Why Art Exists

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Abstract

This theoretical dissertation proposal discusses the inquiry question: why does art exist? If art has a function and purpose, what is art's function and purpose? The results of this research to date have revealed the arts serve multiple purposes. Part of an early working hypothesis for why the arts exist, finds the arts are essentialized sense information, for quick comprehension of complex concepts. The dissertation will explore the culture of arguments around the arts regarding the hypothesis stated in the previous sentence.

The arts are analyzed through a transdisciplinary synthesis of critical and scientific theoretical perspectives. In this dissertation proposal, there are five key sections: Thesis Statement, Theoretical Perspectives and Methodological Approaches, Significance, Literature Review, Chapter Breakdown and Summary, and Scope and Critical Assessment. These proposal sections are intended to illuminate its subject enough to entice the reader to want more and believe the research proposed is possible.

This research is done, in part, as a rationale for proliferating the arts, and especially for use in educational curricula. The arts are redefined through this research. This proposal is an introduction and outline of this subject in anticipation for further research and is not a comprehensive argument for this inquiry question.

Keywords: art, arts, art theory, theory for art, visual and performing arts, music, dance, theater, aesthetics, education, evolution, neuroscience, psychology, global perspectives, transdisciplinary

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Why Art Exists

I. Inquiry Question

The inquiry question that this proposed dissertation will attempt to answer is: why does art exist? If art has a function and purpose, what is art's function and purpose? This research is intended, in part, a rationale for proliferating the arts, and especially, but not exclusively, for use in educational curricula. Through a review of available published research, this inquiry develops a broad unifying hypothesis for why art exists. To develop this hypothesis for why art exists, art is redefined and newly conceptualized. This research is an attempt to bring together a variety of disciplinary ideas and transcend biased beliefs, as well as connect otherwise isolated academic disciplinary concepts of the arts.

The current examination of concepts about art finds that arts appear to serve many functions. The working hypothesis for the reason the arts exist is that the arts essentialize sensory information for quick comprehension of complex concepts. At art's foundation, put simply, art summarizes experience. There are currently four primary assertions to support this hypothesis which will be developed thoroughly in the completed dissertation, but are only touched upon here due to space and form limitations. First, the arts exist to regulate mind/body states as a coping mechanism (Huston, Nadal, Mora, Aganati, & Cela-Conde, 2015, pp. 43-44 & 285). Second, the arts exist to access the root of the biological sense-to-symbol translation mechanisms in the brain (Huston et al., 2015; Leavy, 2009). These sense-to-symbol mechanisms interpret the chaos of sense information into the representation of every concept (Baars & Gage, 2013). For example, a tree, a house, a life, and every idea, symbolize the range of sense experiences. Symbols, which are art's primary language, are imperative because they summarize information to liberate finite short-term memory space, for new sensory information that requires immediate

attention (Baars & Gage, 2013; Huston et al., 2015, p. 148; Jung, von Franz, Henderson, Jacobi, Jaffe, 1972). Third, the arts exist to increase intelligence by building neural connections that would otherwise not exist (Woollett & Maguire, 2011; Bangers & Schlaug, 2006). Fourth, the arts exist to develop sense acuity through aesthetic experiences, which promotes thriving in living beings (Huston et al., 2015; Shimamura 2013; Dissanayake, 2000; Ramachandram & Hirstein, 1999).

Television is an arts medium akin to theater (UCLA, 2016; "Performing Arts," 2017; "Theatre," 2017; "Television," 2017). Stunning demonstrations of the impact the arts have on human beings were early longitudinal studies that researched the effects of television violence on children (Huesmann, Moise-Titus, Podolski, & Eron, 2003; Andison, 1977). These television violence studies showed a correlation between watching violence on television as a child and criminal convictions for violent offenses as an adult (Huesmann et al. 2003; Andison, 1977). The Huesmann et al. (2003) and Andison (1977) television violence studies suggest that the arts are deeply influential and, yet such studies are often ignored.

Recently adopted U.S. government academic Common Core Standards (2016) for grade school curriculum content are an example of how the arts are ignored and underestimated. Common Core Standards are enforced through federal funding and omit studio arts, focusing solely on language arts and math (Common Core State Standards, 2016). A lack of U.S. government arts' funding in education indicates arts' low esteem. In 2016, while publicly funded primary and secondary schools in the U.S. cut arts from education the American education system was ranked 29th worldwide (OECD, 2016). In contrast, Singapore was ranked as having the best education systems in the world (OECD, 2016). Among other factors, the arts are maintained as a primary and secondary school curricula cornerstone by Singapore's Ministry of

Education (2016). Though research shows how influential the arts are, the lack of arts funding in U.S. education, and other countries, indicates a need for better understanding of the arts (Huesmann et al. 2003; Andison, 1977; OECD, 2016).

Eminent neuroscientist V. S. Ramachandran (1999) and philosopher William Hirstein's (Ramachandran & Hirstien, 1999) influential theory on the arts suggests that, among other things, the arts provide practice for everyday experiences that exercise and activate otherwise rarely used essential internal body systems. In Ramachandran and Hirstein's theory, art activates the nervous systems' responses for flight or fight, relationships, and other biological necessities (Ramachandran & Hirstein, 1999). This proposed dissertation extends Ramachandran and Hirstein's theory by exploring ways the arts may be more fundamental to the thinking process itself.

Prolific neuroscientist Anjan Chatterjee's (2013) theory that art is an "evolutionary by-product" (Chatterjee, 2013, p. 184) is more generally accepted than Ramachandran and Hirstein's (1999) *art as practice for daily life* theory. In the view of art as an evolutionary by-product, art is pretty or provoking for its own sake. Arguably, the art for its own sake view, marginalizes the arts as unnecessary to life (Beittel, 1991). Within the discipline of aesthetics there is a theory similar to Chatterjee's (2013) that would not scientifically research art at all (Conway & Rehding, 2013). The anti-science aestheticists believe the arts are innately valuable without justification (Conway & Rehding, 2013). The premise that art is innately valuable is sound. However, a scientific explanation for why art is inherently worthwhile would be helpful to people who do not agree with this premise. The empirical sciences need to research the arts just as with any other phenomena. Any findings need to be reported in a meaningful way, in the

context of the social sciences and humanities, for understanding and application through all economic strata and all aspects of life (work, child rearing, athletic training, and so on).

Etcoff (2000), Livingston (2002), Wallenstein (2009), and Shimamura (2013) put forth a dominant theory that the arts are a part of the evolutionary systems that help living beings survive. The proponents of the theory that art is a part of evolutionary systems focus on the arts role in the visual and auditory structures of the nervous system that attract human beings to one another and bond them to each another. This inquiry goes beyond art's role in the nervous system's attraction for survival mechanisms to art's participation in thought's root through the body/brain sense-to-symbol-to-meaning translation systems. Around the world throughout history many theories have tried to explain the arts. Conceptual silos have generated narrow and flawed thinking that keep the arts a mystery. The bodily mechanisms that process the arts are so complex that it is valuable to view the arts from multiple vantage points. This inquiry hopes to bridge the gaps between many art theories by incorporating a transdisciplinary approach and peeling away some assumptions and biases.

In the completed dissertation, the four primary assertions that support the hypothesis will be reinforced by sub-assertions, in which the argument for the hypothesis will be more thoroughly developed. The literature included in this proposal is a core of the research that will be expanded in the final dissertation. Additional research will be included in the dissertation that further explains the hypothesis.

Global events today contain profound and complex problems (Morin, 2014, p. 18). There are skills that can aid in developing remedies for global challenges; research shows that participating in the arts can build intelligence, creativity, and partnerships (Stevens, 2007). One

method of tapping into human problem-solving capacity is utilizing tools for developing insight and teamwork such as the arts (Catterall, Dumais, & Hampden-Thompson, 2012; Stevens, 2007).

II. Theoretical Perspectives & Methodological Approaches

"In so far as Nature participates in the being of the world one must ascribe an ontological dimension to the concept of Reality. Nature is an immense, inexhaustible source of the unknown which justifies the very existence of science. Reality is not only a social construction, the consensus of a collectivity, or an intersubjective agreement. It also has a trans-subjective dimension" (Nicolescu, 2000, p. 1).

Within a theoretical dissertation, this research is attempting to develop a broad transdisciplinary hypothesis and aspires to eventually develop a theory for why the arts exist. Transdisciplinarity is a method that embraces complexity, and thus proves to be an effective way of demystifying/re-mystifying the arts. A cornerstone of transdisciplinarity is that it "integrates the inquirer into the inquiry" (Montuori, 2014, p. 205); therefore, nonexperts and many academic disciplines are included. Though this inquiry will attempt to be transdisciplinary, this dissertation proposal will not encompass in depth the transdisciplinary nature of this inquiry due to the limited parameters of the proposal format. This research will more clearly illustrate transdisciplinarity in the dissertation, including a wider variety of literature, in depth exploration of the literature, and clearer connections between disciplines from a greater number of academic and nonacademic sources. The criterion for meeting the demands of transdisciplinarity within the dissertation are set forth by Zack Stein in *Modeling the Demands of Interdisciplinarity* (Stein, 2007) and Ken Wilber's *Quadrants* (Wilber, 2000).

In alignment with transdisciplinary practice, there is a plan to have nonacademic experts as audience members interact with the exhibit of these research findings. This inquiry proposes

to use audience produced graffiti-style written and drawn responses to the exhibit. As a part of the defense of this dissertation, participants can become a part of the performance through acting out symbolic motions and singing terms related to the findings of this research. Also, this inquiry includes researchers' findings that use the qualitative methods containing lay people's views. To encompass multicultural views across time and the globe narratives, anecdotes, fairy tales, and myths are included. Narratives, anecdotes, fairy tales, and myths are generated by lay people and are holding places for common people's individual and collective voice (Jung et al., 1972, p. 47 et al.; von Franz, 1996; "myth," 2017).

There is an assumption within this paper that human beings are shaped by an interactive epigenetic mesh of many systems: environmental, social, and biological/mental. Disciples are human-made distinctions between continuous indistinct phenomena. Humans have developed and named separate categories of phenomena to parse information for better understanding. The universe is too vast for humans to understand it in its entirety all at the same time. The separate categories of experience are artificial and could just as easily be divided along different lines. There are cultural and historical differences in the naming of and description of these experience categories; what today is called neuroscience one hundred and fifty years ago was referred to as psychology.

In this inquiry, aspects of critical aesthetics are used. Critical aesthetics is a sub-category of critical theory dealing exclusively with cultural products as a covert postmodern tool to subvert a dominant paradigm (Crowther, 1996; Dorsey, 2009). Critical aesthetics and critical theory are used especially regarding notions about the body as well as the arts in general. Critical aesthetics calls into question dominant notions about cultural happenings.

Reflecting the biological end of the body/mind/environmental/social elements of human experience, scientific theory is also used to research and develop the hypothesis for this inquiry. Scientific theory is "the systematic study of the structure and behavior of the physical and natural world through observation and experiment." ("Science," n.d.). Neuroscientific theory is highlighted as a scientific sub-genre. Neurosciences "deal with the structure or function of the nervous system and brain." ("Neuroscience," n.d.). Representing the mind manifestation of the mind/body/environmental/social spectrum, explanations within psychology have also been useful in the context of this study. Psychology is defined as "the scientific study of the human mind and its functions, especially those affecting behavior" ("Psychology", n.d.).

Tolstoy's (1898/1995), magnum opus on art theory, *What is Art?* (1898/1995) sees the natural and physical sciences as maintaining an oppressive power structure keeping money and skills in the upper classes' control (Tolstoy, 1898/1995, p. 158-165). By using the sciences to support the arts, this inquiry uses a critical theoretical technique of subverting the oppressive aspects of society to reform beliefs— in this case beliefs about the arts. This inquiry proposes to contribute to vital societal and individual change, and liberate human beings from oppressive forces via concepts about art. Jung (1972), a mind research crusader and Analytical Psychology's inventor, supported using the sciences as a tool to extend our senses range into an infinitely unknowable world (Jung et al., 1972, p. 21 et al.).

This inquiry is intended to transcend many issues in the art theory discussion--though, if pressed, this theoretical hypothesis falls closest to pragmatic art theory. Pragmatism is the art theoretical view that may be closest to scientific thinking. In pragmatism, the premise is that through observation of experience and consequences, at least a partial explanation or understanding can be found for life experiences. Pragmatic art theory applies the aforementioned

pragmatic principles to the arts and aesthetics (James, 2013; Dewey, 1934; Pihlstrom, 2011; Shusterman, 2000). In this section, the dissertation is meant to have a more thorough content regarding art theory, including more history and explanations of the art theories themselves.

This theoretical dissertation proposes to present research using an arts method. An arts method aligns with critical aesthetics theory, because it challenges traditional written research presentation approaches (Leavy, 2009, p. 6 et al.). This inquiry anticipates using its author's creative skills, as a trained educator and artist, to develop interactive activities within the dissertation and possibly in the dissertation defense. The plan for this dissertation's written form is for the dissertation to be presented as a digital and printed antique-style *zine* workbook, containing activities for audience participation. The dissertation defense may be an interactive art/performance art exhibit of the research. The presentation of this research using an arts method is an example of the hypotheses within this paper at work. Participants may reflect on how effectively they engage with the material in the project oriented visual and performing arts form of the research presentation, as opposed to a purely written form of the research. Observers may evaluate if the information offered and hypotheses proposed are true, through the observer's own experience with the research as an art piece.

III. Significance

a. Academic Significance

Various theories about the arts name the arts as integral while others find them superfluous. Dichotomous views about the arts show a need for a greater understanding of the arts. To present a new rationale for the arts, natural and physical science arts research is applied to the social sciences and humanities. Recent arts research in the natural and physical sciences have arisen from new technological developments used to study physical processes in real time.

This inquiry's arguments are designed so each school of thought supports and is interrelated with another, with no discipline as better than the other. The comprehensive breadth of this inquiry has not been found applied to the arts. Key audience constituents for this research are educators, amongst others. The author aspires to influence academic practice by exhibiting the benefits of using art to promote and accelerate learning. The dissertation plans to address many of the disparate concepts about the arts to develop a consensus about the nature of the arts and art's efficacy.

b. Social Significance

There is an extensive audience interested in the arts. Discoveries about the arts often reach *pop* culture and influence everything from child rearing and education (*Mozart Effect*, Rauscher, Shaw, & Ky, 1994) to Alzheimer's treatments (*Alive Inside*, Rozzato-Bennett, 2014). Ideally this research's audience is everybody. Initially, findings could be published in consciousness, aesthetics, scientific, and educational journals. A distillation of the hypothesis could be published in popular outlets like, *The Huffington Post*. Shaping public opinion and policy to integrate the arts more into society is a research goal. The dissertation aspires to report interest in this subject, via publish articles and conference presentations on the issues addressed in the proposed dissertation. Bring out the violins and put on dance shoes, because the arts can be an integral way to deeply interact with the environment.

IV. Literature Review

Through this literature review, information is presented related to the inquiry question: why does art exist? If art has a function and purpose, what is art's function and purpose? To clarify how the term art is used in this dissertation proposal, this section begins by defining art because art has a range of meanings. The rest of the literature explores seminal theories for why

the arts exist. In this paper, the underlying point of view is that human beings are shaped by potentially infinite enmeshed interactive systems: environmental, social, biological, and mental. Presented in this section is what goes on in the human brain when creating and experiencing art (Likova, 2012; Vessel, Star, & Rubin, 2012). Neuroscience within this section reflects the biological elements of the body/mind/environmental/social influences that shape human beings. Offered in this section are core theories about art's role in evolution, --if art has a role in evolution--, and some key psychological perspectives on the arts (Dissanayake, 2000; Jung, et al., 1972). Environmental and psychological factors shape brain structure and the brain's structure influences the interactions discussed in the social/environmental and psychological sections of this literature review. Contained in this review of literature is the part art plays in thought, building brain mass, memory, bonding, and the subconscious (Bangert & Schlaug, 2006; Dissanayake, 2000; Jung, et al., 1972, Shi, Cao, Chen, Zhuang, & Qiu, 2017; Woollett & Maguire, 2011). There are biological aspects of human beings in the form of the nervous system and hormonal systems within the body that manifest as the psychological concepts of bonding and mind. The mind encompasses psychology, thought, and memory. In the same vain, there are psychological factors that shape a person's point of view about all subjects, but in this case especially biology, psychology itself, and social/environmental interactions. The environment that human beings evolve through shapes the biology of the brain/body and the psychology (mind/self and interactions) of individuals and societies as a part of the environment. Due to space concerns, this paper is a preliminary outline of literature and an expansion is anticipated in the dissertation. It is difficult to say exactly which direction the expansion of literature will take in the dissertation because that research has yet to be done. A more in-depth exploration of the

research is anticipated in the dissertation, especially in the arenas of the: spiritual, social, educational, evolutionary, environmental, psychological, and of physics.

Art Defined

The term *art* in the European dominated world usually includes a variety of creative activities, from painting and music, to literature and dance ("Art," 2017c). Often mentioned in definitions of art are works produced to be appreciated for their beauty and emotional power ("Art," 2017c). The term arts also refer to academic disciplines whose emphasis is on human creativity and social life, such as the social sciences and humanities as opposed to the natural and physical sciences ("Art," 2017c). The definitions outlined previously in this paragraph are often referred to throughout this proposal as fine art, visual and performing arts, art, and arts. In the art world, there is often a division between the concepts of fine art, craft, and folk art (Dockstader, 1966). For the purposes of this inquiry no such division exists. In this dissertation proposal, fine art, craft, and folk art are equally referred to as fine art, visual and performing arts, art, and arts.

The uses of the word art that indicate expertise and skill are not being directly explored in this dissertation, as in, the art of war, culinary arts, and his love of animals made animal care into an art ("Art," 2017c). In addition, when the term art theory is used it is discussing a philosophy about the nature of art rather than the principles or elements of composition commonly referred to as Art Theory ("Art," 2017c; John F. Kennedy Center for the Performing Arts, 2017). This proposed dissertation in not about the formal theories of artistic technical expertise outlined in the art theories of the elements and principles of design/composition (John F. Kennedy Center for the Performing Arts, 2017).

Reviewing a smattering of languages from all over the world through online dictionaries, the terms art and arts indicating the collection of visual and performing arts does not exist in

some languages, while those same languages have distinct terms for dance, painting, and the rest of what is more specifically referred to under European influence as fine art ("Art," 2017a-g). For instance, the ancient Chinese concept of art is slightly different from the European use of the term art. Throughout ancient China, art could be any activity that expressed objectivity, the union between the universe and the individual, and consonance (harmony) particularly in, but not limited to, calligraphy, poetry, painting, and music (Chung-yuan, 1970). To develop the whole student in ancient Chinese culture there were six disciples or arts to master: religious rituals, music, archery, chariot racing, calligraphy, and math (Confucius, Trans. 1943). The term translated from Chinese languages (Cantonese, Mandarin, and others) as the English word art is used more as the definition indicating an activity skillfully done, rather than the European notion of fine arts as visual and performing arts ("Art," 2017c; Chung-yuan, 1970).

Many North American Native languages do not have a single word that includes the English variety of visual and performing arts ("Art," 2017c; Dockstader, 1966, p. 18). Additionally, most first North American nations do not have the concept of an artist with the notable exception of the people of the North-West coast (Dockstader, 1966, p. 23). Often the universal threads that connect the way arts (music, dance/performance/theater, and painting) are used through many North American indigenous cultures is that the arts are a part of storytelling and/or are a sacred act (Dockstader, 1966). Pre-contact concepts of dance, music, and visual art are rarely considered related though visual and performing arts may be used similarly and in conjunction with one another (Dockstader, 1966).

Despite differences in concepts of art from Europe to China and North America's Indigenous cultures, in the Indonesian language more accurately called, Bahasa Indonesia, the word in English translated as art has a similar meaning to the Indonesian. The word *seni* from

Baha Indonesian encompasses various forms of creative expression including painting, music, dance, writing, and other arts (“Arts,” 2017b; “Art,” 2017c; “Art,” 2017d). The Arabic word translated as art in English is defined as, painting, music, movies, dance, and writing as well as nonscientific academic subjects, for example, history and languages (“Art,” 2017a; “Art,” 2017c). The ancient Greek meaning of art also includes painting, sculpture, music, dance, theater, and poetry/writing (“Art,” 2017c; Plato, 2012). Shared or dissimilar concepts of art may be due more to regional cultural history rather than the nature of the arts themselves.

Cultural and academic variations in definitions of art implies that the concept of art is a social construct. A more thorough art definition that encompasses cultural variations is necessary for accuracy. As a part of this inquiry, the terms art and arts are being redefined. By the end of the completed dissertation art’s definition will be reworked for a more complete arts definition.

Neuroscience of Art

The natural sciences stayed out of the art debate for centuries. With recent advances in technology that make it possible to see the internal physiology involved in processing the arts the arts exited the ethereal realm of Philosophy and entered the concrete world of the empirical sciences (Baars & Gage, 2013). Researchers have conducted studies using functional Magnetic Resonance Imaging (fMRI) to observe neurological processes as they happen, in addition, researchers use other electronic monitoring systems that measure pupil dilation, heart rate, and sweat gland emissions to gather quantitative data on the arts (Shimamura, 2013). Empirical research relevant to the arts has garnered enough new information to speak concretely about the processes involved in the arts within human beings. The neurosciences, as the recently expanded frontier of research on the brain, support and question historical social science art philosophies.

Though the empirical sciences tend to have a limited view, the natural sciences in this case expand an otherwise philosophical debate about the arts by adding quantifiable observable evidence.

Many people may have had the experience of being emotionally effected by the arts through listening to a song or viewing a film. The illustrious neuroscientist, Oliver Sacks (1985), points out that experience happens in the mind. Sacks describes that the meaning people create from an experience happens through the brain/mind interpretive mechanisms. Humans have no way of directly conceiving of all the sense data involved in an event (Baars & Gage, 2013). People must create symbols and interpretations for everything that is encountered (Baars & Gage, 2013). The mental experience is common ground between actual events and art events (Baars & Gage, 2013).

The neuroscientist V. S. Ramachandran (1999) and the philosopher W. Hirstein (Ramachandran& Hirstein, 1999) have an influential theory proposing that art's purpose is, among other things, practice for practical everyday experiences which Ramachandran and Hirstein refer to as "reality" (Ramachandran & Hirstein, 1999, p. 2). With Ramachandran and Hirstein's, *art as practice for reality* theory, the arts exercise and activate otherwise rarely used essential internal body systems for relationships, flight, fight, and more (Ramachandran & Hirstein, 1999). The research discussed later in this proposal's neuroscience section may support and expand Ramachandran and Hirstein's theory.

Vessel, Star, and Rubin (2012) studied fine art audience's engagement with artwork. The fine arts appear to activate bodily systems for emotions, memory, and sensory stimulus (sound, sight, and more) along with the self-reflective systems in the brain (Vessel et al., 2012). Vessel et al. found that the amount of effect a fine art experience has on its audience is related to the amount of personal relevance the audience places on the art piece (Vessel et al., 2012). That

sense of self in the form of an evaluation of personal relevance appears to be omnipresent in the effect of fine art experiences (Vessel et al., 2012). For instance, in an actual event, rather than an artistic re-creation, someone may become so immersed in the *real* event that their sense of self is forgotten. Within an artistic re-creation of an event the audience may or may not become immersed in the re-creation by projecting themselves into the artist's rendition based on how much the audience can imagine personal relevance, thus, people are more likely to be effected by fine art they find personally meaningful (Vessel et al., 2012).

A study by Bangert and Schlaug (2006) that shows art's function examined the brains of musicians who played instruments with nonsynchronous hand movements, and compared the musicians' brains with non-musician brains (Bangert & Schlaug, 2006). With nonsynchronous movements, each hand is doing something different than the other as with playing the piano or violin. Bangert and Schlaug's (2006) research revealed that depending on the dominant hand of the musician, the corresponding fine motor cortex (opposite side of the brain) of the musician's brain was more developed than in the brains of non-musicians (Bangert & Schlaug, 2006).

Applying the Bangert and Schlaug (2006) study to people thought of as geniuses or successful and seeing if they played musical instruments using nonsynchronous hand movements is one simple way to see if there is even a cursory relationship between genius and the brain mass developed in the Bangert and Schlaug study. One obvious example is Albert Einstein who played both the violin and the piano since early childhood (NobelPrize.org, 1922). From lay observation, Einstein appears to have had the enlarged fine motor cortex found in the Bangert and Schlaug study (National Museum of Health and Medicine, 2013). It may be possible that one of art's functions is to develop the brain mass necessary to survive and thrive in a challenging environment (Bangert & Schlaug, 2006; Baars & Gage, 2013).

There appears to be some differences in the way scientific and artistic creativity are structured in the brain (Shi, et al., 2017). Shi, Cao, Chen, Zhuang, and Qiu (2017) used a form of fMRI called VBM to look at generalized brain structures rather than detailed views. Shi et al. measured the brain mass in artist and scientist brains. Shi et al. discovered that artistic creativity was associated with the salience network of the brain while scientific creativity was linked with semantic processing and executive attention (Shi et al., 2017, p. 1). The salience network that is dense for artists is related to controlling thoughts, task execution and maintenance, and prioritizing behavior responses (Shi et al., 2017, p. 1). The brain's executive attention areas are dense in scientific creativity which relate to maintaining focus on a specific task while semantic processing areas, also dense for scientific creativity, have to do with understanding language. The report of Shi et al.'s findings suggests that the art and science structural differences may be due to these two fields' divergent educational practices rather than innate variances in science and art mental processing. Related to Ramachandran and Hirstein's (1999) theory that art is practice for real life, Shi et al. reveal that art may prepare the brain not only for how to respond to life events, but which elements of events are the most imperative to respond to which is crucial for evolutionary success (Ramachandran & Hirstein, 1999; Shi et al., 2017).

A study related to art and visual motor memory was conducted using imaging technology to view the brains of blind-folded sighted adults and totally blind adults who had been blind since birth while subjects were drawing (Likova, 2012). Likova (2012) discovered that both blind and sighted groups use the primary visual cortex to remember the feeling of a drawing. Likova had blindfolded sighted participants and congenitally blind participants use their hands to feel an embossed two-dimensional shape, have the 2-D shape removed, and then have group members draw the shape on a piece of paper from memory. In both the sighted and blind groups

the same parts of the brain were active throughout the experiment. Both groups reproduced the felt object in a drawing accurately.

The Likova (2012) research implies that activating visual and movement cortices help build accurate memories which has far reaching implications for learning. Likova discovered that visual memory centers were active in the touch/movement activity even for the congenitally blind. The Likova experiment infers a relationship between movement and touch with memory. Likova's findings suggest that humans create visual memories through movements in their daily lives, and that the ability to create memories through movement could be harnessed by using art to develop memory skills that are central to human beings' advanced functioning in the accurate reproduction of experience (learning) (Baars & Gage, 2013, p. 301; Likova, 2012).

A study by Chamberlain, McManus, Brunswick, Rankin, Riley, and Kanai (2014), "suggests that observational drawing ability relates to changes in structures pertaining to fine motor control and procedural memory, and that artistic training in addition is associated with enhancement of structures pertaining to visual imagery." (p. 1). Procedural memory has to do with unconscious memory that make actions automatic using past experiences to remember without actively or consciously thinking about them (Baars & Gage, 2013). Moving experiences from the limited neural space of the short-term memory brain regions to long term procedural memory areas in the brain is crucial to the higher order functioning of human intelligence. Automating a function leaves precious limited short-term memory space for dealing with the imperative immediate tasks at hand.

This neuroscience portion of the literature review section opens with the technological developments that made neuroscience a part of the arts conversation. Ramachandran and Hirstein (1999) were early in applying newly found research that used technological advancements to a

theory for why art exists that makes art, partly, an exercise for rarely used physiological systems. Vessel et al.'s (2012) research supports Ramachandran and Hirstein's (1999) notion that art is practice for real life. In Vessel et al.'s (2012) findings, many of the same mental systems are active in the brains of art audiences as are activated in *real life* situations. Research performed by Shi et al. (2017) reinforced aspects of the Ramachandran and Hirstein's (1999) theory that the arts are practice for *real life* activities by showing the arts develop chief neural capacities for selecting which life events need to be reacted to. The study that showed visual memory activated in sighted and blind participants through fine motor movement exhibited a connection between memory and the visual art of drawing as well as arts that involve movement (dance and theater). Demonstrating some other functions of practicing visual art, the Chamberlain, et al. (2014) study, in part, presented how drawing aids in automating tasks to free-up vital limited short-term memory space. The arts' brain building capacity is established in the research on nonsynchronous hand movements used while playing certain musical instruments (Bangert & Schlaug, 2006). Each of the studies in the brain section of this literature review may hold pieces of the puzzle of why the arts exist.

Art in Evolution

The current primary debate within and between the various fields interested in the arts is whether the arts are a biological imperative or an evolutionary extra (Chatterjee, 2013; Shimamura, 2013). A dominant theory in the arts discussion is that the fine arts are a part of the evolutionary systems that help humans survive (Dutton, 2009; Etcoff, 1999; Livingston, 2002; Shimamura, 2013; Wallenstein, 2009). The aesthetic survival systems were developed to help people select healthy partners, evade predators, and enhance many processes involved in survival. The evolutionary theories of art are based on the idea that survival depends on sense

perception function and accurately interpreting those perceptions (Shimamura, 2013). Survival of the species lays in the passing-on of specific unique beneficial individual DNA and behaviors (Dutton, 2009; Etcoff, 1999; Livingston, 2002; Shimamura, 2013; Wallenstein, 2009). Accurately interpreting and using sense information of something or someone as pleasurable, attractive, or beautiful, and the opposite (painful, dangerous, and repulsive) is critical to beneficial traits surviving. Humans have evolved aesthetic evaluations of people to attract one another to the symmetrical features and ideal proportions of potential partners that indicate the health and prosperity of individuals, offspring, and communities (Shimamura, 2013). Biologically speaking, what people have deemed as beautiful or pleasurable describes something that people have developed an attraction to because, on some level, it assists in continuing the species (Etcoff, 1999; Shimamura, 2013).

To transcend biased cultural preferences researchers used fMRI on participants while subjects viewed a variety of faces and bodies, studies showed that pleasure centers were universally activated in the brain's response to ideal body and face proportions because symmetrical features and other elements denote health and survival ability (Shimamura, 2010, p. 212-222). Similar research demonstrates that a beautiful landscape is universally beautiful because it looks like a safe and prosperous place to live. The *ideal looks* fMRI studies may establish that the arts exist, partly, to hone aesthetic evaluation skills that aid survival (Shimamura, 2010).

Contrasting the theories that put art within the sphere of evolutionary selection is the belief that the arts are, what neuroscientist Anjan Chatterjee (2013) terms, an "evolutionary by-product" (p. 184). In Chatterjee's evolutionary by-product view of art, the arts arose as an accident of evolution rather than being refined by evolution as a skill of import. Chatterjee and

his philosophical compatriots interpret art as an evolutionary extra making art pretty or provoking for its own sake. One element to consider is whether evolutionary extras exist. Some advocates for the art as an *evolutionary extra* and the *arts for art's sake* schools question the natural and physical sciences involvement in the art discussion at all (Ball, 2013; Conway & Rehding, 2013). There are people who embrace the *arts for art's sake* theory that see the arts as innately valuable and a mystery beyond science (Ball, 2013; Chatterjee, 2013; Conway & Rehding, 2013).

Within the expert talk about human evolution and what, if any, role the arts have in evolution there is the new school of biomusicology where music plays a foundational role in shaping biology (Dissanayake, 2000). A driver of the expansion of the human brain, especially the human cerebral cortex, and the human vocal structure could be, "linguistic capacity" (Wallin, Merker, & Brown, 2000, p.9), singing, and music. Within the brain, music and language especially occupy many noteworthy overlaps and correlations. These music and language overlaps also hold distinctions that show both music and language serve interwoven functions. Both music and language have distinct elements and each are significant.

The survival importance of socially coordinating actions over distances may be key in the evolution of the complex human vocal tract and brain (Wallin et al., 2000, p. 9 & 11). When observing ancient civilizations that live close to the land and when observing other animals in the wild, scientists find that vocalizations that are a hybrid of spoken language and song with the addition of silent gestures are used to communicate and coordinate a group which can be the difference between bringing home dinner and becoming dinner (Dissanayake, 2000).

The philosophical debate about why the arts exist comes down to if art is important or not (Ball, 2013; Chatterjee, 2013; Conway & Rehding, 2013; Dutton, 2009; Etcoff, 1999;

Livingston, 2002; Shimamura, 2013; Wallenstein, 2009). Fundamentally, art theorists are asking, if art is important, how important is it? In other words, is art biological necessity important or fun to do on Sunday afternoons important? An artistic analogy for the evolution of art discussion is, if the arts are the icing on the cake of life or an indispensable ingredient to the cake of life itself.

Psychology of Art

Psychology is defined as a science that studies the human mind ("Psychology," n.d.). In the discussion about the biological origins of art there is no line between biology and psychology and vice versa. Human biology makes up the organic material for psychological function. Success as a biological being relies on healthy psychology.

Using research from multimodal, longitudinal studies and infant brain scans art historian, musician, and evolutionary arts researcher, Ellen Dissanayake (2000), brought together research on infant caregiver exchanges that involve vocalizing, movement, and infants observing primary caregivers. Dissanayake's research suggests arts modes play an essential role in infant caregiver bonding. The arts use the same primary interaction modes of movement, visual recognition, and sound production in dance, theater, visual art, and music that the Dissanayake research found crucial to healthy infant caregiver exchanges (Leavy, 2009). Bonding is how successfully infants are emotionally attached to their primary caregivers (Levine & Heller, 2012). The high-quality kind gentle communications that primary caregivers have making eye contact, holding, and moving infants while making smiling faces and high pitch quiet vocalizations are key to an infant accurately reading and displaying emotions throughout their lives (Levine & Heller, 2012; Dissanayake, 2000). Attachment style dominates relationships in human (and other animal) lives (Levine & Heller, 2012). Social psychologist Kenneth Gergen (2009) would say human survival

and success is entirely reliant on and constructed by relationships. Gergen's theory for social reliance would place bonding at the foundation of human success in evolution (Gergen, 2009; Levine & Heller, 2012). Dissanayake's (2000) discovery that arts modes play a primary role in bonding, strengthens the idea that the arts are a basic survival tool (p. 389-410).

In part, what Ellen Dissanayake (2000) called "nonverbal (hence indescribable)" (p. 397) Carl Jung (1972) named the unconscious (p. 12). Jung, the influential father of Analytical Psychology, spent much of his career studying symbols and the unconscious (p. 106 et al.). Jung's concept of the unconscious consists of the elements of human beings that people are often unaware of. This unaware part of humans may not be able to be consciously linguistically articulate, and function without conscious effort (p. 12). The subconscious was one of Jung's key concepts. Symbols interpreted through psychoanalysis are how the subconscious is accessed (Jung et al., 1972). Symbols in the form of arts (images, sounds, and meaning laden movements) including language are abbreviations that indicate subconscious inarticulable ideas within an individual and society (p. 20). Jung believed that this hidden world once demystified could unlock the concealed motivators that may interfere with or aid human behavior, thoughts, and emotions (p. 20). Primarily, the arts are meaning laden symbols for sense experience, attempting to describe the intangible (p. 20). For example, a social dancer is using movements as symbols to interpret their feelings about a given piece of music and a given social situation.

The arts often have emblematic rather than overt meaning (Baars & Gage, 2013; Jung, et al., 1972; Leavy, 2009; Dissanayake, 2000). To Jung (1972), a representation implies something more than its surface meaning (p. 20-21). Jung's symbols research extended into the arts genres of dance, theater, two-dimensional visual arts, and three-dimensional visual arts (p. 232 et al.). Jung asserts that symbols represent *archetypes* (p. 67). Archetypes are conscious signifiers of an

unconscious pattern that are usually socially constructed. Within Jungian ideology, music could be symbolic in that some sounds represent emotional archetypes (Jung et al., 1972; Dissanayake, 2000). Jung (1972) recognized that because there are innumerable concepts beyond human understanding and perception that humans must use symbolic terms to represent ideas (p. 21). Archetypical symbols hold profound emotional impact in individuals and society. Jung theorized that the arts may exist for personal and social development via archetypes.

Psychology deals with the thoughts, emotions, and mental elements of living beings ("Psychology," n.d.). Within the psychology of human beings, the arts appear to play a role at the very least and an essential role at most. Evolutionary and analytical psychologists demonstrate that the arts are a portal to complex basic human psychological functioning. Evolutionary psychologists illustrate that the arts are vital to bonding, and analytical psychologists demonstrate that the arts are fundamental to interpreting subconscious messages (Jung et al., 1972; Dissanayake, 2000).

Conclusion

This literature review has provided a transdisciplinary core of literature that explores possible reasons why the arts exist, its function, and its purpose. A transdisciplinary approach to this research is necessary because the arts are so complex; gaining an understanding of a breadth of information is vital for comprehending the reason the arts exist (Baars & Gage, 2013). This section includes neuroscience and evolutionary theories, representing the life sciences and psychology, representing the social sciences. The texts included in this literature review were selected based on their relevance to, and relationship to visual and performing arts through shared processes or concepts. Studies were included that relate to vision because the visual arts (painting, sculpture, and so on) rely on sight (Baars & Gage, 2013; Likova, 2012; Woollett &

Maguire, 2011). Literature was included about the arts regarding symbols, playing musical instruments, and aesthetic evaluation (Bangert & Schlaug, 2006; Jung, 1972; Shimamura, 2013). The discussion of research related to the arts will be lengthened to include newly discovered relevant content in the dissertation. The dissertation is anticipated to include new information on art's impact on evolution, art's role in human biology, additional information on art's effects on the brain, art's applications especially in education and the workforce, and group as well as individual psychological/mental art's functions.

V. Chapter Breakdown & Summary

Introduction

The dissertation's introduction discusses the author's personal interest in the arts and arts research. Applications for this research to real world issues will be given, and propositions will be included about the benefits of using the arts to create a happier, healthier world. A reiteration of the inquiry question will be provided along with the beginning of argumentation for the hypothesis, and supporting assertions reinforced by multiple academic views woven throughout the chapters. It is anticipated that the dissertation will include a greater variety of disciplines within each chapter than is reflected in this proposal, in an attempt to reflect the complex interactive nature of each of the phenomena discussed. A summary will be included at the end of the initial chapter.

Chapter 1: Art is Culture

Chapter one begins to argue for and explain the author's hypothesis for why the arts exist as a framework for further discussion of this research throughout the chapters. In this chapter, the dialogue centers around the social significance and context of the arts for meaning making, communication, and social structure (Gergen, 2009). Using aspects of artist Ken Beittel's (1991)

discussion of art from his treatise, *A Celebration of Art and Consciousness* (1991), along with other experts' discussions of art, chapter one opens with a brief critique of cultural concepts of the arts that hinder people from seeing the arts for the powerful tool for change (Beittel, 1991). It goes on to discuss the arts' role in social construction using concepts from social psychologist Kenneth Gergen (2009). The first assertion that supports the hypothesis is discussed here; that the arts exist to regulate mind/body states as a coping mechanism (Huston et al., 2015, pp. 43-44 & 285).

To elaborate concepts discussed within the dissertation, definitions of the arts are addressed beyond what is presented in the literature review section. To foster a consistent fresh perspective of the arts, the arts are redefined and applied to specific situations within this chapter and all subsequent chapters in this section. Also, chapter one illustrates the beneficial economics of the arts (Ringling College of Art and Design, 2015). A participatory reader activity is included to illuminate the concepts in this chapter. The chapter concludes with an overview of its content.

Chapter 2: Art in the Mind

In chapter two, the psychological and developmental impact of the arts are explored from a variety of viewpoints, overlapping and reinforcing other sections, especially the neuroscience and evolution sections (Baars & Gage, 2013; Jung, 1972; Leavy, 2009; Dissanayake, 2000). This chapter discusses the arts' impact on mental health, and proposes a way that the arts are instrumental in knowledge transmission via mirror neurons from the burgeoning field of neuropsychology (Gazzaniga, 2011). In addition, chapter two demonstrates the arts' subconscious symbolic function from an analytical psychology stand point (Jung et al., 1972). The assertion for the arts' hypothesis from earlier in the dissertation will be supported here; that

the arts exist because they are a part of the sense-to-symbol mechanisms to interpret the chaos of sense information into the symbols for every concept (Huston et al., 2015; Leavy, 2009).

Chapter two shows the benefits of the arts in education and practical applications for the arts in daily life as well as the therapeutic uses of the arts (Asbury & Rich, 2008). This chapter proposes integrating arts activities into every aspect of education to make learning more effective and fun, moving away from the sit down and speak-when-called-upon method of teaching currently popular in the mainstream worldwide. An activity, examples, and a step-by-step guide to apply this chapter's concepts are included in chapter two. Chapter two ends with a summary.

Chapter 3: Art in Biology

Chapter three looks closely at the physically measurable phenomena involved with the arts via studies of evolution and neuroscience. The neuroaesthetics theories of V. S. Ramachandran are influential throughout this inquiry, but are especially highlighted in chapter three. This chapter references research that uses data gathered via technology (Bangert & Schlaug, 2006).

This section explores reasons the arts may exist by looking at how the arts can promote survival and influence evolution especially using the neuroscientist, Arthur Shimamura's (2013) views (Shimamura, 2013; Dissanayake, 2000). Supported in this chapter is this dissertation's assertion that the arts exist to increase intelligence by developing neural connections that would otherwise not exist (Woollett & Maguire, 2011; Bangers & Schlaug, 2006). The collection of research and the researchers found in *The Origin of Music* (Dissanayake, 2000) have all become seminal in the discussion around the reason for the arts and are influential in this chapter of the dissertation. Chapter three continues the discussion from chapter two about art's impact on physical health. Theories and research on a variety of arts are presented in chapter three from

visual to performing art. At the chapter's beginning there is an activity, and a summary is included at the end of this chapter.

Chapter 4: Art in Physics

Chapter four looks at the physics principals at work in the arts. In chapter four, art's relationship to physics from acoustics to light waves, and Higgs bosons are exhibited (CERN, 2017; Hofstadter, 1999). The way the arts are used by and interact with human beings and the environment via physics principles to cause distinct biological changes that can be harnessed for preferably beneficial, though also negative, effects are highlighted in this chapter (Prasad & Rajavel, 2013). In chapter four, ideas from chapter three will be reiterated, especially from the discussion of biology and the arts relating to the environmental physics that may shape evolution and neurobiology (CERN, 2017; Hofstadter, 1999; Prasad & Rajavel, 2013).

The fourth and final assertion that supports the hypothesis for why the arts exist will be argued in this section; that the arts exist to develop sense acuity through aesthetic experiences, which promotes thriving in living beings (Huston et al., 2015; Shimamura 2013; Dissanayake, 2000; Ramachandram & Hirstein, 1999). Arts developing sense acuity is explored from an environment-body-mind perspective. An activity exemplifying the ideas in chapter four is included. Chapter four concludes with a summary.

Chapter 5: Arts Sacred Secrets

In chapter five, the focus is on the spiritual dimensions of the arts. Looking at art's hallowed aspects, this chapter is a myopic of one role, in many, art plays within culture (Case, 1985; Confucius, 1943; Gergen, 2009; Rhie & Thurman, 1999). This chapter shows the mystical side of the arts effectively, re-mystifying the arts, demonstrating the subtle and yet powerful transcendent effects the arts have on human beings. Chapter five centers on the historical and

global use of the arts in sacred practices (Case, 1985; Confucius, 1943; Rhie & Thurman, 1999). Looking at spiritual observances from the Kabalistic tradition to Tibetan rituals, chapter five explores a variety of ways the arts are included in religious rituals (Case, 1985; Gergen, 2009; Rhie & Thurman, 1999; Prasad & Rajavel, 2013). Expanded from previous chapters of the proposed dissertation, a cohesive integrated concept of art is applied in this chapter to ideas on why the arts exist. In this chapter's discussion of art in ritual many previously discussed schools of thought are used including social anthropological observations (Gergen, 2009). Proposed here is an environment-mind-body-spirit approach to purpose of the arts.

In this chapter, evidence from Biology and physics demonstrate why the arts have been used through the ages in holy orders. Examples of why the arts exist will be given, showing how the arts serve as metaphysical tools to induce transcendent states which transform people and societies (Case, 1985; Gergen, 2009; Jung et al. 1972, Rhie & Thurman, 1999). Activities applying chapter five's concepts are included, and a summary is provided at the chapter's finish.

Closing

In the closing section, the hypothesis and arguments for why the arts exist is reiterated and summarized. Closing thoughts are included, and possible future directions for this inquiry are explored. This section's focus is to reiterate a new awareness of the arts especially focusing on education and policymaking, developing happiness and health, promoting a new way of thinking, feeling, and being. The closing section ends with a concluding summary of the dissertation.

VI. Scope & Critical Assessment

This inquiry adds to the canon of philosophical arts discussions. A new hypothesis for arts' essential nature is proposed in this document. The hypothesis proposed in this inquiry is

meant to explain a reason for why the arts exist. Anticipated in the final dissertation is to expand the hypothesis into a theory for why art exists. Sub-hypotheses will be included to support the primary hypotheses; garnering more research is expected in the final dissertation with lengthened arguments for the hypotheses. A greater variety of supporting information is predicted in the completed dissertation, especially increasing the physics material, art's sacred elements, arguments for arts evolutionary role, mirror neuron's function, as well as art's impact on the economy and learning. The dissertation is proposed to be in an arts format, as a zine style workbook with audience engaging elements such as: guided activities, popular quotations, fairy tales, anecdotes, images, statistics, and tables. Possibly having a version of the proposed dissertation in an artistic form is intended to be an example of the working hypothesis in practice, and thus a teaching tool.

Do not confuse this dissertation proposal's discussion with an art technique discussion commonly referred to as *art theory*. This dissertation does not plan to evaluate or apply a hypothesis for art to artworks. Also, this is not an art theory history, nor is this inquiry addressing all art theoretical schools. This dissertation is not about individual artworks per se, but is about the mechanisms used to create and perceive the arts and the reasons the arts exist.

This research seeks a novel approach to discovering a rational for art's existence; for this reason, it is necessary to include various views. It is intended that this dissertation encompass a range of beliefs about the arts. To develop a unifying hypothesis for why art exists transdisciplinary literature will be included that relate to the arts through shared activities. For instance: the effects of music, visual processing, concepts of beauty and attraction, and play are linked to dance and theater as well as painting, drawing, and sculpture. Since this is theoretical research not qualitative, there will be no reporting of participants' responses. In a

transdisciplinary arts discussion, it is difficult to present information isolating disciplines. An example of overlapping disciplines in discussing art's role in human evolution crosses into neuroscience, psychology, and sociology. Thus, sections in the dissertation interconnect and reinforce one another. The focus of this research is on humans, though the hypothesis contained herein, is intended to be applicable to a wide array of species. The arts exist in other species, but that topic is too broad for the parameters of this project.

One primary weakness and strength of this research is that a trained scientist is not doing it. This research comes from a social science point of view; therefore, this research may omit some features expected by empirical scientists reviewing this research.

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Appendices

A) Committee Members

Charles “Chip” McAuley, Ph.D., is a stellar dissertation chair person, teacher, writer, cultural critic, and editor. Currently, he is Adjunct Dissertation Chair and Faculty for the Transformative Studies Doctoral program at the California Institute of Integral Studies. He previously taught in the Communication Studies Department at Sonoma State University and served as Publisher/Editor-in-Chief of Culture Counter Magazine. McAuley has been a freelance writer and editor for a variety of publications since 2001. He was also Science Writer/Producer for NASA Education and Public Outreach (Astrophysics Division).

Dr. McAuley is a charter member of the Society for Consciousness Studies where he was Editor of Continuum: The Newsletter of the SCS, and currently, is a member of the Editorial Board of the scholarly journal Consciousness: Ideas and Research for the Twenty First Century. He has presented and been a panelist at consciousness conferences on topics ranging from science fiction, curriculum, and mythology at CIIS, and the Science of Consciousness conference in Tucson, AZ and Yale University. He currently lives in New Jersey. Contact Dr. Charles McAuley at California Institute of Integral Studies, School of Consciousness and Transformation, Transformative Inquiry Department, 1453 Mission Street, San Francisco, CA 94103 or electronically at cemcauley@comcast.net.

Leslie Allen Combs, PhD., is a supportive and liberating teacher who creates a safe environment where true learning can take place. In addition, he is a prolific scholar, an innovative thinker, a consciousness researcher, neuropsychologist, author, and systems theorist. At the California Institute of Integral Studies, he is the Director of the Center for Consciousness Studies. Dr. Combs is the author of over 200 articles, chapters, and books on consciousness and

the brain. He earned his PhD. and M.S. at the University of Georgia, and his M.R.C. from the University of Florida. Dr. Combs can be reached at California Institute of Integral Studies, School of Consciousness and Transformation, Transformative Inquiry Department, 1453 Mission Street, San Francisco, CA 94103 or electronically at acombs@ciis.edu.

Michael Schwartz, PhD., in addition to having an adventurous spirit and a good sense of humor, is kind, compassionate, and understanding. Dr. Schwartz is also a professor of art and humanities at Augusta University where he teaches transdisciplinary academic classes to studio art students. Schwartz earned his master's and doctorate in Art History, Criticism, and Consciousness at Columbia University. He received his undergraduate degree from Rutgers in English Language and Literature.

Dr. Schwartz is recipient of many academic awards along with being the co-founding executive officer of the Comparative and Continental Philosophy Circle, an international professional organization with both a peer-reviewed journal and book series. He has curated and commented on over 50 online integral art galleries at Integral Life as well as published in the areas of art history, art criticism, art education, continental philosophy, comparative spirituality, critical social theory, integral theory, critical realism, comparative metatheory – including co-editing and co-authoring the first professional academic volume on integral philosophy (*Dancing with Sophia*, forthcoming). He is curator of the international art exhibition, *In the Spirit of Wholeness: Integral Art and its Enchantment Aesthetic*. Dr. Schwartz can be reached at Augusta University Pamplin College School of Art and Design, 1120 15th ST, WH-240, Augusta, GA 30912 or electronically at mschwart@augusta.edu

B) Time Line

After the proposal phase of the PhD. process, if this proposed research merits advancement to candidacy, the timeline for the dissertation research and research analysis is approximately one year. A great deal of research has already been done for this inquiry. The next phase is primarily a matter of compiling and organizing existing research, reading research already found, and filling in research gaps. There should be chapters ready for preliminary review by the dissertation chair within the first six months after being advanced to candidacy. The writing/creating phase of the dissertation will be approximately one to two years depending on delays in the technical editing process. This is a generous estimate of the timeframe, and the entire dissertation is anticipated to be completed in no more than two years.