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Oscillating Between Chaos and Order:
Self Organization In The Creative Process

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A Research Paper

In

The Department

Of

Creative Arts Therapies

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Abstract

Oscillating Between Chaos and Order: Self Organization in the Creative Process

This research explores the creative process, specifically focusing on the dynamics between order and chaos. This research aims to discover whether an oscillation between chaos and order is involved in creative process. The notion of the creative process as a self organizing system is also an underlying framework that supports this investigation. Literature related to the creative process, psychological theory, art therapy, and self organization will inform, explore and support this inquiry. Implications for art therapy practice and mental health will also be discussed and emphasized. The design of this study is a blend of theoretical and phenomenological research, incorporating interviews with three visual artists to illustrate and examine theoretical concepts. Eight themes were uncovered through the data analysis, and are supported by direct participant quotes and theoretical material. A natural striving towards wellness and adaptation is reflected in creativity as a communicative, and transformative, tool which brings chaos to order. Accepting the chaos and recognizing oscillations within the creative process, and within the therapeutic context, is paramount in facilitating transformation and insight that may bring the artist or client to a new level in their process.

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CHAPTER ONE

Introduction

This research will begin to explore the creative process, with the dynamics of chaos and order as a primary focus. Specifically, this paper aims to address the research question “Is there an oscillation between chaos and order that is involved in the creative process”? The therapeutic value of this phenomenon and implications for Art Therapy practice will also be looked at. Understanding how the creative process evolves and spontaneously organizes will also be examined in relation to chaos and order.

The design of this study is a blend of theoretical and phenomenological research methods. Using specific aspects of theory related to the creative process, art therapy, and self organization in combination with data from interviews with artists, this paper will explore the dynamics of chaos and order within the creative process. In particular, I am referring to the creative process in the genre of visual arts. Exploring the process of three visual artists through semi-structured interviews, will serve as vignette examples to discuss and support the research question. Interview data will be analyzed using a modified phenomenological methodology, extrapolating significant themes and relevant information pertinent to this research.

Many authors have linked chaos to the creative process, however, the specific dynamic of chaos and order has yet to be explored in depth, particularly within the field of art therapy. This research is relevant in terms of its post-modern emphasis on chaos, and the order that spontaneously emerges from it. Many areas of discipline such as art, science, sociology, and psychology, can all relate to the phenomenon of creation, and furthermore to the re-organization of a system and its structure. The significance of this

study lies in the exploration of how oscillations between chaos and order in the creative process may lead to higher levels of adaptation, creativity, and order. By gaining an understanding of the dynamic between chaos and order, perhaps art therapists may grasp the importance of becoming aware of this dyad and its role in the development of the creative process within art therapy. Recognizing and dealing with these elements differently, may lead to more appropriate interventions and a greater respect for chaos and what it may bring. First however, it is important to define the specific terms which will be used throughout this research paper.

Definitions of Terms and Phrases

This section will highlight and define important terms and phrases that are important for the overall understanding of this paper. I will begin with definitions of chaos, order and self organization. Last but not least, a definition of the creative process will be included. One should keep in mind however, that this section only gives a brief explanation of these terms. A greater comprehension of them can be gained throughout the literature review and the body of this research. It would be presumptuous to assume, that this paper is able to encompass the enormous depth and complexity of all of these terms, specifically that of the creative process! I would highly recommend further reading, some of which may be found in the bibliography, should this subject be of further interest to readers.

Chaos and order.

The term *chaos*, in its proverbial use, denotes “complete disorder and confusion” (Pearsall, 2002, p. 236), as the word is often used in metaphoric or symbolic terms. The word *disorder* implies a need for order or regularity, and may also refer to mental illness

or disease (Barron, 1963). Disorder is often synonymous with chaos and might have been specifically explored in this paper, but *chaos* which differs from this, is a more fitting term for the purpose of this research. This is because chaos is understood to be an integral aspect of creativity and self organization; which will be defined and explained in the following section.

The scientific definition of chaos denotes a behavior that appears random because it is unpredictable (Pearsall, 2002). In particular, Van Eenwyk (1997) points out a more specific type of chaos, which appears random, or unpredictable, but actually displays overall patterns, behaviors, or elements, that make it predictable as well. This distinction between chaos that leads to total annihilation and chaos that leads to growth or organization is important to clarify for this research.

Quite literally, the word *order* is derived from a term referring to weaving; the Latin word *ordo*, meaning row or series, denotes a state in which things are positioned correctly or of the arrangement of something according to a particular sequence or method (Pearsall, 2002). As Joanne Weiland-Burston (1989) points out, weaving has been portrayed in the mythological sense as determining the fate of the world with the spinning loom of the universe. Order, in the same manner, often relates to a system in which certain principles, or even mysterious laws, seem to have an almost fate like ordinance. This may be comforting in the face of chaos, as order lends a sense of security, creating a kind of holding and reassurance in times of uncertainty (Weiland-Burston, 1989). Order may also be understood as an evolutionary or self regulatory principle, a prerequisite for survival, and a state towards which an organism strives towards (Arnheim, 1971). Order often signifies *equilibrium*, or the state of a system in its normal

or balanced functioning (Pearsall, 2002). There is a core, a structure, an underlying pattern, or property, to any organism or process. Order is the essential thread that makes identifying something possible, and holds the complexly woven components together.

Bohm and Peat (1987) dedicate a whole chapter defining and debating the concept of order and further remark that “to understand the full meaning of the creative process and what impedes it, it is necessary to go into the whole nature and significance of order” (p. 105). Similarly, to understand order, one must include the notion of chaos, and visa versa. Chaos and order are very subjective terms however, and so much so that Butz (1997) proposes the question of whether one can actually entertain the idea of order or disorder. For the purpose of this paper however, I will entertain these constructs.

System.

A *system* is a “complex whole”, or an interconnecting network, that also implies some orderliness or method (Pearsall, 2002, p. 1453). A system implies a *gestalt*, or the whole being greater than the sum of its parts, as each component works together to form the complete entity (Pearsall, 2002). Within this paper, the word *system* is also often paralleled with the creative process.

Self organization.

Self organization essentially explains how an organism or a system arranges itself, or as it sounds, organizes itself. This also involves moving to a greater level of order, adaptation, or functioning. Self organization can be understood as a process, which is part of a system, and can therefore be paralleled to other processes such as creative ones. For the purpose of this research, not all of the terms or principles related to self organization can be explained or defined because of the extensive and complex nature of

this theory. The main premise of this phenomenon however, implies that there is a progression and the notion of a “self” identity within the system that is able to reorganize, particularly after a chaotic period (Butz, 1997, p. 35). Similarly, the creative process, also involves chaos, a progression, and is often recognized as having an “otherness”, with its capacity to organize into form or being. Accordingly, self organization is a useful term to describe the nature and evolution of the creative process.

Oscillation.

The word *oscillate* derives from the Latin word meaning swing, and as defined by the Oxford English Dictionary (Pearsall, 2002) “to move or swing back and forth at a regular speed” or to “move or vary with periodic regularity” (p. 1008). Oscillation refers to a movement between two opposing states or constructs. This movement can be fluid like a wave or pendulum, where the rates or speeds may vary depending on internal or external factors. The oscillation may also be somewhat erratic, meaning its components vibrate in a certain way, but the important part is that it is always bouncing between one place and another, and that there is movement.

The creative process.

Thus far most of the necessary terms have been defined, however, a term which may be more difficult to explain and may deserve greater attention, is the *creative process* itself. A more extensive look at this term and its components will be explored in the literature review section, but for this section its general sense will be outlined. To define the creative process, one must first begin with the words *create* or *creative*. To create is to cause something to exist. *Creativity* is the ability or capacity to utilize an energy source in producing something novel. Barron (1969) and May (1975) state that the

creative process involves the intention of bringing something new into being. Likewise, Pearsall (2002) defines the word *creative* as “relating to or involving the use of imagination or original ideas in order to [make] something” (p. 334). The creative process is also used to describe a phenomenon through which humans may express, explore and communicate through unique ways, or forms, of making and being.

The words *creativity* and *creative process*, though they differ, may be somewhat interchangeable throughout this paper. As McNiff (1998) notes, *process* suggests a series- or increments of- actions, changes, or fluctuations, which take place over a period of time. It also implies steps, layers, procedures, development, and factors that work together towards the desired result, or to form the whole of a system.

Flow.

Flow is also a familiar term used in literature on the creativity, as first defined in the writings of Mihaly Csikzentmihayli (1997, 1990), it is considered to be an essential element within the creative process. Flow is explained as a state of intense, yet almost effortless concentration, wherein the work seems to develop automatically. It is also an aspect of movement in the creative process that involves a smooth, uninterrupted development of the idea or art piece (Mihaly Csikzentmihayli, 1997). Flow is a phenomenon in its own right however, as not every creative process involves this continuous and harmonious engagement within the action of creation. Of course, there are many different aspects to the creative process, flow being merely one of them, albeit an important one.

Delimitations

This study looks at a very significant and straightforward, yet also abstract and perhaps limited aspect of the creative process. Therefore, the nature of its edict and application is not so concrete and would also require far more explanation and detailed interpretation. The nature of psychotherapy is in itself a complex creative process with so many individual aspects to be accounted for. Further inclusion of other pertinent theories; object relations, the field of psychoanalytic aesthetics, and more scientific approaches could have been explored. The implications for art therapy can only be speculated at this point, with far more research necessary for a complete understanding as to the extent of its application.

The participants of this study were not part of an art therapy group, and this research does not purport to generalize or compare the personal creative process with the benefits of art therapy. The interest in utilizing artists to assist in this research highlights merely one component involved in the healing aspects of the creative process. The research participants were also faced with specific challenges which may be unrepresentative of a normal sample. These artists were chosen however, because of an expression of the creative process as being very important in their daily lives. The sample of participants is also relatively small to counter the amount of data collected, which was rich with information and contained lengthy dialogues. Contradictions within the data and other confounding variables were also noticed. The participant data is also naturally very subjective and I found that after having analyzed the data, attempting to link this to theory was challenging at times. Caution was taken when attempting to label something

as more chaotic or ordered, although for the purpose of this research it was necessary, at times, to define elements for the purpose of illustrating meaning.

As further outlined in the discussion section, after the first interview participants were given a copy of the research proposal. This may have created some bias in the second interviews, as participants were acutely aware of research goals and theoretical material. Also, at times there were seemingly contradictory elements in the data, theory and ideology, that lead me to personally experience the oscillations between chaos and order and the synchronization of both all at once. I think this helped me to get to another level of understanding though, and I hope that you as a reader will also find your way through the chaos and order of this paper to see the creative process in a new way!

In the following Chapter Two, a review of relevant literature related to the creative process, chaos and order, self organization, and art therapy will be examined. Likewise, further exploration of the creative process through theoretical and philosophical materials relevant to this research, will help ground comprehension throughout this paper. Beginning with a discussion on the relationship between chaos and creativity, followed by basic models of the creative process, will lay the foundation for a basic understanding of the creative process. An overview of the notion of self organization, will also further a comprehension of how the creative process unfolds. The relationship between flow and chaos in the creative process will be emphasized. A look at more dualistic approaches to the creative process will continue to illuminate the dynamic between chaos and order. A section on the creative person is also included, as one cannot speak of the creative process without also noting the importance of the individual creator. The relationships between creativity and health will also be given attention, followed by

implications for art therapy practice. The methodology of this research, will be discussed more in depth in Chapter Three, and includes information on the participants, interview questions and process, along with analysis of data. The contents of Chapter Four entail the Results and Discussion, where eight themes from the research analysis will be examined and further supported by theoretical material. Conclusions, implications, as well as future research, are then discussed in Chapter Five.

CHAPTER TWO

Review of Literature

Chaos and Creativity

In the definition section, a brief explanation was given on the creative process. However, to fully comprehend this process and all its related aspects, a more detailed analysis is required. In this section we will begin to look at some of the relevant theories, stages and philosophies about the creative process to gain a broader appreciation for its intricate and compelling nature. Let us begin with the relationship between chaos and creativity.

Jung (as cited in Butz, 1997) understood creativity to actually be found in chaos, as he likened it to the “fiery sparks of the soul of the world” (p. 127). In fact, chaos itself might be considered a creative process, being the precursor towards creation (Butz, 1997). Jung (as cited in Van Eenwyk, 1997) also believed that a descent into the chaos of unconscious symbols could lead a person to higher levels of psychological functioning. He also considered oscillations between chaos and order to be an integral aspect of the individuation process.

Early Greek philosophers believed creativity to involve a regression to a more primitive mental state or divine madness (Gosselink, 2006). Similarly, many major contributors to theories of the creative process, and almost all of the psychoanalytic theorists, also understand creativity to involve a regression. Koestler (1979) likened it to diving, as one goes deep into unconscious processes but still maintains a connection with the surface, or conscious. Kris (1952) maintained that the regression, which is controlled, allows the artist to solve conflicts within the psyche, and serves ego needs. Safán-Gerard

(1985), on the other hand, claims that the creative process may be rather a progression in repair of the id. Regardless, both psychodynamic points of view relate to the fact that the creative process is utilized for healing and restoration. There is a whole realm of literature on the creative process in relation to the psyche and its structure and growth. In fact, most major psychodynamic theorists from Freud and Jung, to Klein and Winnicott, recognize the creative process as an integral aspect of the psyche's journey into healing.

Creative individuals have always been associated with an archaic sense of being, and as having a connection to the deeper collective consciousness or universe. To struggle with this aspect of the primitive self or unconscious is often like walking on the edge of chaos, or between sanity and insanity (Neihart, 1998). It is well known that many artists, be it writers, musicians, or actors often walk this fine line. Yet they are also connected to that source, requiring an openness to these archaic spirits.

Barron (1963) asserts that adaptation may involve a repression of irrational impulses and thoughts, which the creative person respects and permits to be granted at times; which may also make them appear unbalanced. Yet this state of imbalance is, as Barron describes it, essentially integrative and healthy, or an adaptive function which improves the ability to respond to the need for a new approach or result. Moreno (1985) also understands that creativity requires a new response to an old situation, or an adequate response to a new situation, which may involve spontaneity or risk taking. Yet although there are aspects of chaos, risk, and irrationality, the creative process eventually brings a person back to balance and often at a more meaningful level of engagement with the self and world. In this sense, the creative process can also be described as involving

components related to self organization, including regressive or chaotic processes which assist in reorganization.

The psyche is also such a system, able to adjust itself, and may involve regressive or chaotic processes which assist in increasing adaptation or psychological development through the integration of new complex structures (Masterpasqua & Perna, 1997). The psyche and the creative process ride hand in hand in this respect, as both are profoundly affected by and linked to one another. Kris (cited in Masterpasqua & Perna, 1997) also understood that the psyche required a regression or a loosening of hierarchical structures, in preparation for a new crystallization of form or order, exemplified in the creative product. Inevitably, any change involves chaos, disruption, irregularity or disorder, and eventually a reorganization through which transformation takes place.

Models of the creative process

Beginning with the most recognized theory of the creative process, Wallas's (1926) four stage model will assist in an understanding of its basic principles or components. *Preparation* is the first stage in which the artist assesses and defines the problem, gathers information and materials and takes into account the solution and possible future needs (Wallas, 1926). There is a mental, physical and almost spiritual preparation before the actual creation of the artwork. This is where the foundation or groundwork is being laid for the problem or piece. Second, the *incubation* stage is a retraction away from the problem or art piece wherein the unconscious mind is often involved in the process (Wallas, 1926). This is often considered as a break or time out from the creative process, but is actually plays an active role. Often artists speak of receiving ideas during or after this period of incubation, while showering, driving or

taking a walk, as the unconscious mind is still at work on the problem or concept. This leads to *illumination* in the third stage of Wallas's model, and occurs when the idea arises. It is that "eureka" moment of insight often described when the solution makes itself known, and may be experienced as a rush or epiphany. As mentioned previously, there is a sense of connection with the deeper truth or essence of the object or idea; seeing or understanding something in a totally new way is part of the delight of discovery (Briggs & Peat, 1999). This phase is usually somewhat brief, as one proceeds to the fourth *verification* stage in which the creation is carried through according to this illumination, which is later verified in relation to the initial preparatory phase or idea (Wallas, 1926). Wallas's terminology may be utilized throughout this paper, yet more as an informative paradigm of the creative process and some of its more notable components.

Ehrenzweig's (1967) model however, will be employed more frequently throughout this paper, as it more aptly describes the experience of the creative process, as paralleled by the research participants. The essential premise of Ehrenzweig's three stage model can be generalized as beginning with a fragmented or chaotic projection of form, termed *schizoid*. In this first phase, parts of the self are projected into the creative activity and may be experienced as accidental, unwanted or threatening elements (Ehrenzweig, 1967). One may note how in this initial phase it is important for the chaos to be projected outward and perceived by the artist to be foreign; this is labeled a *differentiation* (Ehrenzweig, 1967). Split off, fragmented, dissociated parts of the self create distancing in the creative process, and are used as a strategy in dealing with chaotic shadow elements.

The next stage in Ehrenzweig's (1967) model is labeled *manic*, and involves an *unconscious scanning* where the artist begins to integrate the work at some level. At this point, the artist attempts to reconcile the fragmentation and regain wholeness. A *dedifferentiation* occurs, where inner and outer realities, as well as ego boundaries, are indistinct (Ehrenzweig, 1967). The common reference to an *oceanic* feeling is exemplified here, which was originally a Freudian term that describes when one feels as if they are not in control or that the creation is creating itself (Safán-Gerard, 1985). This may also be linked to the flow experience wherein a fusion or symbiosis with the work seems to be happening. As Safán-Gerard explains, opposites seem to merge, but death and destruction, or chaos, must be dealt with and worked through for liberation and rebirth to take place. This phase might be likened to a psychic search or quest, a journey into the wilderness of chaos that is undertaken to ultimately emerge transformed. This stage is also similar to the incubation phase in Wallas's (1926) model where the artist is working things out, mulling with, or oscillating, ideas and materials back and forth, playing with possibilities.

The manic phase, is a high state of arousal wherein the ego withdraws and may be submersed in the unconscious psyche. This is similar to Roland Fischer's (as cited in Perry, 1973) understanding of the term *hyperphrenia*, which is compared to psychedelic states wherein spontaneous overflow of images and emotions occur, and are also present within the occurrence of manic psychosis. It is this non-rational or disintegrated state, which is identified as being necessary for reorganization or reintegration (as cited in Perry, 1973). The manic phase is also connected to the archaic self within the universe, as it relates to the openness and receptivity of collective consciousness. It is important to

note that within the psyche, it is the unconscious processes related to the ego, that determines how these stages progress.

Ehrenzweig's (1967) last stage is deemed *depressive*, as the artist desires further assimilation of the work. The artist's ego is also re-introjecting the art work on a higher mental level (Ehrenzweig, 1967). This final stage in Ehrenzweig's theory is similar to Wallas's (1926) verification phase wherein the artist looks over the finished creation and decides if the art piece is complete or if it has achieved the desired results. This stage may contain both the chaos and order of having completed the work, and in the interaction with the work itself. Nevertheless, it is the fragmentation and putting back together of the parts in the creative process which the artist is required to manage. Furthermore, both Ehrenzweig's and Wallas's theories must also be appreciated as an interrelated and interacting system wherein a merging, or flow, of various stages is possible (Regent, 2002). Interestingly, the terminology of Ehrenzweig's stages relates to that of mental illness and suggests the cultural aspects or perceptions of creativity, yet also hinting at chaotic and reorganizing characteristics of the process.

In his well known book "The Hidden Order of Art", Ehrenzweig (1967) describes creativity as the ability to transform chaotic aspects into a *syncretic* ordered visual form. Syncretic being that aspect of synchrony, harmony, or the merging of two opposing dynamics, that establishes unity. This also requires a temporary "dissolving" of the ego, however Ehrenzweig (as cited in Glover, 2006) is careful to distinguish this activity from so called "regressive" processes. The important point being, that although there is some disintegration or deterioration, it is not totally destructive or maladaptive.

The creative process, as we shall discover, may represent the highest degree of emotional health as a self actualizing, or internally motivating, effort towards growth (Csikszentmihalyi, 1990, 1988). It is a natural thriving towards wellbeing, or wholeness, and a true expression of our abilities and uniqueness. We will now look at how the creative process illustrates this phenomenon of spontaneous organization.

Components of Self Organization

To understand the way in which the creative process develops, an explanation of self organization may provide illustration. There are three main characteristics or features that are involved in the process of self organization (Sardar & Abrams, 1998). First, the system must be open, meaning it is part of the environment, and also that it maintains its essential composition or stability even when disturbed (Sardar & Abrams, 1998). Second, Sardar and Abrams recognize that it is essentially creative, where energy can flow in such a way to allow for the formation of novel structures. Third, it is a complex communicative system, as all of its separate components are interconnected through a network of feedback loops (Sardar & Abrams, 1998). This last point is of particular importance because there is a constant assessment of its needs and status that allows it to change or adapt.

The openness of systems to their environment is an essential and primary feature, one that has already been discussed as an element within the creative process. The greatest opportunity for receptivity, creativity, and flexibility are realized in this state (Butz, 1997). Chemist Ilya Prigogine (as cited in Butz, 1997) looked at how systems interact with their environment and utilize chaos to re-form themselves, winning the Nobel Prize for this work. Prigogine introduced the notion of self organization, in which

he described a necessary condition for this development, which he termed *far from equilibrium*, or simply a state known as chaos. As mentioned previously, it is a special kind of chaos, one that triggers self organization to occur.

The traditional concept of chaos as total disorder, or absence of harmony, is slightly misconstrued, as science has discovered that chaotic dynamics may have a deeper underlying order. These systems obey certain basic principles, but much like the creative process itself, because the behavior of these systems are so complex, they may appear chaotic at times. This reveals part of the true nature of chaos, as it may behave in a random fashion, yet all the while contain a hidden structure or order. Illustrated in an analogy given by Robert Pool (cited in Van Eenwyk, 1997), “chaos is order disguised as disorder, a sheep in wolf’s clothing” (p. 46). So interestingly, order may also be neatly tangled within the façade of chaos.

Self organization, as Remer (2005) explains, occurs particularly after chaos has been reached and indicates the establishment of new patterns of behavior within a system. The order created from this is not simply reordered but a more adaptive, complex, higher order (Briggs & Peat, 1999). This is an important concept as it explains how evolution, adaptation, or creativity, occurs through periods of disruption and difficulty. When a system is in a chaotic state, it is wide open to change. The self organizing system is also able to tolerate this period of instability so that it is not completely dismantled, but reaches a higher level of integration or adaptation.

In fact, one of the main aspects of a chaotic system, are *oscillators* or rather, components that continually move back and forth as they stretch, fold and mix, similar to the motion of a toffee machine (Van Eenwyk, 1997). It is a rhythm and oscillation that is

part of the natural flow of life, and as this paper seeks to explore, seems also to be part of the creative process. This is the second feature which highlights the self organizing creativity of the system, as the energy flows to allow for growth. Oscillators facilitate movement and dynamic relationships between components. When these oscillators move back and forth enough times that their interactions become increasingly complex, erratic or chaotic, it becomes impossible to predict the outcome of their interactions; yet there is still an order to this seemingly random jumble (VanEenwyk, 1997). If the movement creates too much instability in the system, a new order or self organization is required to achieve stability again. In the creative process, a very simple example is how when you mix two colours, at first it may appear mucky or uneven but with enough mixing a third colour appears, which can be used to achieve something new. Looking at the colours, one can judge if it is mixed correctly because of the visual information or feedback received. Similarly, within the creative process as a whole, the artist is constantly gauging what needs to be added or taken away in order for the piece to evolve. This leads us to the answer of how change in a system is possible, or what facilitates its regulation.

Feedback, the third component to self organization, acts as the reinforcement which allows information to be brought in and out of the system in a loop like fashion (Van Eenwyk, 1997). It is also the factor which creates chaos, as oscillating systems always involve feedback, and therefore also involve chaos (Sardar & Abrams, 1998). Chaos, as we will later discuss, is an instrument of change, with feedback as an impelling force within this.

Chamberlain and Butz (1998) point out, that without feedback, growth, change, and adaptation are impossible. Feedback is an important aspect of learning, in acquiring

and assimilating new information (Chamberlain & Butz, 1998). Feedback is also a regulator by keeping motions or responses within a certain range. Basically the input affects the output of the creative process and vice versa, which changes responses and actions (Sardar & Abrams, 1998). Feedback can also be understood, as the common use of the term denotes, when a comment or a stimulus causes a reaction.

There are two main types of feedback which are described as positive and negative. *Positive feedback* amplifies or replicates the information received, and tends to be chaotic or noisy, yet it also promotes change and movement (Briggs & Peat, 1999; Sardar & Abrams, 1998). The classic example of this is microphone feedback when it screeches because of sound or input reverberating back in on itself (Briggs & Peat, 1999). *Negative feedback* on the other hand, inhibits change, as it regulates or orders the system (Chamberlain & Butz, 1998). An example that Chamberlain and Butz give, is of a thermostat that keeps the temperature in the room at a sustained level of comfort. Both types of feedback are necessary components to any system, including the psyche and creative process, as maintenance and change are required at certain times.

When both positive and negative feedbacks are coupled with one another, a balance occurs, and there is a movement from chaos to order or equilibrium (Briggs & Peat, 1999). This illustrates how the presence of both positive and negative feedback, or oscillations between chaos and order, is required for a system to organize itself. This is also true for a balanced work of art to be made, as both elements are interwoven into a new form. There must be some consistency that holds the elements together, which is a negative type of feedback, yet also daring elements that completely change the artwork, related to positive feedback, for the creative work to take form.

Often, there is a critical or chaotic point in the work, where the old way of working seems outmoded, and a sudden shift or change must take place. Butz (1997) gives the analogy of reaching a fork in the road, or a point at which there are two distinct choices that can be made. It is like crossing the bridge between chaos and order, the dynamic which initiates transformation (Chamberlain & Butz, 1998). Spontaneous leaps into new ways of thinking, feeling, and being, are essential to human adaptation, as Chamberlain and Butz recognize; if not, psychotherapy would also be a useless endeavor. Self organization involves surviving and creatively collaborating with the chaos, to bring about a new order. This also seems to be true in the creative process, and in therapy.

Flow and Chaos in the Creative Process

It would be impossible for the artwork to take form and be completed, without an underlying guiding force. If one might recall the second main feature of a self organizing system is its creative capacity, with a certain momentum of energy that allows for this. Similarly, enough energy builds up within the creative process, to cause some tension or pressure. This pressure fuels the flow which helps the artist to move to new and more challenging levels of working (Regent, 2002). It happens, as Regent explains, through a feedback cycle, or positive interaction, that allows the artist to monitor the level of chaos and in turn order their own creative process. The artist evaluates the work, and decides how to proceed based on what changes will best suit the envisioned outcome.

Energy flow is tied to the growth of a system, so when the flow is ordered, energy can move more efficiently (Regent, 2002). Resistance or friction against this flow, as Regent cautions, may lead to chaos or crisis, at which point a change must take place in order for equilibrium to be restored. At this point the flow might be hampered or stopped

if the crisis exceeds resources or coping mechanisms. However, if the chaos is experienced as a push in the right direction, or an illumination, it can send the person into a whole other realm of thought and behavior that was not possible beforehand. This great idea, “eureka”, or lightening bolt, may lead to the flow or oscillation of creative energy, as the artist works to build and expand upon the idea.

When a mistake, unexpected surprise, often termed a happy accident or slip-up, happens in the creative process something great may result, a moment of truth or “aha”, a point where the artist sees a different direction and the work begins to self organize (Briggs & Peat, 1999). This aspect can be understood as the illumination phase in Wallas’s (1926) four stages. The idea grows, expands, or amplifies, as it feeds into its own successive development. The concept of amplification is one which Briggs and Peat (1999) describe as a process of making connections through continual feedback and the gaining of a new perspective, as the “aha” grows louder. This is of course assuming that the creator is open to chaos during the flow of ideas that come and are executed during the making of the work. The flow period happens until a time when the artist must stop and take some distance, to regain a sense of order or more feedback.

This break in the creative process is akin to the incubation period outlined in Wallas’s (1926) four stage theory, where the individual digests material or ideas for creation, and may go into a period of withdrawal from external stimulus. This retraction inward has also been noted by Arieti (1976) as a means of removing oneself from reality in search of an alternative solution to the creative problem. This might also be understood as the descent into chaos, just as Persephone in the Greek myth was forced to pacify the Gods by living in the underworld for a time that created the winter, but later emerged to

bring about springtime (Pinkola Estes, 1991). Briggs and Peat (1999) note how many religious practices often advocate healing and transformation through a rest period, sleep, or dreaming, a dark night of soul, or rite of passage, often involving nature and encounters with chaos. In the next section, the interplay between chaos and order will be explored in relation to other theories.

Dualistic Models of the Creative Process: Balancing Chaos and Order

Thusfar, we have looked at theories of the creative process in relation to multiple stages or phases. Within the literature however, there exists theories about the creative process which appear dualistic and may serve as models to highlight the interplay between chaos and order. Furthermore, many of these theories are psychoanalytic, with an emphasis on the structure of the psyche and its collaboration within the creative process. The dualities of chaos and order, unconscious and conscious, primary and secondary processes, dedifferentiation and differentiation, as well as projection and introjection, are part of the rhythm of the creative process and are examples of elements recognized within psychoanalytic theory. Freud and Milner (as cited in Watsky, 1992), also both acknowledged the creative process to consist of dual modes of processing involving an ebb and flow from conscious to unconscious activity.

Freud (as cited in Chamberlain & Butz, 1998) understood the psyche involved two systems, or energies, which worked in conjunction to balance one another. Freud recognized that free or chaotic energy, is transformed into bound, or ordered energy within the creative process. Freud and Jung (as cited in Chamberlain & Butz, 1998) were both interested in the movement and transformation of energy within the psyche. Many psychoanalytic theories commonly convey a synthesis between the primary and

secondary processes, and acknowledge the role of the unconscious within art making, as exemplified in Ehrenzweig's (1967) theory. The *primary process* is thought of as the archaic, chaotic, or instinctual, aspect of the psyche, operating within the realm of fantasy (Marshall & Firestone, 1999). The demands of reality form the ego, Marshall and Firestone explain, just as the reality of the creative process guide the artist's achievements. By contrast the *secondary process* is a rational, ordered, or regulatory mechanism that allows the manifestation of certain fantasies (Marshall & Firestone, 1999). These systems work together to avoid pain and maximize pleasure; both have chaotic and ordered aspects about them as well. They act as a team to ensure that the dance between closure and openness gives rise to adaptation and growth, there is mediation between the two processes (Butz, 1997). In the creative process, these mechanisms play a key role in the realization, or production of the artistic fantasy, going from an idea to its creation.

Arieti (1976) also suggests that there is a third process involved, defined as *tertiary*, that allows a synthesis of primary and secondary processes to occur. More importantly, there is a synthesis between the chaotic and ordered, or "archaic and normal mechanisms" (Arieti, 1976, p. 12) within the secondary process. This synthesis between the conscious and unconscious, or "rational and irrational" (Arieti, 1976, p. 13), is one of the most prominent elements in theories on the creative process, and highlights the importance of a movement between chaotic and ordered states. As Arieti (1976) aptly describes,

Instead of rejecting the primitive (or whatever is archaic, obsolete, or off the beaten path), the creative mind integrates it with normal logical processes in what

seems a magic synthesis from which the new, the unexpected, and the desirable emerge. (p. 13)

In fact, many artists do seem to have the ability to make magic in the ways in which they produce awe inspiring works, often by combining unexpected elements. It often appears to be and feels like magic making, even to the artist as images rise from the cauldron of the unconscious and archaic stew.

Arieti (1976), Ehrenzweig (1967) and May (1975), all influenced by Nietzsche's work, cite the two most common dialectic principles associated with the creative process. The first being *Dionysian*, signifying a vital urge or chaos, and the second one as *Apollonian*, denoting form or a rational love of order. Arieti explains how these principles of duality, which operate simultaneously in works of art, are commonly regarded by aestheticians as a recurrent theme. Furthermore, May (1975) suggests that the ecstasy of the creative process involves an intensity of consciousness, or union of subconscious, unconscious, and conscious, which is not just an "irrational" or "Bacchic letting go" (p. 49), but a suprarational synthesis of all the senses. Here, May is referring to Bacchus the god of wine, who is the same as Dionysus. The use of the word synthesis, also recalls Arieti's (1976) notion of the creative process, as his book title and earlier quote suggests, a "Magic Synthesis". This notion also agrees with another of May's ideas, in recognizing an element of hyper perceptivity of the artist during the creative act. The main point being that creativity requires different and often opposing facets of consciousness, sensing, and states of arousal, for a culmination of these to occur in a new form.

In fact, Ehrenzweig (1967) understood that the rhythm of the creative process, which involves the ego and id, is an oscillation between conscious ordering and

unconscious scanning which eventually leads to new structures that have been detected and retrieved through this whole process. Similarly, Bion (1965), whose work preceded and heavily influenced Ehrenzweig, also spoke of an oscillation as a necessary rhythm in creative thinking. A movement between the paranoid-schizoid fragmentation and the depressive position was formulated as $PS \leftrightarrow D$ (Bion, 1965). These theories all stemmed from Klein's work, who also described alternations between paranoid-schizoid and depressive positions in the creative process. This process is labeled as a "dual rhythm" by Ehrenzweig (1967, p. 103) and involves an oscillation between projection and introjection. The basic premise of this is tied into object relations theory, and relates to the joining of two objects which produces a "new mental object", or the artwork, through their conjunction (Glover, 2006). Glover relays how a perceived threat to the psyche's conjoined mental objects arouses creativity. If the perceived threat of disintegration cannot be tolerated and reintegrated into form, mental illness may occur (Glover, 2006). As Glover explains, it is a manifestation of the joining of two objects, projection and introjection, chaos and order, primary processes and secondary processes that underlies all creative activity.

Likewise, Otto Billig (1971), who was also influenced by Ehrenzweig, distinguishes between two distinct phases in the creative process. The first phase begins very fragmented, as linear sequences are interrupted. In this phase, a dedifferentiation, or chaos occurs, wherein confusion and a sense of the infinite reigns. In the second phase, the creative ego attempts to defend itself against the resulting anxiety, as fragmented elements are brought to a conscious level, and adapted more cohesively, bringing order to

the art (Billig, 1971). Oscillations between the first and second phases are an attempt to integrate this sense of order and disorder, which is an integral part of the creative process.

The ability of the ego to involve this rhythm in attempts at cohesiveness or reconciliation of these two phases is what Otto Billig (1971) argues to be the main difference between the art of healthy and unhealthy individuals. Ehrenzweig (1967) also acknowledges creativity and mental illness as “opposite sides of the same coin” (p. 212). Nevertheless, this propensity towards cohesion is encapsulated in Ehrenzweig’s description of *creative self regeneration* which entails going from fragmentation and chaos, to a cohesive level of order by means of a scanning, or oscillating, ego rhythm, as described above. Billig (1971) calls this aspect, the “precision instrument” (p. 153), as it is essential in the process of creativity. Furthermore, Barron (as cited in Montuori, 1992) asserts that a tension between, and an ability to struggle with the opposites, is necessary for a release into a higher level of complexity or organization. Ego strength is also required to resolve the tension of diametric aspects within the creative process.

Similarly, von Bertalanffy (1968) distinguishes between two different states in a system, one being *steady* and the other as *transformative*. When a system is in a steady state, also known as order or equilibrium, there is a stable pattern or relationship within the system and with its environment. This state of limited fluctuation is an active period of accumulation and maintenance of skills, materials, or resources (Chamberlain & Butz, 1998). This state might be likened to the preparation phase in Wallas’s (1926) model.

The transformative state occurs during the period in which the artist is constantly trying to piece together information that will produce the desired form. This might also be understood in light of Ehrenzweig’s (1967) manic phase with a feeling of being in

transition. Within the creative process there is a constant transformation happening as well, with each brush stroke and new change adding to the creation. When a person encounters something novel or a new idea arises, identified as the illumination phase (Wallas, 1926), they are knocked off balance, or *perturbed*, as chaos is apparent. The artist must then find a way to express this and assimilate it into the art piece. A perturbation might also arise when a problem presents itself and the artist must struggle to resolve it. As mentioned previously, this requires the artist to find a solution, often by taking a break from the work. After the transformative state, the organism attempts to balance itself and assimilate new information, returning to its steady state once this goal is achieved (Chamberlain & Butz, 1998).

If one might consider the analogy of these two states as being chaotic and ordered, it may also be said that a system negotiates between these two phases over time which leads to its growth. Mumford (1998) suggests that research on the creative process often indicates how the artist continually moves from conscious to subconscious states in the creative process, oscillating between evaluating and creatively changing the work. There is an oscillation between the two states of stability and transformation, which organizes the creative process and is reflected in the art piece itself as an organized form, containing both chaotic and ordered elements. One important point to clarify is that although many dualistic theories highlight two specific and often complimentary items, there is often a third element that allows for an interaction or meshing of the two. It is also essential to consider the individual involved in the creative process, and how this interaction between artist and artwork is part of this dynamic.

The Creative Person and Chaos: What's The Attraction?

Creative individuals allow themselves to be immersed and touched by chaos, which gives them a different outlook on these sudden shifts or chaos in the creative process and in life. As stated by Briggs and Peat (1999), "People who regularly engage in creative activities usually resonate immediately with the description of how chaos emerges into form, recognizing that they also collaborate with chaos" (p. 19).

Additionally, certain traits that creative people express may also represent their open and dynamic nature, in contrast to conformists or equilibrium oriented individuals (Montuori, 1992). A preference for complexity or chaos has often been noted as a shared characteristic between creative and mentally ill persons (Richards, 2001).

A high tolerance for irrationality or ambiguity, complexity of outlook, ambivalence, divergent thinking or thinking in opposites has also been attributed to creative persons (Briggs & Peat, 1999; Guilford, 1959; Montuori, 1992). Rothenberg (1990) calls this type of creative amalgamation of paradoxical elements *Janusian thinking*, in reference to Janus, the two headed Greek god of creativity. Furthermore, creative persons attempt to associate previously unconnected, contradictory, or opposing elements, into new synthesis (Rothenberg, 1990), also explained by Koestler (1979) as *bisociation*.

Ambiguity, as Montuori (1992) explains, creates a tension that demands resolution and having a willingness to explore, or attempt to integrate these reflects a creative attitude. Roland (2002) brings this notion even further however, clarifying that it is not only a synthesis that the artist's ego strives to achieve, but reaching new levels of integration. As in any evolutionary principle, complexity and adaptation are a part of

survival, which is why creativity equips us with a measure of resiliency. Barron (1963) explains that creative persons are naturally more complex, which is why they prefer more tension as they also take great pleasure in its release or discharge.

Accordingly, Kris (as cited in Masterpasqua & Perna, 1997) understood the creative process to involve a loosening of organization, or an opening that prepares space for a new creation. Too much openness however, will result in a loss of coherence or boundaries that define structure (Butz, 1997). Delicate psyches may spin into chaos when they become too open and a loosening of ego boundaries can result in mental illness. With this in mind, it is no wonder that several creative persons have suffered from some type of disorder. Despite this notion, “creative persons also often have the tremendous ego strength necessary to regress, allowing primitive fantasies and impulses into consciousness and behavior, and return to a high degree of rationality” (Barron, 1963, p. 159). Ehrenzweig (as cited in Glover, 2006) also speaks of the ego’s flexibility, which enables the artist to tolerate the chaos of these primitive fantasies and bring them to conscious expression.

Creative persons may be attracted to chaos or complexity because of the advantages of flexibility and its vital link to growth (Van Eenwyk, 1997). Artists have a sense of autonomy, liberty, or self actualization when creating work which is a vital link to accessing their own truth and meaning. Barron (1963) explains that the objective freedom of an organism is directly related to its creative potential. It is the capacity to choose, and to create, in the moment between stimulus and response (May, 1975). Creative freedom is exactly the kind of license which artists have always fought for and maximized, as without this their creativity would be annulled. Freedom is inevitably

linked with chaos as it implies an opening up of space and the unknown, offering choice and making room for the unexpected. Rollo May (1975) explains how creative persons “love to immerse themselves in chaos in order to put it into form, just as God created form out of chaos in Genesis; forever unsatisfied with the mundane, the apathetic, the conventional, they always push on to newer worlds” (p. 32). Abraham (1996) also understands that creative people seek instability wherein opportunities for freedom and choice exist, leading to creative transformation. Abraham also acknowledges that a great deal of energy can be expended during the creative process, as choice involves critical and difficult points of change, where the opportunity for mental breakdown increases the longer one dwells near the edge of chaos. The creative person seeks equilibrium in the creative process, and ironically does so through the vehicle of chaos, with difficulties in maintaining a balance at times.

Spaniol (2001) argues that creativity reflects a natural striving towards wellness, as mental illness does not of itself sustain creative output. The creative person has a strong desire and ability to find order where none seems to exist, precisely because of this attention to ambiguity (Barron, 1963). As Regent (2002) explains, “artists inevitably have an interest in exploring the essential elements of existence, in seeking the essential order” (p. 40). McNiff (2001) cites the example of an artist who used his art to achieve disequilibrium and generate conflict or discomfort, engaging in difficult areas of experience in the pursuit of wholeness. This seems to speak of a natural willingness of creative persons to wrestle with tensions and chaos, in order to emerge as changed from this experience. There is also a certain amount of faith in the irrational, with a belief that

if chaos is grappled with long enough and permitted expression, order will eventually surface (Barron, 1963).

In speaking about the creative process and its role in change; Kubie (1970) asserts that the courage and freedom to reexamine the psyche and its past is experienced by fragmenting these parts of the self and putting them back together in new meaningful ways. This is linked with Jung's (1964) idea of the *transcendent function* which involves the union of conscious and unconscious processes leading to self actualization. It is the dynamic transitional space between dual processes that allows for the truth or essence to be revealed, a place of illumination that leads to transformation.

Kubie (1970) however, also questions the assumption that the creative process or its products will contribute to change, and is skeptical about calling creativity itself healing, mentioning that mental illness is often a characteristic of many creative people. A specific concern he presents is the paradox in that creativity sometimes appears healing and other times "psycho noxious" (Kubie, 1970, p. 100). This view of the creative process seems somewhat dichotomous in perspective, as creativity should be understood within an energy continuum that oscillates and branches off on varying paths of creation and destruction. In fact, mental illness might also be understood as a splitting of conscious and unconscious levels of functioning, so that the chaotic and ordered realms are not functioning cohesively (Glover, 2006). This would also explain why an oscillation and integration of the two components are necessary. This is not to dismiss psychological breakdown as a possible outcome, but the connection between mental illness and the creative process is a complexity in itself and cannot be sufficiently explored in this paper.

As this next section will explore however, creativity cannot be separated from its relationship to health and wellness.

Healthy Creativity: Seeking Order

From the beginning of time, creation and destruction, chaos and order, dark and light, have been important dualities in the essence of creativity. The Hindu god Shiva, and Nataraj's dance of creation and destruction is well known as a metaphor of this principle, which serves to remind us of the cyclical nature of death and rebirth or re-organization. For construction of form to occur, there must be some destruction, and similarly for organization there must be disorganization of some measure from whence this came. Rollo May (1975) explains how creative breakthroughs are struggling to be born in a battle between conscious thoughts and unconscious insights, which can shake up the relationship of the self to the world, ultimately changing something in the process. It may destroy previous notions, perceptions, and behaviors, to allow for the growth which desires to occur. As Nietzsche (as cited in McNiff, 1998) understood, artists break things apart to put things together, or create anew, because one must have chaos to birth a dancing star.

In any organic system, higher levels of complexity improve adaptive capacities (Van Eenwyk, 1997) such as the intricate evolution of the human brain. Just as chaos and complexity are essential components to the existence and development of an organism, creativity may also be understood as our "survival kit" (Grossman, 1981, p. 185). In their very noteworthy book, "Seven Life Lessons of Chaos", Briggs and Peat (1999) explain how being creatively open, which requires an encounter with chaos, brings us closer to our own truth, a truth that is beyond words. As McNiff (1998) would attest to, creativity

is a medicine, as it allows us access to our true self, which is interconnected to the environment and our unique perceptions of it.

It is no wonder that people seek creativity and the novelty it brings, it is our human instinct to search for meaning and to strive towards health and growth. Chaos must be faced and even welcomed for actualization and growth to occur. The ability to bring order out of chaos requires an immersion into chaos by either actively moving towards chaos or actively avoiding it (Fearn 1974). We cannot avoid chaos however, as Richards (2001) acknowledges, because as humans we are open systems, constantly evolving and seeking change.

Hammer (as cited in Barrett, 1978) maintains that an optimum level of inner tension facilitates creativity, he understands the artist as a person who values inner chaos as a source of energy for creativity. In the act of creating, one might describe a sense of oneness and separateness with the artwork, mediating between an awareness of form, and the chaos of the unknown (Robbins, 1999). Robbins explains it as a “dialectic of opposites where there is a constant transformation from construction to destruction” (p. 121), and there is a potential for a higher order in the discovery of creative or new experiences. There is an oscillating rhythm, connected to our most primitive and archaic mechanisms. As Miller (1993) explains, “if psyche’s dynamics resonate with the process of natural evolution, health is found at the boundary region between order and chaos” (p. 11). It is neither one nor the other which can be credited for change, adaptation or creativity, as it is the rhythm of integration and consolidation which can bring about a new consciousness or creation.

The mimicking of an alternating rhythm is also utilized within certain forms of trauma therapy like E.M.D.R. (Eye Movement Desensitization and Reprocessing), where the left and right brain processes are reconnected, leading towards healing. Creativity, which was commonly assumed to be a right brain process, actually involves both sides of the brain (Piirto, 1992). In fact, an important part of the creative process and problem solving involves an integration of both orderly and chaotic activity in the brain (Robertson & Combs, 1995). Past knowledge is combined with new thoughts or knowledge, often taking a leap of faith to shape things in new ways.

There is a kind of searching that happens in this interweaving of the predictable with the random which optimizes the range of possibilities leading to creativity (Goerner, 1995). My assumption is that basically, oscillation can be understood as a therapeutic motion itself, or at least some kind of attempt towards adaptation and healing. Yet although an organism strives towards health and growth, these efforts do not always yield results, and at times abnormality or pathology may result (Goerner, 1995, Butz, 1997). Similarly, the creative process, in its unpredictable quest, does not always lead to the desired novel creations, and at times may even have maladaptive outcomes for the creative person. Yet, creativity is more often a signature of superb health and vitality.

Ehrenzweig (as cited in Glover, 2006) understood that it was the flexibility and strength of the ego that determined whether a person's creativity would be adaptive or psychotic. If psychic defenses are too rigid and attempt to protect the ego from the threat of disintegration, which is actually necessary for re-integration, then the psyche will be stuck in dysfunction (Glover, 2006). As Glover imparts, if one cannot reach down into

the chaos of the creative process through accessing and reworking the unconscious material, new ways of coping, understanding, and adjusting are not possible. According to Jung's theory of individuation (as cited in Van Eenwyk, 1997), sometimes a person may veer into a new course of action, where as at other times one may stay suffering in the same situation. In this circumstance, prospects between new and old patterns are suspended until a wide leap into a new pattern happens (Van Eenwyk, 1997). Jung (as cited in Van Eenwyk, 1997) believed that this required a descent into the chaos of the unconscious to bring about higher levels of psychological functioning.

Fundamentally, the psyche, or any system for that matter, is always striving towards growth and order through its battle with the chaos that naturally ensues. Learning also takes place in the process of growth, as the organism builds upon past experiences through a communicative feedback between the inner and outer realms. This also happens within the creative process as the artist learns from previous experience and is able to negotiate between the application of greater skill and stronger intuition with increasing complexity over time.

Art Therapy: Trusting the Creative Process

Within the process of therapy there are often fluctuations between chaotic and ordered periods for the client, which may be reflected within the artwork and similarly within their creative process. Use of different materials or methods may also be indications of the need for more or less structure or guidance within the therapy setting. All interventions are clearly relative to the client's need and situation. It is important to recognize however, that these shifts within the therapeutic and creative process of the client create a necessary rhythm that moves them towards positive change.

McNiff (2001) recognizes kinesis, movement, and rhythm, within the process of art making as an invaluable component for creation in any medium. Furthermore, he also mentions how a certain amount of relaxation and submission to the unconscious will lead the movement to direct itself, as he often advises the artist and therapist to “trust the process” (McNiff, 1998). The creative process is paradoxical, as it requires focus but also a letting go, as McNiff (2001) admonishes, “nothing will happen, however, unless there is a sustained movement from one thing to another” (p. 158). The therapist must assist in the smooth transitions between order and chaos, or control and letting go in the creative process, and within therapeutic interaction to facilitate transformations.

Another important point to mention is that these transitions, or movements between the elements, are also what organizes the “art work” of therapy, meaning both the production of art and the creative aspects of the therapy. Roland (2002) explains how the dream image, which is similar to the artistic image, is also composed of structural opposites. Roland believes that this image may be integrated, through relevant and creative interpretive work in therapy, to allow for a deeper understanding of the psyche’s message. This happens however, only if the person is open enough to receive the message and tolerate the chaos it may bring. Creativity and chaos go hand in hand, as new forms must be created outside one’s self and psychic experience (Butz, 1997). It is imperative for the therapist to assist in this endeavor and recognize the appropriate times for interventions.

In general many break-throughs happen when the client in art therapy is encouraged to stay with, or tolerate, their frustration, anger, sadness, or other chaotic feelings. These can then be cathected in the creative process and transformed into a

different understanding of, or relationship with, the original conflict. This whole process is often expressed in the artwork and one can note the development of such changes, often after a tiresome period of what the client and therapist may sense as a stagnation or stuckness.

In fact, as Butz (1997) points out, chaos happens so that new intrapsychic structures can be created. It is important to note that neither the artwork itself, nor the insight gained in therapy, but the transitional space and therapeutic alliance are key elements that lead to change and growth in a person (Butz, 1997). Similarly within the creative process, it is not per se the chaos or the order that fosters its conception, but the in between, or oscillation of these, as they become a matrix or balanced force of dual collaborators. There is a constant movement, which is held loosely enough to allow this reorganization, yet with a form tight enough to allow the organization to occur.

The therapeutic process also involves an exchange between the client and therapist of shaping and reshaping fragments and chaos, as “the therapist holds the chaos, digests the material and then mirrors it back in a more digestible form that the patient can take in and use” (Robbins, 1999, p. 122). Winnicott’s (as cited in Butz, 1997) concept of a *holding space* can be thought of in terms of the order and organizing in the therapeutic environment. Clients need to be reassured that their chaos will not overwhelm them and that order and meaning can emerge from it (Weiland-Burston, 1992). The therapist may also be thought of as an instrument and participant of change, which involves a careful handling and reworking of the chaos (Butz, 1997). Furthermore, Safan-Gerard (1985) argues that if the client, and expectantly the therapist, is able to experience or tolerate the

ambiguity of positive and negative aspects, accepting these as co-existing elements, transformation can take place.

Levine (1994) suggests finding creative forms of disorder to match the energy of the chaotic self as more appropriate in treating illness. More importantly, it is the balance and interaction between order and chaos wherein meaning making and creativity may occur. As Butz (1997) reminds, the ability to pace the process of therapy at a tolerable rate for the client includes carefully timed interpretations and awareness towards client's limitations, and of course the therapist's own counter-transference. It is the therapists' intuition and knowledge, gained through sensitivity to client feedback and behavior, which assists in gauging the client's potential edge of chaos.

McNiff (2004) advocates a staying with the image, and with all of the chaos that it may bring in order to reach a new place which one could not have gone otherwise. This does not necessarily mean that one is stagnant or in a waiting period, but more so that the artist is willing to work through the uncertainty and ambiguity that the creative process, and similarly the image, may bring. As Safan-Gerard (1985) explains

If, on the other hand, we stay with the good and bad elements long enough, experiencing them, moving around them and transforming them during an often lengthy and painful process, we may come to accept an imperfect painting or an imperfect world where good and bad coexist. (p. 131)

These processes, both creative and therapeutic, are very much tied into the perspective of object relations and the transitional space, which has only been briefly mentioned in this paper. It is important to recognize however, that preparing for, struggling against, and accepting the chaos is imperative to surviving it and coming out changed on the other end

(Butz, 1997). Many times, artist's block may only be overcome by working through the very demons, or feelings, and past wounds which hold the artist back from moving forward, a sort of homeopathic remedy using chaos as the key to creative growth. Much like psychotherapy, the working through happens when the client is able to stay with, tolerate and connect with intense and chaotic feelings, enough to break through them eventually. As mentioned previously, this may also happen at the end of the creative process when the client is faced with the message of the image as the therapist encourages a staying with.

This might be similar, although treated differently in art therapy, to the verification or depressive stage of the creative process when the artist stands back and looks at the piece to critic or assess it, and its elements are re-introjected into the psyche (Ehrenzweig, 1967; Wallas, 1926). The goal in therapy then becomes to integrate these parts into a new order, both on a conscious level with the therapist and unconsciously through the creative process. Inevitably the client's adaptive system senses imbalances, and allows communication between parts of the psyche in search of a new order, and begins to reorganize (Weiland-Burston, 1989). This may happen within the creative process as well, with oscillations between the chaos of the unknown or spontaneous images and elements, in contrast with the order of a plan or idea, as the artist strives to integrate the two.

Psychoanalysis is a process which encourages a reorganization and synthesis of parts of the self, leading to healing (Robbins, 1999). Rothenberg (1990) indicates how in psychotherapy, aspects of the personality are being restructured or re-created, thus generating a new and valuable form. As Spaniol (2001) explains, "In psychotherapy,

form enables expression and understanding thereby facilitating transformation (transformation)” (p. 13), illustrating the importance of creative and concrete manifestations of the self. Art therapy provides a forum to express, integrate and restore structures in the self thereby overcoming inner chaos and creating a sense of wholeness (Levine, 1994).

The therapeutic relationship, with its sense of order and containment, can also allow for the presence of chaos, especially with relation to art therapy wherein a creative outlet for such complexity is provided (Levine, 1994). The therapist’s awareness of those dynamics which may appear chaotic, and ability to assess the needs of the client, is imperative to appropriate interventions. As Butz (1997) explains, clients may be in a sensitive state of chaos where the therapist’s responses are critical to assisting with a more gentle change. If a client is introduced to certain materials that may not be conducive to their holding, or if invasive therapeutic approaches are utilized, this may lead to further instability and disastrous consequences for both the client and the therapeutic relationship (Butz, 1997). Monitoring and properly directing the client’s level of frustration or chaos in therapy is also vital to assisting in the creative process.

It is not uncommon for a client to begin to create artwork only to destroy it instantaneously before the therapist’s eyes, either in frustration or because of the possibly unbearable contents of the image or form. Ehrenzweig (1967) links this process to the third stage, as an inability to reintegrate the work or accept the message of the unconscious. There are many reasons however for destruction to occur in the process of therapy, some of which have adaptive goals or purposes, but it is also important for the therapist to realize when destruction is helpful and when it is a negative action.

The therapist might be thought of as the “chaotician” (Chamberlain and Butz, 1998, p. 75) who not only addresses the patterns of stability and change, but provokes shifts in patterns through dynamic interventions. An understanding of chaos might be consciously utilized by the therapist in assisting to restructure, and in helping the client toward a more adaptable level of functioning. Partly, this relates to the idea of trusting the process and seeing chaos as a means to transform or reorganize the psyche and the creative process. It may also be helpful for the client to realize that the crisis or breaking apart is a necessary step in the healing process, as Nietzsche’s adage goes, “break, break, break to create anew” (as cited in McNiff, 2001, p. 214). Naturally, destruction must occur in order for a reconstruction to happen in the creative process, this is also true in therapy. The art therapist’s role is to assist the process towards reintegration and allow expression of the different phases of the self, which resemble the restructuring tendencies explained by self organization (Perry, 1973).

People often enter art therapy in times of chaos however it is interesting to note that it is often the dysfunction of the old prevailing order and not chaos itself, which is stifling growth and flexibility (Weiland-Burston, 1989). Goldstein (1995) explains that this tendency to remain in a familiar pattern, leaning towards a comfortable state, does not allow for the variety of experience or growth. This may be experienced by the client as being stuck, where no other possibility seems viable, and ways of coping or responding continue to keep these closed maladaptive patterns (Goldstein, 1995). This is where the self organizing creative process has its role, in the psyche of the client, in the art making, and the therapist’s own creative way of responding. Within the therapeutic context, often the new client will ask “What should I make?” or “What should I do next?”

I do next?” or “How do I make this work?”, wherein the therapist may assist or guide the client in exploring the creative problem. The solution is left up to the client’s capable organizing self, which may oscillate between feelings of control and loss thereof, or confidence and uncertainty, or chaotic and ordered periods. The creative process is also, of course naturally doing its job as images and forms miraculously appear at times; this is the “other” or “self” that is organizing; which is of course an aspect of the creator. Csikszentmihalyi (1997) and Ehrenzweig (1967) also speak of this phenomenon where the art seems to have come from some other person or place. The therapist is there to witness and hold the chaos and order, but without taking away from the natural discomforts or triumphs that assist the client in growth, and most importantly, the discovery of this foreign creature.

As previously stated, the ability to find new ways of coping or adapting often requires a regression or allowance of certain degrees of freedom. Winnicott (as cited in Levine, 1994) believes that the therapist must also tolerate formlessness in the transitional space, as creative play can facilitate the development of new meaning, whereby transformation can occur. As Levine and Levine (1994) explain, the therapist might help the client to live with multiplicity, tolerate ambiguity, deal with loss of control, and to play with or use the chaos in their world to achieve wholeness. The concept of *primary creativity* is one in which Winnicott (as cited in Robbins, 2000) considered to be as an early infantile illusion of symbiosis with and control of the world, which is a prerequisite for growth and individuation. Similarly, the therapist offers the client a creative transitional space, which allows for a sense of ordering or navigation through the chaos. Robbins (2000) explains that the task of the therapist is to “transform

pathological space into creative growth space by rejuggling opposites and finding new ways to combine old and new” (p. 28). One of the main functions of psychiatry, as Bohm and Peat (1987) claim, should be to unblock creativity, which may have begun in childhood or other contexts, thereby freeing the client from the rigidity that stifles their perception. Growth and adaptation, in this context, not only requires the creative process of the client but also of that of the therapist when negotiating with chaos and order.

It is indeed another kind of dance involving not only the work of the creative process and all that this space holds, but also the relationship between the client and therapist, as the client is guided towards a more adaptable level. As Butz (1997) explains, organization in the psyche is a dance of energy that moves back and forth between closure, or order, and openness, or chaos, opening in times of crisis and closing in resolution around a new form of stability. In particular Remer (2005) explains that to trust in the process of therapy we must understand what type of process life is, chaotic and self organizing; the creative process is not any different.

CHAPTER THREE

Methodology

This chapter will review the methodology in relation to theory and most importantly, the interviews conducted with the participants. The sample of participants, interview questions, process and procedure, ethics, rationale, method of analysis, reliability, validity and possible biases will all be discussed or addressed. Throughout this section, I refer to myself as “the researcher” or “I”, as these terms are interchangeable. Similarly, interviewees may be referred to as “research participants” or “artists”.

Participants

The population interviewed consisted of three artists, two females and one male. The artists were involved primarily in visual arts (i.e., painting, drawing, etc.), in accordance with the specificities of this research. The artists were selected based on the researcher’s previous and brief interactions with them, leading to knowledge of their artistic creative process as a self proclaimed form of healing and/or coping mechanism. The participants also acknowledged chaos and order in their creative process, and that they faced specific challenges within their lives. For the purposes of clarity and confidentiality, participants will be identified by number within this text.

Participant #1 was a 35 year old male with French and Italian origins, who expressed a strong connection to his creative process and its relationship to the chaos in his life. He spoke of shutting out the world to enjoy moments of pure joy and concentration, surrounded by walls of collages he had created for stimuli. He also spoke about using the creative process as a way of coping during his childhood, which was a theme common to all of the participating artists.

The artist named as participant #2, was a Female Canadian with French origins, aged 24. She has a physical disability which has been present since birth and uses her art specifically to deal with this issue. The disease primarily affects her hands and arms, which forces her to be ambidextrous and also adds a challenging component to her process. She creates art using x-rays and images from her own body. The content itself, whether it consists of colour, or shape, always speaks of her constant battle with pain and the reality of her condition.

Another female artist (participant #3) was 55 years old and Canadian of Russian descent. She has bipolar disorder and also utilizes art as a means of ordering the chaos in her life. She spoke of an almost obsessive quality to her art production during times of manic episodes, where most of her art work was done without any colour. This is in opposition to those times when she felt healthy, and her artwork was created in a more balanced manner, with many other colours.

Although the participants are each so fascinating and complex in their own way, they are likely not indicative of a normative sample, even though proportional to the average population, artists are known for their eccentricities. These aspects also complicated this research due to the confounding variables of illness and other possible personal factors. The participants however, do represent a population wherein the creative process plays a vital role in the well being of the person. In choosing this group of participants I also felt they might exemplify a unique recognition of resiliency and adaptation, as these artists were very capable of expressing their relationship to the chaos and order in their creative process, having dealt with so much of this in their lives.

Interview Questions

The interview questions (see Appendixes A and B) were based on research inquiries and formulated using existing theoretical and personal experiential knowledge of chaos theory and the creative process. Two different sets of semi-structured interviews were created, within approximately two months of one another. The questions and goals in the first interview were much more introductory and general in terms of the overall creative process of the participant. This helped to set the tone for further inquiries and inform the researcher of any particularities of the participant in relation to their creative process. The style of the first questionnaire also assisted in acquainting the participants to the research process and topic while gaining a certain level of comfort with the researcher.

The data from the first set of interviews was useful in obtaining an initial sense of the participants' responses in relation to the research question. At this point, the second interview questions had not yet been formulated; it was only after having examined the first interview questions, and with the suggestion of one of my advisors, that I decided to conduct second interviews. In analyzing the first set of interviews, the primary stage of the phenomenological method was employed, wherein invariant constituents, also known as "meaning units", were examined. This took place before any themes could be clearly defined, as they were just beginning to surface in the deep pool of responses. The first interview was helpful in clarifying possible gaps or missing information, which seemed to be more related to practical examples, conflicting data, and unclear statements.

As previously mentioned, the second interview questions were formulated after having reviewed the first interviews. The goal of the second interviews was to focus on more practical levels of the creative process in relation to chaos and order such as

materials, habits, and specific elements or processes identified. Specific questions were also formulated based on information that was lacking from the first interview. Therefore, there are general and separate questions for each participant which were formulated from the researcher's queries relating to the previous interview. These separate questions, as related to the specific participant, were included at the end of the second interviews. Spontaneous questions were also offered at times when the researcher felt it necessary to prompt more of a response from participants, to clarify information, or to explore the addressed phenomenon further.

The Interview Process

Semi-structured interviews were conducted, with the use of audio taping and accurate note taking. This ensured reliability during the transcription, as each word and sentence could be accounted for and compared to the notes if audio information was unclear. The interviews, which took place over a maximum period of three hours each, were always conducted in quiet, comfortable, and preferably confidential places chosen by the participants themselves. The participants agreed to take part in this research on a voluntary basis and lunch was offered in appreciation. The timing of each interview lasted from one and a half hours to three hours, and they were conducted over a period of four months, with a span of two months between each set of interviews. All of the participants were informed of the purpose and nature of the study as outlined in the consent form (see Appendix C). Questions about the purpose and nature of the research were also answered, while the researcher was careful to maintain an unbiased and non-assumptive perspective during discussions. After the first interview, participants were given a copy of the research proposal for their own interest, as some had already made

requests for this. The possibility of bias in the second interview did not occur to me at the time, as a second interview had not yet been planned. Unfortunately, having given the participants the research proposal after this first interview, it is likely that research bias did occur within the second interview data, as the participants had access to specific theories and arguments related to research inquiries. *Research bias* might be defined as a suggested inclination towards certain conclusions, or the distortion of a result due to factors which are, or are not included (Pearsall, 2002). The possibility of research bias is to be further discussed in the results section. It is also worth mentioning however, that this research was ultimately non-deceptive and that participants were given appropriate access and information to theoretical material relevant to the interview questions and the purpose of this study.

Throughout the interviews, I made attempts to clarify and reiterate the participants' accounts of their experiences when it seemed vague, unclear, contradictory to a previous account, or when it deemed further explanation. It was extremely important to honor the actual experience of each participant, dismissing my own assumptions, in attempts to really grasp the significance of a different perspective and expression of their process. To ensure that I did not have an influence on the interview outcome, I set aside associations, biases, facts and other understandings of the phenomenon through engaging in the *epoche* process prior to the interview (Moustakas, 1994). Mentally I prepared myself by acknowledging that my own assumptions may be incorrect and that they contain elements of opinion and personal bias. I had to temporarily overlook my own thoughts or theories, and allow my mind to be open to the participants and their experiences. By listening carefully and repeating phrases or summarizing sentiments,

often for clarification, I attempted to understand the unique perspectives and encounters of the participants. Many times a question within the structured interview would lead me to ask a new question, which may have been specifically related to their experience.

Ethical concerns which were considered during the conduction of this research involved the participants comfort level, especially with respect to the amount of personal or confidential material revealed. I took some time at the end of each interview to ask how they felt about the interview and what was shared, as well as discussing any concerns they might have. Monitoring, assessing, and ensuring the maintenance of a sensitive yet professional position during the interview was important. Guiding the participants to stay on topic, and to share within the range of acceptable disclosure for the purpose of the research, was also part of the procedure. Although all of the participants were comfortable with their disclosures, some had asked specifically for certain irrelevant portions to remain unpublished. I reminded them that only materials⁰ they were comfortable with sharing would be included in the final paper and that they would be notified of the conclusions and results.

All of the participants were able to relax in sharing their experiences and seemed at ease with the questions asked. At times, participants were confused by the question, at which point I would clarify or rephrase it until the participant was able to respond more confidently. There were also moments when the participants appeared to be frustrated because of the abstract nature of the questions, yet this was met with good humor and a willingness to respond. The participants also seemed challenged and interested to tackle the wording of their own experiences, which were often as vague or intangible as the question itself. As mentioned, this was also the rationale for a second interview, to create

questions that were slightly more concrete and specific to the research question. The questions asked in the second interview also seemed to capture the essence of the specific experience more thoroughly than the first interviews. It is possible that the interviewees felt more comfortable in sharing information the second time around, were more familiar with the process of the investigation, and were able to expand upon previous accounts. Of course, there is also the element of possible bias mentioned, which might account for the seemingly detailed responses. Each interview was carefully transcribed within the same month and sent to the participant if requested. These interviews were not included as an appendix for reasons of confidentiality and length.

Analysis of Data

The interview data was analyzed using a modified phenomenological methodology to extrapolate significant themes and relevant information, as applicable to the theory. This methodology was chosen because of the resulting descriptive and un-assumptive distillation of data that allows the essence of the phenomenon to shine through. Current and past research of the creative process has also utilized phenomenological methodologies, interviews, and combined theoretical aspects. The work of Brewster Ghislin (1952), although he did not specifically utilize the phenomenological methodology per se, exemplifies the kind of research that does allow the words of the artist to describe more fully, the creative process. Ghislin's collected accounts of 38 different artists from various disciplines, is an inspiration to many who pursue an exploration of the mysteries of the creative process. Bindeman (1998) also utilized a phenomenological methodology to study the creative process, which he combined with data from Ghislin's anthology. Similarly, in the field of psychotherapy, Dr. Gerald

Schoenewolf's (2002) collected case histories of artist's creative process, with particular relation to the context of their therapy, is an exploration into the phenomenon of how creativity and mental health are combined. The phenomenological method is widely recognized and accepted as a qualitative means of exploring experiences, and in particular many studies on the creative process have utilized this approach.

As previously mentioned, the methodology described by Moustakas (1994) involves a reductive process beginning with an objective or non-judgemental epoche philosophy of receptivity towards knowledge of the phenomenon. Moustakas's method is based on a modification of the Van Kaam method of data analysis, beginning with a preliminary grouping of data. This is known as *horizontalizing* the data, by holding every statement relevant to the research question with equal value (Moustakas, 1994). From these statements the researcher formed *meaning units*, or specific aspects of the text which are noted throughout, that can be paraphrased and are essential to understanding the phenomenon (Moustakas, 1994). These aspects of the data which do not change are known as *invariant constituents* and help to formulate the meaning units.

In determining these units, two criteria were utilized; first that it reflected an aspect of the experience which was necessary, and could be sufficiently understood on its own, and second, that it could be labeled (Moustakas, 1994). Overlapping, repetitive, or vague data was eliminated or eventually consolidated in more precise terms, as Moustakas advises. This is the process of reduction and elimination which was employed in determining meaning units, or the necessary and distinct expressions (Moustakas, 1994). These units were then consolidated or clustered into categories of themes, which underlined the core

of the experience. Themes were then validated by comparing them to all of the interview texts, in pursuit of explicitness and compatibility.

In the standard phenomenological methodology described by Moustakas (1994), the relevant and validated themes would then be used to create individual textural and structural descriptions of the phenomenon. The *textural description* includes verbatim examples from the transcribed interview, and is basically the interview “text” or participants words used in a more descriptive form of the phenomenon. The *structural description* is essentially an overview of the components of the phenomenon which is devised through paraphrasing the participant’s words. Both textural and structural descriptions are then combined to create a textural-structural description of the phenomenon to portray the essence or meaning of the experience (Moustakas, 1994). The final stage involves a developed composite of the essence of the experience as representative of all participants.

As mentioned previously, for the purpose of this research, which integrates theoretical and phenomenological perspectives, the full method outlined by Moustakas (1994) was not pursued as it was unnecessary for the goals of this paper. Thus, the descriptions of textual, structural, textural-structural and final composites were not produced as the intention of this study was to blend theoretical and phenomenological material. Had these descriptions been included, it would have become overwhelming for the reader and much more emphasis would have been placed on the phenomenon rather than allowing their experience to be contrasted with an existing and substantial theoretical component. Therefore, these final stages were modified, and the research was concluded with the categorized themes supported by prominent quotes. These themes and quotes were

utilized in conjunction with theory to further support, contrast, and reflect upon the research question.

Each section of the interview data was colour coded to delineate the stages of analysis. This reductive approach was helpful in allowing meaning units to emerge from invariant constituents, as they became apparent after reviewing the data numerous times using Moustaka's (1994) method. Themes could then be constructed and tested against all the interview texts for validity. Several attempts were made to extrapolate themes, as it seemed difficult at times to separate data that was specifically relevant to the research question. A multitude of data existed which was pertinent to the creative process and the separate topics of chaos and order. A large colour coded chart was constructed for personal use in an effort to distinguish the overall representation of invariant constituents and possible themes. The themes that were first produced were vague and broadly related to the data, but eventually, through a process of verification between clustered participant data and in relation to the preliminary themes, more specific themes emerged from the data. These themes were again verified against the complete record of interview data and tested on three points outlined by Moustakas (1994). The first point is that the theme should be an *explicit expression*, or a clear and unambiguous statement (Moustakas, 1994). The second is *compatibility*, meaning that it should be congruent with the data, and third that a *deletion or omission of irrelevant material* should be implemented, leaving out extraneous details (Moustakas, 1994). Eventually eight themes were constructed from the clustered data as the final analysis of the interview data. Under each theme a list of three to ten relevant quotes, deriving from invariant constituents and meaning units, were used in support of these findings.

CHAPTER FOUR

Results and Discussion

This chapter will summarize, review and discuss the results of interview analysis including; themes, findings, and links to theoretical components, which are all in relation to the research question. The results are recorded in terms of the themes, which were extrapolated from the analysis of first and second interview data. There were six interviews in total. Participants' quotes extracted from the analysis, along with related theoretical material, lend an illustrative component to the following themes and results.

Themes

It is important to keep in mind the purpose of this research, which is to explore whether there is an oscillation between chaos and order that organizes the creative process. Eight themes emerged from the participant's interview data, as related to the research inquiry. To give a general summary of these themes, they will first be listed, with a more specific analysis following.

- 1) There is a movement within the creative process that is felt as a flow, wave, oscillation, or rhythm, which when lost hampers or stalls the creative process.
- 2) There is a larger oscillation or movement from chaos to order, as the creative process begins with chaos and moves towards order.
- 3) There is a dynamic and necessary relationship between chaos and order in the creative process, and this is also reflected in the artwork itself.
- 4) Chaos and order are inseparable or interconnected elements in the creative process which is why an oscillation or movement between distinct elements may not be possible to detect or describe.

- 5) There is a tension between chaos and order that calls for creative feedback from the artist in order to balance or harmonize the work.
- 6) Chaos is a necessary, desirable, and even sought after condition for reorganization and equilibrium to occur.
- 7) There is an underlying order that regulates the chaos and flow of the creative process, causing periods of withdrawal to reorder the creative process.
- 8) Within the creative process, there is a natural, spontaneous, striving towards growth that can bring the artist to a new level.

We will now look at these themes in depth, in relation to the research question and applicable theory. Note that the heading titles of the themes are one or two word summaries of the theme itself and not the complete description; more detailed explanations of the themes are given in the paragraph below each heading.

Theme # 1: Flow.

The first theme to emerge was quite obvious as it encompasses a general sense of the flow experience in the creative process. Generally, this theme points to a movement within the creative process that is felt as a flow, wave, or rhythm. There is also a second component to this theme stating that when this flow is lost, it hampers or stalls the creative process. The inclusion of both components seemed appropriate because the participants' description of this flow experience, or state within the creative process, was usually followed by mentioning a period where this flow is lost. The necessity of the aspect of movement in the creative process is also implied in the statement within this theme that when flow is not present the creative process is hampered.

The concept of flow, as mentioned previously, can be described as a state of consciousness, wherein there is complete immersion in the activity along with a multi-layered sense of harmony (Mihaly Csikzentmihalyi, 1997). Participant #3 explains “When I work there’s a lot of order and there’s a rhythm, and there tends to be a wonderful inner peace of being involved; and when I’m working I’m not there, I don’t know where I am, I’m in it”. This exemplifies the feeling of transcendence, or oneness, that the artist may have in this state, which was also described by another participant as being “in a zone”.

Feelings of being on a high, getting a rush, or as May (1975) calls it an “ecstasy” (p. 49), are commonly connected to flow and were described by the participants as part of the reason for engaging in the process. Interestingly, May’s use of the term ecstasy is used to describe the intensity of consciousness wherein there is an encounter between two things, when opposites unite, and there is emotion, or a transcendence of the opposites. The transcendent function that Jung (1969) also speaks about is similar to this, and has been briefly discussed. It important to keep in mind, that the emotional aspect of uniting the opposites is really a key element within the creative process itself. It is this engagement with the world and the self that brings artists to a deeper sense of connection and excitement with the possibilities of creation. Flow provides “flashes of intense living against this dull background” (Csikzentmihalyi, 1997, p. 31). Possibilities seem endless and fresh creations bring new life into their own. This flow energizes the artist, as if the creative process itself were the elixir of life.

Flow is also part of growth and organization in the creative process, as the energy seeks to move as efficiently as possible, and is accomplished through structure or form

(Goerner, 1995). As participant #3 describes: “This flow that happens in art, it occurs when things begin to develop that fit and something begins to grow, which is very exciting”. Conversely, if something blocks this flow, than there may be a crisis or abrupt change that happens in order to redirect the force and keep it moving. At this point, either the creative process begins to self organize and move ahead, or the flow is lost along with the creative action.

Other participants also described how they tried to maintain flow within their artwork: “I use a lot of waves and movements in my pieces, to sort of let myself know that there’s a continuous motion so that nothing ever stops or nothing ends”. This quote from participant #2 leads into a secondary factor within this theme, which is acknowledged in the latter part of her statement where she adds: “Obviously you do loose flow or momentum at times but for the most part I try to use specific things in my work so I get those movements”. The other side of the coin is that when the motion is lost, it hampers or stalls the creative process. As mentioned previously, this also implies the necessity of flow to the creative process, although the requirement of this interruption or pause may also be disputed. Zausner (1996) notes that creativity is not a constant process because obviously the flow stops at certain times, further suggesting that there are alternating periods of creativity and reflectivity throughout the life of the artist; after all, the creative process inevitably involves interruptions. Perhaps in the instance of a natural pause, it is not about being stuck so much as it is a point of re-clarification, as described by all three participants. This specific event in the creative process will be explored more in the seventh theme.

It seems however, that one can distinguish between a pause or interruption, and a time when the flow is lost and the creative process is blocked, or the artist feels to be at an impasse. As participant #1 explains “It’s like having good days and bad days, it’s just that some days or moments you do get a flow or something and sometimes it just doesn’t flow”. This is the flipside to such flow as participant #1 described: “Sometimes things come out quickly and they really feel like they’re moving along and at other times things drag on and start to get lost”. When the challenge becomes too great and chaos predominantly overrides the experience, then there is an impasse or a “stuckness”. This is described by participant #1: “I can definitely say that I’ve been stuck in the chaos and that was probably one of the hardest things that I had to deal with. It really felt like an amputation for me; trying desperately and not having it go anywhere”. Being cut off from the source of this flow can be devastating for the artist who seeks this experience of openness to these energizing waves of creativity.

In fact, the creative process was also described, by Participant #1, as being akin to “riding a wave” or being on a “roller coaster”. His explanation of this included reference to emotional states that he likened to a barometer, as well as general periods of being creatively “on top” and other times not. The word flow itself might also imply these dips, valleys, crests, and peaks, or a movement that continues steadily despite variation. Participant #2 describes how “There’s always an organic flow or an organic pattern, there’s nothing that’s ever just straight; so like stepping away, coming back, re-evaluating, coming back, working on it again”. This account may more accurately describe the flow with its oscillating dance that may or may not entail a pause or loss of momentum. It is, as one participant described, “a balancing act”. Robertson and Combs

(1995) explain that the creative process involves a balance between activation and restraint which is achieved through an integration of the two, which can then prevent this stalemate. It is the two opposing forces at just the right level of chaos and order which allows this integration.

Jung (as cited in Butz, 1997) explains how flow is maintained through a tension of the opposites, suggesting how in being fully separated or completely united, energy ceases and there is no longer a flow; “the waterfall has plunged to its full depth in that torrent of nuptial joy and longing; now only a stagnant pool remains, without wave or current” (p. 128). As previously stated, when there is a constant oscillation, or a high ratio of positive and negative feedback that causes tension, the system has no choice but to re-organize itself. Although the creative process involves chaos, it does not mean that there is a total imbalance, but more a shifting of balance which assists in moving it to new levels (Prigogine & Stengers, 1984). Participant #3 explains “It’s most balanced when it feels like its actually working and it’s the least balanced when ideas are not flowing and there’s a struggle to create, when I can’t get moving”. According to this artist, balance in the creative process comes with movement in the flow experience, whereas the struggle to create is felt as stagnation, where movement is absent.

This motion, or flow, may also be thought of as a heightened and open state, with the intense balancing act between chaos and order, which describes the condition necessary for self organization. Flow and balance involve the right amounts of both chaos and order. The intermingling of these intense opposite energies is a familiar one to the artist who is able to tolerate and transform them. As Barron (1963) indicates, the imbalance or divergence, which many artists themselves may also appear to exhibit, is

essentially integrative and healthy and can be interpreted as adaptive. Flow is a part of a seamless change involving movement, polarity and transformation.

May (1975) explains how in the creative process there is an activation of the parasympathetic nervous system, which would ordinarily produce anxiety or fear, but is actually experienced by the artists as a positive excitement or “joy” (p. 44), related to self actualization. May describes it as an experience of heightened consciousness and flow in which hours may go by as the creative process takes over and the artist may not think to eat or sleep. Chaos seems to be the food of these toiling souls, as participant #3 also explained “Chaos is what feeds me and my creative process”. As mentioned previously, artists like to engage with elements or ideas that may go against the current. Similarly, chaos is like the turbulence behind rocks in a river, fluctuating and bubbling but continuously feeding into the current of creative organization (Briggs & Peat, 1999). This leads into the second theme which is important for the understanding of the creative process unfolding over time, also involving movement from chaos to order.

Theme #2: From chaos to order.

As found in the analysis of participant data, there is a larger oscillation or movement in the creative process beginning with chaos and moving towards order. In attempts to explain the way in which the creative process unfolds, participant #1 stated, “It seems sequential, starting with chaos moving towards order”. In fact, this is exactly how Prigogine and Stengers (1984) describe the process of self organization as the title of their book “Order out of Chaos” implies. Arnheim (1971) and Ehrenzweig (1967) both attest to the underlying order within the chaotic creative process as an integral part of

survival and evolution, as it gravitates towards form and organization. As participant #3 relays:

It always starts off with a lot of confusion or chaos, which for me is very motivating, and as I begin to create the work I start to look for pieces to develop the order. So I like to start with chaos then work into order; it starts with chaos and then you begin to form, I suppose, the order.

Generally speaking, the creative process, not unlike the mythical stories of creation, begins with a formlessness, or chaos, and moves towards an ordered form exemplified in the creation. As participant #3 explained “It’s exciting to play with; starting with a lot of mess and then have it develop into something that has organization to it”. The aspect of play mentioned, is also important as it points to the joyful nature of a process that keeps evolving and moving the creation that is becoming, into being.

Barron (as cited in May, 1975) also recounts how he is compelled to seek order through the chaos and struggle with it until a deeper underlying form is found. As participant #2 attests,

I’m working on a piece and I know I want to get it somewhere. I have to work with the piece because if it isn’t working and I don’t know what’s wrong with it well, I have to work with it right, I have to ask it “what do you need [to get there]?” etc.

In fact, this is indubitably a principal ingredient for the process of creation, that desire to bring something into existence, to make it work, and to trust that something wants to be given life, and will eventually emerge.

As Arnheim (1971) also describes it, “The incomplete, clashing structures in states of disorder create a tension directed toward the realization of a potential order” (p. 26). This is the beauty of the creative process, as it seems to contain a deep wisdom prodding it towards an organization. As simply stated by participant #3, “They’re [chaos and order] equally important, you have to have both. You can’t make art without order, its impossible, what are you making if there’s no order?”. Although there are elements of both consistency and irregularity, there has to be a general movement towards organization, otherwise, as Participant #3 pointed out, the creative product would not exist at all.

It seems obvious that the creative process does begin with the chaos of nothing or formlessness, and ends up with the order of form in the art work itself. As Participant #1 explained,

I start with a big box of chaos and open that up and work with that using order, putting it through my personal filter, which is my way of putting things into I guess what fits my definition of order.

Although it may appear to be linear, starting from something that looks chaotic and ending with something that looks more ordered, it’s not so point A to point B, but more of a dynamic happening over time. Artists may work on series, or elaborate on their piece years later. Hence, the process is a repetitive, but varying cycle or pattern, with opposing forces of existing within this.

Participant #1 also related to this sense of dynamism, and to an underlying order within the creative process asserting “Well it’s going back and forth, or well just playing around with that, but always moving towards order”. This also seems to reinforce the

notion that there is an oscillating component moving towards an organized form. This points to the possibility, as previously mentioned, that oscillations in the creative process happen on both diachronic or synchronic time scales (Jung, 1969), or in small and large degrees, with fast and slow rates of oscillation.

It can be said that there is one larger motion from chaos to order, and that there are smaller movements jumping back and forth in the process. In fact, Participant #2 describes this pattern in her creative process as she explains:

Being creative, it's a layering process for me, it doesn't just like the snap of a finger happen. So it's constantly just layering, its just keeps on going, you keep working at it, doing what you think it needs, pulling it in different directions.

It is indeed a process that requires tension, and involves complex underlying rhythms that build, move and shape it.

Furthermore, ordering elements are present throughout the process, as well as chaotic elements; for example, art materials were cited by participants as one of the main elements of order in their creative process. Participants also claimed that they often choose materials and set up their space before forming an idea. This is supported by May (1975) as he explains that the artist is "at least partially, protected from going crazy in this process of radical emergence by the form given by the media-namely the paints, the marble, the words, the musical notes" (p. 130). The artist's materials or medium, carry through this order which is synthesized in the creative work.

The ordered collection of materials however, may also be followed by the chaos of making and working on the piece, then finally by the ordered and completed work of art. This is an example of the order, chaos, order, sequence, and is only one

representation of a possible pattern in the creative process. At times the creative process may begin with some aspect of emotional turmoil which spurs the client or artist to express this chaos. As participant #1 explains “I would say generally, the more chaos there is in my life, the more I feel the need to create”, a commonality expressed by all participants.

Participants also mentioned their reactions to pieces which surprised or even scared them, and used the familiar colloquialism of putting their so called “demons” into the work itself. Although it is not necessary to go into depth on this matter, this also often occurs within art therapy, as the client creates a work which arises from their unconscious, surprising them and demanding to be dealt with. This indicates how the process could also end with the chaos of having to face this turmoil in the physical form of a creative product, highlighting the importance of an art therapist’s presence and support. Furthermore, although chaos may spring up at the end of the process, hopefully creativity takes over in an attempt to re-order this through a synthesis or assimilation.

There is something reassuring about confronting the chaos and to be able to grasp that there is some kind of order to it as well, or it can be looked at in some way. This is how we as humans have been able to make sense of our world and learn to live with the unknown in creative ways. It is also important to restate that not only does the creative process begin with chaos and end with order but all throughout there is a dynamic interplay, or oscillation of the two elements. These insights allude to the complex nature of the creative process, highlighting how the movement from chaos to order is a larger picture that holds many other aspects in its creative development.

Theme #3: A necessary dynamic.

When asking participant #1 about the movement between chaos and order within the creative process, his answer was emphatic, “It is the creative process!”. This was the moment that seemed to confirm the purpose of my research. It also brings us to the third theme which states that this dynamic relationship, or oscillation between chaos and order, is indeed necessary within the creative process. This is also apparent in the artwork and at times reflected in the life of the artist. When asked if there were ever times when she felt a movement between chaotic and ordered periods in her process, Participant #2 explained: “Well there is because I’m always working on them simultaneously right. I’m always working on a combination of things like I said earlier, textures, colours, etc., things that make a piece more chaotic or more ordered, so you know it’s always just like jumping between the two”. Personally, I enjoyed this description of jumping between two things because it implied a sense of attentiveness, playfulness, and even negotiation in the creative process.

In another fascinating analogy of this interaction Participant #1 explains “chaos and order interact like a blender or a sifting”. This implies that the two components are constantly moving and mixing and filtering through one another it would seem; utensils for the recipe of creation. There is a sense of chaos and order creating the right consistency, un mélange parfait. This is also evident within the organization of an art piece, wherein the aesthetics of symmetry, or the contrast of dark and light create a well balanced work: “Art like the human mind itself, embraces contradictions; it is the balance of these contradictions that produces the high degree of tension necessary for the

production of the greatest works of art” (Read, 1964b, p. 125). It is interesting to note that the process, and the tension involved, is reflected in the art piece itself.

Arnheim (1996) also notes that chaos is the interaction of conflicting forces that are present in a work of art, as its parts play off of one another to balance the whole of the composition. Similarly, participant #2 explained how she chooses complimentary colours to express different emotions and how these play off of one another: “so pleasing, not pleasing, is it warm, is it cold, does it make you feel nervous, does it make you feel happy? Those are all the plays, and push and pulls, within the artwork and within life that people go through, and that the pieces go through, so they’re constantly moving and they’re constantly changing”. Goerner (1995) also explains that “the order in the chaos is a result of interdependent variables co-effecting one another in a ‘push me pull you’ fashion into a coherent pattern” (p. 23). It is the chaotic and ordered aspects which allow the creative process to evolve within certain parameters of a pattern that is somewhat universally recognized. As participant #2 remarks “It has to be balanced on the canvas, even drawing has to be balanced, the composition, the forms, the colour, you know, everything”. This interplay between opposing elements is what allows form to be.

This action of balancing may also be interpreted as an oscillation, or an optimal way of searching for creative solutions, wholeness, and restoration of equilibrium by utilizing combinations of order and randomness (Goerner, 1995). It may also be likened to Ehrenzweig’s (1967) manic phase with an unconscious scanning of the fragmented elements in attempts to piece them together in an integrative fashion. Participant #3 speaks about chaos and order in her process explaining, “Somewhere in your weaving back and forth you’re creating order, but all of this is because you go back to it each time

because its problem solving and that's what feeds you, it's how you work out what you need to say". It is quite remarkable how the word weaving was used in reference to order, as one might recall this as part of the definition itself. The reference to going back to it, problem solving, and the implied element of feedback speaks of a satisfying tool for communication and learning, or growth. Furthermore, the last point that the participant made is also very crucial in linking the emotional aspect of the creative process, as it implies nourishment, and an outlet to expression, which is achieved through this delicate process of knitting things together through this movement to and fro.

Creativity, as Abraham (1996) states, is a two sided interactive coin driven by the parallels of conflict/cooperation, yin/yang and dual motivations to surf positive emotions like joy, play, curiosity, and to escape the negative emotions like anxiety and fear (p.396). The word "surf" is interesting here, as participant #1 described the flow as "surfing a wave", along with the "barometer of emotions" which accompanied this fluctuation. Continuing from Abraham's statement, I wouldn't necessarily agree that creativity is always an attempt to escape negative emotions but to deal with them through sublimation, to give them form, and transform the chaos, which many artists will attest to. At times however, it is a great way to escape so called reality, which research participants also described as part of the joy in the process. The creative process and its dualities is also a necessity for participant #1 who stated:

Chaos and order is what I filter the world through for it to make sense. It's positively significant. I think everyone strives for order in their life; for me in certain respects it's absolutely crucial. I feel more in control when I create. Chaos

and order is at the heart of the creative process and the heart of life. As a way of working through things, chaos and order is very present within that process.

The necessity of the two polarities seems evident, as it is the meeting of the elements that inspires growth. As Montuori (1992) explains, having the capacity to consciously maintain this tension of the opposites, can eventually lead to a drastic change that is resolved at a higher level.

Continuing on from this sentiment, Barron (as cited in Montuori, 1992) understands this rhythmic alternation, wherein contradictory principles are expressed simultaneously, leading to an unusual integration or new order. Similar to Participant #2 Participant # 3 also describes how she “jumps between the two”, meaning chaos and order, or spontaneous and technical aspects, “because I do something and then I analyze it and I work it out, so I’m always making it work, so I go back and forth, its 50-50”. Given this oscillation, there is bound to be a sense of mixing or integration of the two elements, and with it a requirement of both to make the whole thing happen in a balanced way. The dynamic and necessary relationship between chaos and order in the creative process seems evident, as participant #2 explained, is “just significant within the artwork itself”. One must not forget however, that it is the integration of these two components which make up the whole of the piece. This brings us to the next theme, one that highlights this important connection.

Theme #4: Chaos and order as interconnected.

As extrapolated from the data analysis, this fourth theme recognizes that chaos and order are inseparable or interconnected elements in the creative process. Participants also mentioned that an oscillation is not always felt as a movement between these distinct

elements. This is an important component to this research because it highlights the paradoxical nature of this dynamic, as is not so black and white from chaos to order but perhaps within them there is a bit of each. Although this may seem to echo the last theme and has been briefly touched upon throughout this paper, it is important to distinguish the fact that chaos and order may also be one and the same with certain respects. Hamilton and Levy (as cited in Butz, 1997) point to the fact that “life is a symbiotic process that virtually requires the company of deadly rivals. Equilibrium is an illusion: order finds itself from a relentlessly troubled sea” (p. 34). The union of two dynamic forces is really what creates life, procreation is one example. The friction of antagonism and the constant motion from balance to unbalance carries us through events and changes in the creative world.

The sentiment of order coming from chaos, or vice versa, is also reminiscent of how chaos may actually be understood as being part of infinite degrees of order (Briggs & Peat, 1999). This seems to be connected to the greater underlying organization of the creative process, as it knits a pattern with chaotic and ordered threads that become so tightly woven that they are no longer distinguishable as separate. Participant #1 explains how in the creative process “sometimes they [chaos and order] feel intertwined; it’s very much like they are both present at the same time, it would be very hard to, you know, have a scale with one on each side”. It can be confusing to try and separate the order from the chaos, as they both work in tandem and are very much interlaced. For the artists however, this is possibly more difficult to describe because of the existing tolerance for ambiguity, and preference for complexity, although the tendency to think in opposites is also a trait.

There is something very fluid about the relationship between chaos and order which may be understood as an oscillation or perhaps as the presence of both in varying degrees throughout the creative process. In speaking about the flow between chaotic and ordered periods participant #2 explained “It keeps evolving, so within that there’s never just a chaotic time or never just an ordered time”. So although chaos and order are separate forces, they may be difficult to distinguish, or see at the same time. “There are periods of chaos and order, I think it’s sort of a mix of both” explained participant #3.

Abstracting chaos and order as separate entities within the creative process may distract from the real flow and gestalt perspective of its complex dynamic. Participant #2 explains “There’s never anything black and white for me, in my work, so there’s always the in-between, there’s always an organic flow or an organic pattern, there’s nothing that’s ever just straight”. This validates the non-linear aspect of the creative process, and the importance of the “in between”. This middle ground between chaos and order, recalls the ability to play, to negotiate within a tension, create a third object, and to move beyond the void, the chasm, the unknown, by bridging the two sides.

Although an oscillation between chaos and order may not be so separate, they are mutually dependant or complementary which further implies that there is some level of separation. As participant #3 describes “the order is there but it’s sort of side by side with the chaos”. From another perspective, Rose (as cited in Roland, 2002) understands that these contradictions are more of a dynamic unity, transformed through aesthetic form, but still preserving the integrity of each contrasting element. So although there is a distinction, there is also an interaction, a flow, or movement between the two which may make it difficult to distinguish chaos and order as separate entities within the creative

process, and in fact, they are more united than divided. In fact the very nature and definition of the creative process implies this interactive system of components that assist in the making of a completed work, as this next theme more aptly describes.

Theme #5: Tension and feedback, leads to balance and harmony.

There is a tension between chaos and order that calls for creative feedback from the artist in order to balance or harmonize the work. There are many components to this fifth theme, but the main premise explains how the elements of tension and feedback bring about balance and harmony through their interaction. With such contrasting elements, this theme also validates the necessity of an oscillation between chaos and order. Harmony and balance are often thought of as ordered, and tension or feedback, may be thought of as more chaotic elements. A dichotomous interaction within the creative process, and similarly the artwork itself, allows it to form, change, and to be felt as harmonious or flowing. “There is chaos and order in all of my pieces and they harmonize together, they make the piece what it is” said participant #2. This statement and theme may seem very much like the last as it highlights the importance of chaos and order, yet there is more emphasis on how this interaction directs the creative process.

The concept of harmony is also important, as it is part of the oscillating rhythm that brings the creative process to fruition. Continuing from the statement by participant # 2, she also explains how this dichotomy works towards the creation of harmony,

You know in all my pieces actually, there are moments where it is so still and so peaceful and calm right and then there are moments when there is complete disarray and chaos and you don’t know. So I try to harmonize the two so that the eye is able to have a more sensitive outlook to the whole.

Although the creative process may seem automatic at times, it also involves the artists' own sensibility in organizing and making decisions. As previously mentioned, the creative person cannot be separated from the creative process. The contrast of different emotions, colours, textures, shapes, images, and lines, create visual interactions which are vital aspects of information for the artist to work from and balance the whole piece (Arnheim 1974). The feedback and tension from the two opposing moments that the participant spoke of, is part of harmonizing, balancing, and integrating the work.

Participant #3 attests to this, adding how it also assists her on other dimensions "because of the various levels of contrast in experiencing order or chaos, it's very therapeutic, it's my teacher, it's how I learn." The contrast, the interaction, the striving for a harmonious balance of all the pieces or fragments, forces the artist to learn and to achieve a sense of completion through the process of continual assessment and feedback. It is also the ability to sustain the levels of contrast and tensions, until a creative and complimentary solution arises, rather than destroying or letting go of the potential (Montuori, 1992). When either one of the forces is excluded from the creative process, it is as theme #1 suggests, stalled or hampered.

Tension is also an inevitable component when two opposing forces exist. As Barron (1964) establishes, the tension held between chaos and order, is crucial in the interest of new possibilities of experience or quite simply, creation. Consequently, the creative process with its two counterparts of tumultuous chaos and tenacious order requires this dynamic tension that actually creates harmony, leading to an organized work of art. Participant #1 gives a fitting analogy of the feedback and tension involved in the creative process: "It's like driving a car and you feel you're skidding so you slow down

and make your adjustments. The drawing takes time as it appears and that guides what I add to it". Although the participant did not use the specific words of "feedback", or "tension", the essence is implied through the requirement for adjustment and how the image guides him.

As participant #3 suggests "if you do this process continually it can create a sort of feedback and begin a sort of healing process, its something you can do that begins to create a stability in you". The stability that the participant speaks of is internal and personal, but also marks implications about the self organizing creative process in relation to the artist. It is also noteworthy to mention that the participant is speaking about the creative process over time, involving higher levels of functioning or performance. The use of the word stability is also striking in that it is related to an accumulative order within the creative process, carrying with it a familiarity, or consistency, over time that strengthens it.

The creative process contains both the creation of one work over time, as well as many works over a lifetime that evolve and self organize from one another. The evolution of a painting involves a comparison of its present state to the memory of its previous state, a continual referencing process that develops the piece (Zausner, 1996). Participant #1 notes the ongoing communication within this relationship to the creation mentioning, "As its progressing it creates this whole feedback loop where it affects the image that I'm trying to hold in my head". The artist was also speaking about the ideal image in his mind vs. the image actually being created, which reveals how feedback plays a critical role in the organization of a piece. The artist oscillates and moves from one aspect of the process to another; creating new forms, reorganizing, restructuring, and reaching higher levels of

organization (Goerner, 1995; Regent, 2002). The painting evolves through reactions to constant comparisons of its present state to the memory of its previous state (Zausner, 1996). These are the building blocks of the process of self organization as small changes are amplified until the overall structure is changed (Sadar & Abrams, 1998). Chaos and confusion can be reined in and balanced through the creative process. As Participant #1 describes:

There's chaos which is kind of a matrix of elements, and then I guess my thoughts ruminate, and then the actual physical creative process, that's putting order into it so to speak, but I would more use the words harmony and balance.

There is an interesting choice of words here that had been previously mentioned and in a similar fashion, as chaos being this almost unconscious matrix, and order as a physical or conscious act, collaborating to create a balance or harmony. Mihaly Csikszentmihalyi (1997) describes how within the experience of flow there are clear goals along with the proper responses. These are guided by feedback, Mihaly explains, which maintains an optimal level of balance between skills, or the ability to act, and challenges, or the opportunities for action. This concept is similar to Gardner's (1993) use of the term *fruitful asynchrony*, wherein just the right amount of chaos is necessary to spur on creativity. This may at times be felt as somewhat chaotic or even exhilarating. As participant # 1 explains, "It is a balance between trying to relax enough and then at the same time, almost like a pleasant frustration. I can get very impatient and at the same time I have to stay loose". The balance requires an oscillation between an ordered set of technical responses, and creative impulses that assist in adaptation to challenges. As participant # 2 explains, "I always go back and practice technique so it's always there

even if I don't think about it consciously. That's how a piece gets to equilibrium, it has to work technically, it has to be balanced". The juxtaposition of contrary and contrasting elements allow for the necessary tension, which creates feedback and in turn harmonizes or balances the art work, underlying the mechanisms of the creative process. This tension would not be possible however, without a little bit of chaos, or so the next theme relays.

Theme #6: Seeking chaos and change.

Chaos is a necessary, desirable and even sought after condition for organization to occur within the creative process. This statement, as discussed and supported throughout this paper, is the sixth theme extrapolated from the participant data. Also mentioned previously, a valuable quality of the artistic personality is an attraction to chaos. As exclaimed by participant #1, "Being unbalanced helps because it fosters inspiration, it pushes you". Although the need for balance and harmony seems important, so does the penchant for challenge and chaos. Participant #3 explains how she uses chaos, also differentiating this from times of her illness, "Just in a time where its healthy, chaos would be something I would work to invent, and then I would hold this element as long as I could and to keep that going and only towards the end would I start to build up the drawing". She also expressed this similarly in another statement, "I'm not afraid to disrupt things as much as I can, till I'm ready to close in and that's very exciting because I don't know what's going to happen". This seems to echo how Csikszentmihalyi (1996) describes elements of chaos in the creative process, which is enjoyable but "often involve[s] painful, risky, difficult activities that stretch[es] the person's capacity and involve[s] an element of novelty and discovery" (p. 110). The artists interviewed often spoke of chaos as a pet feature of the creative process, with which they could play with

and wield to the heart's delight. May (1975), citing MacLeish, eloquently suggests that "The poets labor is to struggle with the meaninglessness silence of the world until he can force it to mean; until he can make the silence answer and the Non-being be" (p. 89). It is a quest for extracting beauty, meaning, and form from an almost impossible, formless and sometimes ugly mess of confusion.

Chaos may also be the playful archetypal trickster, who cunningly breaks the rules and fools the players, usually with an ultimate good intent. As participant #1 describes, "Chaos finds me and the whole creative process is a way of taming it". Butz (1997) explains that flirting with chaos is also necessary for the transition into a more adaptive state. Participant #2 is adamant about the necessity of chaos in her creative process explaining that, "you have to go through chaos because if you don't you're not going to get anywhere; chaos is a good thing, you need to go through moments of frustration and insecurity and you know, the unknown, to be able to get somewhere else". All three of the participants recognized the importance of chaos as a stepping stone to order within their process and also their lives. This is a sentiment that most people and many spiritual or philosophical teachings recognize. Participant #3 described how she works with the chaos from every angle:

There's chaos in my work and maybe chaos in my life but then I start to work with the chaos and then the order starts to form, and the problem solving, so it teaches me how to function again and how to feel good about myself.

This is certainly a shared goal within art therapy, as we encourage our clients to work through their issues, to problem solve, and to manage positively even with chaos at hand. It is important to acknowledge that chaos is a natural part of our psyche's functioning.

Julian Silverman (as cited in McNiff, 2004) also advocates chaos as a central aspect in the self regulation of the psyche. It serves to restore balance and wholeness, but as McNiff reminds, also requires sensitivity and the need for adaptation and change.

Participant #1 relays how this also works in the creative process stating, “I would say for me, one of the nuances is that going into chaos is very conducive to new ideas and new associations.” As the literature in this paper outlines, chaos breeds creativity and self organization. Participant #1 continued on with this sentiment, illustrating this process, “It would be like a contained chaos in my head, and basically it’s like putting everything into a blender and seeing what comes out”. Interestingly, he uses the words “contained chaos” which might be likened to the special kind of chaos that is self organizing.

Chaos and order can also be understood as components which are both sought after, as any system inherently knows that to reach a new equilibrium, disequilibrium must be met. Similarly, artists know that within the creative process, a fresh and exciting idea, or creation, comes from exploring the strange and unknown. Recalling an earlier quote, “Chaos is what feeds me and my creative process”, it is a desired condition which sparks the flame for the fire. As participant #3 explains, “There is nothing more exciting than to have the challenge of working with a space and what I’m going to do with it”. Diving into the deep is the only place to find the treasure so to speak, how true this is also within the process of therapy. These implications will be touched upon more however, taking a risk, letting go, and facing the unknown are all a part of growth and gaining a sense of control over the chaos that is perceived to be everywhere.

Theme #7: The underlying order.

The seventh theme recognizes that there is an underlying order which regulates the chaos and the flow of the creative process causing periods of withdrawal from the chaos to reorder the creative process. This theme is reminiscent of theme #1, which also indicates a pause in the creative process caused by lack of flow, and also theme #2 which verifies the movement towards order. It is necessary to distinguish between the other themes which are related but do not specify the point of this theme exactly. The purpose of this theme is to highlight the self organizing nature of the creative process which is driven by an underlying order that may appear to have chaotic components such as interruptions or withdrawals. This must be differentiated from theme #1, which outlines a more negative type of intrusion in the creative process, one that ultimately hinders it.

The type of withdrawal mentioned in this particular theme, might be understood as an incubation, or verification phase, in the creative process when one must reflect and allow the unconscious to work more. At this time, the artist may feel to be at an impasse, and the need for re-evaluation presents itself. It is a common notion that insights occur during periods between work and recreation, and often occur during or after moments of relaxation or mundane activities, such as taking a shower or walking (Ghiselin, 1952; May, 1975). Goerner (1995) explains how mental activity and problem solving follows the same pattern as any other self organizing process in nature. When thoughts and desires aimed towards a specific goal are obstructed, tension, frustration and chaos arise (Goerner, 1995). It is the coordination of active and restraining forces, as Goerner indicates, which can bring about creative processes and birth new ideas.

Sometimes the artist just needs to take a break from all of the intensity and work of the creative act, or knows that it is time to give it a rest and come back as participant #3 says, “with fresh eyes”. The constant stepping away from and coming back, re-evaluating and re-working of a piece, is also related to the oscillation between chaos and order as it is part of the dynamic pattern of creation. Participant #3 explains that “it is really important when you’re working, when you’re doing artwork and in the creative process to step back, to move away from your piece, to constantly sit back and look at it, analyze it for yourself and go away for an hour and come back and then do something else to it and then see how that feels, so that is a very, I think, important part of the process”. Reminiscent of the concept of feedback, all of these elements serve to bring about more order, or to open the artist up to the chaos necessary for change and creativity. It seems as though this part of the process leads to a sense of fulfillment as Participant #3 describes: “You go past the frustration, you resolve it, it’s a resolution and then you have closure and it’s the highest feeling you could have because you’ve gone to that place you didn’t even know you could get there”. This block, or pause, is something that she also explains, “happens at least once within the process, unless it is one of those rare times in which it flows and flows until the end”. An important distinction should perhaps be made between the point of getting stuck, as described in theme #1 where the flow just stops, in contrast with this pause in the process that is natural. This temporary interruption seems to allow the process to be picked up again relatively smoothly where one left off. Being stuck might be experienced as total chaos and confusion, whereas small periods of rest might be considered reordering, or at least a withdrawal from the

CHAPTER FIVE

Conclusions and Implications

This research explores whether an oscillation between chaos and order is a necessary dynamic involved in the creative process. It is apparent that the answer to this question is not direct, but that the results point towards the idea that chaos and order do interact, that there are oscillations or movements between opposites in the creative process, and that this assists the process of creative organization. As outlined in the results section, chaos and order are inter-related, which renders it difficult to label the interaction as an oscillation, yet this seems to be the simplest term to describe the complex interaction that brings the creative process towards a new level. Although the findings of the present research may echo sentiments outlined by previous authors, the way in which the creative process has been defined as self organizing, through the specific components of chaos and order as described and validated by the artists, is a unique expression of this phenomenon.

It is important to understand how the development of the creative process involves chaos and order, with all of its dynamic, chaotic, and transformative, ordering aspects. It might be understood as a “living symbol” of a process where anxiety, crises, regression, and change are not feared but expected and understood as a part of ongoing, timeless transformation in life (Robertson & Combs, 1995, p. 14; Butz, 1997). This research is also useful, in that it outlines the importance of understanding the creative process as a natural step towards growth, both on the level of the artwork and the psyche.

Particularly within the field of art therapy, where the creative process is utilized in conjunction with the therapeutic process, an understanding of the nature of chaotic

dynamics is most helpful to consider as part of the vehicle of change. In speaking about its role in development, Butz (1997) explains, “Complexity and chaos need not to be feared but sought out as they are the seeds of creation” (p. 67). Similarly, recognizing oscillations between chaos and order throughout the creative process may assist the therapist and client/artist in managing and accepting these polarities as a natural rhythm, which tends towards order. Trusting that an organization will occur within good enough initial conditions is also key to success in the creative process, and similarly within therapy (Butz, 1997). Trust is such a fundamental element in any process which involves allowing the ebb and flow of various emotions, circumstances, and uncertainties- not only in hopes of transformation, but with an understanding that change is inevitable.

Creativity, which generates new forms of more adaptable orders, needs to be appreciated for its process that contains both the chaotic and the ordering aspects. On a much broader scale, the emphasis often placed on order and perfection within society, prompts unhealthy and maladaptive responses which are anti-creative, ultimately marked by control, regulation and separation (McNiff, 2004). Despite this negativity, as our conceptions of health and wellness are changing in light of chaos theory and more holistic approaches, it is apparent that,

The new myth of this age connotes balance between chaos and order, a focus on maintaining the tension necessary for coherence and mature adaptations.

Development is a process, a difficult and many times confusing process, where organisms transform. If people want long-lasting, penetrating changes, then they have to use methods and forms of thought that will promote these. This process

may be painful, and even feel chaotic, but on the other side of it is a new adaptation. (Butz, 1997, p. 239)

The same is true in the creative process as the artist must seek new methods and think outside of the box, to promote creative growth. This inevitably involves a scientific or logical ordered process of trial and error, which also allows chance and chaos to enter in, making room for change.

In fact, May (1975) explains that all our lives we oscillate between the fear of death and life which when confronted with the courage to create may move one towards self realization. An interesting description of these two poles that generate a creative healing vitality can be found in Heller's (1994) paper entitled "Death and Birth in the Creative Process: Applications in Art Therapy". The creative process requires an ability to push through death and stagnation, towards growth and expansion. Similarly, in the process of therapy the client must be guided towards creative and psychic development which involves taking risks and safely confronting chaos. There is an oscillation that moves creative activity towards growth which is also evident within the artwork. It may lead towards new levels or changes within the images that are often indicative of the psyche's process and development.

I believe that although nothing is ever black and white, this paper illustrates the importance of a movement between chaos and order in the creative process. It is this precise mixing of the two components, which allows for the beauty of the grey to emerge as the third principle, the transitional space, or the self organized form of creation.

Like a permeable mirror, the creative process is the alchemy of energy in the psyche being transformed through the medium of material form and image, allowing our

most chaotic and fragmented parts of self to be reorganized through the process of creation. This happens because of the instinctual need to grow and attain higher levels of awareness, consciousness, or mastery and to attain meaning. To expand into our truer selves, we must begin with the darker seeds of chaos that are also crowned with bright petals. Like the sunflower, we blossom through creativity while anchored safely in the soil, and always stretching and reaching for the sun. As therapists, we till the soil, tend to the garden, wait patiently for growth, assess when it is time to water, time to harvest, and time to marvel in the self organization of the client, their creative process, and the elements of chaos and order which bring it all together.

In conclusion, oscillation, movement, or flow, involves a dance, or balance, between the ordered and chaotic aspects which make up the creative process. This might appear to be a simple and almost obvious notion, however it is quite profound in grasping how this rhythm is part of a spontaneous, self organizing process that stems from the desire to grow, change and create. The creative process must be understood as an access and a vehicle for this fundamental yet powerful development and communication of new worlds within the self of the creator, in the form of artistic creation.

Future Research

An area of focus that was not explored to great depths but would be useful for future research is the simultaneous ordering of the artist's life and psyche, within the creative process. This might be understood as an adaptive function or survival mechanism, which can be therapeutic. This statement does not need validation as the whole profession of art therapy hinges, in part, on the healing power of the creative process. Creativity is the psyche's natural way to communicate to our conscious minds

through dreams, visions, images, sounds, archetypes and other encrypted messages from the unconscious.

The connection between creative growth and psychic growth seems important to explore however, with respects to the numerous times participants cited their praise towards the healing and therapeutic effects of their artistic process. Perhaps these sentiments were expressed because the artists understood my interest and profession as an art therapist. Even so, I believe more than anything that it was their sincere gratitude towards the one thing they identified as something incredibly powerful and vital to their survival and happiness, that being the creative process. Just as chaos and order are inextricably intertwined in the creative process, so is the artist with their emotions, thoughts and actions. It seems plausible that through this striving towards growth, and oscillating between order and chaos, we would continue to expand, to self organize and move towards higher levels through what we create.

It would also be of great interest and assistance should the implications and findings of this current research be explored more scientifically. Employing the use of more neurological research, with specific links to current practices such as Eye Movement Desensitization and Reprocessing (E.M.D.R.), hypnosis, or other processes linked with chaotic and ordered mental activity such as meditation, would be fascinating to explore. More research on creative persons with bi-polar disorder could also assist to broaden the scope of healthy vs. non-healthy patterns in the creative process, to delineate those optimal levels of chaos. Research involving extensive models of specific types of oscillations, mathematical coordinates of these movements, linked with the neurological patterns associated with the creative process may also shed some light on the nature of

the dynamics within the creative process. Monitoring the creative process, charting specific aspects of chaotic and ordered activity and patterns of oscillation, or the dynamics between these aspects, may also reveal the underlying order of the processes of creativity.

If it is in any way possible to find approximations of these patterns, it may assist us in the understanding the creative process in therapy. The goal however, is not to predict the course of a client's creative or therapeutic process, as this would be impossible, but to be more acutely aware of the nature of the processes at hand, and how these dynamics may be engaged more effectively. It would be interesting to investigate whether specific techniques in art therapy treatment could be developed to further enhance these natural processes. Encouraging clients to achieve greater mastery over chaos in their lives and creative process, by encouraging non defensive and healthy ways of finding order to face the uncertainty, or areas with a loss of control, is an existing and important part of therapy. It could be of further assistance however, to develop specific techniques that are designed to enhance these goals, through utilizing chaotic activity with proper amounts of safety and holding, to explore connections that lead to growth. This is possibly where other therapies may also be incorporated for a more holistic treatment. Finally, I will leave the reader with a quote found at the end of Chamberlain and Butz's (1998) book "Clinical Chaos", which is also a fitting finale for this paper:

The journey described has not reached its destination. There are still dark roads to travel that engender anxiety and chaos. It is hoped, however, that the exploration of chaos is a journey that others will share as we search for ways to make therapy more meaningful to ourselves and our clients. (p. 190)

Lastly, I wish you well on your own journeys and navigations through the chaos and order of the creative process, which will hopefully lead you to higher levels.

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Appendix A

Semi-Structured Interview Questions

Pre Interview Explanation

This interview is intended to explore your own creative process with a particular focus on the involvement of chaos and order within this process. Please bear in mind that it is your definition of the creative process that is most important. Creative process however may include periods of idea formation or incubation, as defined by Wallas, as well as the actual art making or appreciation of it. Terms from chaos theory may also be used and explained if necessary; for example Autopoiesis, or a system which is *self organizing*, is able to re-order itself to reach a higher level. This plays a vital role in our natural development and within the creative process. My intention is to understand how self organization, specifically focusing on oscillations between chaos and order, is prevalent in the creative process and perhaps also therapeutic.

Interview Questions

1. How would you define *creative process*, what does this term mean for you?
2. Can you tell me a little about how you became involved with the creative process, when this interest began and what might have compelled you towards it?
3. Currently, how involved are you in creative activities and your own creative process at whatever stage?
4. Describe somewhat briefly, what your creative process is like, are there specific stages or elements which you feel are fundamental or imperative, please clarify any essential components.

5. Do you feel that the creative process has been helpful in dealing with the challenges or chaos in your life?
6. If so, when do you find that you turn to art making, i.e. in times of chaos or in more ordered periods of your life?
7. Do you think there are elements of chaos and order within your creative process?
8. Could you define what chaos means for you and what are some of the elements or affects you might ascribe to it?
9. Do you feel that your creative process is "chaotic" at times or at certain points?
10. What does it feel like to be in the state of chaos in your creative process?
11. Do you experience ordered periods in the process? If so when, at what point, and what does this feel like for you or how do you experience this?
12. Could you further define what order means to you?
13. Do you see any patterns in your creative process involving chaos and order? If so, could you describe these patterns or movements involving chaos and order; how do they fit into your creative process?
14. Do you feel there are movements or oscillations specifically between chaos and order in your creative process? If so, how do you experience this?
15. In your experience what does it feel like to move from the more chaotic periods in the creative process, to the more ordered ones or visa-versa? Does this transition happen quickly, slowly, can you describe the transitions?
16. Can you describe how long you might stay in one mode, chaos or order, or if there seems to be an average duration in one or the other.

17. Would you understand chaos and order as equally important in your process or does one seem more dominant than the other? Please elaborate.
18. Is it possible for you to be in both chaos and order at once? If so please describe how so and what this is like for you.
19. Where there ever times in your creative process when you felt stuck in either the chaos or the order and if so could you describe what this was like, i.e. how you felt, how you came out of this phase etc., and possibly how you perceive this period came about.
20. In your creative process, and at any stage, have you ever experienced a sense of moving towards a “higher level” or perhaps a feeling of “order” or transition? If so, please describe this in terms of how you understand this feeling of the transition from beginning to end, when, or at what point in your creative process, and what you feel resulted from this.
21. In your opinion and from personal experience, do the elements of chaos and order within your creative process seem to hold any value or significance for your development or in achieving a “new level” in any way, positive or negative?
-For more clarification the researcher may site i.e.; creative, artistic, personal, emotional etc... If so can you explain how you perceive this might happen?
22. Do you think that the oscillations, or movements, between chaos and order are a positive or perhaps a therapeutic aspect of the creative process or would you describe it as more negative/destructive, neither or both?
23. Do you feel that your creative process contributes to personal growth or an increased sense of well being? If so, can you explain why or how this is true?

Personal examples are not necessary however you may choose to give a general idea of your situation.

24. Autopoiesis, as mentioned previously, is the term for self organization, do you see any connection between this concept and your creative process?
25. Do you believe that your creative process is a way to self organize? If so, could you explain why and how you understand this concept or process.
26. Is there anything else that you would like to explain or indicate in relation to your own creative process?

Appendix B

Second Interview Questions

1. The description of a flow, rhythm or wave in your creative process was mentioned previously, could you describe this particular movement or feeling more in depth.
Are there specific things you might be doing or engaged in when you feel this?
2. Do the mistakes, quirks or flaws in your creative process assist you in your work? If so how and why do they help? Could you give an example? If not, please elaborate.
3. a) You mentioned trying to keep a balance between the spontaneous and planned elements in your process, can you describe how you navigate between the two, is there a rhythm involved? Please describe this fully and how it feels.
b) Do you think that maintaining a balance may contribute to organizing or expanding your creative process; if so please elaborate. If not, what would you attribute it to?
4. At times in your process you mentioned experiencing peace or tranquility but at other times, confusion or disruption, what does it feel like to move in and out of these states? Could you describe an example of this happening and possibly its impact on your creative process?
5. Is moving towards a higher level in your creative process or as an artist linked in any way with your personal development or growth and how so? For example have you noticed over time any changes in the 'recovery' periods i.e; illness, blockages, etc. from your specific difficulties? What do you attribute these changes (if any) to?
6. What propels you forward in your creative process? Can you describe in more detail

this 'self-perpetuating' process you mentioned previously?

7. You spoke a bit about knowing how to re-arrange or bring your life back into order when it gets too chaotic; could you speak more about this in relation to your creative process, what helps you restore the order? Are chaotic elements a part of this also?
8. a) Do you have any specific rituals or routines that are necessary in helping you to get organized in your creative process? Previously you mentioned art materials; this could be an example along with anything else you can think of. Describe this process in detail, how does this help you get into your work?

b) What about cleaning up? Do you have a ritual?
9. What happens when things get messy in your creative process? Is there anything you do to make your process a bit chaotic, messy or spontaneous? Does this assist your creative process and if so how?
10. Could you speak more about the elements of control and letting go in your creative process? Is it necessary to have both and why? What is it like to feel them both in your process?
11. You mentioned how technique is important yet you also mentioned how intuition and imagination are a large part of your process, could you speak about the relationship between these two aspects and how they fit into your creative process. Why are they both helpful or necessary for your process?
12. When you are pushing yourself to get beyond a certain difficult point in your creative process, what is the force that helps or propels you beyond it and what happens at this point where you feel a breakthrough or resolution in a piece? Where does it

lead you?

13. a) You mentioned how at times it is necessary to stop working on or move away from a piece when it gets too chaotic and that you go back to it later; what are you typically doing in this rest period between and how do you come back to it, what helps you?

b) Does the piece always improve or is your creative process always helped by going away and coming back to it? Do you feel more clarity or organization when you return? Why do you think this happens or how?

14. Can you describe in as much detail as possible the experience of moving to another place in your creative process i.e; after finishing a piece or resolving something within it or at any other point. How do you know you have gotten there and how does this feel, what leads up to it or helps you get there?

Separate Questions for Participants

Participant #1

1. You mentioned that going into chaos is conducive to new ideas; can you expand on this concept a little more maybe with an example of how this happens for you? Or why?

2. When you spoke about how you play around with random things and ideas could you be more specific about how your creative process actually takes shape from this. What are you doing or how are you “playing” with the ideas?

3. You said that the oscillation between chaos and order IS the creative process, could you expand on this thought more, perhaps with an example from your process?

4. a) You spoke of order being the engine for the creative process, how is it like this in

yours? Could you give me some examples?

b) If order is the engine than what role does chaos play? How do these elements interact in your creative process specifically?

5. Can you explain that feedback loop that you were talking about before where you look at the drawing and the image in your mind and you are constantly relating between the two; describe in more detail what is happening or how does it help, where does it lead?

Participant #2

1. In your creative process, you described a constant jumping between the elements that make a piece more ordered and those that make it more chaotic i.e; matt, glossy, texture, colour, etc. could you describe this more in detail, what does it feels like to be going back and forth between the two elements and how this helps you organize your creative process?
2. You spoke about how your piece might change when you come back to look at it again and yet how there are those elements that do not change i.e. colour, can you speak a little bit more about this dichotomy and how these elements i.e.; change/consistency, might assist your creative process?
3. Can you describe in more detail the transitions between your pieces. Previously you mentioned expressing your creativity in different ways or moving between materials; how does it feel like moving from one to the other? How might this help organize it?
4. You talked about knowing that you have moved forward once you have finished a

piece of artwork and that you can take your creative process to another level, can you talk more about this feeling of knowing you have gotten past something and what going to the next level implies for you in your creative process and in your life.

Participant #3

1. You spoke about the element of play in your art, can you expand on this concept and tell me specifically about what this looks like in your creative process and how it helps you to create.
2. You spoke about the compulsive element of creating in times of illness as compared to when you are well and you have to work at your art or its a struggle at times. How is it for you to experience this dichotomy in your creative process, how does it feel? Do you gain anything from understanding it or does it prepare you somehow?
3. You said that the contrast of C and O in your CP was therapeutic, a teacher, could you expand on this also with an example perhaps of how this works? What does it teach you?

Appendix C

Research Participant Consent Form

I, the undersigned _____ state my agreement to participate in a research project conducted by Ava Clark of the Creative Arts Therapies Program at Concordia University; 1455 de Maisonneuve Blvd. W. Montreal, QC. H3G 1M8 (514) 848-2424 ext. 4231.

I have been informed that the purpose of the research is to investigate the creative process in relation to the elements of chaos and order. I understand that the premise of theory in this research involves the concept of self-organization as related to chaos theory. The interview will focus more specifically on the oscillations between chaos and order within the creative process to identify if this aspect is therapeutic.

Research will be conducted in a quiet and confidential space that is to be decided upon by the participant according to comfort level and agreement with the researcher. The participants will be required to complete an interview comprised of twenty-two questions which may extend for a maximum duration of two hours; the interview will be audio taped. Questions are optional should the participant feel any personal discomfort in responding. As the interview is semi-structured, additional questions may occasionally arise in which case the same freedom is also respected. Risks may include personal disclosure of potentially sensitive or private information in which case the participant has the right to request that certain material be excluded from the research paper. Participants may respond to questions in the interview at their own comfort level and will not be asked to reveal any potentially painful material. The researcher will maintain an effort to include only relevant information within the research paper. Confidentiality will be strictly maintained as no identifying information will be released i.e. name, place of birth or residence, occupational history etc.

☐ I understand that I am free to withdraw my consent and discontinue my participation at anytime without negative consequences.

☐ I understand that my participation in this study is confidential.

☐ I understand that the data from this study may be published.

☐ I understand the audio tape of this recorded interview will be destroyed after use.

I have carefully studied the above and understand this agreement. I freely consent and voluntarily agree to participate in this study.

Name (please print) _____

Signature _____

Date _____

If at any time you have questions about your rights as a research participant please contact Adela Reid, Research Ethics Compliance Officer, Concordia University, at (514) 848-7481 or by email at areid@alcor.concordia.ca