body. This creative co-operativity and flow between each element of earth, fire, water, air and wood, as well as a controlling and destructive factor is considered to be essential in any self-regulating system. The collaborative, cooperative competitive ideas represented in the design of online games resonate with five phase theory. The fourth body represents complex play due to the traditional Chinese documentation of the universal flow of Qi.

In contrast to this lived bodily experience of the fourth body, there is speculation that “the body is obsolete, that we are in a post-human era, or simply that technology is inherently anti-body and actively destroys the body” (Shereen-Sakr, 2008, p. 1). In this study, the fourth body and its link to play is established. When players are sitting in front of a screen via networked technology they are involved in an environment dependent on the context of the game being played. What could this environment look like if players identified themselves with the fourth body? How would things be different?

It has been crucial for me to keep the idea of play in the centre of this thesis due to the unlimited potential for meaning in the online environment. In the fourth body, Qi, follows mind. Subject and object are combined with a unification of minds in online environments. Lipton (2009) reminds us that “we co-create reality with our beliefs, perceptions, thoughts and feelings” (p. 343) In his narrative history of scientific

visualism, Ihde (2002) recounts the capacity to perceive phenomena beyond literal vision. The ancient Taoists who perceived the existence of the Qi body did so without modern technology. What is promising is that the fourth body has this potential capacity for visualism through the qualities of interrelatedness, flow, meaning and the cooperation and unified intention of multiple players. The inter-connectedness and unity of bodies with a shared focus exemplifies the nature of the fourth body/mind and represents the Qi of the cosmos.

This fourth body mirrors nature and demonstrates a viewpoint of ecological interconnection and corresponds to the lived present. The fourth body embodies the experience that the body is nature and nature is the body. The gardener tends the plants, whose life and growth are dependent on something else. The fourth body has an ecological perspective suggesting an original body-as-garden underpinning body as technological artefact.

4.5 Summary

The themes leading to results in this discussion lead to the concept of a fourth body encompassing concepts of both Qi and play. Notions of embodiment, online play and non-locality in the fourth body allow a language to substantiate an added dimension to Ihde's three bodies. This concept of the fourth body anchors the body in an ecological paradigm providing a new perspective on the contemporary experience of play within virtual environments whilst also offering a unified theory of health and wellbeing.

Conclusion

The primary objective of this discursive study has been to examine how the concept of Qi, as understood in Taoism and traditional Chinese medicine offers a model for understanding embodiment and play in online environments.

The thesis builds on the work of technology theorist Ihde's concept of three bodies and argues for a fourth body, a concept relating to both Qi and play. This fourth body offers an ecological component to Ihde's concept of three bodies in relation to online environments.

The key finding is the emergence of a fourth body. The attributes of the fourth body, namely Qi and play share the characteristic of transcending space and time via the notion of 'flow'. The fourth body underpins Ihde's concept of three bodies and also affects them.

The fourth body is the necessary condition of embodiment due to characteristics of being material, non-material and non-local. The fourth body is the interface between the material body and the virtual body and supports the notion of embodied being. This fourth body offers a new paradigm of 'body-as-nature' as an extension to Ihde's body as technological artefact.

A limitation of the study is its reduced validity through a reliance on metaphor. The concepts of both Qi and play, both paradoxes in themselves, are not scientifically verifiable. This lack of scientific evidence relates to the underlying philosophy of traditional Chinese Medicine, where, due to the concept of yin and yang, each phenomenon can be itself and its contrary.

Future research could indicate the development of an online game with a technological interface that situates the cartography of the Qi body within a geographical environment highlighting the elements of earth, water, fire, air and wood. An online game is a relevant contemporary location in which to illustrate the connection with humans and nature via the universal principle of self-organization.

Hence this open-ended body of work serves as a foundation to indicate the development of a holistic system that acknowledges the fourth body in relation to embodiment and play in online environments.

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