PERSONAL UNDERSTANDINGS OF CREATIVITY:

A PHENOMENOLOGICAL STUDY USING

Q METHODOLOGY

BY

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PREFACE

"All the arts we practice are apprenticeships. The big art is our life" (M.C. Richards as cited in Cameron and Bryan, 1992, p.83).

This study was conducted to increase understandings of the beliefs people hold about what creativity means in their lives. It is hoped that the knowledge gained by these understandings will assist efforts to encourage and enhance creativity. Furthermore, this exploration was undertaken to stress the importance creativity has to everyday life and to help dispel the myth that generates the exclusiveness of the concept of creativity.

A phenomenological approach to Q methodology was used to discover the implicit theories of creativity held by the research participants, who were professional artists and individuals who do not identify themselves as artists. Therefore, the findings are limited to the understandings expressed by this group of people and the presuppositions held by the researcher.

I would like to express my sincere appreciation for the guidance and patience my doctoral committee gave to me – Drs. Diane Montgomery (Chair), Kay Bull, Katye Perry, and Chris Cashel. I would also like to thank Drs. Judith Kaufman, Joseph Pearl, and William Reynolds for helping to direct me on the path of knowledge that has resulted in this effort. And my never-ending gratitude and love to my husband, Ed Hodges, who has offered me the emotional and financial security that has kept me relatively sane throughout this process.

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CHAPTER ONE

INTRODUCTION

Creativity has been determined to be a necessity of life. In its essence, "... creativity is found in any type of human discovery, however personal, however small. Any significant change in the organization of one's personality or life demands activation of this process" (Richards, 1990, p. 307). Creativity can be thought of as a qualitative aspect of mental functioning, an everyday phenomenon found in all people and a facet of personality capable of contributing to the maintenance of mental health (Cropley, 1990). Simultaneously, creativity is thought to be an exclusive characteristic of the few humans ". . . whose thoughts or actions change a domain, or establish a new domain" (Csikszentmihalyi, 1996, p.28). In whatever form creativity takes, there is agreement that creativity is pervasive in every facet of human existence and it is essential for the health and well being of individuals and of society (Richards, 1990).

Represented in the diverse meanings the concept of creativity has generated within twentieth century western society are beliefs that creativity is an everyday phenomena and, on the other hand, beliefs that creativity is an exclusive characteristic of a few people. To describe the understandings of creativity for this study a phenomenological approach using Q methodology was used to investigate what being creative meant in the lives of 30 people who were American born, between the ages of 27 and 55 years, and living in a Midwestern city in the final years of the twentieth century.

To capture the beliefs of people who represented the view that creativity is an exclusive characteristic of few humans and the view that creativity is an everyday phenomenon found in all people, half of the research participants were recruited who were believed to have special talent creativity and half were recruited who were believed to have personal creativity.

Definitions of Special Talent and Personal Creativity

Beliefs about creativity coincide with the terminology used by researchers to describe creative individuals. Special talent creativity reflects the view that creativity is an exclusive characteristic of few humans. Whereas, personal creativity is more descriptive of the notion that creativity is an everyday phenomenon found in all people. People who are known for their creative products through some form of social recognition are referred to as having special talent creativity (Davis, 1992). "Special talent creative people, by definition, possess an extraordinary creative talent or gift in art, literature, music, theater, science, business, or other areas" (Davis, 1992, p. 6). Special talent creativity is also known as "eminent creativity" (Richards, 1990, p. 302) or "Big C" (Stein, 1987, p. 420). People who have not received formal social recognition for a creative product, but are mentally healthy, self-sufficient individuals are called personally creative. Csikszentimihalyi (1996) defined people as personally creative when they experience the world in novel and original ways, are perceptive and insightful, and may make important discoveries that only they know about. This type of creativity is also known as "everyday creativity" (Cropley, 1990, p.168) and "little c" (Stein, 1987, p. 420). Special talent creative people can be personally creative, and vice versa, but more often it has been found that personally creative people never make a contribution that is

recognized as being creative, and many special talent creative people do not demonstrate the optimal level of mentally health attributed to people who have everyday creativity (Cropley, 1994, Csikszentmihalyi, 1996, Davis, 1992).

The creative products of both special talent and personally creative people are important to the well being of society and the wellness of individuals. Whereas, the products of special talent creative individuals are often tangible artifacts, theories, and designs, the products of personally creative individuals are not as obvious. Csikszentimihalyi (1996) stated, "Even though personal creativity may not lead to fame and fortune, it can do something that from the individual's point of view is even more important: make day-to-day experiences more vivid, more enjoyable, more rewarding. When we live creatively, boredom is banished and every moment holds the promise of a fresh discovery. Whether or not these discoveries enrich the world beyond our personal lives, living creatively links us with the process of evolution" (p. 344). In the review of the reissued copy of Barron's 1963, Creativity and Psychological Health, Montuori (1992) stated, "The creative individual is, for Barron, the psychologically healthy individual. Such an individual is psychologically free, and able, therefore, to create and shape a life much as one would a work of art" (p. 196).

The Importance of Personal Beliefs About Creativity

The beliefs people hold about creativity are important because they have been found to effect creative behavior (Katz & Thompson, 1993; Sternberg, 1985). The personal beliefs collected from the research participants of this study reflected their implicit theories about creativity. Implicit theories are personal views or beliefs that individuals have about a concept or construct. Sternberg (1985) defined implicit theories

as " . . . constructions by people (whether psychologists or lay persons) that reside in the minds of these individuals. Such theories need to be discovered rather than invented because they already exist, in some form, in people's heads" (p. 608). Sternberg believed, " Implicit theories of creativity go far beyond conventional psychometric creativity test. A person's ability to think of unusual uses of a brick, or to form a picture based on a geometric outline, scarcely does justice to the kind of freedom of spirit and intellect captured in people's implicit theories of creativity" (p. 623).

Attribution theories support the relationship between personal beliefs and behavior. Attribution theories state that people attribute causes (or reasons) to events that happen to them, or that they observe happening to others, and that these causal attributions effect behavior (Weiner, 1985). Heckhausen (1991) believed that Weiner's research demonstrated that causal attributions " . . . must be viewed as important intervening processes in the motivational system" (p. 34). Reducing a long list of personality traits that were attributed to creative individuals to twelve, Davis (1992) named "awareness of own creativeness" or "creative consciousness" as " . . . the number one trait to develop to become more creative" (p. 72). Therefore, the belief that one "is" or "is not" creative often becomes a self-fulfilling prophecy (Davis, 1992).

Statement of the Problem

With the importance of creativity and the potential that each individual has to possess either special talent or personal creativity, to a lesser or greater degree, the problem is that some people are not motivated to develop and use their creativity. "Motivated" is the operant term in this problem statement. Motivation has been found to

be one of the most distinguishing factors in determining creative production (Amabile, 1983; Runco, Nemiro & Walberg, 1998).

Creativity is connected to motivation through Maslow's (1954) concept of self-actualization. "Creativity and self-actualization are intimately related, perhaps identical, says Carl Rogers, Abraham Maslow, and Clark Moustakis" (Davis, 1992, p. 14). "To study it, Maslow examined the lives and experiences of the most healthy, creative people he could find" (Crain, 1992, p. 320). Self-actualization refers to the realization of one's potentials, capacities and talents. Maslow believed that the need to become self-actualized was the highest, most powerful, motivational force to activate human behavior (Heckhausen, 1991). Heckhausen (1991) explained, "The predominance of a temporarily unsatisfied lower need does not necessarily disrupt or block the pursuit of self-actualization, which attains a kind of functional autonomy . . ." (p. 60).

If as Heckhausen's suggested, the motivation to be creative supersedes the lower needs in Humanistic Psychology's hierarchy of needs, what is blocking some people's drive to develop and enhance their creativity (assuming these individuals have optimal levels of intelligence and physical and mental health)? The relationship between personal beliefs about creativity and creative behavior may hold a key that can help unlock this mystery. The collection of the implicit theories people hold about their creativity, and the interpretation of the patterns of beliefs formed from the views of the research participants of this study, have potential to contribute to understandings that can assist efforts to encourage and enhance creative behavior.

Conceptual Framework: Theory and Method

The phenomenon under study in this research was personal beliefs about everyday creativity. What being creative meant in the lives of the special talent and personally creative research participants and the patterns that were formed from their beliefs provided the central point of this investigation. Method and theory merge as one in this study because the underlying theoretical framework of the research was the communicability of human subjectivity. Both of the selected methods of inquiry for this research (i.e., phenomenology and Q methodology) focus on human subjectivity. Human subjectivity reveals implicit theories. Runco (1990) recommended the use of implicit theories as " . . . one of the most informative approaches for studying subjective views" (p. 235). McKeown and Thomas (1988) referred to "subjectivity" as, " . . . a person's communication of her/his point of view anchored in the person's internal frame of reference" (p. 12). They explained, "The major concern of Q methodology is not with how many people believe such-and-such, but with why and how they believe what they do" (p. 45). Likewise, phenomenology is centered on the lived experiences of both the research participants and the researcher (Moustakas, 1992).

Q methodology preserves the understandings of the research participants by utilizing statements drawn from oral and written communications about a topic and having the research participants rank-order the statements from their point of view. For this study, subjects sorted 38 statements about the meaning of creativity from "most like their view" to "most unlike their view". The selection of the 38 statements was made from in-depth interviews with a diverse group of people and published documents about creativity.

Phenomenology provided a guide to aid in a multidimensional analysis of the experiences of the research participants, as well as adding a method of honestly depicting the personal biases of the researcher. The subjectivity of the researcher of this study is projected through the choice of statements included in the Q sample (Appendix A) and the researcher's Q sort (Appendix B). A summary of the researcher's personal biases is presented on page 33. Bindeman (1998) believed that a phenomenological approach offered the most appropriate method of studying human creativity, because it " . . . overcomes one-sidedness in that it correlates actively creative modes of consciousness with passively receptive ones" (p. 69).

In addition to facilitating the subjective nature of personal views, Q methodology utilizes the quantitative method of factor analysis to organize the patterns of beliefs that are generated from the subjects' Q-sorts. Q methodology's systematic and rigorous quantitative means for examining human subjectivity complemented the phenomenological focus on " . . . interpretive understanding" (Tesch, 1984).

The conceptual base of this study originated in research on the concept of creativity and implicit theories of individuals. People hold varied beliefs about creativity. Davis (1992) stated, "...there are about as many definitions, theories, and ideas about creativity as there are people who set their ideas on paper" (p. 38). Piirto (1992) wrote, "Every discipline, every field, every person, has a separate definition, and each believes in creativity as something that really exists" (p. 6). In an attempt to help simplify and organize the study of creativity, Rhodes (1961) suggested a classification system in which the concept of creativity was divided into four strands: product, process, person, and press (e.g., place or environment). Each of the four strands presented categorical

distinctions that attempted to identify " . . . some key components of the larger, more complex, concept of creativity " (Isaken, p. 10, 1987). The strand of product concentrated on the outcomes of creative work. The strand of process involved the cognition and emotions, or mental operations, people encounter as they create. The strand of person included information about personality, intellect, traits, attitudes, values, and believes. And, the fourth strand, press focused on the relationships among individuals or groups of people and their environments. Rhodes' four strands of creativity were used in the selection criteria for the Q-sample.

Significance of the Study

The significance of this research rests on the importance that knowledge about personal views of creativity and the patterns formed by the beliefs of special talent and personally creative people could have in assisting efforts to encourage and enhance creative behavior. Little is known about what being creative means in the lives of individuals, special talented or otherwise. Although there are studies about what individuals believe about their own creativity (Cawelti, Rappaport & Wood, 1992; Kokot & Colman, 1997; Kumar, Holman & Rudegeair, 1991; Melrose, 1989) and the creativity of others (Connell, 1993; Fryer & Collings, 1991; Katz & Thompson, 1993; Runco & Bahleda, 1986; Runco, Nemiro & Walberg, 1998; Sternberg, 1985), studies are rare that focus on the patterns of beliefs that are formed from what being creative means in the personal lives of individuals.

Concurrently, the present study is important because it explored the beliefs among people who had special talent creativity and people who were personally creative, which

has often been missing in research on creativity (Magyari-Beck, 1998; Stein, 1987). The majority of creativity research published in the past fifty years has relied heavily on group characteristics of people who possess special talent creativity, and in so doing has often missed the individuality of each person's creativity (MacKinnon, 1987). Stein (1987) warned, "We should not assume that the psychological characteristics associated with *Creativity Little c* are the same as those associated with *Creativity Big C* until it has been proven to be so" (p. 420). A decade after Stein's request, Magyari-Beck (1998) echoed his call for research, " . . . to disclose the relations between 'little creativity' and 'big creativity'" (p. 83). Runco, Nemiro and Walberg (1998) stated, "The traits which are necessary for such public and social achievement may differ from those which contribute to personal, everyday creativity, or contribute to creative potential" (p. 16).

Research Questions

The questions guiding this inquiry were: (a) What patterns of beliefs about being creative will be formed by the views of the research participants? (b) What patterns of beliefs about being creative will be formed by the views of the research participants who have special talent creativity? (c) What patterns of beliefs about being creative will be formed by the research participants who have personal creativity? Support for a difference between the patterns of beliefs of special talent and personally creative people, can be found in the study done by Kumar, Holman and Rudegeair (1991), in which they found differing beliefs about creativity among three groups who self-identified themselves as "creative", "somewhat creative", and "least creative".

Summary

A phenomenological study of the personal views of creativity of special talent creative people and personally creative people was done utilizing Q-methodology to gather and analyze the results. Creativity research lacks information on the patterns of beliefs that are formed from the subjective views expressed by these two groups. Much research, however, connects a relationship between beliefs and behavior (Heckhausen, 1991; Kasof, 1995; Katz & Thompson, 1993; Sternberg, 1985; Weiner, 1985). Similarly, motivation has been found to be one of the most important factors in determining creative production (Amabile, 1983; Runco, Nemiro & Walberg, 1998). Attribution theories (Heckhausen, 1991; Weiner, 1985) provide a link among beliefs, motivation and behavior. Therefore, the importance of gaining understandings about the implicit theories people hold about their own creativity could assist efforts to encourage and enhance creative behavior - - which is often considered to be essential to the well-being of society and the wellness of individuals.

CHAPTER TWO

REVIEW OF THE LITERATURE

This study investigated what creativity meant in the lives of people who had special talent creativity (i.e., artists) and people who did not identify themselves as artists (i.e., personally creative individuals). Relevant to this study is literature that: a) explored what people believe about creativity; b) connected beliefs to behavior; and c) demonstrated creative behaviors' ability to enhance life. The chapter begins with a review of literature that illustrated the importance and complexity of creativity, followed by the relationship between implicit and explicit theories, what is known about how people view their own creativity and the creativity of others, and research that connected beliefs to behaviors. The chapter ends with a review of the methodology used in previous studies concerning beliefs about creativity and a summary of the chapter.

The Importance and Complexity of Creativity

Some believe that " . . . the nature and degree of creative thinking are critical in determining whether a culture can survive and continue to grow or become truncated relics of an unrecoverable past" (Tannenbaum, 1993, p. 4). Csikszentimihalyi (1996) stated "Creativity is a central source of meaning in our lives for several reasons" (p. 1). He presented the two main reason as: a) creativity is what most distinguishes humans from chimpanzees; and b) the creative process makes people feel the "most alive" and at

the same time the outcome ". . . adds to the richness and complexity of the future" (p. 2). Davis (1992) prefaced his text with the statement, "Creativity is essential to one's personal growth and success: it is vital to society" (p. ix). Whereas, the previous quotes were from researchers who are well-known for their work about creativity, the importance of creativity is also documented in fields as diverse as business, engineering and psychology (Isaksen, 1987).

The great inventions that make our lives easier and the aesthetic objects that fill our lives with pleasure all come from people who possess special talent creativity. Special talent creativity refers to people who possess a talent or gift in some area and are acknowledged for their creative products (Davis, 1992). Creative products, however, are not the exclusive domain of gifted and talented individuals. Hilgard (1964) stated, "The capacity to create useful or beautiful products and to find ways of resolving perplexity is not limited to the highly gifted person, but is the birthright of every person of average talent" (p. 162). Many researchers have developed processes and techniques that can help people enhance their special talents (e.g., Amabile, 1989; Osborne, 1963; Parnes, 1981; Torrance, 1962, to name just a few).

Although developing the capability to make creative products is of great interest, creativity is also important because of its power to enhance personal growth and mental health. The relationship between wellness and creativity resides in the shared personal properties that have been found as characteristics of creative people and as the core elements that describe healthy personalities, (e.g., flexibility, openness, autonomy, humor, playfulness, willingness to try things, elaboration of ideas, and realistic self-

assessment) (Cropley, 1990). Maslow (1954) stated, "Self-actualizing creativeness is hard to define because it seems to be synonymous with health itself" (p. 94).

Mentally healthy attributes are more often found in personally creative people than people who possess special talent creativity (Davis, 1992). Although special talent creative people are often associated with mental illness, beyond an optimal level of mental illness, creative products cannot be produced. Jamison (1995) explained, "Left untreated, however, manic-depressive illness often worsens over time - - and no one is creative when severely depressed, psychotic or dead" (p. 67). In a study comparing a group of special talent creative artists with a sample of patients diagnosed as schizophrenic, Cropley (1990) found that although the two groups had cognitive similarities, there were substantial noncognitive differences between them. He reported, "The creative individuals tended to be excited by unusual associations in their own thinking and tried to build upon them, whereas the schizophrenics were frightened by them, and tried to avoid them" (p. 168). Barron (1963) summarized that eminent creative persons seemed to be both psychologically sicker and healthier than most people. Creativity, either in the form of special talent or personal, " . . . works in the service of health" (Richards, 1990).

The complexity of the construct of creativity goes beyond the distinctions between personal and special talent creative people. For example, there are common personality traits shared among people who have special talent creativity, but there are different traits attributed to special talented people from various fields (e.g., artistic or scientific), as there are different traits attributed within fields (e.g., visual artist vs. performing artist) (Davis, 1992; Piirto, 1992). Moreover, a creative individual can be an

"adapter" or an "innovator" (Kirton, 1976). Creativity is also culturally bound, what is considered to be creative is one culture is not necessarily acknowledged as being creative in a different culture (Ford & Harris, 1992). Within cultures, creativity is historically bound - - what is considered to be creative varies from one generation to the next (Gardner, 1993). Richards (1990) stated, " . . . creativity is complicated, whatever its form . . ." (p. 312).

Csikszentimihalyi (1996) proclaimed, "The problem is that the term 'creativity' as commonly used covers too much ground. It refers to very different entities, thus causing a great deal of confusion" (p. 25). Davis (1992) stated, "...there are about as many definitions, theories, and ideas about creativity as there are people who set their ideas on paper" (p. 38). Piirto (1992) wrote, "Every discipline, every field, every person, has a separate definition, and each believes in creativity as something that really exists" (p. 6).

In an attempt to help simplify and organize the study of creativity, Rhodes (1961) suggested a classification system in which the concept of creativity was divided into four strands: product, process, person, and press (e.g., place or environment). Each of the four strands presented categorical distinctions that attempted to identify " . . . some key components of the larger, more complex, concept of creativity " (Isaken, p. 10, 1987). Rhodes' proposed classification system was widely adopted by researchers (Isaksen, 1987). The reductionist approach, however, has been so extensively utilized that many researchers have ignored the importance of how the four strands interact to form the whole (Isaksen, Puccio & Treffinger, 1993). The response to this oversight has called for an ecological, or interactionist approach that does not artificially divide the phenomenon (Isaksen, Puccio & Treffinger, 1993; Woodman & Schoenfeldt, 1990). Inherent in the

ecological approach (if it is to be whole) is the call for personal perceptions about creativity.

Beliefs About Creativity

Research about beliefs of creativity can be categorized as either implicit or explicit theories and further divided into either: a) views about one's own creativity, or b) views about the creativity of others. Implicit theories, as defined by Sternberg (1985) are " . . . constructions by people (whether psychologists or lay persons) that reside in the minds of these individuals. Such theories need to be discovered rather than invented because they already exist, in some form, in people's heads" (p. 608). "Explicit theories, in contrast, are developed through empirical techniques, and thus held by researchers. Unlike implicit theories, explicit theories are shared (e.g., through publications and professional meetings)"(Runco, Nemiro & Walberg, 1998, p. 2).

Sternberg (1985) reported that, "Implicit theories of creativity go far beyond conventional psychometric creativity test. A person's ability to think of unusual uses of a brick, or to form a picture based on a geometric outline, scarcely does justice to the kind of freedom of spirit and intellect captured in people's implicit theories of creativity" (p. 623). Runco, Nemiro, and Walberg (1998) suggested that the implicit theories of researchers are "personal explicit theories" when the individual researchers first articulate them to colleagues or " . . . when the researcher defines a problem for study, as well as when he or she interprets the results" (p. 4). Concepts become "consensual explicit" when they are made public through a presentation or publications that has been based in research and have some sort of peer review.

When comparing implicit theories of creativity with explicit ones, it was found that they shared many common factors (Bindeman, 1998; Kokot & Colman, 1997; Kumar, Holman & Rudegeair, 1991; Lesser, 1994; Melrose, 1984; Runco, Nemiro & Walberg, 1998; Runco & Bahleda, 1986; Runco, 1989; Sternberg, 1985). It was also found that students and teachers shared the same implicit constructs of creativity (Connell, 1993). Likewise, Amabile's (1983) research on consensual ratings of creative products by judges who were not given a definition of creativity also supported the premise that implicit constructs of creativity are shared.

In the long interviews of ten diverse individuals, Hodges (1997) found that there was little difference in the subjects' personal views of creativity. Nor was there little difference between the interviewed peoples' views and explicit theories of creativity. What is not known is the extent that explicit views of creativity find there way into the collective unconsciousness of individuals, or vice-versa. An explanation for the similarities between implicit and explicit theories of creativity was offered by Magyari-Beck's (1998) theory of "basic cultural paradigms," in which members of a culture/civilization are not consciously aware of concepts because they are too natural for them. Magyari-Beck believed it is the function of highly creative people to disclose these concepts (p. 86). In the same vein of thought, Magyari-Beck stated, " . . . the scope of everyday attributions is incomparably narrower than the scope of scientific attributions" (p. 85). This can be explained by the shared contextual influences that constrain the implicit beliefs of any given population (Connell, 1993). Connell suggested, "As a person becomes more enculturated within a domain, his or her implicit theories should reflect those of experts with that domain" (p. 210).

Views About One's Own Creativity

A close relationship between the implicit and explicit theories of creativity was found in all but one research article on the views about one's own creativity (Cawelti, Rappaport & Wood, 1992). Special talented people dominated the subject pool under this sub-topic, as they do in much of creativity research. The only two research articles under this sub-topic that did not included special talented subjects was Kumar, Holman and Rudegeair (1991) and Sternberg (1985).

In Sternberg's (1985) landmark research, to gain a better understanding of the nature and use of people's implicit theories of intelligence, creativity, and wisdom, he used university students, townspeople, and university professors in art, business, philosophy and physics as his research subjects. Only one of the four studies conducted by Sternberg addressed how the subjects viewed their own creativity. In the study about how people viewed their own creativity, 30 townspeople were asked to rate how the characteristics generated about an ideally creative, wise and intelligent person pertained to them. The subjects were also administered four psychometric tests that measured intelligence and wisdom. No instrument was used to test creativity. Sternberg stated that the reason for the absent of a pencil and paper creativity measurement was that, " . . . such tests capture, at best, only the most trivial aspects of creativity" (p. 618). Therefore, no correlation between the test results and the subjects' self-perceptions were made. A correlation, however, that measured the degree of resemblance between the characteristics of the ideally creative, wise and intelligent person and the subjects' self-perceptions were implemented. No significant correlations were found for creativity,

although the correlations that measured wisdom and intelligence were significant. The other three studies from Sternberg's 1985 research will be discussed in the next section on "Views of Others Creativity".

Kumar, Holman and Rudegeair (1991) gave 182 college freshmen, who self-identified themselves as "creative", "somewhat creative", and "least creative" a 72-item questionnaire. The questionnaire explored how subjects' creativity was used in their everyday lives. The results showed that the three groups differed in their beliefs about, and approaches to creative endeavors. The researchers concluded that the results supported notions that more creative students have certain creative thinking skills, which helped them to create and pursue new ideas. The results were also consistent with Amabile's theory of intrinsic motivation (i.e., " . . .the more creative students were less motivated by the goal of producing a final product relative to their less creative counterparts" [Kumar, et al., p. 321]). Thirty-six percent of the students believed that creativity was something that happened to them, rather than something that is a product of hard work and persistence. This finding supported Kasof's (1995) premise that it is a human tendency to attribute creative behavior to dispositional causes.

The remaining literature in this sub-topic utilized special talent creative subjects. Furthermore, all of the researchers, with the exception of Cawelti, Rappaport and Wood (1992), found that their subjects' beliefs about creativity were found in explicit theories of creativity. Using interpretive structural modeling (i.e., a computer program that chooses verb relationships from the words used in interviews and generates questions by combining elements into sentences) and a nominal group technique (i.e., asking a question and having the group generate as many answers as possible) with five artists,

Cawelti et al., discovered that unlike explicit theories about the creative process, their subjects insisted that the process used to create could not be explained in terms of hierarchies or stages of development. The artists insisted that while creating they were simultaneously engaged in a complex series of activities that had no linear sequences and differed from " . . . work to work, time to time, and mood to mood" (p. 92). Bindeman's (1998) phenomenological study of the creative process was in opposition to Cawelti et al.s' results. Bindeman felt that his findings augmented the explicit theories of other researchers. He used terms such as "stages" and "procedures" to discuss what he determined about the creative process from the writings and speeches of nine famous writers and artists. Bindeman concluded that by taking into account both unconscious and conscious factors one could explain, " . . . how creative acts take place within a system of meaningful interactions that can be mapped, explored and transformed in precise ways" (p. 76).

Correspondingly, Melrose (1989) felt that the data she gathered from using a multiple case-study format with 11 special talented people from various fields supported previous findings about several aspects of the creative process. She concluded that it was her subjects' " . . . deep belief in the likelihood of a successful end result" that was required for them to make creative products (p. 417). Furthermore, the list of adjectives that Kokot and Colman (1997) used to describe the essence of creativity from case studies of a gifted adult and child contained many of the same words that describe creativity in explicit theories (e.g. intuition, open, insight, authentic, original, and flexible).

Explicit theories of the creative process were also supported by Csikszentmihalyi's (1996) research, in which his students interviewed 90 individuals described as having Big C (i.e., big creativity). In addition to the creative process, the research teams' in-depth analysis revealed, " . . . what conditions encouraged or hindered their generation of original ideas" (p. 12). They found that although creative people differed from one another in various ways, they all loved what they did - - it didn't matter what they did, what mattered was how they did it. The subjects expressed that they did what they did because it was fun. This too supports Amabile's theory of intrinsic motivation.

Views About The Creativity of Others

All the reviewed studies that explored views about other peoples' creativity reflected explicit theories. Atypically, only one of the studies under this sub-topic used special talented subjects (Runco & Bahleda, 1986). Two of the articles, however, used subjects who had expertise in the field of creativity research (Montgomery, Bull & Baloche, 1993; Runco, Nemiro & Walberg, 1998), three studies involved the implicit theories of elementary or high school teachers (Connell, 1993; Fryer & Collings, 1991; Runco, 1989), and two studies involved lay persons (Katz & Thompson, 1993; Sternberg, 1985).

Runco and Bahleda (1986) asked professional and amateur artists and undergraduate students to list as many characteristics as they could about: a) artistic creativity, b) scientific creativity, c) everyday creativity, and d) noncreativity. The findings revealed that the implicit theories were very similar to explicit theories about creativity (especially the core characteristics of artistic creativity). The subjects also

identified distinctions between the four categories of creativity that coincided with explicit theories. No significance differences were found in the number and uniqueness of responses between the artists and the students. Artists, however, were the only group to list "emotional" as a characteristic of artistic creativity. By the same token, the artists did not generate as many common (reliable) characteristics for the noncreativity category as did the other groups.

Montgomery, Bull and Baloche (1993) used an inventory of 95 characteristics, taken from a content analysis of 67 college syllabi from creativity courses, to determine to what extent the perspective of the instructors' teaching college-level creativity classes were influenced by the literature that described what is needed to be creative. A citation count for each of the characteristics was taken from a review of six databases, resulting in a moderate correlation of r =.520. Individuals who taught courses in creativity were then asked to rate each of the characteristics to the degree of importance it held for "being creative". Montgomery, et al., found that 11 of the 13 characteristics rated as being most important to creativity had ten or more citations in professional literature (with "openness to experience" and "idea finding" having less than ten citations). Because the instructors' perceptions represented those of individuals who studied creativity, the perceptions of the instructors represented "personal explicit theories" rather than pure "implicit theories."

Runco, Nemiro and Walberg (1998) studied the personal explicit theories of creativity of 143 creativity researchers to investigate what this group thought the most important traits and developmental influences were for creative achievement. Behaviors in the "motivational composite" were rated as the most important traits for creative achievement, and "education and learning" were rated the highest for the developmental

factors. When Runco, et al. compared the personal explicit theories of researchers who had experience teaching creativity courses and had published a book or article, with those who had not, no significant difference were found.

Three studies explored the implicit theories of teachers (Connell, 1993; Fryer & Collings, 1991; Runco, Johnson & Bear, 1991). Connell (1993) found that high school teachers and high-ability students who participated in his study shared the meta-constructs of creativity in their implicit theories, but differed in respect to which of the meta-constructs were most important (i.e., teachers rated "tangibility" as highest; students rated "expression"). Connell also found gender and ethnic differences among the student sample (i.e., males rated "expression and location" as the highest; females rated "tangibility"; African-American students rated "identity and origin"; European-American students rated "location and movement"). Connell attributed much of the differences to the ratings of African-American females, who emphasized "origin and effort" as the most important. Their rating differed from both African-American males and European-American females. Connell's results supported the findings of Fryer and Collings (1991). In a study of British teachers' definitions and perceptions of creativity, Fryer and Collings found that differences in beliefs existed between genders and fields of study. The researchers reported that male teachers and teachers of math, science and technology viewed creativity in more impersonal terms than did female teachers of general subjects or the creative arts. Unlike the rest of the reviewed research about views of others' creativity, Fryer and Collings found that their subjects' implicit theories differed from the explicit theories found in creativity literature in which creativity is operationalized as "divergent thinking." Although the researchers reported these findings, their results do

support other explicit theories that identify creativity with "imagination", the production of "original ideas" and "self-expression." In opposition to the two previously reported studies on teachers' beliefs, Runco, Johnson, and Bear (1991) found no difference between the implicit beliefs about creativity between parents and teachers, nor did he find any within group differences. Runco et al. also found little difference between the characteristics of creativity that their subjects thought to be important and the characteristics that are found in explicit theories.

In an extensive research project, involving four studies, Katz and Thompson (1993) examined how people (i.e., undergraduate students) decided whether or not to classify a given person as creative. They found that judgments were based jointly on the nature of the act, and the characteristics attributed to the actor - - "It is not merely what is done, but who we believe has done it" (p. 360). The authors stated, "These findings suggest that judgments of creativity have an evaluative reaction, and second that this reaction is somewhat dissociated from the processes involved in making decisions about creativity" (p. 360). The results emphasized the important role implicit learning plays in decision making (Reber, 1993).

Parallel to Katz and Thompson's findings, Sternberg's (1985) study in which he reported, "The results of the present study show not only that people have such theories [i.e., implicit theories of creativity], but that they use such theories in their evaluations of others" (p. 621). This finding came from the last of four studies in Sternberg's research project, three of which focused on how the subjects used their implicit theories in making judgments about others. Sternberg started the research with a prestudy that generated a list of behaviors that 97 university professors (approximately 24 each in the fields of art,

business, philosophy, and physics) and 17 lay persons associated with the concepts of intelligence, wisdom, and creativity. This list of behaviors was used in each of the four studies. In the first study, Sternberg found that the three concepts were positively correlated attributes, with intelligence and wisdom being more closely related than creativity. Another interesting finding from the first study was that there were no significantly different ratings across the groups. From the results of the second study, Sternberg found that although there were some note-worthy differences, the implicit theories of creativity highly overlapped across the specialized fields of the university professors and between the professors and the lay persons. The third study was discussed in the previous section on "views of one's own creativity." In the fourth study, 40 townspeople were given 54 simulated letters of recommendations using prototypical descriptions of the three concepts to varying degrees of the ideal attributions. After reading the letters, the subjects were asked to rate the letter writer's intelligence, wisdom and creativity. The results showed that statistically significant correlations were made among the letters and the ratings. This study provided empirical proof that implicit theories about creativity effect behavior.

The Relationship Between Behavior and Beliefs

Of primary importance to the study of personal views of creativity is research that links beliefs to behavior. The research that developed attribution theories gives the clearest picture of this relationship (Weiner, 1985). Weiner's attribution theory stated that people attribute causes or reasons to events that happen to them or that they observe happening to others, and that these causal attributions effect behavior. Heckhausen

(1991) believed that Weiner's research demonstrated that causal attributions . . . "must be viewed as important intervening processes in the motivational system" (p. 34).

After an extensive review of literature on the views people have about their own and other peoples' creativity, Kasof (1995) remarked that, "Explanations of creative behavior have causal influences on creative behavior" (p. 355). In a commentary addressing Kasof's conclusions, Sternberg (1995) stated, "Kasof has shown how many of the phenomenas that we observe with respect to creativity can be understood in terms of attribution theory" (p. 367). Sternberg continued, "The application of attribution theory to creativity is useful, but it is important for readers to remember that attribution theory applies to pretty much everything" (p. 369).

Creativity researchers have also found that beliefs about creativity influenced behavior (Katz & Thompson, 1993; Sternberg, 1985). Katz and Thompson's research, as well as Sternberg's, demonstrated how people use their beliefs about creativity to evaluate the creativity of others. After an extensive review of research on personality traits of creative people, Davis (1992) reported that "aware of their own creativeness" or "creativity consciousness" are an "important and common trait among creative people" (p. 72). Davis also stated that, "It [creative consciousness] is the number one trait to develop to become more creative" (p. 72). Melrose (1989) and Csikszentmihalyi (1996) found that a commonality among all of the special talent creative people they studied was their similar beliefs (i.e., Melrose's subjects all expressed belief in a successful end project and Csikszentmihalyi's subjects all loved what they were doing). The subjects in Runco, Nemiro and Walberg's (1998) research rated motivational factors as the most important trait for creative achievement. Analogously, Amabile's (1983) intrinsic

motivation hypothesis of creativity stated that people will be the most creative when they are motivated to work on something for its own sake. Amabile, Hennessey and Grossman's (1986) research showed that when their subjects' believed that they were going to receive external rewards for their behavior, that belief had a negative effect on their subjects' creativity.

The work reviewed in this section justifies the importance of investigating the patterns of beliefs of special talent and personally creative individuals. Understandings of the similarities and differences between the beliefs of these two groups could assist in the encouragement and enhancement of creative behavior.

Methods Used In The Reviewed Research

A variety of methods were used in the reviewed research to investigate beliefs about creativity. None of the reviewed literature, however, focused on subjective views of what being creative means in the lives of individuals, or the similarities or differences in patterns of beliefs formed between special talented and personally creative people.

A number of the studies on beliefs about creativity used forced-choice surveys and quantitative analysis (Fryer & Collings, 1991; Katz & Thompson, 1993; Kumar, Holman & Rudegeair, 1991; Montgomery, Bull & Baloche, 1993; Runco, Nemiro and Walberg, 1998; and Sternberg, 1985). Others used surveys that involved open-ended questions (Katz & Thompson, 1993; Runco & Bahleda, 1986; and Sternberg, 1985). Montgomery, Bull and Baloche (1993) and Bindeman (1998) used examinations of secondary documents. Katz and Thompson (1993) and Sternberg (1985) used empirical studies to prove that beliefs about creativity did effect their subjects' creative behavior.

Partially in the qualitative realm of investigative tools and partially quantitative, Cawelti, Rapport and Wood (1992) used interpretive structural modeling and a nominal group technique to investigate the creative process of their special talented subjects. In a like manner, Connell (1993) first collected the implicit theories of creativity from his subjects using a long-interview technique, then he reduced their chosen words into meta-constructs, and finished the analysis by running quantitative comparisons.

The purely qualitative methods of long interviews and case studies were used to explore subjects' beliefs in the research of Csikszentmihalyi's, 1996; Kokot and Colman, 1997; and Melrose, 1989. Phenomenological techniques were used in the studies of Bindeman, 1998; Kokot and Colman, 1997; and Melrose, 1989. Kokot and Colman, who did not discuss their phenomenological approach, used anecdotes of a creative child and the opinions of a creative adult to support their distinctions between their two hypothesized modes of "being." They explained that they were going to ". . . describe 'being creative' from the perspective of the person rather than hypothesizing, on the basis of existing literature" (p. 215). Melrose (1989) used long interviews to uncover the creative personality and creative process used by 11 special talented people. She described her study in terms of using a phenomenological perspective. Bindeman (1998) felt that his phenomenological analysis of the writings and speeches of special talented individuals augmented the explicit theories of researchers. He wrote, "The phenomenological method overcomes one-sidedness in that it correlates actively creative modes of consciousness with passively receptive ones" (p. 69).

The research that came closest to the questions asked in this dissertation, was the work of Kumar, Holman and Rudegeair (1991), in which they used a forced-choice

questionnaire, rather than subjective views, to investigate how people go about being creative in their everyday lives. They found that the beliefs and approaches to creative endeavors differed significantly between the subjects that self-identified themselves to be the most and least creative.

Summary

The reviewed literature expressed that the importance of creativity to the well being of society and the wellness of individuals cannot be over emphasized. The complexity of the concept of creativity is such that concrete definitions remain elusive (Ford & Harris, 1992; Khatena, 1987). To help simplify and organize the study of creativity classification systems have been institutionalized. The most widely used system developed by Rhodes, in 1961, divided the concept of creativity into four strands: product, process, person, and environment (Isaksen, 1987). Rhodes' four strands are so widely used by researchers that the integration of components of creativity as a whole entity has often been ignored (Isaksen, Puccio & Treffinger, 1993).

Although a single operational definition of creativity has never been agreed upon by researchers (Kokot & Colman, 1997), the reviewed literature on implicit theories demonstrated that there is consensual understanding about the construct of creativity among diverse groups of people, as well as, between them (Amabile, 1983; Bindeman, 1998; Kokot & Colman, 1997; Runco & Bahleda, 1986; Sternberg, 1985). The agreement has, however, been found to be culturally bound (Connell, 1993; Magyari-Beck, 1998).

Kumar, Holman and Rudegeair's (1991) research supported the hypothesis that the patterns of belief between special talented creative persons and personally creative persons would differ. Kumer, et al. (1991) found that there was a significant difference in the beliefs about everyday creativity among subjects who self-identified themselves as being "creative" and those who identified themselves as being "least creative". In the discussion of the homogeneity of their results, Runco, Nemiro and Walber (1998) commented that, "The traits which are necessary for such public and social achievement may differ from those which contribute to personal, everyday creativity, or contribute to creative potential" (p. 16).

Other research reported noteworthy differences in the beliefs about creativity between and among various groups of people (i.e., gender and ethnicity [Connell, 1993]; gender and teachers' field of study [Fryer & Collings, 1991]; university professors' field of study [Sternberg, 1985]). Runco and Bahleda (1986), however, did not find significant differences between artists' and students' beliefs about creativity. Nor did Runco (1989) find differences in the beliefs between teachers and parents.

The reviewed research illustrated that the beliefs people hold about creativity effect their behavior (Katz & Thompson, 1993; Sternberg, 1985). Kasof (1995) built an impressive case that supported the role that explanations of creativity have on creative behavior. Heckhausen (1991) believed that causal attributions " . . . must be viewed as important intervening processes in the motivational system" (p. 34). Both implicit and explicit beliefs about creativity stress the importance that motivation plays in creative achievement (Amabile, 1983; Runco, Nemiro and Walberg's, 1998).

Despite the connection between beliefs about creativity and creative behavior, the reviewed literature lacked research that explored the patterns of beliefs formed from the views of special talent and personally creative people about what being creative means in their lives. Gaining this knowledge could assist efforts to encourage and enhance creative behavior.

CHAPTER THREE

METHOD

In this phenomenological study, Q method was used to investigate what being creative meant in the lives of the research participants and to examine the patterns of beliefs that emerged from participants who had special talent creativity and those who had personal creativity. The chapter begins with a brief explanation concerning the selection of the research method, followed by a general overview of the set of procedures that are inherent to phenomenological research and Q methodology. The chapter continues with the descriptions of the research participants, research instrument, procedures, and data analysis and ends with a summary.

Phenomenological Approach Using Q Methodology

"Phenomenological research probes into the human experience to illuminate the complexity of individual perception. It is aimed at interpretive understanding" (p. 1, Tesch, 1984). Phenomenology comes from the work of a group of European philosophers: most notably Franz Brentano (1838– 1917), and Edmund Husserl (1859-1938), and the early work of Martin Heidegger (1889-1976). Phenomenology was introduced to educational research and curriculum studies in the United States in the 1960s by Dwayne Huebner, and continued in the 1970s until the present by educators

such as: Max van Manen, William Pinar and Madeleine Grumet to name a few (Pinar & Reynolds, 1992).

McKeown (1998) presents Q methodology as a perfect partner to phenomenological hermeneutics. The hermeneutics movement involved from phenomenology through the works of Gadamer (1975), Heidegger (1962), and Ricoeur (1981). Whereas pure phenomenological research seeks understanding on an individual level, hermeneutic research uses, " . . . the interpretation of lived experience to better understand the political, historical, and sociocultural context in which it occurs" (Miller & Crabtree, 1992, p. 25). McKeown (1998) developed a compelling case that matched the fundamental tenets of Q-methodology (i.e., operant subjectivity) with the essences of hermeneutical research (i.e., " . . . data remains true to the texts of the people being studied . . ." [p. 7]). Because the major concern of this study was to gain understandings about the beliefs individuals held concerning what being creative meant in their lives, the research may be considered a marriage between phenomenology and Q methodology.

The first step in a study that uses a phenomenological approach is for the researcher to become conscious of the prejudgments, biases, and preconceived ideas that s/he has about the research topic. Once conscious of these pre-opinions and prejudices, the researcher must remain cognizant of them throughout the investigation and clearly communicate them to the reader. This communication allows the reader to interpret the study in the context of its author's subjectivity.

My (the researcher) presuppositions are apparent in the Q-sample (see Appendix A). Although the Q-sample was selected from a concourse that included responses from interview questions derived from a diverse group of people and published material on

special talent creative people, the statements reflect my biases, as do the decisions that all researchers make about what to include in a research project. These biases include the following thoughts: (a) the product of everyday creativity is exceedingly important and often unrecognized; (b) the process of creativity involves immensely personal and spiritual aspects, which defies an inclusive definition; (c) the process of creativity transforms emotion and cognition; (d) the characteristics of a creative person are culturally bound; (e) a conducive environment for creativity varies greatly among people; and, (f) beliefs about creativity influence creative production. In addition to the selection of the Q-sample, I sorted the Q-sample items (see Appendix B). My Q-sort illustrates what creativity means in my life. In addition to the bracketing of the researcher's presuppositions, the phenomenological approach follows the procedures based on sound qualitative research methodology. Moustakas (1994) stated, "In deriving scientific evidence in phenomenological investigations, the researcher establishes and carries out a series of methods and procedures that satisfy the requirements of an organized, disciplined and systematic study" (p. 103). Q methodology offers the techniques to accomplish this task and adds an analytical tool that provides a quantifiable means of locating patterns that may emerge from the beliefs of the research participants.

Q methodology was born in a letter by William Stephenson (1902-1989) published in a 1935 edition of Nature (Brown, 1993). Stephenson, both a physicist and a psychologist, further explained this methodology in The Study of Behavior: Q-technique and Its Methodology, which was published in 1953. This book remains the ultimate resource guide to the study of operant subjectivity, in which qualitative and quantitative research methods merge. Q methodology has a specific set of techniques that define its

structure (i.e., Q-sample, Q-sorting, person-sample, and analysis of data). These techniques are defined within the following descriptions of the participants, research instruments, procedures and data analysis.

Research Participants

In Q method the collective group of research participants is referred to as the person-sample or P-set. Q is a method that is biased toward a small sample size and single cases (McKeown & Thomas, 1988). P-sets rarely exceed 50 research participants (Brown, 1993). McKeown and Thomas (1988) explain, "The purpose is to study intensively the self-referent perspectives of particular individuals in order to understand the lawful nature of human behavior" (p. 36). This can be accomplished without a large sample. The selection of research participants are governed either by theoretical or pragmatic considerations. The main consideration in the selection of the P-set, however, is that the views of the research participants are operant in the Q-sample.

The P-set for this study were 15 special talent creative people and 15 personally creative people. Both groups of people were over the age of 25, American born, and living in or surrounding a south-Midwestern city. The special talent creative people identified themselves as artists and were current members of an Arts and Humanities Council's Professional Artist Roster. To be listed on the Professional Artist Roster, artists in the visual, performing or literary arts must: be actively pursuing their art discipline; have received public recognition for their creative product (e.g., juried art exhibits, professional performances, published work); and, with the exception of folk artists, received a degree or certificate of advanced study in their chosen art discipline.

The personally creative research participants were people who have not received public recognition for a creative product in the last five years, do not identify themselves as "artists," and demonstrate everyday creativity. This group of subjects were either personally acquainted to me or introduced to me by a mutual friend. Both special talent and personally creative research participants were selected to represent diversity in gender, socioeconomic status and ethnicity (see Appendix C).

Research Instruments

Q-Sample

A Q-study begins with the collection of statements that form a concourse for the Q-sample. A Q-sample is composed of a number of statements that when sorted reflect the "operant" nature of the research participants. The term operant refers to the natural way in which the research participants speak of and therefore understand a concept. Implicit theories are an example of operancy. These statements form the Q-sample items that the research participants are asked to sort. The concourse may be made up exclusively from statements taken from a group of people who have characteristics that identify desirable research participants or from publications, or the media. Q-sample items can also be a mixture of these two sources, which are called hybrid. See Table 1 or Appendix A for the 38 Q-sample items used in this study.

Development of the Q-Sample

The concourse for the Q-sample used for this research was a hybrid, composed of the naturalistic responses to interview questions and statements from published data.

The naturalistic statements were taken from in-depth interviews with ten diverse people (i.e., range in socioeconomic status, ethnicity, gender, age, and the degree they were categorized as special talent creative or personally creative). Appendix D contains a copy of the interview questions and protocol and Appendix E contains the demographics of the interviewees. The interviews were conducted under the auspices of Oklahoma State University's Internal Review Board (i.e., ED - 97-078).

While analyzing the statements concerning the subjective views of what being creative meant in the personal lives of the interviewees, I realized that their implicit theories shared many of the same characteristics as explicit theories of creativity. It was apparent that the implicit theories did not vary much in regard to demographic factors, or the degree to which they were known for their creative product. This phenomenon was documented in the reviewed literature (Bindeman, 1998; Kokot & Colman, 1997; Kumar,

Table 1

Q-Sample Statements

1. Producing something to express my inner feelings.
2. Achieving something remarkable and new, something which transforms and changes things in a significant way.
3. Doing ordinary tasks differently.
4. Making something that has aesthetic value.
5. Using all of my talents to become what I'm capable of becoming.
6. Outcomes that are both original and useful.
7. Happiness - - loving what I'm doing - - feeling good about myself.
8. A means of constructing a mythic past whose effectiveness can be felt in the present.

9. Trusting myself to see with my eyes, to look at what is seen - - not what my mind "thinks" it sees.

10. Talking to God.

11. When my consciousness is harmoniously ordered.

12. The blending of my intuition and logic.

13. A sequence of steps or stages to solve a problem.

14. Finding order in chaos.

15. It just happens – it's almost automatic. I couldn't give it up, even if I tried.

16. Traveling into the spiraling depths of the unknown.

17. A process in which my knowledge, skills, and intrinsic motivation intersect.

18. A very complex near elusive phenomenon.

19. A force to enhance inner well-being - to renew my spirit.

20. Thinking outside the confines of society.

21. Losing the fear of being wrong.

22. Fascination with the unknown, and at the same time asking what's behind the things that are taken for granted.

23. Willingness to take risks.

24. Experiencing life fully - - passionately - - energetically.

25. Being a great listener -- observer of the life - - being curious.

26. It never crosses my mind, I never think about it.

27. Attracted to complexity and novelty, but also tolerant of ambiguity.

28. Patience with altered states.

29. Seeing things differently than others.

30. Having a constructive sense of humor.

31. Being talented.

32. Being playful.

33. Being out of my comfort zone.

34. Ignoring the external environment.

35. Being in a comfortable environment.

36. Being in a flexible and receptive atmosphere

37. Solitude.

38. Deprivation caused by sacrifice of other interest.

Holman & Rudegeair, 1991; Lesser, 1994; Melrose,1984; Runco, 1989; Runco & Bahleda, 1986; Runco, Nemiro & Walberg, 1998; Sternberg, 1985). From the naturalistic statements there were, however, distinctive phrases describing the special role creativity plays in the lives of each of the interviewed people. These implicit theories of creativity enhanced the formation of the concourse.

The Q-sample was structured from a concourse of 87 statements. The Q-sample was selected so that the statements were represented of implicit and explicit theories and Rhodes' (1964) four strands of creativity (i.e., person, product, process, and environment), and were not redundant. Although criticism was noted in the review of literature about the reductionist approach that can appear when researchers concentrated on just one strand, the organizational scheme that the four-strands offered helped to assure a diverse Q-sample. The assignment of statements to one of the four strands was, however, purely subjective. When challenged by a member of my Dissertation Committee about the choice of matching statements to creativity strands, I asked six colleagues, who were students of creativity research, to match the statements to a strand. The small investigation resulted in a mixture of placements - - demonstrating the subjectivity of placements; yet, at the same time accomplishing the goal of representing a variety of views of creativity.

Pilot Study

To test the Q-sample, score sheet, and conditions of instructions, a pilot study was conducted with 20 graduate students enrolled in a south-Midwestern state university's college of education course entitled "Creativity for Teachers." The directions were read out loud to the entire group and given to each individual as a handout (Appendix F). The directions included the conditions of instruction that asked the Q-sorters to sort the statements into three piles. They were instructed to make: one pile that was: most characteristic of what being creative meant in their life; a second pile that was most uncharacteristic of what being creative meant in their life; and a third pile of the remaining statements. In addition to the directions, each Q-sorter received a set of 38 Q-sort items (i.e., numbered Q-sample statements, one statement per 1" x 3" card) and a score sheet that contained a request for demographic information and three additional questions (see Appendix G). When all Q-sorting was completed, general feedback on the participants' experience and the instrument was generated.

Using PCQ3 (Stricklin, 1990) computer program to statistically analyze the collected data, two independent factors emerged after a varimax rotation was performed. Further analysis of the data was not relevant because the pilot P-set was a group of graduate students and did not represent the criteria of having half of the research participants composed of special talent creativity and half of personal creativity. Therefore, there were no data that addressed the research questions. The analysis of the pilot P-set's Q-sorts revealed that an ample distinction within the Q-sample existed to generate more than one factor from the pilot P-set.

Revisions were made to the score sheet, conditions of instruction, and Q-sample to adequately address the comments and concerns voiced by the pilot P-set. These revision were made in response to the verbal feedback and the answers from the third question on the pilot study handout that asked, "What other statements are there than the Q-sample to better describe what being creative means in your life?"

Minor revisions were made to the pilot study's Q-sample. Two Q-sample items were changed: Item 7 the phrase "loving what I'm doing" was added to read "Happiness - - loving what I'm doing - - feeling good about myself"; and, Item 38 was changed from "Environment doesn't matter, nothing is better or worst" to "Deprivation caused by sacrifice of other interests". The phrase was added to item 7 to reflect comments made from the pilot project P-set and reviewed literature (Csikszentimihalyi, 1996). Item 38 was changed because it was very similar to item 34, which read "Ignoring the external environment." Additionally, and the new statement for item 38 was very unlike any other statements and was found to be a condition of special talent creativity (Richards, 1990).

Procedure

Fifteen special talented people from the Arts & Humanities Council's Professional Artists Roster and fifteen personally creative persons participated in this study. Each participant was asked if s/he would spend approximately one hour with me sorting 38 statements about what being creative meant in their lives. Appendix H contains the oral solicitation statement. All research participants who were asked agreed to participate. I met with each research participant individually at a variety of sites (e.g., their homes and offices, my home and office, and public cafes).

At the beginning of each meeting, I paraphrased then read the consent form to research participants (see Appendix I for the consent form). After reading the consent form, the research participants were asked for their signatures, time and date of the meeting, and to check if they agreed to have the interview recorded. Participants were encouraged to share their thoughts and feelings as they sorted the items. Twenty-three of the thirty participants agreed to have their interview taped. The recordings served as a resource for the interpretation of the factors that are discussed in Chapter 4.

Demographic information was collected in the form of a brief interview prior to the Q-sorting. The demographic information is presented in Appendix C. Prior to sorting the Q-sample, participants were also asked: "What do you believe to be some of the most creative things you do (or have done)?" and "How has your creativity been recognized by others? (or/how has your creativity been publicly recognized? For example: awards, best of show, work reviewed in media, etc.)" After the Q-sorting was completed, I asked the research participants, "If you could add statements to this sample that would better describe your view of what being creative means in your life, what would they be?" A summary of the responses to these questions can be found in Appendix J.

Q-Sorting

In Q methodology research participants are asked to sort the Q-sample items in a rank order with reference to the conditions of instruction (e.g., from "most like" [+4] to "most unlike" [-4]). The Q-sample items can be presented to research participants in a number of physical formats from words or images printed on index cards to actual

objects. Each item is marked with some form of identification (e.g., number, letter, or color).

In addition to the items, it is common to give participants a score sheet containing a table with the same number of empty cells as there are items. The columns of the table are often numbered: with the middle cell representing zero; cells to the right representing positive numbers; and the cells to the left representing negative numbers. The negative numbers correspond to the participants' point of views that are most unlike their own; the positive numbers to the view most like their own.

The sorting represents the participant's subjectivity (i.e., points of view, beliefs, and implicit theories) with respect to the conditions of instruction. Conditions of instruction provide the directions for sorting the Q-sample items. A paper, in which the conditions of instruction are clearly outlined, is given to the participants. The instructions are also read to the participants.

In response to the suggestions from the pilot study's participants, the directions and score sheet for this study's Q-sort were revised. The conditions of instructions, however, remained unchanged and read: "What does being creative mean in your life? The directions were changed to read: "Divide the statements into three piles: a) Those statements that are most like your views of what being creative means in your life (place this pile to the right of your score sheet); b) Those statements that are most unlike of what being creative means in your life (place this pile to the left of your score sheet); c) The remaining statements (place this pile in the middle of your score sheet)." The 38 Q-sample items were typed, one statement per 1"x 3" card, as they were in the pilot study. As a result of the pilot project the words "characteristic" and "uncharacteristic" were

replaced by "like" and "unlike" and the numbers that signified the weights of the columns were deleted. Please refer to Appendix K for the directions and a copy of the score sheet used in this study. Table 2 demonstrates the weight and frequency of the Q-sort.

Table 2

Weight and Frequency of Q-Sort

	Most Unlike				Neutral				Most Like
Weight	-4	-3	-2	-1	0	1	2	3	4
Frequency	3	4	4	5	6	5	4	4	3

Data Analysis

In Q the role of mathematics is primarily to help the researcher uncover the patterns of beliefs presented by the subjects of the research (Brown, 1993). After the Q-sorting is completed, the statistical analysis of the collected data begins with a correlation of each person's Q-sort. The correlation in Q is between the subjects' points of views as represented by the way they have sorted the statements (i.e., their Q-sort), not the Q-sample items or traits (as would be the case in a Pearson's product moment *r*). Therefore, correlation coefficients demonstrate the degree of similarity and dissimilarity among the subjects' various perspectives. The greatest importance of the correlation matrix is its necessity to the factor analysis.

The factor analysis of the correlation matrix " . . . determines how many basically different Q-sorts are in evidence" (Brown, 1993, p. 111). Each factor represents a point

of view, and the association of each subject with each factor is indicated by the magnitude of her/his loading on the various factors. The loadings express the extent that each person's Q-sort is associated with each of the factors (Brown, 1993). The presence of several independent (i.e., orthogonal) factors is evidence of different points of views in the P-sample. An individual's positive loading on a factor indicates her/his shared subjectivity with others on that factor; the negative loadings are signs of the rejection of that factor's perspective (McKeown & Thomas, 1988).

The interpretation of the meaning from the factors is enhanced through the construction of a factor array. (Factor arrays are a composite Q-sort, one for each factor.) Each Q- sample statement that falls within the array is given a factor score (i.e. weighted z-scores) that corresponds to the position it holds in the Q-sort, from negative (-) to positive (+). Unlike R methodology, the interpretation of factors in Q is based more on factor scores than on factor loadings.

Nonetheless, it is rare that the researcher uses the original set of factors without a rotation based on some theoretical construct or personal hunch that is determined by the researcher (Brown, 1993). This type of rotation is called judgmental-rotation because statistical principles do not guide it (although varimax rotation is often used). Brown (1993) stated that, 'theoretical rotation often leads to results which are quite at variance with those produced by conventional means" (p. 116). He explains, ". . . it is at this point that the researcher utilizes factor analysis, not as a passive finder of Nature's truths, but as a probe into Nature's possibilities" (p. 116).

During the interpretation phase of the data, the researcher once again departs from quantitative statistical procedures and revisits the qualitative realm. After the initial

interpretations from the factor analysis rotations are formed, Q-scholars suggest that researchers develop another set of interview questions, and return to the Q-sorters for their input.

In this study, after the Q-sorting was completed, PQMethod 2.0 (Schmolck, 1997) was used to run the statistical analysis of the 30 Q-sorts. PQMethod 2.0 is the MS-DOS version of the original Qmethod mainframe program. John Atkinson, Kansas State University, is the author of the mainframe program and Peter Schmolck, University of Muenchen, Germany, programmed the updated MS-DOS version. The change from the PCQ3 program, which was used in the pilot study, to PQMethod 2.0 was made to assure the maximum orthogonality. PQMethod 2.0 offered an option to use either principal component or centroid factor analysis, whereas, PCQ3 only offered centroid factor analysis.

In this study, to determine what views the special talent and personally creative research participants held about their creativity and the pattern of beliefs that were formed by the P-set, a Principal Component analysis and a varimax-rotation of factors was performed. Once the rotation was finished, the analysis returned to a qualitative interpretation of the results, which is presented in Chapter 4.

Summary

A phenomenological study of the personal views of creativity of special talent creative people and personally creative people utilizing Q methodology to gather and analysis the results was implemented. The concourse used for the Q-sample was a hybrid composed of the naturalistic responses to interview questions, and statements from

published data. A pilot study was conducted to test the validity of the Q-sort. A P-set of 15 special talented creative individuals and 15 personally creative individuals sorted 38 statements in regard to how much the statements were like their views of what being creative meant in their lives. Permission was sought to tape the research participants' verbal comments while they were conducting the Q-sort and their feedback at the conclusion of the sort. The taped dialogue aided in the interpretation of the results. A statistical analysis of the data was done using the computer program, PQMethod 2.0. To determine what patterns of beliefs were formed by the P-set, a principal component analysis and varimax-rotation of the factors was performed. A qualitative interpretation of the statistical results was then made.

CHAPTER FOUR

RESULTS

In this study the beliefs about what being creative meant in the lives of people who identified themselves as artists (i.e., special talent creativity) and people who did not identify themselves as artists (i.e., personal creativity) were investigated. A phenomenological approach using Q methodology was implemented to conduct the research. Artists and those believing they were not artists were interviewed as a strategy to ensure the views of both groups were represented in the Q-sort. The results from the analysis of the 30 Q-sorts using PQMethod 2.0 are presented in this chapter.

The chapter begins with an overall statistical report, followed by an phenomenological interpretation of the results as they relate to the three research questions: a) What patterns of beliefs about being creative will be formed by the views of the research participants? b) What patterns of beliefs about being creative will be formed by the views of the research participants who have special talent creativity? and, c) What patterns of beliefs about being creative will be formed by the research participants who are personally creative? A summary of the results completes the chapter.

Statistical Analysis

The Q-sorts were intercorrelated and the 30 x 30 correlation matrix was factor analyzed using a principal component analysis. Four meaningful factors were extracted

and a varimax-rotation was performed. A four-factor solution was chosen over three factors because four factors accounted for five percent more variance than did the three-factor solution. The four-factor solution accounted for 52 percent of the variance (i.e., Factor 1 = 13 %, Factor 2 = 10%, Factor 3 = 18%, and Factor 4 = 11%). Furthermore, four factors were selected over five factors because four factors had the largest number of significant Q-sorts. Twenty-four of the 30 Q-sorters had significant loadings on the four-factor solution.

Of the 24 significant loadings: seven were on Factor 1; four on Factor 2; nine on Factor 3; and, four on Factor 4. (See Appendix L for factor loadings.) Of the 30 Q-sorts, six (i.e., P1, P2, P7, A16, P25, and A28) did not reach a significant loading on any of the factors. These non-significant Q-sorts (i.e., P2, A16, P25, and A28) did not have significant Q-sorts because the algorithm used to determine significance was designed to flag only pure cases, according to the following rules: a) $a^2 > h^2/2$ (explains more that half of the common variance); and, b) $a > 1.96\sqrt{n}$items (loading significant at $p>.05$).

Qualitative Interpretation of Results

Four factors or "patterns of beliefs" emerged from the views of the 30-research participant's Q-sorts. The patterns were formed by the quantitative analysis of the data; however, the interpretation of the views represented by the four emerging factors was analyzed qualitatively using phenomenological research techniques. As discussed in Chapters 1 and 3, the essence of both phenomenology and Q-methodology is human subjectivity - - individual perception grounded in interpretive understanding. During the qualitative interpretation of the results of a Q-study, phenomenology and Q methodology

are inseparable except for the added awareness of the researcher's pre-opinions and prejudices, which often remain silenced in Q. The data were analyzed with full awareness of my presuppositions, as stated on page 35. The effects of these presuppositions are discussed in Chapter 5.

Triangulation, an important aspect of qualitative research, was achieved through the initial interviews, the Q-sorting by 30 diverse individuals, and the post-analysis interviews with the defining Q-sorter for each factor. The final interviews served as verification of the interpretations of the beliefs represented by the four factors. The results of these interviews are presented within the subsections for each factor.

Research Question #1: What patterns of beliefs about being creative were formed from the views of the research participants?

This section begins with the beliefs in which the P-set shared a common perspective (i.e., consensus beliefs). The consensus beliefs are followed by an interpretation of the pattern of beliefs represented by each of the four factors, the statements that support these beliefs and the demographically characteristics of the research participants whose Q-sorts were statistically significant. The section ends with a description of the statements and demographically characteristics that separated the factors from one another.

Consensus Beliefs

All 24 research participants whose Q-sorts reached significance believed that being creative brings "passion", "fullness" and "energy" into their lives. This is a commonly held belief in our present day culture. This belief is both implicit and explicit

- - it was expressed in three of the initial long interviews and in published works about creative people (e.g., Csikszentimihalyi, 1996; Davis, 1992).

In the same way that the P-set believed that creativity brings passion to their lives, they did not believe that being creative brings "deprivation caused by sacrifice of other interest" into their lives. It should be noted that the statement that is most representative of this belief was added to the Q-sample after the pilot study and was not expressed in any of the initial interviews. The statement, however, comes from the work of Richards (1990) in a descriptive list of factors belonging to a group of eminently creative people. The strong disagreement of this statement from the P-set may be caused by the fact that no one in the group of research participants had received eminency to the level that was described in Richards' work.

Through the consensus statements, the P-set expressed that they did not believe that "ignoring the external environment" or "never thinking about being creative" had anything to do with what being creative meant in their lives. Both of the statements that represented these views were from the initial interviews. One of the statements was recorded from an artist and the other was from an 82-year-old Native American woman who exhibited personal creativity and described herself as not being creative. The belief these statements express is that the P-set is conscious of their creativity and their surroundings.

The remaining two beliefs that were represented through the six consensus statements (i.e. "the blending of their intuition and logic" and that their creativity was like being "attracted to complexity and novelty, but also tolerant of ambiguity") did not generate strong feelings from the P-set. The statement that represented the belief that

being creative involved the blending of one's intuition and logic was from published work on creativity by Wonder and Blake (1992). The statement that represented the belief that being creative was like being attracted to complexity and novelty, but also tolerant to ambiguity, was from both implicit and explicit theories. The statement originated from several of the initial interviews and in published work (e.g., Davis, 1992; Cropley, 1994).

The six statements outlined in Table 3 represent the consensus statements that did not distinguish between any pair of the factors. The table also presents the array position that each statement carried on the factors.

Table 3

Consensus Statements Among the Factors

Statements	Factor 1	Factor 2	Factor 3	Factor 4
12. The blending of my intuition and logic	1	2	0	0
24. Experiencing life fully - - passionately – - energetically. -	3	3	3	2
26. It never crosses my mind, I never think about it.	-3	-4	-3	-2
27. Attracted to complexity and novelty, but also tolerant of ambiguity.	0	-2	-2	-1
34. Ignoring the external environment.	-3	-3	-3	-4
38. Deprivation caused by sacrifice of other interest.	-4	-4	-3	-3

Factor 1: The Outsiders

The factor array for Factor 1 is presented in Appendix N and the arrays and z-scores for all four factors are outlined in Table 4. Of the 7 research participants whose Q-sorts loaded on Factor 1: 6 were artists and 1 person who did not self-identify as an artist. Of the 6 artists: 2 were males and 4 were females. One of the male artists was of European-American decent with a Masters Degree in Studio Art. The other male artist was of African-American decent with a Bachelor's Degree in Fine Art. Three of the female artists were from a European-American background with the highest degrees obtained being a Bachelor of Art, Masters of Art and a Masters of Fine Art. The other female artist was of African-American background with a high school degree. The art disciplines represented by the special talent creative people from this factor were: 2 poets, 3 visual artists, and 1 who had been publicly recognized for products in both painting and poetry. The one personally creative person whose Q-sort reached significance on Factor 1 was of European-American decent with a high school education.

The majority of the research participants whose Q-sorts reached significance on this factor were artists. Popular opinion about artists often expresses them as alienated from mainstream society. This popular opinion is reinforced by the work of creative researchers, who use terms such as independent, unconventional, non-conforming, and rebellious to describe special talent creative people (Csikszentmihalyi 1996; Davis, 1992; Gardner, 1993). Correspondingly, the strongest view shared by the participants represented by this pattern of belief was that their creativity sets them apart from other members of society. In addition to the majority of significant Q-sorters originating from artists, the majority is also female, with two individuals from African American descent.

Women and people of color are often marginalized in 21st century American culture. This belief arose from two of the " most like" (i.e., +4) array positions being attributed to Statement 20 (i.e., Thinking outside the confines of society) with a z-score of 1.769 and Statement 29 (i.e., Seeing things differently than others) with a z-score of 2.235. These statements were recorded from initial interviews and from published work, making them theoretically both implicit and explicit. Therefore, the title "The Outsiders" is supported both by the Q-sorters' beliefs and demographics.

The Outsiders believed that critical thinking, risk-taking, curiosity, and playfulness is integral to what being creative meant in their lives. These attributes were also personality characteristics that researchers have used to describe special talent creative people (Davis, 1992; Piirto, 1992). The Q-sort items that represented this belief are: Statement #22 (i.e., "Fascination with the unknown, and at the same time asking what's behind the things that are taken for granted") with a z-score of 1.467; Statement 23 (i.e., "Willingness to take risks") with a z-score of 1.346; and, Statement 32 (i.e., "Being playful") with a z-score of 1.446. All three of these statements were located in the +3 array position and are grounded in both implicit and explicit theory (e.g., Davis, 1992).

Being in a comfortable environment or emotionally balanced was most unlike what the Outsiders believed had anything to do with their creativity. This belief was as strong as the feeling of living outside the confines of society and seeing things differently than others. The array position for the Q-sort items that supported this belief was "most unlike" (i.e. – 4) their view of what being creative meant in their lives. These beliefs were represented by Statement 11 (i.e. "When my consciousness in harmoniously

ordered") with a z-score of 1.444, and Statement 35 (i.e., "Being in a comfortable environment") with a z-score of 1.194, originated from implicit theories of creativity expressed by interviewees and explicit theories about creativity (e.g., Cskizentimahaly, 1996).

Personal attributes played a greater role in the Outsiders' beliefs about their creativity than did environmental conditions. Although a comfortable environment is not one of the things that this group believed motivates their creativity, it does not necessarily imply that environmental conditions do not effect their creativity. For example, one of the consensus beliefs for the P-set was that they do not ignore the external environment. The statement representing this belief (i.e., Statement 34) was placed in the -3 array position, with a 1.122 z-score. Personal attributes, however, dominated the beliefs of this group. All but one of the seven statements that are in the "most like" array positions were associated with the creative strand of "person". The majority of the "most unlike" statements fell into the strand of "press" or environment.

The primary beliefs of the Outsiders in which they felt: that they did not fit within mainstream society; that being in an uncomfortable environment, either physical or emotionally, did not constrain their personal creativity; and, that critical thinking, risk-taking, curiosity, and playfulness was integral to what being creative meant in their lives, are explicit beliefs that have published in research about special talent creative people (Csikszentmihalyi, 1996; Davis, 1992; Piirto, 1992). This pattern of belief was more characteristic of artists than of scientists or special talent creative people from other domains (Piirto, 1992). The post-analysis interview with the person who produced the defining Q-sort for this factor emulated these beliefs.

The person with the defining Q-sort was one of the most publicly recognized artists from the P-set. He has received awards for his artwork both regionally and nationally. His paintings can be found in prominent public and private collections and he has published works of poetry. He confirmed the belief that his creativity made him feel like an Outsider. He expressed, that for as long as he could remember, he has felt different than most of society. He said, that although this feeling of isolation often made him feel lonely, at some point in his life he made peace with being an "Outsider," and has been able to transform these feelings into his artwork. His belief that being able to transform a feeling of discomfort into creative production reconfirmed the pattern of beliefs expressed by Factor 1, in which they felt that being in uncomfortable environments or emotional unbalance did not restrict their creativity. Being a critical thinker, curious, and playful were all characteristics that he used to describe himself in the pre- and post-Q-sort interviews. These are views that were shared by the Q-sorters who had significant Q-sorts on Factor 1. His verbal descriptions of the characteristics of his creativity supported the beliefs that emulated the Outsiders.

Factor 2: The Mindful Planners

The factor array for Factor 2 is presented in Appendix N, with Table 4 illustrating the z-scores and arrays for all four factors. Of the 4 research participants whose Q-sorts loaded on Factor 2: 3 were artists and 1 person did not identify herself as an artist; all 4 were female and all 4 were of European-American decent. The highest educational degrees obtained by the special talent creative people were a Bachelor of Fine Arts, a Masters of Arts, and a Masters of Fine Arts. The personally creative person had a

Table 4

Factor Array with Z-Scores

Statements	Factor 1		Factor 2		Factor 3		Factor 4	
	z	a.p.	z	a.p.	z	a.p.	z	a.p.
1. Producing something to express my inner feelings.	.046	0	.922	-3	.990	2	1.899	4
2. Achieving something remarkable and new, something which transforms and changes things in a significant way.	.603	2	.458	-1	.993	2	1.980	-4
3. Doing ordinary tasks differently.	1.059	2	.556	-1	.401	1	.529	1
4. Making something that has aesthetic value.	.343	-1	.675	1	.023	0	.881	-2
5. Using all of my talents to become what I'm capable of becoming.	.169	0	1.433	3	1.551	4	.284	0
6. Outcomes that are both original and useful.	.100	0	.354	0	1.338	3	.322	-1
7. Happiness - - loving what I'm doing - - feeling good about myself.	.129	1	.090	0	1.402	4	.526	1
8. A means of constructing a mythic past whose effectiveness can be felt in the present.	1.061	-3	1.531	-4	1.343	-3	.439	1
9. Trusting myself to see with my eyes, to look at what is seen - - not what my mind "thinks" it sees.	.873	-2	1.892	4	.068	0	.117	0
10. Talking to God.	.951	-2	.413	0	.133	-1	.425	1
11.When my consciousness is harmoniously ordered.	1.444	-4	.628	-1	.773	-2	.575	-1
12. The blending of my intuition and logic.	.303	1	.764	2	.276	0	.370	0
13. A sequence of steps or stages to solve a problem.	.551	-2	.726	2	1.123	3	1.038	-2
14. Finding order in chaos.	.366	-1	1.025	2	.793	2	.969	-2

15. It just happens – it's almost automatic. I couldn't give it up, even if I tried.	.177	0	1.239	3	.241	-1	.753	2
16. Traveling into the spiraling depths of the unknown.	.547	-1	.968	-3	1.785	-4	.337	0
17. A process in which my knowledge, skills, and intrinsic motivation intersect.	.284	0	1.128	3	.720	1	.552	1
18. A very complex near elusive phenomenon.	.777	-2	.710	-2	1.785	-4	1.276	-3
19. A force to enhance inner well-being - to renew my spirit.	.731	-1	.659	1	.161	-1	1.043	3
20. Thinking outside the confines of society.	1.834	4	1.285	-3	.055	0	.427	-1
21. Losing the fear of being wrong.	.320	1	1.119	2	.863	-2	1.479	-3
22. Fascination with the unknown, and at the same time asking what's behind the things that are taken for granted.	1.476	3	.257	0	.400	-1	.183	0
23. Willingness to take risks.	1.346	3	1.684	4	.335	0	949	3
24. Experiencing life fully - - passionately - - energetically.	1.126	3	1.377	3	1.023	3	.756	2
25. Being a great listener -- observer of the life - - being curious.	1.769	4	.658	1	1.547	4	1.335	3
26. It never crosses my mind, I never think about it.	.992	-3	.992	-4	1.407	-3	1.065	-2
27. Attracted to complexity and novelty, but also tolerant of ambiguity.	.128	0	.714	-2	.695	-2	.205	-1
28. Patience with altered states.	.796	-2	.364	1	.439	-1	1.000	3
29. Seeing things differently than others.	2.235	4	.771	-2	.371	1	.834	2
30. Having a constructive sense of humor.	.723	2	.105	0	.636	1	.881	2
31. Being talented.	2.235	-3	.451	-1	1.027	3	1.114	-3

32. Being playful.	1.446	3	.090	1	.047	0	1.558	4
33. Being out of my comfort zone.	.406	1	1.220	-1	1.113	-2	1.483	-4
34. Ignoring the external environment.	1.122	-3	.569	-3	1.609	-3	1.601	-4
35. Being in a comfortable environment.	1.194	-4	.199	0	.413	1	.344	-1
36. Being in a flexible and receptive atmosphere	.647	-1	.870	-2	.799	2	.019	0
37. Solitude.	.126	1	1.441	4	1.617	-4	1.426	4
38. Deprivation caused by sacrifice of other interest.	1.623	-4	1.646	-4	1.356	-3	1.222	-3

Note: z = z-scores a.p. = array positions

Masters of Science degree. All of artists were known for creative production in the visual arts.

The pattern of beliefs that emerged from the Q-sorts of this group emphasized how conscious they were about their creativity. They have strategies that they implemented in their lives to engage their creative process. Solitude played a big part in their creativity. In a like manner, the Mindful Planners believed that they must concentrate to truly perceive what they were seeking. They felt that unless they made a conscious effort their preconceived ideas might cloak their seeing. To see things with their eyes rather than their mind provided a framework for their creativity. The Mindful Planners were cognizant that willingness to take risks, not being afraid to be wrong, and using all of their talents, were important aspects of what being creative meant in their lives. The pattern of belief for this group also suggested that they viewed their creativity as a process in which their knowledge, skills and intrinsic motivation intersected.

Paradoxically, this group also believed that their creativity just happened and (similarly to the belief of the P-set as a whole) that they couldn't give it up even if they tried.

Unlike the Outsiders, the Mindful Planners did not believe that their creativity isolated them from others. Moreover, they did not believe that their creativity had anything to do with producing things to express their inner feelings, illustrating things from the mythic past, or traveling into the depths of the unknown. Each of these beliefs were supported by statements that received negative loadings of –4 or –3 (i.e., Statement 20 = -3 ["Thinking outside the confines of society"]; Statement 1 =-3 ["Producing something to express my inner feelings"]; Statement 8 = -4 ["A means of constructing a mythic past whose effectiveness can be felt in the present"]; and Statement 16 = -3 ["Traveling into the spiraling depths of the unknown"]). The z-scores of these statements ranged from 1.531 to .968. Statement 1 appeared both in implicit theories expressed by artists from the initial interviews, and in explicit theories about special talent creativity (e.g., Piirto, 1992). Likewise, Statement 20 appeared in both implicit and explicit theories (e.g., Davis, 1992). Statements 8 and 16, however, only appeared in explicit theory (i.e., Apostolos-Capppadon & Ebersole, 1995).

One of the beliefs that most distinguished this factor from the other three was that the Mindful Planners believed their creativity was most like being conscious of the tricks the mind can play on the other senses. This belief was represented by Statement 9 (i.e., "Trusting myself to see with my eyes, to look at what is seen - - not what my mind 'thinks' it sees") which received a +4 loading with a z-score of 1.892. Statement 9 was from an explicit theory that presented the meaning of creativity in Eastern thought (Wonder & Blake, 1992). Statement 9 is also similar to Western thought, such as in the

"search for truth," which has appeared in a published list of the personality traits of special talent creative people (Barron, 1963). Although, Statement 9 is quoted almost directly from a published source, a very similar statement appeared in one of the initial interviews (i.e. "Fascination with the unknown - - but also asking, "What's behind the things that are taken for granted?" which became Statement 22, with a +3 array position).

The statements that best expressed the Mindful Planners' beliefs that solitude, willingness to take risks, losing the fear of being wrong and using all of their talents, were important aspects of their creativity fell within the +4 to +2 loadings with z-scores ranging from 1.119 to 1.684 (i.e., Statement 37 ["Solitude"], Statement 23 ["Willingness to take risks"], Statement 5 ["Using all of my talents to become what I'm capable of becoming"], and Statement 21 ["Losing the fear of being wrong"]). All four of these statements appeared in both the interviews and published work on creativity (e.g., Cskizentimahaly, 1996; Ealy, 1995; Pierto, 1992). Statement 17 defined the belief that this group's creativity was like a process in which knowledge, skills, and intrinsic motivation intersected. Statement 17 (i.e., "A process in which my knowledge, skills, and intrinsic motivation intersect") received a loading of +3, with a z-score of 1.128. It was an explicit theory from Amabile (1983).

The research participant with the defining Q-sort for the Mindful Planners was a painter who has exhibited work locally and regionally. She has had several one-person and juried shows and has received significant recognition for her work. She holds a Bachelor's Degree of Fine Art from a prestigious art school. She supports herself through the sale of her paintings, teaching and artist residencies.

The following description of how she prepares to do her paintings supported the patterns of beliefs that described the views of the Mindful Planners: "I set aside at least three hours a day to be in my studio. I'm very guarding of this time. This is time I spend by myself. I cannot say that I paint for three hours each day, but I'm in the studio in preparation for painting - - sometimes I do not paint - - sometimes I make things out of found objects - - sometimes I make nothing - - but, being in the studio gives me a place where I go for this precious time to think about creating."

In addition to the defining Q-sorter's quote about the strategy she used to elicit her creativity, she verified that she was not afraid to take risks or make mistakes. She is a student of Eastern Philosophy, which was prominent in the pattern of beliefs that emerged from the Mindful Planners. Rather than feeling like she was an outsider, representative of the research participants whose Q-sort reached significance on Factor 1, this Mindful Planner felt very much part of her community. In addition to her studio time, she enjoys working in artist residencies with under served and at risk populations. Therefore, the defining Q-sorter for Factor 2 confirmed the beliefs expressed by the Mindful Planners.

Factor 3: The Conventional Talents

The factor array for Factor 3 is presented in Appendix O, with Table 4 outlining the z-scores and arrays of all four factors. Of the 9 research participants whose Q-sorts loaded significantly on Factor 3: 7 have personal creativity and 2 have special talent creativity. Of the special talented participants: both were male performing artists of African American descent. The highest degrees reached by the artists were Masters of

Fine Arts and a high school diploma. Of the 7 personally creative participants, 1 was male and 6 were female. The male was of European-American heritage with a high school education. Of the six females, five were of European-American descent and two were of an African-American background. The highest degrees obtained by the females were one doctorate (Ph.D.), two Bachelor or Arts, and four high school diplomas.

The belief that most prominently defined this group was that they equated "being talented" to what being creative meant in their lives. They believed that their talent should be used in making tangible creative products that are exceptional. When the "Conventional Talents" are creating, they are happy. They believed that their creativity came from being curious and by following a sequence of steps or stages to solve a problem. The investigation of the unknown or being alone are not things that this group believed to be important to their creativity. Unlike, the beliefs of the Outsiders and the Mindful Planners, the Conventional Talents did not believe that solitude was important to their creativity.

The Conventional Talents' belief that connected creativity to talent was characterized by Statements 5 and 31 (i.e., "Using all of my talents to become what I'm capable of becoming" and "Being talented") both having positive loadings (+4 and +3, with z-scores of 1.551 and 1.027). No other group registered either of these two statements in the "most like" categories. This group also equated its creativity to producing outcomes that were both original and useful (+3 array position on Statement 6 ["Outcomes that are both original and useful"], with a z-score of 1.338). The positive array position for this statement was also unique to this group.

The Conventional Talents distinguished themselves by having Statement 7 (i.e., "Happiness – loving what I'm doing - - feeling good about myself") as one of their most positive statements (+4, with a z-score of 1.402. The groups' most distinguishing negative statements, both with loadings of –4, were Statements 16 and 37 (i.e.,"Traveling into the spiraling depths of the unknown" and "Solitude"), with z-scores of 1.785 and 1.426. The two other beliefs that set the Conventional Talents apart from the Outsiders and Mindful Planners were their perceived need for a flexible and receptive atmosphere and non-interest in risk taking. Whereas, willingness to take risks was very much a part of what being creative meant to the Outsiders and Mindful Planners, the Conventional Talents felt neutral about its relationship to their creativity. Moreover, while the Conventional Talents believed that a flexible and receptive atmosphere was conducive to their creativity, the other two groups did not feel the same need.

The positive statements that represented the Conventional Talents' beliefs were from explicit theories and published in much of what is written about special talent creativity (e.g., Davis, 1992, Csikszentmihalyi, 1996), as well as in many implicit theories from the initial interviews. Similarly, the negative statements appeared both in the initial interviews and in published work (e.g., Ealy, 1995).

It was remarkable how each of the "most like" statements represented popularly held beliefs about what it is to be creative (Davis, 1992). This conventional thinking about creativity emerged from a group in which most of the Q-sorters did not identify themselves as artists (i.e., seven of nine). Although 6 of the 9 Q-sorters represented by Factor 3 were women, the statements that were "most unlike" their view of creativity

(i.e., solitude and the unknown) were most prominent in the interviews of women and work published by and about women (Ealy, 1995; Hooks, 1995).

The defining Q-sort was, however, from a man who was a plant manager with a high school education. He did not identify himself as an artist. Both his pre- and post Q-sort interviews reinforced the beliefs of the Conventional Talents. He spoke of creativity being something that originated with "talent" and that creative products needed to be useful and original. He also expressed that curiosity was a big part of what fueled his creativity and that he was most happy when he was creating. He further confirmed the beliefs expressed by the Conventional Talents by stating that he preferred to work with others rather than by himself. In a like manner, he did not believe solitude had anything to do with his creativity. Moreover, he did not believe that investigating the "unknown" was vital to creativity. His interview sustained the analysis of the patterns of believes for the Conventional Talents.

Factor 4: The Inner Beings

The factor array for Factor 4 is presented in Appendix P, with an outline of the z-scores and arrays of all four factors listed on Table 4. Of the 4 research participants whose Q-sorts loaded significantly as the Inner Beings: 2 were artists and 2 did not identify themselves as artists. Of the artists, one was a male Asian-American painter with a Masters Degree in Fine Art; the other was a female European-American dancer, with a Masters of Art degree. Both of the personally creative participants were of European-American heritage and were males. One of the personally creative Q-sorters had a high school diploma and the other had a Master of Arts degree.

What being creative meant in the lives of the people represented by Factor 4 had much to do with their inner selves and with being playful, curious, patient with altered states, and willing to take safe risks. Creativity to this group was not about producing something that others deem as remarkable or having aesthetic value. At the same time that the "Inner Beings" believed that while they were being creative they shun the approval of others, they did not believe that they ignored the external environment, as long as it was not too uncomfortable. The Inner Beings viewed solitude as playing a very important role in their creativity, but not to the point of deprivation. Additionally, they felt that being creative involved taking risks, but not without losing the fear of being wrong (i.e., safe risks).

These beliefs were characterized by the positive loadings on the statements that focus on one's inner life (i.e., Statements 1 and 37, both with a +4 array position and z-scores of 1.899 and 1.426 and Statement 19, with a +3 array position and a1.043 z-score). Being "something" dominated the statements that expressed what is "most like" their creativity, and was also prominent in the statements that are "most unlike" what being creative meant in their lives (+4 loading on Statement 32; +3 loading on Statements 25, 28, and 23; -4 loading on Statement 33; and –3 loading on Statements 31 and 21).

The beliefs of the Inner Beings were distinguished from the beliefs expressed by the other factors more by the negative array positions of their statements than by the statements in positive array positions. Only one distinguishing statement for the Inner Beings resided in the positive range (+1 loading on Statement 8, with a z-score of .439). This group did not believe that being creative was about achieving something remarkable (-4 loading on Statement 2, with a z-score of 1.980) or about losing the fear of being

wrong (-3 loading on Statement 21, with a z-score of 1.479). These ideas were characterized by Statements 13 or 14 (-2 loadings with z-scores of 1.038 and .969), in which the ideas of finding order in chaos and proceeding in a logical order were aligned with their view of what being creative was to them. Both statements were found in the implicit theories related during the initial interviews and in explicit theories that described special talent creative people (e.g., Davis, 1992, Csikszentmihalyi, 1996). Additionally, the Inner Beings were the only group that felt that their creativity helped to renew their spirit and was used as a means to reconstruct the mythic past. Statements 8 and 19 characterized these beliefs. On Statement 8 (i.e., "A means of constructing a mythic past whose effectiveness can be felt in the present."), the Inner Beings were the only group that related it to their creativity. The other three groups felt it was unlike what creativity meant in their lives. Likewise, the Inner Beings felt much stronger about their creativity being "a force to enhance inner well-being – to renew my spirit" than did any other group (i.e., positive 3 array position on Statement 19, with the Mindful Planners loading at positive 1 array position, and the other two groups a negative 1 position). The belief that losing the fear of being wrong was related to creativity was the only notion that separated the Outsiders and Mindful Planners from the Conventional Talents and Inner Beings. The Outsiders and Mindful Planners believed losing the fear of being wrong was connected to their creativity, whereas the other two groups did not share this belief.

The person whose Q-sort best defined the Inner Beings was a man, with a high school education, who worked as an automotive technician and was an award winning body builder. He did not identify himself as an artist. He verified the belief of the Inner

Beings that being creative was not about pleasing others. Although he said he was happy when the results of his creativity made other people happy. He also shared that solitude was a very important aspect of his life, as was being playful, curious, and patient with altered states. Taking safe risks, in which he was confident that he was not going to be wrong and wanting to be in a comfortable environment were also beliefs he agreed were important to his creativity. He did not, however, agree with the beliefs concerning not finding order in chaos and using a sequence of stages. He stated that he did like the challenge of finding order and took pride in the fact he worked in prescribed steps. Although the beliefs of the defining Q-sorter did not totally emulate the analysis of the beliefs of the whole group, his implicit theories of creative were very similar to the most prominently held feelings of what being creative meant to the Inner Beings.

Distinctions Among Factors

Each of the four patterns of beliefs (i.e., The Observers, The Mindful Planners, The Conventional Talents, and The Inner Beings) has a set of statements that distinguished their beliefs from the other groups. Table 5 presents the most distinguishing statements among the factors and their array positions. The statements presented in Table 5 represent the distinguishing statements with array positions of positive or negative three and four. Distinguishing statements with less strength are illustrated in Appendixes M, N, O, and P. Another distinction among the factors is formed from the demographics of the participants whose Q-sorts reached significance on each factor. Table 6 presents the demographics among the factors and the participants whose Q-sorts did not reach significance.

Table 5

Most Distinguishing Statements

Factor 1 Outsiders	Factor 2 Mindful Planners	Factor 3 Conventional Talents	Factor 4 Inner Beings
Distinguishing Statements & Array Positions	Distinguishing Statements & Array Positions	Distinguishing Statements & Array Positions	Distinguishing Statements & Array Positions
11. When my consciousness is harmoniously ordered. (-4)	1. Producing something to express my inner feelings. (-3)	6. Outcomes that are both original and useful. (3)	21. Losing the fear of being wrong. (-3)
20. Thinking outside the confines of society. (4)	20. Thinking outside the confines of society. (-3)	7. Happiness - - loving what I'm doing - - feeling good about myself. (4)	2. Achieving something remarkable and new, something which transforms and changes things in a significant way. (-4)
22. Fascination with the unknown, and at the same time asking what's behind the things that are taken for granted. (3)	9. Trusting myself to see with my eyes, to look at what is seen - - not what my mind "thinks it sees. (4)	16. Traveling into the spiraling depths of the unknown. (-4)	
29. Seeing things differently than others. (4)	23. Willingness to take risks. (4)	31. Being Talented. (3)	
35. Being in a comfortable environment. (-4)		37. Solitude (-4)	

The primary distinctions among the four "patterns of beliefs" that emerged from the 30 Q-sorts were: The Outsiders believed that their creativity separated them from the rest of society and that a comfortable environment or emotional balance was not conducive to engaging the creative process. The Mindful Planners on the other hand, believed that their creativity took place within the realm of societal thinking, and that their creative products were not necessarily something to express their inner feelings. To the Mindful Planners creativity was very cerebral and conscious. Taking risks was very much a part of their strategic plan to engage the creative process and added to the distinction of this group. Conventional Talents signified themselves from the other groups by having the strong belief that their creativity brought them happiness. The Conventional Talents also separated themselves from the others by believing that their creative products needed to be original and useful and that to engage in the creative process they did not need to be alone. Inner Beings believed that they did not need to make anything remarkable or new to have a creative product. Expressing their inner feelings was the thing that they believed to be the most important in creative production. This belief was quite the opposite of the Conventional Talents' views. The other most distinguishing belief of the Inner Beings was that they believed that to be creative did not mean losing the fear of being wrong.

The major distinction that separated the four factors demographically was that the first two factors were defined by the majority of the special talent creative Q-sorters, with the Conventional Talents being most representative of the personally creative research participants, and the Inner Beings consisting of half special talent creative Q-Sorters and half personally creative Q-Sorters. Other noteworthy demographic distinctions were that

the Outsiders and Conventional Talents represented all of the African-American Q-sorters, and the Mindful Planners were exclusively represented by the Q-sorts of European-American females. The two special talent Q-sorters represented by the Conventional Talents were both male, African American, performance artists. The highest degrees obtained and the represented art disciplines did not show any distinguishing patterns, with the exception of the Mindful Planners' special talented Q-sorters were all visual artists.

Table 6

Demographic Distinctions Among Factors

	Factor 1	Factor 2	Factor 3	Factor 4	Non-Significant
Creativity					
Special Talent	6	3	2	2	2
Personal	1	1	7	2	4
Art Discipline					
Visual	3 ½	3	0	1	0
Literary	2 ½	0	0	0	1
Performing	0	0	2	1	1
Ethnicity					
African-American	2	0	4	0	0
Asian-American	0	0	0	1	0
European-American	5	4	3	3	5
Native-American	0	0	0	0	1
Gender					
Female	4	4	6	1	0
Male	3	0	3	3	6
Highest Degree Obtained					
High School	2	0	5	1	3
Bachelors	3	3	2	0	1

Masters	2	1	1	3	2
Doctorate	0	0	1	0	0

Research Question #2: What patterns of beliefs about being creative were formed from the research participants who have special talent creativity?

The statistical analysis of the 30 Q-sorts combined the beliefs of the researcher participants who had special talent creativity and those who were personally creative. Four patterns of beliefs that had at least four significant Q-sorts emerged from the varimax-rotation. Of the 13 significant Q-sorts from the P-set with special talent creativity, 9 loaded in the Outsiders and the Mindful Planners. Of the 11 significant Q-sorts from the P-set with personal creativity only 2 loaded on these two factors. Therefore, the beliefs expressed by the Outsiders and Mindful Planners were more represented of the artists from the P-set, than were the beliefs of the Conventional Talents and Inner Beings. Correspondingly, the defining Q-sorts (i.e., most significant) from both the Outsiders and Mindful Planners came from artists.

Although the beliefs portrayed by the Outsiders and Mindful Planners do not produce a clear picture of what being creative means in the lives of all special talent creative people, they do provide a glimpse into the shared implicit theories of the group of artists from this P-set. The beliefs of the Outsiders were best characterized by their name because they felt being creative set them apart from other members of society. This Outsider's belief, however, was in opposition to the beliefs of the Mindful Planners. The Mindful Planners did not believe their creativity made them different from others. The beliefs of the Mindful Planners were also best characterized by their name because they believed that they had strategic plans to arouse their creative process. Although this

belief was not in total opposition to the beliefs of the Outsiders, being consciousness of the creative process was not as strongly associated with what being creative meant in the Outsider's lives, as it was in the lives of the Mindful Planners. A thorough description of the beliefs of The Outsiders and Mindful Planners was presented previously in Research Question #1.

In addition to the consensus beliefs of the P-set, the significant Q-sorters from the two factors that were most representative of the special talented research participants shared other beliefs. Both the Outsiders and the Mindful Planners believed that the willingness to take risks and not being afraid of being wrong were important aspects of what creativity meant in their lives. Likewise, both groups believed that being observant of the external environment was meaningful to their creativity. Furthermore, neither group believed that their creativity was a means of bringing the mythic past into the present. The importance of losing the fear of being wrong, however, was the only belief that these two groups shared to the exclusion of the Conventional Talents and Inner Beings.

Research Question #3: What patterns of beliefs about being creative will be formed from people who have personal creativity?

Similar to the Outsiders and Mindful Planners who represented the majority of the Special Talent Creative P-set, the Conventional Talents was most representative of the personally creative Q-sorters. The Conventional Talents had 7 of the 10 significant personally creative Q-sorts. Likewise, the defining Q-sort from this factor was from a personally creative research participant. Therefore, the beliefs expressed by the

Conventional Talents better depicted the beliefs of the personally creative research participants, than the special talent creative group.

The beliefs of the Conventional Talents were characterized in their name because this group held very "popular" views about creativity, such as equating being talented to being creative. The Conventional Talents believed that a creative product needed to be recognized as being exceptional. These beliefs not only distinguished the Conventional Talents from the Outsiders and Mindful Planners, but they also were very different from the Inner Beings. The Inner Beings were composed of an equal number of significant Q-sorts from special talent and personally creative research participants. Moreover, the Conventional Talents believed that their creativity produced more happiness in their lives than did the other three groups. The Conventional Talents also had a strong feeling that solitude was not an important aspect of their being creative, whereas, the Mindful Planners and Inner Beings felt just as strongly that solitude was a very important aspect. The Outsiders were neutral about the relationship solitude had to their creativity. Likewise the Conventional Talents felt that being in a flexible and receptive atmosphere was more important to their creativity than did the other Q-sorters. Moreover, the P-set that did not identify themselves as artists felt that solitude and risk-taking were less meaningful to their creativity than did the artists.

As stated in the discussion about the second research question, the only belief that the Conventional Talents and Inner Beings shared to the exclusion of the Outsiders and Mindful Planners, was their view about the relationship between not being afraid of being wrong and their creativity: the personally creative Q-sorters felt it had less to do with their creativity than did the special talent creative Q-sorters. For greater details on

the beliefs of the four factors see the text in this chapter under the subsection on Research Question #1.

Summary

Four meaningful factors resulted from the analysis of the 30 Q-sorts using PQMethod 2.0. The four factors accounted for 52 percent of the variance. The beliefs about what creativity meant in the lives of the research participants were represented by the four factors and were characterized by the following titles: The Outsiders, Mindful Planers, Conventional Talents, and Inner Beings. Of the 13 significant Q-sorts from the P-set with special talent creativity, 9 loaded as the Outsiders and Mindful Planners. Likewise, the Conventional Talents and Inner Beings have 9 of the 11 significant personally creative Q-sorts. The only belief that differentiated the majority of the special talent creative Q-sorters from the majority of the personally creative Q-sorts was how not being afraid to be wrong related to their creativity: the artists felt that the relationship was stronger than did the non-artists in the P-set. Six consensus statements were reported among the factors. The consensus factors represented beliefs the whole P-set, except for the six non-significant Q-sorts, had about what creativity meant in their lives. The most positive shared belief was that creativity brought passion and energy to their lives. Most unlike what the whole groups' view of creativity was their belief that being creative did not mean deprivation caused by sacrifice of other interests. The group also strongly believed that they are conscious of their creativity and surroundings. Post-analysis interviews with the defining Q-sorters resulted in the assurance that my analysis of the patterns of beliefs represented the P-set's views.

CHAPTER FIVE

DISCUSSION, IMPLICATIONS AND CONCLUSIONS

Creativity has a positive role in the growth of individuals and society. The problem is that although each individual possesses either special talent or personal creativity, to a greater or lesser extent, some people are not motivated to develop and use their creativity. Behavior is connected to beliefs through research on attribution theories (Weiner, 1985). Research also exists that connects beliefs about creativity to creative behavior (Katz & Thompson, 1993; Sternberg, 1985). There is, however, a lack of research on the patterns of beliefs formed from what being creative means in the lives of individuals and the relationships between the beliefs of people with special talent and personal creativity. Prompted by the potential assistance knowledge gained from investigating these two areas of research could have on efforts to enhance and encourage creativity, this study was implemented.

Using a phenomenological approach with Q-methodology, four patterns of beliefs emerged from the Q-sorts of 15 special talented research participants and 15 personally creative research participants. The four factors significantly accounted for the beliefs of 24 of the 30 Q-sorters. Six consensus statements represented the beliefs of all 24 significant Q-sorters. The belief that creativity brought passion and energy to their lives was most like what the P-set felt as a whole. Deprivation caused by sacrifice of other

interests and ignoring the external environment was most unlike what being creative meant to the whole group.

Of the four distinct patterns of beliefs, two were most represented of Q-sorters who had special talent creativity, one was most represented of Q-sorters who possessed personal creativity, and one equally represented the beliefs of both groups. The patterns of beliefs that were most representative of the special talented Q-sorters were characterized by the feeling that their creativity separated them from society (i.e., Factor 1 – The Outsiders) and by being very conscious of having strategies to enact their creative process (i.e., Factor 2 – The Mindful Planners). The beliefs that were most representative of the personally creative Q-sorters were those in which they thought of their creativity as being synomous with talent and demonstrated by producing tangibly significant products (i.e., Factor 3 - "The Conventional Talents"). The fourth factor (i.e., The Inner Beings), represented the beliefs of the both the personally and special talent creative Q-sorters, in which they felt that their creativity had to do with their "inner selves" and with "being" (e.g., being playful, curious, patient with altered states, etc.).

In addition to the Conventional Talents having the distinction of being the only group that believed their creativity was synomous with being talented and producing exceptional products, several other beliefs separated the implicit theories of the special talent and personally creative Q-sorters. The majority of personally creative research participants believed that creativity brought more happiness into their lives than did the special talent creative people in the study. Likewise, the Conventional Talents felt that being in a flexible and receptive atmosphere was more important to their creativity than did the other Q-sorters. Moreover, the P-set that did not identify themselves as artists felt

that solitude and risk-taking were less meaningful to their creativity than did the artists. The only belief, however, that distinguished the Outsiders and the Mindful Planners from the Conventional Talents and Inner Beings, was how the groups related their creativity to the fear of being wrong. The belief that was most representative of the factors that were predominately composed of special talented Q-sorters suggested that "losing the fear of being wrong" was like what being creative meant in their lives. The Q-sorters represented by the other two factors shared the opposite belief, in which losing the fear of being wrong was not related to their creativity.

Demographic distinctions included the Outsiders and Conventional Talents representing all of the African-American research participants and the Mindful Planners being comprised exclusively of European-American women. The two special talent Q-sorters represented by the Conventional Talents were both male, African American and performing artists. The highest degrees obtained and the various art-disciplines of the special talented Q-sorters did not show any distinguishing pattern, with the exception of the Mindful Planners' special talented Q-sorters were all visual artists.

This chapter proceeds with a discussion about how the results supported the hypothesis of the research and the similarities and differences between the results and previously reviewed research. The chapter then presents the implications the research findings have to method, theory and practice. Addressed within the discussion on the implications of the research findings, are the contribution this study may have on efforts to encourage and enhance creative behavior and what was revealed about the relationship between Big C and little c. The chapter concludes with the shortcomings of the research and a call for future studies.

Discussion

As hypothesized, differences were found among the beliefs of the Q-sorters who represented special talent creativity and those representing personal creativity. Two factors were predominately comprised of the significant Q-sorts from artists, one factor represented the significant Q-sorts of the majority of research participants with personal creativity, and one factor represented both groups equally. The differences in the patterns of beliefs found between artists and non-artists of this P-set provides clear support for the findings of two previously reviewed studies (i.e., Cskiszentmihalyi, 1996; and Kumar, Holman & Rudegeair, 1991), partial support for two other studies (i.e., Cawelti, Rappaport and Wood, 1992; and Bindeman , 1998) and provides no support for the work of Runco and Bahleda (1986).

Csikszentmihalyi (1996) found that although the 90 special talent creative individuals that were interviewed differed from one another in various ways, they all loved what they did and continued to create because it was fun. Csikszentmihalyi's findings coincide with the consensus beliefs of all 24 of the research participants whose Q-sorts were significant. The P-set as a whole believed that their creativity brought "passion," "fullness," and "energy" into their lives.

The research findings of this study echoed the results of Kumar, Holman and Rudegeair's (1991) research, in which they found that 182 college freshmen, who self-identified themselves as "creative," "somewhat creative," and "least creative," differed in their beliefs about and approaches to creative endeavors. Kumar, et al., (1991) concluded that their results supported notions that more creative students: (a) have certain creative thinking skills that help them to create and pursue new ideas; and, (b) were less motivated

by the goal of producing a final product than their less creative counterparts. Although data on the extent to which the Q-sorters viewed themselves to be creative was not collected for the research presented in this dissertation, the patterns of beliefs that emerged from the two factors that were predominately artists mimicked the beliefs of the more creative research participants from Kumar, et al.'s, study. For example, Factor 2 – Mindful Planners, which was represented by three artists and one Q-sorter who did not self-identify as an artist, believed that they had strategies that they implemented to engage their creative process. And, Factor 3 – The Conventional Talents, which was represented by seven personally creative individuals and two people with special talent creativity, believed that making tangible creative products that were exceptional was important to their creativity.

The research of Cawelti, Rappaport and Wood (1992) and Bindeman (1998) produced conflicting results as to the extent that artists explained their creative process in terms of hierarchies or stages of development. The artists involved in Calwelti, et al.'s research insisted that the process they used to create could not be explained in a linear fashion, whereas, Bindeman's phenomenological study of nine artists used terms such as "stages" and "procedures" to discuss the creative process. Beliefs about the linearity of the creative process were mixed among the factors representing the artists and non-artists. The Conventional Talents, which was composed primarily of non-artists, felt strongest about their creativity being like a "sequence of steps or stages to solve a problem" (i.e., Statement 13, +3 array position). The Outsiders, which was representative of the majority of the P-set's artists, felt that their creativity was only somewhat like a sequence of steps or stages (i.e., +2 array position). On the other hand, The Inner Beings, which

was a equally mixture of the beliefs of artists and non-artists, and the Mindful Planners, which was predominately artist, felt moderately that their creativity was not like a series of steps or stages (i.e., -2 array position).

The differences that were found among the beliefs of the Q-sorters who represented special talent creativity and those representing personal creativity did not support the research of Runco and Bahleda (1986). Runco and Bahleda found no significance differences in the number and uniqueness of responses between the artists and the students.

Implications of the Research Findings

Implications to Method

As in any study that implements a phenomenological approach, the researcher must remain conscious of how the research topic and the results of the study are effected by their presuppositions. The techniques inherent in Q-methodology provide a prefect window to view the researcher's preferences. A reflection of the researcher's preferences are apparent in the selection of the Q-sample and P-set and in the researcher's Q-sort (see Appendixes A, B. and C). The researcher's influence was illustrated in the fact that it was one of my preconceived ideas and the premises of this study, (i.e., "beliefs about creativity influence creative behavior") that influenced my choice of methodology. Q methodology and phenomenology are both excellent methods for the collection of human subjectivity. My belief that the product of everyday creativity is exceedingly important and often unrecognized, led me to include the implicit theories of personally creative people in the Q-sample and to have one-half of the P-set be people that did not exhibit

special talent creativity. Likewise, my opinion that the characteristics of creative people are culturally bound led me to seek research participants that represented diversity in terms of gender, ethnic background and socioeconomic status. Similarly, the Q-sample reflects my belief that the process of creativity involves immensely personal and spiritual aspects, which defy inclusive definition. Furthermore, the Q-sample reflects my belief that the creative process transforms emotion and cognition. The results that emerged from the patterns of beliefs of the P-set support my presupposition that conducive environments for creativity vary greatly among people. The utilization of both phenomenological and Q research methods worked as a perfect balance to investigate the implicit theories held by the research participants about their personal creativity.

Implications to Theory

The underlying theoretical framework of this research was the communicability of human subjectivity and how beliefs about creativity effect creative behavior. Personal beliefs about the everyday creativity of a group of artists and people who did not identify themselves as artists were communicated first through the collection of implicit theories from long-interviews and then through the P-set's Q-sorts.

The analysis of the Q-sorts revealed four distinct patterns of beliefs, in which artists dominated two of the four factors. The beliefs that most defined the differences between the special talent research participants were that the personally creative Q-sorters felt their creativity made them happier and they had a greater need for a flexible and receptive environment than did the special talent Q-sorters. Likewise, in opposition to the beliefs of the artists, the majority of the personal creative Q-sorters felt that

solitude and risk taking were not important to their creativity. The only belief that distinguished the Outsiders and the Mindful Planners from the Conventional Talents and Inner Beings, was how the groups related their creativity to the fear of being wrong. The artists believed that losing the fear of being wrong was important to their creativity, whereas those who did not identify themselves as artists did not relate this belief to their creativity. These findings may hold clues to the mystery of why some people are not motivated to develop and use their creativity. It may also help to increase understandings about the differences between Big C and little c.

Maintaining mental health is not often viewed as a creative product. Cropley (1990), however, found that the characteristics used to describe creative individuals are also emphasized as the core elements of healthy personalities. Therefore, care must be taken when a comparison is made between the beliefs about the creativity of personally creative and special talent creative research participants. A greater value should not be placed on the creative products of the artist in the P-set than is placed on the lives of the research participants who did not identify themselves as artists. It is, however, appropriate to align the artists with Big C and the personally creative individuals with little c. It is also appropriate to interpret what creativity means in the lives of the artists in a different way then what it means in the lives of the research participants who did not identify themselves as artists.

Part of the Big C research participants in this study used their physical and emotional discomforts as a motivation to produce creative produces. Other Big C Q-sorters consciously used strategies to elicit their creative process, which they then used to produce things that were recognized socially as being creative. Unlike all of the other Q-

sorters, the little c research participants whose beliefs were represented by the Conventional Talents thought that their creative products needed to be viewed as making a significant contribution and that their creativity was synomous with talent. Furthermore, the little c participants differed from others in that they felt their creativity brought them more happiness and made them feel better about themselves than did the special talent Q-sorters. Likewise, solitude and risk taking were not as important to their creativity as it was to the Big C participants. The Conventional Talents also felt they had a greater need for a flexible and receptive atmosphere than did the others. All of the little c Q-sorters from the Conventional Talents and the Inner Beings were concerned with being wrong, as opposed to the Big C research participants from the Outsiders and Mindful Planners, who felt that losing the fear of being wrong was important to their creativity. Perhaps, one reason little c individuals do not pursue public recognition is because they are afraid of being wrong and taking risks. One might theorize that the little c participants associated happiness more closely to creativity than the Big C group because their creativity may not have brought them as much strife as it has for the artists.

Implications to Practice

The importance of this study resides in the possibilities that the results have in aiding to understandings that can encourage and enhance creative behavior. The consensus beliefs of the P-set as a whole inform us to live life fully, being conscious of one's surroundings and creativity, and not depriving one of interesting things. From one group of artists, we learn that they believed they were motivated to create from their physical and emotional discomforts. From the other group of artists, we learn of the

importance of the strategies they use to call on their creative process. The beliefs of the majority of the personally creative research participants tells us that they equate creativity to talent and to producing something that was both original and useful. In opposition to this belief, the group that represented an equal amount of artists and non-artists believed that their creativity was a way express inner feelings, rather than to produce something to be socially recognized. The major distinction between the beliefs of the artists and the research participants who did not identify themselves as artists was that the artists felt it was more important to lose the fear of being wrong than did the non-artists.

The insights that the findings of this study offer to the practice of creativity reinforce previous recommendations to teachers (Amabile, 1989; Runco, 1993; Torrance, 1987). Even though the findings do not offer new understandings of how to best encourage creative behavior, they do reinforce the following practices: (a) pursuing one's passion; (b) expressing one's physical and emotional discomforts and joys through a creative product; (c) creating for intrinsic, rather than extrinsic rewards; (d) developing strategies that elicit the creative process; and, (e) maintaining consciousness of one's creativity and surroundings.

The research results stress the need for teachers to emphasize the benefits that mistakes bring to the learning process. If encouraging creativity is a goal, creating a learning environment where students feel safe to take risks and to give up the fear of being wrong is important. Strategies that can assist the creative process are also worthy of teaching: both the Mindful Planners and the research subjects who self-identified as being creative from Kumar, Holman and Rudegeair's 1991 study believed strategies to be meaningful to their creativity. Although the majority of the special talent creative P-set

did not find that a supportive and receptive environment was necessary for their creativity, the personally creative research participants found it to be important. Therefore, such a classroom climate will facilitate the creativity of more students. Offering time when students can work alone, in solitude, will also be vital to the creative production of the special talent creative students. For personally creative students, solitude will not be as important, but with guidance these students may also benefit from this structured time. The very best advise to those hoping to help others nurture their creativity is to accentuate the P-sets' consensus belief, which was to believe in your own creativity.

Conclusions

The research findings offer support to current practices that have been recommended by prominent creativity educators and researchers (e.g., Amabile, 1989; Runco, 1993; Torrance, 1987). Concurrently, the findings help to further understandings into what motivates artists to create products that receive social recognition and keeps personally creative individuals from sharing their products publicly. Likewise, the findings add to the understandings of the distinctions in beliefs between people who have Big C and little c.

The use of both phenomenological and Q research methods proved to be complimentary research techniques: the procedures of Q provided a perfect tool that helped to keep personal biases of the researcher apparent; and phenomenology provided an awareness of the researcher's presuppositions that is often missing in Q. Together these two methodologies worked to uncover the implicit theories the research participants had about creativity.

In addition to the mathematical methods of rotation of the factors, such as varimax as used in this research study, Q method offers the option of using a judgmental rotation of the factors. Judgmental rotation is based on theory rather than orthogonality (McKeown & Thomas, 1988). In a future study, using judgmental rotation rather than varimax to obtain a terminal solution could help alleviate a limitation of the P-set. The P-set was composed of people that, for the most part, represented medium levels of special talent and personal creativity. By using judgmental rotation the most eminent artist and most eminent person who did not self-identify as an artist could have been used as the reference variate. This procedure could also be used to compare the results of this research. Another remedy for the limitation of the P-set calls for a new study in which only the most eminent artists and people who do not describe themselves as "having a creative bone in their bodies" would be selected to form the P-set. The beliefs of a P-set composed of the extremes would again be interesting to compare to the beliefs of the current P-set. Both of these suggestions for future research could be used to help establish the validity of the current findings.

Another limitation of this study is one that is inherent in the methodology of all Q-studies - - that is the patterns of beliefs that emerged from the research participants' Q-sorts are restricted by the Q-sample, which ultimately reflects the prejudices and pre-opinions of the researcher. The pairing of phenomenological techniques lessened this, but it still exists. While the concourse for the Q-sample was meticulously collected from a diverse sample that resembled the Q-sorters, a future focus group composed of the P-set could assist in the selection of the q-sample. Although the results of this research only scrape the surface of the relationship between special talent and personal creativity

implementation of the suggested research will disclose more understandings to help answer the request made by Stein (1987) and Magyari-Beck (1998). Continued investigation into personal understandings of creativity will help dispel the myth that generates the exclusiveness of the concept.

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APPENDIX A

Q-Sample

1.	Producing something to express my inner feelings.	20.	Thinking outside the confines of society.
2.	Achieving something remarkable and new, something which transforms and changes things in a significant way.	21.	Losing the fear of being wrong.
3.	Doing ordinary tasks differently.	22.	Fascination with the unknown, and at the same time asking what's behind the things that are taken for granted.
4.	Making something that has aesthetic value.	23.	Willingness to take risks.
5.	Using all of my talents to become what I'm capable of becoming.	24.	Experiencing life fully - - passionately - - energetically.
6.	Outcomes that are both original and useful.	25.	Being a great listener -- observer of the life - - being curious.
7.	Happiness - - loving what I'm doing - - feeling good about myself.	26.	It never crosses my mind, I never think about it.
8.	A means of constructing a mythic past whose effectiveness can be felt in the present.	27.	Attracted to complexity and novelty, but also tolerant of ambiguity.
9.	Trusting myself to see with my eyes, to look at what is seen - - not what my mind "thinks" it sees.	28.	Patience with altered states.
10.	Talking to God.	29.	Seeing things differently than others.
11.	When my consciousness is harmoniously ordered.	30.	Having a constructive sense of humor.
12.	The blending of my intuition and logic.	31.	Being talented.
13.	A sequence of steps or stages to solve a problem.	32.	Being playful.
14.	Finding order in chaos.	33.	Being out of my comfort
15.	It just happens – it's almost automatic. I couldn't give it up, even if I tried.	34.	Ignoring the external environment.
16.	Travel into the spiraling depths of the unknown.	35.	Being in a comfortable environment.
17.	A process in which my knowledge, skills, and intrinsic motivation intersect.	36.	Being in a flexible and receptive atmosphere
18.	A very complex near elusive phenomenon.	37.	Solitude.
19.	A force to enhance inner well-being - to renew my spirit.	38.	Deprivation caused by sacrifice of other interest.

APPENDIX B

RESEARCHER'S Q-SORT

-4	-3	-2	-1	0	1	2	3	4
				1. Producing something to express my inner feelings.				
			15. It just happens - - it's almost automatic. I couldn't give it up if I tried.	10. Talking to God.	20. Thinking outside the confines of society.			
	13. A sequence of steps or stages to solve a problem.	6. Outcomes that are both original and useful	18. A very complex near elusive phenomenon	37. Solitude.	17. A process in which my knowledge, skills, and intrinsic motivation intersect	25. Being a great listener - - observer of life - - being curious.	5. Using all of my talents to become what I'm capable of becoming.	
4. Making something that has aesthetic value.	8. A means of constructing a mythic past whose effectiveness can be felt in the present.	3. Doing ordinary tasks differently.	29. Seeing things differently than others	28. Patience with altered states	30. Having a constructive sense of humor.	7. Happiness - - loving what I'm doing - - feeling good about myself.	32. Being playful	21. Losing the fear of being wrong.
.26. It never crosses my mind, I never think about it.	34. Ignoring the external environment.	35. Being in a comfortable environment.	16. Traveling into the spiraling depths of the unknown.	33. Being out of my comfort zone.	22. Fascination with the unknown, and at the same time asking what's behind the things that are taken for granted.	11. When my consciousness is harmoniously ordered.	19. A force to enhance inner well being - - to renew my spirit	24. Experiencing life fully - - passionately - - energetically
31. Being talented	2. Achieving something remarkable and new, something which transforms and changes things in a significant way.	36. Being in a flexible and receptive atmosphere	27. Attached to complexity and novelty, but also tolerant of ambiguity.	38. Deprivation caused by sacrifice of other interest.	14. Finding order in chaos.	12. The blending of my intuition and logic.	9. Trusting myself to see with my eyes, to look at what is seen—not what my mind "thinks" it sees.	23. Willingness to take risks.

P-SET DEMOGRAPHICS

ID	Gender	Ethnicity	Age	Education	Occupation
01	F	Native-American	45	H.S.	Home (Writer)
02	F	European - American	27	H.S.	Bar Tender
03	M	European – American	50	M. A.	Artist (Painter & Poet)
04	F	European – American	31	Ph.D.	Art Adm. (Writer)
05	M	European - American	40	H.S.	Mechanic
06	M	Asian-American	35	M.F.A.	Artist (Painter)
07	F	European – American	44	H.S.	Adm. Ass. (Potter)
08	M	European – American	34	M.A.	Teacher
09	F	European – American	34	B.A.	Teacher
10	F	European - American	52	M.F.A.	Artist (Print Maker)
11	F	African-American	50	H.S.	Artist (Poet)
12	F	European – American	46	B.F.A.	Artist (Painter)
13	F	European – American	40	B.A.	Artist (Poet)
14	M	European - American	45	H.S.	Plant Manager
15	M	African-American	50	B.F.A.	Artist (Photographer)
16	F	European - American	45	M.F.A.	Artist (Poet)
17	M	African-American	26	H.S.	Artist (Dancer)
18	F	European-American	40	M.A.	Artist (Dancer)
19	F	European-American	48	M.F.A.	Artist (Film Maker)
20	F	European-American	40	B.F.A.	Artist (Painter)
21	F	African-American	50	H.S.	Adm. Ass. (Musician)
22	F	African-American	32	B.A.	Adm. Assistant
23	F	European-American	45	H.S.	Art Adm. (Dancer)
24	M	African-American	45	M.F.A.	Artist (Film Producer)
25	F	European-American	31	M.B.A.	Art Adm. (Writer)
26	F	European-American	40	B.F.A.	Artist (Painter)
27	F	European-American	55	H.S.	Adm. Ass.
28	F	European-American	40	B.A.	Artist (Dancer)
29	M	European-American	45	H.S.	Mechanic
30	F	European-American	45	M.S.	Art Administrator

APPENDIX D

INTERVIEW QUESTIONS

1. Gender:
2. Ethnicity:
3. Approximate Age:
4. Education:
5. Occupation:
6. Other contributions to income:
7. Family background:
8. Do you think of yourself as being a creative?

9. What does creativity mean to you? How would you define it?

10. In what ways are you creative? The following prompts will be inserted, if they are not included as part of the answer:
    a. How do you feel when you're being creative?
    b. What are you thinking about when you're being creative?
    c. Where do you think (feel) your creativity comes from?
    d. Have others ever acknowledged your creativity? (If so, how? How did it feel? Did it enhance your creativity, stifle it, or not make a difference? Why do you think (feel) that happened?) (If not, why do you think it has never been acknowledged?)
    e. Are there certain places, environments, or people that enhances or nurtures your creativity more than others? (If so, what are they like? or what makes them better than others?)

11. In what ways are you getting more or less creative as you get older?

12. What do you look for in someone that you think is creative? How do you judge someone's creativity?

13. Besides being creative, how do you describe yourself? What personality traits do you possess?

14. What question didn't I ask that I should have? Or, what else would you like to tell me about your personal creativity?

Closing: Your input has been a great contribution to my study. Thank you for your time and participation.

APPENDIX E

INTERVIEWEES DEMOGRPHICS

ID	CREATIVITY	GENDER	ETHNICITY	AGE	EDUCATION	OCCUPATION
01	Personal	Female	Eureopean American	26	H.S.	Bartender
02	Special Talented	Female	Native American	44	H.S.	Writer
03	Special Talented	Female	Eureopeon American	55	M.F.A.	Painter
04	Personal	Male	Asian American	35	Ph.D.	Professor
05	Personal	Male	African American	58	Ph.D.	College Administrator
06	Special Talented	Male	Native American	52	Ph.D.	Singer
07	Personal	Female	Native American	82	B.A.	Retired Social Worker
08	Special Talented	Female	Caucasian	42	H.S.	Potter
09	Special Talented	Female	Native American	58	M.S.	Writer
10	Personal	Male	Eureopeon American	34	M.A.	Teacher

APPENDIX F

Pilot Study Directions

A. Read through all of the statements.

B. Divide the statements into three piles:
   1. Those statements that are most characteristic of your views of what being creative means in your life *(place this pile to the left of your score sheet).*

   2. Those statements that are most uncharacteristic of your views of what being creative means in your life (*place this pile to the right of your score sheet)*

   3. The remaining statements (*place this pile in the middle of your score sheet).*

C. From the first pile select three statements that are most characteristic of your views and write the statement's number in one of the three boxes for question one, positioned on the far-left side, place the number of the other statements in the other boxes (*the vertical order of the statements does not matter).*

D. You may wish to select the next four statements from the first pile and write their numbers in the boxes in the next column, or you may go to the far-right side and select the two statements from that pile that are most uncharacteristic of your views and enter their numbers in the corresponding boxes.

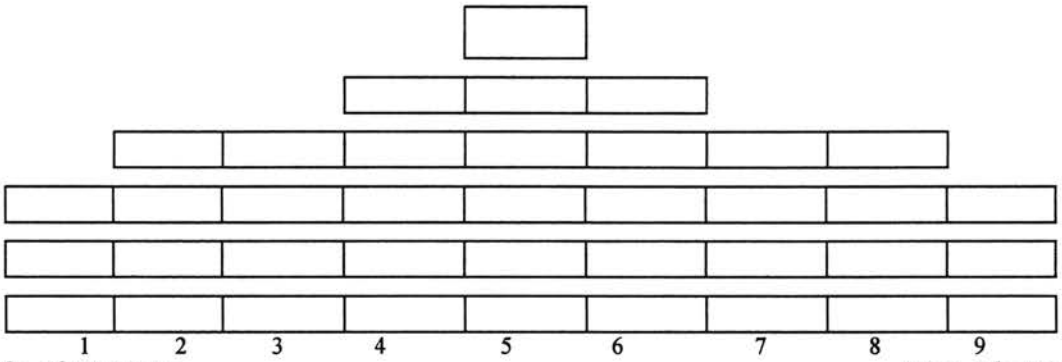
E. Write a number in each of the boxes. The statements can only be used once. Leave no box empty.

F. Then continue by answering the remaining questions.

Thank you for your time and effort!

1. Write a statement's number in each of the boxes. The statements can only be used once. Leave no box empty.

What does being creative mean in your life?



Most Unlike of My Views *Most Like My Views*

2. Do you think of yourself as being creative?

3. How else would you describe what being creative means in your life? *(if needed, use the back of the paper)*:

4. Here are some faces expressing various feelings. Below each is a letter. Which face comes closest to expressing how you feel about your life as a whole?

A. B. C. D. E. F. G.

5. Demographic Information: a. Gender _____ b. Ethnicity _____
c. Highest Degree _____ d. Occupation _____
e. Age (*to closest decade)*

This information will be kept strictly CONFIDENTIAL and ANONYMOUS. Your name will never be connected to the information you have provided. Thank you for your precious time and cooperation!

APPENDIX H

ORAL SOLICITATION STATEMENT

Hello, my name is Pam Hodges and I'm a doctoral student studying educational psychology at Oklahoma State University. I'm doing my dissertation study on personal views of creativity. I have collected 38 statements on what being creative means in the lives of individuals from one-on-one interviews with a variety of people and from published literature about creativity.

I'm seeking 30 research participants to sort the statements in terms of how much the statements are "like" or "unlike" what creativity means in their lives. In addition to doing the Q sort, participants will be asked to share their thoughts and feelings about the statements and the process. Permission to record these responses will be requested. The knowledge gained as a result of this investigation is hoped to assist efforts that encourage and enhance creative behavior.

The process will take approximately an hour. The participants' responses and Q sorts will be kept completely anonymous and confidential. The name of the research participants will never be connected to their Q sort or responses.

Are you interested in being a research participant for this study?

When is a convenient day and time for you to meet with me?

Where would you like to meet?

Thank you.

APPENDIX I

Consent Form

Dear Participant:

I am conducting my dissertation research on personal views of creativity. Individuals who agree to participate in the study will be asked to sort 38 statements about what being creative means in their life. In addition to Q sorting, the participants will be asked to share their thoughts and feelings about the statements and the process. The knowledge gained as a result of this investigation is hoped to assist efforts that encourage and enhance creative behavior.

If you agree to participate your responses will be kept strictly CONFIDENTIAL and ANONYMOUS. Your name will not be associated with the research notes or your Q sort or tape-recorded voice. The Q sorts and tapes will be destroyed one year after the process and only anonymous notes will remain. The process will take approximately one hour. There are no risks involved. The sorting and taped feedback is completely voluntary. You have the option of stopping the process anytime you wish.

Questions about this research can be directed to: Pam Hodges at 2210 S. Main, Tulsa OK 74114 (918) 584-3333; Dr. Montgomery or 424 Willard Hall, (405) 744-6040; or to Gay Clarkson, Institutional Review Board Executive Secretary, 203 Whitehurst, (405) 744-5700. The last two addresses are located on the campus of Oklahoma State University, Stillwater, OK 74078. This information is also printed on an attached sheet that is yours to keep.

If you agree to do the Q sort and have your comments taped, please read and sign the statement at the bottom of this page. The completion of this form will give us permission to proceed with the process and utilize your Q sort and comments for the research.

Thank you for your cooperation,

Pam Hodges, M.S. & Diane Montgomery, Ph.D.

I understand that participation is voluntary, that there is no penalty for refusal to participate, and that I am free to withdraw my consent to participate in this project at any time without penalty.

I have read and fully understand the consent form. I sign it freely and voluntarily. A copy about the study and where the researchers can be located has been given to me.

[ ] I agree to have the interview recorded. [ ] I do not agree to have the interview recorded.

Date:_____ Time:_____ (a.m./p.m.)

Signed:_____
(Signature of Participant)

Witnessed by: _____

APPENDIX J

SUMMARY OF P-SET'S RESPONSES

ID	Responses to the question, "If you could add statements to this sample that would better describe your view of what being creative means in your life, what would they be?"
01	"Gift from God."
02	"When I feel creative, I'm really productive. It can only happen when I have 'order' and a certain amount of happiness."
03	"Being in tune with your sexual being."
04	"Going out and seeking some kind of new channel."
05	"Being able to do something different from the norm." "Creating goodness out of sadness." "Creating a better world to live in." "Positive overcoming negative."
06	"To seek that perfection that is not attainable." "Discipline, regardless of how talented one is."
07	"Getting in touch with your body, soul, and heart." "The inner-being trying to express what it all means." "The side only you know." "Like a climatic experience." "Essence of life, without it you have a dead soul."
08	"Can't think of any."
09	"Can't think of anything."
10	"Feeling that you're doing what you're suppose to be doing." "Centered" "In the right place." "Going with the flow."
11	"Can't think of any: wholeness, likeness, curiosity are all in there."
12	"Attempt to lessen the compartmentalization of the creative experience - - belief that human beings are continually creative."
13	"I don't know what creativity is, it's spiritual."
14	"Being creative is the ability to want to do something besides being a vegetable." "Enjoy doing - - doing it."
15	"To be able to share your vision with young people. To nurture their vision." "Manipulating the ordinary to become extraordinary." "In a day to day process, try to approach problems with an open perception." "To find ways to deal with issues that are unexpected."
16	"Being different." "What's important to me is not important to most people, and what is important to most people is not important to me."
17	"Collating all styles - - bringing together diverse cultures." "Taking one way of

	doing something and making it into something different."
18	"A passion for increasing my capacity for embracing the mysteries of life."
19	"Taking risks" "Continual upheaval of questions, without coming to an answer."
20	"Release of inner turmoil."
21	None
22	"Making people happy" "Keeping people busy" "Can bring out talents"
23	"Finishing a product - - liking to see the end."
24	"Nothing to add."
25	"Creativity comes when you least expect it." "It's a process that everything you know meets and comes out in surprising ways."
26	"Being original or independent thinking" "Not following others" "Coming up with your own thoughts even if it has been done before."
27	"My desire to make everyone around me enjoy their day-to-day lives, family and friends."
28	"Observing or awareness" "Blending of knowledge and intuition."
29	"Can't think of anything."
30	None

APPENDIX K

Directions & Score Sheet

A. Read through all of the statements, as you are reading:

B. Divide the statements into three piles:
   1. Those statements that are most like your views of what being creative means in your life *(place this pile to the left of the score sheet).*
   2. Those statements that are most unlike your views of what being creative means in your life *(place this pile to the right of the score sheet).*
   3. The remaining statements (*place this pile in the middle of the score sheet).*

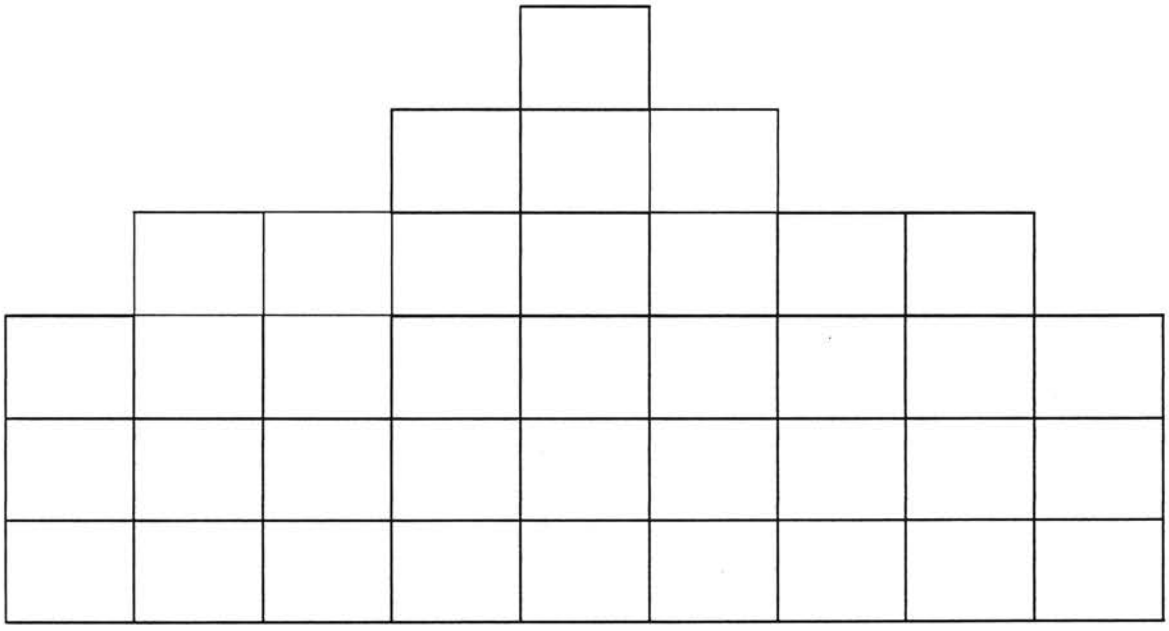
C. From the first pile select three statements that are most like your views and write the statement's number in one of the three boxes, positioned on the far-left side, place the number of the other statements in the other boxes (*the vertical order of the statements does not matter).*

D. You may wish to select the next four statements from the first pile and write their numbers in the boxes in the next column, or you may go to the far-right side and select the two statements from that pile that are most unlike your views and enter their numbers in the corresponding boxes. Note: neutral views should be aligned with the middle boxes.

E. Write a number in each of the boxes. The statements can only be used once. Leave no box empty.

F. Please share out loud what you are thinking about as you make your choices.

What does being creative mean in your life?



(Most Like My View) *(Most Unlike My View)*

APPENDIX L

Factor Loadings of Research Participants

Subjects	Factor 1	Factor 2	Factor 3	Factor 4
1P	.3146	-.1095	.1506	.1506
2P	.4924	.0406	.3387	.4796
	.6978*	-.1001	-.2130	.0621
	.2756	.0061	.6015*	-.0539
	.1161	.0138	.4152	.6961*
	.2138	.2576	-.0417	.6356*
7P	.0389	.2109	.3027	.2640
	.1215	-.0588	.0041	.6784*
	.2008	-.398	.6186*	-.0227
	.0428	.7090*	-.935	.1790
	.5058*	.2489	.1883	.2938
	.0680	.7685*	.3000	-.0894
	.5848*	.1527	-.322	.0920
	.2055	.3560	.7246*	.0738
	.6004*	.0065	.3692	.2674
16A	.3492	.4205	.1133	.4003
	.3113	-.1300	.6717*	.2339
	-.0131	.4444	-.2047	.6205*
	.5858*	.1736	.1868	.1017
	.6396*	.0424	.4406	.3015
	.2759	.0765	.5062*	.2795
	-.1398	.3140	.6784*	.1511
	.0510	-.0466	.6552*	-.1549
	.1919	.2190	.5696*	-.0434
25P	.6053	.3252	.3972	-.4075
	-.1700	.6006*	.4659	-.1074
	-.2090	.0629	.6381*	.2218
28A	.3513	.2682	.2524	.3130
	.5272*	.0575	.3111	-.3657
	.2621	.5924*	-.0313	.3440

Non-Significant with high loadings on more than one actor.
Non-Significant

A = Artist (*Special Talent Creative Person*)

P = Personally Creative Person

*** = Significant Q-sort**

APPENDIX M

FACTOR 1 ARRAY

-4	-3	-2	-1	0	1	2	3	4
			36. Being in a flexible and receptive atmosphere.	1. Producing something to express my inner feelings. 15. It just happens - - it's almost automatic. I couldn't give it up if I tried.	21. Losing the fear of being wrong.			
	8. A means of constructing a mythic past whose effectiveness can be felt in the present.	28. Patience with altered states.	4. Making something that has aesthetic value.	27. Attached to complexity and novelty, but also tolerant of ambiguity.	7. Happiness - - loving what I'm doing - - feeling good about myself.	2. Achieving something remarkable and new, something which transforms and changes things in a significant way.	32. Being playful.	
38. Deprivation caused by sacrifice of other interest.	26. It never crosses my mind, I never think about it.	18. A very complex near elusive phenomenon.	14. Finding order in chaos.	17. A process in which my knowledge, skills, and intrinsic motivation intersect.	33. Being out of my comfort zone.	3. Doing ordinary tasks differently.	22. Fascination with the unknown, and at the same time asking what's behind the things that are taken for granted.	20. Thinking outside the confines of society.
11. When my consciousness is harmoniously ordered.	34. Ignoring the external environment.	10. Talking to God.	16. Traveling into the spiraling depths of the unknown	5. Using all of my talents to become what I'm capable of becoming.	12. The blending of my intuition and logic.	13. A sequence of steps or stages to solve a problem.	23. Willingness to take risks.	25. Being a great listener - - observer of life - - being curious.
35. Being in a comfortable environment.	31. Being talented.	9. Trusting myself to see with my eyes, to look at what is seen - - not what my mind "thinks" it sees.	19. A force to enhance inner well being - - to renew my spirit.	6. Outcomes that are both original and useful.	37. Solitude.	30. Having a constructive sense of humor.	24. Experiencing life fully - - passionately - - energetically.	29. Seeing things differently than others.

Distinguishing Statements

What does being creative mean in your life?

APPENDIX N

FACTOR 2 ARRAY

				22. Fascination with the unknown, and at the same time asking what's behind the things that are taken for granted.				
			31. Being talented.	10. Talking to God.	32. Being playful.			
	1. Producing something to express my inner feelings.	18. A very complex near elusive phenomenon.	11. When my consciousness is harmoniously ordered.	6. Outcomes that are both original and useful.	4. Making something that has aesthetic value.	14. Finding order in chaos.	5. Using all of my talents to become what I'm capable of becoming.	
8. A means of constructing a mythic past whose effectiveness can be felt in the present.	16. Traveling into the spiraling depths of the unknown.	27. Attached to complexity and novelty, but also tolerant of ambiguity.	2. Achieving something remarkable and new, something which transforms and changes things in a significant way.	30. Having a constructive sense of humor.	25. Being a great listener - - observer of life - - being curious.	21. Losing the fear of being wrong.	24. Experiencing life fully - - passionately - - energetically	37. Solitude .
26. It never crosses my mind, I never think about it.	34. Ignoring the external environment.	29. Seeing things differently than others.	33. Being out of my comfort zone.	7. Happiness - - loving what I'm doing - - feeling good about myself.	19. A force to enhance inner well being - - to renew my spirit	13. A sequence of steps or stages to solve a problem	15. It just happens - - it's almost automatic. I couldn't give it up if I tried.	9. Trusting myself to see with my eyes, to look at what is seen - - not what my mind "thinks" it sees.
38. Deprivation caused by sacrifice of other interest.	20. Thinking outside the confines of society.	36. Being in a flexible and receptive atmosphere	3. Doing ordinary tasks differently.	35. Being in a comfortable environment.	28. Patience with altered states.	12. The blending of my intuition and logic.	17. A process in which my knowledge, skills, and intrinsic motivation intersect.	23. Willingness to take risks.
-4	-3	-2	-1	0	1	2	3	4

Distinguishing Statements

What does being creative mean in your life?

APPENDIX O

FACTOR 3 ARRAY

-4	-3	-2	-1	0	1	2	3	4
				4. Making something that has aesthetic value.				
			10. Talking to God.	32. Being playful.	35. Being in a comfortable environment.			
	8. A means of constructing a mythic past whose effectiveness can be felt in the present.	21. Losing the fear of being wrong.	15. It just happens - - it's almost automatic. I couldn't give it up if I tried.	9. Trusting myself to see with my eyes, to look at what is seen—not what my mind "thinks" it sees.	17. A process in which my knowledge, skills, and intrinsic motivation intersect	2. Achieving something remarkable and new, something which transforms and changes things in a significant way.	6. Outcomes that are both original and useful.	
16. Traveling into the spiraling depths of the unknown.	38. Deprivation caused by sacrifice of other interest.	11. When my consciousness is harmoniously ordered.	19. A force to enhance inner well being - - to renew my spirit.	20. Thinking outside the confines of society.	30. Having a constructive sense of humor.	36. Being in a flexible and receptive atmosphere	13. A sequence of steps or stages to solve a problem.	5. Using all of my talents to become what I'm capable of becoming.
37. Solitude.	34. Ignoring the external environment	33. Being out of my comfort zone.	28. Patience with altered states.	23. Willingness to take risks.	3. Doing ordinary tasks differently	14. Finding order in chaos.	24. Experiencing life fully - - passionately - - energetically.	25. Being a great listener - - observer of life - - being curious.
18. A very complex near elusive phenomenon.	26. It never crosses my mind, I never think about it.	27. Attached to complexity and novelty, but also tolerant of ambiguity.	22. Fascination with the unknown, and at the same time asking what's behind the things that are taken for granted.	12. The blending of my intuition and logic.	29. Seeing things differently than others	1. Producing something to express my inner feelings.	31. Being talented.	7. Happiness - - loving what I'm doing - - feeling good about myself.

Distinguishing Statements

What does being creative mean in your life?

APPENDIX P

FACTOR 4ARRAY

				36. Being in a flexible and receptive atmosphere				
			11. When my consciousness is harmoniously ordered.	5. Using all of my talents to become what I'm capable of becoming	3. Doing ordinary tasks differently.			
	18. A very complex near elusiove phenomenon	4. Making something that has aesthetic value.	35. Being in a comfortable environment.	9. Trusting myself to see with my eyes, to look at what is seen—not what my mind "thinks" it sees.	17. A process in which my knowledge, skills, and intrinsic motivation intersect	15. It just happens - - it's almost automatic. I couldn't give it up if I tried.	25. Being a great listener - - observer of life - - being curious.	
2. Achieving something remarkable and new, something which transforms and changes things in a significant way.	38. Deprivation caused by sacrifice of other interest.	14. Finding order in chaos.	6. Outcomes that are both original and useful.	22. Fascination with the unknown, and at the same time asking what's behind the things that are taken for granted.	8. A means of constructing a mythic past whose effectiveness can be felt in the present.	29. Seeing things differently than others	28. Patience with altered states.	32. Being playful.
34. Ignoring the external environment	31. Being talented	26. It never crosses my mind, I never think about it.	27. Attached to complexity and novelty, but also tolerant of ambiguity.	16. Traveling into the spiraling depths of the unknown.	10. Talking to God.	24. Experiencing life fully - - passionately - - energetically.	23. Willingness to take risks.	37. Solitude.
33. Being out of my comfort zone.	21. Losing the fear of being wrong.	13. A sequence of steps or stages to solve a problem.	20. Thinking outside the confines of society.	12. The blending of my intuition and logic.	7. Happiness - - loving what I'm doing - - feeling good about myself.	30. Having a constructive sense of humor.	19. A force to enhance inner well being - - to renew my spirit.	1. Producing something to express my inner feelings.
-4	-3	-2	-1	0	1	2	3	4

Distinguishing Statements

What does being creative mean in your life?

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD

DATE: 11-18-98 **IRB #: ED-99-053**

Proposal Title: A PHENOMENOLOGICAL STUDY OF PERSONAL VIEWS OF CREATIVITY

Principal Investigator(s): Diane Montgomery, Pamela Hodges

Reviewed and Processed as: Exempt

Approval Status Recommended by Reviewer(s): Approved

Signature:  Date: November 24, 1998

Carol Olson, Director of University Research Compliance
cc: Pamela Hodges

Approvals are valid for one calendar year, after which time a request for continuation must be submitted. Any modification to the research project approved by the IRB must be submitted for approval. Approved projects are subject to monitoring by the IRB. Expedited and exempt projects may be reviewed by the full Institutional Review Board.

VITA

Pamela A. Hodges

Candidate for the Degree of

Doctorate of Philosophy

Dissertation: PERSONAL UNDERSTANDINGS OF CREATIVITY: A PHENOMENOLOGICAL STUDY USING Q METHODOLOGY

Major Field: Applied Behavioral Studies

Biographical:

Education: Received a Bachelor of Arts degree in studio art and psychology from Saginaw Valley State University, University Center, Michigan in the Spring of 1980. Received a Master of Science degree in criminal justice, with a concentration in delinquency prevention, research and planning from Michigan State University, East Lansing, Michigan in the Fall of 1988. Completed the requirements for the Doctorate of Philosophy, with domains in creativity, learning, human diversity and research, at Oklahoma State University, Stillwater, Oklahoma in December 1999.

Experience: Worked for Boys & Girls Clubs of Bay City, Michigan as the Cultural Enrichment Director for five years. Joined the staff of Boys & Girls Clubs of America, New York City, New York in 1984 and directed the TARGETED OUTREACH Program, a nationwide delinquency intervention program, prior to becoming Assistant Director of Program Services in 1988. Left position after eight years to join spouse in Oklahoma where I began my doctoral program. Continued to consult for national youth organizations and instructed Human Learning in Educational Psychology at Oklahoma State University (1994-1998). Currently employed as the Community Arts Director for the Arts & Humanities Council of Tulsa, Oklahoma (1998 to present).

Honors: Robert W. Woodruff Fellowship, awarded in 1982.
Michigan Council for the Arts' Artist in Residence, awarded in 1980 for work at Bay County Juvenile Detention Center.