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Pamela Jo Way

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**REDEFINING THE MUSE:
SELF-REGULATORY ASPECTS OF CREATIVE BEHAVIOR**

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**REDEFINING THE MUSE:
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by

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This dissertation is dedicated to:

My husband, Tony, whose faith
and confidence in me never wavered.

Babe, I am truly blessed.

And to my “girls:” Their happy
insistence on the need for belly rubs
and ear scratchings
unerringly coincided with my
unrecognized need for a break.

Susanna, I miss you
every day.

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SELF-REGULATORY ASPECTS OF CREATIVE BEHAVIOR

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Several terms and phrases, such as “persistence,” “ability to stay on task,” and “perseverance in the face of difficulties” are often used to describe successful students. Research in academics repeatedly suggests that students who engage in appropriate self-regulatory strategies tend to be successful students in terms of both grades and learning (Zimmerman, 1989). Most importantly, however, these students are able to persist with current tasks even in the face of competing demands or attractive alternatives. Interestingly, researchers investigating creativity use these same terms and phrases to describe the personality structure of artists (Cropley, 1990; Radford & Burton, 1974). But, although both students and artists seem to possess similar abilities and skills that aid them in the attainment of a goal, researchers have neglected to investigate the specific role self-regulatory abilities and strategies might play in creative output. The purpose of this dissertation, therefore, was to

explore self-regulatory skills and abilities used by professional visual artists in the creation of their particular product, whether that product is a painting, a print, a sculpture, or other object.

This dissertation study utilized a mixed methodology, as data were collected through interviews and surveys, as well as through established, quantitatively based instruments. Grounded theory methodology was used to interpret the qualitative data, while traditional quantitative techniques were used to interpret quantitative data. Results suggest that artists do successfully engage in a variety of self-regulatory techniques. These strategies are typically directed towards maintaining the work process, and include motivational strategies (the use of rewards, for example), emotional strategies (e.g., working through a “blue” mood to maintain focus on their work), cognitive strategies (e.g., telling themselves to just “take one small step at a time” when frustrated with the work process), and behavioral strategies (e.g., simply buckling down to the task when necessary). Although the strategies engaged by artists are similar to the strategies engaged by students, the results also suggest that there is a need to explore self-regulatory strategy use in diverse situations and in diverse populations.

TABLE OF CONTENTS

List of Tables.....	xiv
Chapter 1 Introduction.....	1
Purpose of Study.....	1
Self-Regulation.....	2
Creativity and Creative Output.....	3
The Relationship Between Self-Regulation and Creativity.....	4
The Professional Artist.....	5
Research Questions.....	6
Chapter 2 Literature Review.....	7
Introduction to Research in Self-Regulation and Volition.....	7
Introduction to Literature Review of Theories in Self-Regulation and Volition.....	9
The Line between Intention and Action.....	10
Proposed Theories of Self-Regulation.....	17
The Activation of Self-Regulation.....	19
Threats to Self-Regulation and Volition.....	29
Engagement of Self-Regulatory Strategies.....	33
Controlling Affect.....	34
Controlling Motivation.....	39
Controlling Cognition and Metacognition.....	41
Controlling Behavior.....	50
Introduction to Research in Creativity.....	54
What is Creativity?.....	56
Creativity and Motivation.....	60
Creativity and Personality Traits.....	64
Creativity and Cognition.....	70
Chapter 3 Pilot Studies.....	77
Pilot Study 1.....	77
Introduction.....	77
Overview.....	78
Method.....	79
Setting.....	79
Participants.....	80
Data Collection Strategies.....	80
Data Analysis Overview.....	81

Results.....	87
Category Descriptions.....	87
Managing Cognition and Metacognition.....	87
Managing Affect.....	88
Managing Motivation.....	88
Managing Behavior.....	89
View of Self as Artist.....	90
The Paradigm Model.....	91
Discussion and Directions for Future Research.....	93
Pilot Study 2.....	93
Introduction.....	93
Method.....	94
Participants.....	94
Procedure.....	94
Measures.....	94
Artists' Work Behaviors Questionnaire.....	95
Action Control Scale.....	96
Negative Mood Regulation Scale.....	96
Results.....	97
Overview.....	97
Qualitative Data Analysis.....	98
Quantitative Data Analysis.....	99
Action Control Scale.....	99
Negative Mood Regulation Scale.....	99
Artists' Work Behaviors Questionnaire.....	100
Pilot Study 2 – Discussion.....	100
Chapter 4 Methodology.....	103
Introduction.....	103
Participants.....	105
Procedure.....	105
Measures.....	105
Artists' Work Behaviors Questionnaire.....	105
Action Control Scale.....	106
Negative Mood Regulation Scale.....	106
Data Collection.....	106
Electronic Mail Data Collection.....	106
Ground Mail Data Collection.....	107
Follow-up Data Collection.....	108

Qualitative Data Hypotheses.....	109
Qualitative Data Hypotheses Formation.....	109
Hypothesis No. 1.....	109
Hypothesis No. 2.....	110
Qualitative Research Issues.....	110
Triangulation of the Data.....	111
Peer Debriefing.....	111
Reflexive Journal.....	112
Quantitative Data Hypotheses.....	113
Hypothesis No. 1.....	113
Hypothesis No. 2.....	114
Hypothesis No. 3.....	114
Hypothesis No. 4.....	115
Hypothesis No. 5.....	116
Chapter 5 Results and Discussion.....	117
Introduction.....	117
Results and Discussion Qualitative Data Analysis.....	120
Additional Qualitative Results.....	137
Discussion.....	140
Results and Discussion Quantitative Analyses.....	142
Reliability Analyses.....	142
Action Control Scale.....	142
Negative Mood Regulation Scale.....	143
Artists' Work Behavior Questionnaire.....	143
Hypotheses: Results and Discussion.....	145
Hypothesis No. 1.....	145
Results.....	146
Hypothesis No. 2.....	147
Results.....	147
Hypothesis No. 3.....	149
Results.....	149
Hypothesis No. 4.....	150
Results.....	150
Hypothesis No. 5.....	151
Results.....	151
Additional Results.....	152
Descriptive Statistics.....	152
Exploratory Analyses.....	155

Results and Discussion Mixed Methods Analysis.....	156
Introduction.....	156
Hypothesis No. 1.....	157
Hypothesis No. 2.....	158
Data Analysis.....	158
Data Qualitization.....	158
Data Quantitization.....	161
Quantitization Results.....	167
Characteristics of Categories.....	167
Discussion, Quantitized Results.....	169
Chapter 6 Conclusion.....	172
Limitations.....	178
Future Directions.....	181
Appendices.....	185
Appendix A: Artists' Work Behaviors Questionnaire.....	185
Appendix B: Action Control Scale.....	191
Appendix C: Negative Mood Regulation Scale.....	196
Appendix D: Correlations Between Variables.....	198
Appendix E: Factor Analysis Results.....	199
Appendix F: Biographical and Demographical Information.....	200
Appendix G: Survey Interview Samples.....	203
References.....	214
Vita.....	226

TABLES

Table 1 Overview of Categories and Their Descriptions.....	123
Table 2 AWBQ Items With Low or Negative Total Item Correlations.....	145
Table 3 Means and Standard Deviations of Scales and Subscales.....	154
Table 4 Theoretical Themes and Sample Items from Instruments And Their Subscales.....	163
Table 5 Frequency Counts of Qualitative Statements by Category.....	166

Chapter 1

INTRODUCTION

Purpose of Study

Although a dissertation is, probably inarguably, the most formal enterprise in a graduate student's career, I would like to briefly step back from that formality to introduce the present study. This study combined two previously separate areas of inquiry, yet the rationale for the study came about quite naturally, the tangible outgrowth of my development as an investigator. Throughout my graduate career, I have been interested in the study of motivation; more specifically, in the study of the self-regulatory abilities and skills that seem to be necessary for managing motivation in the attainment of a goal. As I began preparing for this project, however, I realized that almost every paper I have written for fulfillment of graduate course requirements involved the topic of creativity in some way. A review of these documents, however, did not reveal an incongruity between my interests in self-regulatory characteristics and my interests in creativity; in fact, the documents revealed a congruity in the terms researchers use to describe both self-regulated individuals and creative individuals. Both of these groups of individuals seem to possess similar abilities and skills that aid them in the attainment of a goal, and both groups are often described as having the characteristics of persistence, "stick-to-it-ness," and perseverance in the face of obstacles. The purpose of this dissertation, therefore, was to explore the self-regulatory skills and abilities engaged by professional artists in the creation of their particular product, whether that product is a painting, a print, a sculpture, or other object.

Self-Regulation

A large body of research exists in the area of academic self-regulation. Generally, this research suggests that students who engage in appropriate self-regulatory strategies tend to be successful students in terms of both grades and learning (Zimmerman, 1989). Zimmerman, in fact, defines self-regulation as “the degree to which individuals are metacognitively, motivationally, and behaviorally active participants in their own learning process.” The self-regulated student is able not only to set distal, complex goals, but also to set proximal subgoals that aid in the eventual attainment of the complex distal goal. The student meets these goals and subgoals by the strategic management of a variety of resources, including cognition, metacognition, emotion, time, and the environment (Weinstein & Mayer, 1986).

Simple awareness of self-regulatory strategies that may be conducive to the attainment of a goal is obviously not enough, for the individual must also be willing and able to actively engage the appropriate strategies at the appropriate times. The engagement of these self-regulatory strategies requires a sometimes substantial expenditure of psychological and/or physical effort, and individuals who are able to appropriately employ these strategies are often described with terms such as “disciplined,” “self-directed,” and “resourceful” (Snow, Corno, & Jackson, 1996). Furthermore, the individual may frequently need to be able to protect the current goal from a competing goal or desire. This task is made even more difficult when the competing goal is especially salient or attractive. Any student who has stayed indoors to finish a paper on a beautiful spring day can speak to this dilemma.

Creativity and Creative Output

In its narrow sense, creativity refers to the abilities that are most characteristic of creative people. Creative abilities determine whether the individual has the power to exhibit creative behavior to a noteworthy degree. Whether or not the individual who has the requisite abilities will actually produce results of a creative nature will depend upon his motivational and temperamental traits. To the psychologist, the problem is as broad as the qualities that contribute significantly to creative productivity. In other words, the psychologist's problem is that of creative personality.... *The psychologist is particularly interested in those traits that are manifested in performance, in other words, in behavior traits* (emphasis added).

J.P. Guilford wrote these words in 1950, the same year he was president of the American Psychological Association. The article, simply entitled *Creativity*, remains, even after over 50 years, one of the most frequently cited references in creativity research. References to this article, in fact, are often made to serve as a kind of "call to arms" for continuing investigations of creativity and creative behavior, and researchers citing this article tend to mention a triad of perceived shortcomings in current creativity research: 1) creativity research has not progressed very far since Guilford's day; 2) creativity research is valuable and must be recognized as such; and 3) creativity research should not - indeed, must not - continue to be neglected (Albert, 1990; Albert & Runco, 1999; Martindale, 1989).

In spite of these admonishments, however, creativity remains an elusive concept. Like many psychological constructs, questions surrounding the nature of creativity and creative output date back centuries. Plato suggested that poets were set aside from ordinary mortals by the fact that the

gods spoke through them; more recently, in the 1890s, Lombroso argued that genius and madness are closely allied. Years before a suspected link between creativity and psychopathology would be explored empirically, Lombroso declared that mental illness and creativity run in families, and that both are hereditary. In spite of a long history of inquiry into both the creative personality and the creative product, the act of creativity remains as mysterious to us as it must have seemed to Plato.

The Relationship Between Self-Regulation and Creativity

Sternberg (1985) voices doubts that creativity can be even remotely measured by standardized creativity tests, such as those published by Torrance (1966) and Guilford (1967). These creativity tests were designed to be primarily an objective measure of the creative process and creative product. Sternberg (1985) suggests instead that creativity be studied using implicit theories that “already exist within a person’s head.” In other words, it may be an examination of the *characteristics* of creative individuals that will lead to answers about the creative process and product. Many other researchers have explored the characteristics, or personality traits, of creative individuals (Crompton, 1990; Cross, Cattell, & Butcher, 1967; Radford & Burton, 1974). Although there are many similarities, as well as some differences, in the conclusions of these researchers, all agree that one personality characteristic in particular seems to be clustered in creative individuals - extreme persistence. Sternberg and Lubart (1991), for example, report research findings suggesting that artists show a willingness to surmount obstacles and persevere in spite of difficulties. They suggest that these artists not only learn from their actual mistakes, but also learn that learning from these mistakes is a crucial part of the creative enterprise. As they point out, if an artist gives up upon encountering difficulties, there will be *no* creative product. The artist

must be able to surmount obstacles that get in the way as well as to be resilient enough to bounce back after failures. Dweck (1986) suggests that such individuals are characterized by challenge seeking, and by strong, effective persistence in the face of obstacles. In short, creative individuals must be motivated to use all available resources, including intellectual processes, skills, motivation, and environmental context (Sternberg & Lubert, 1991).

The American Heritage Dictionary (1990) defines *persistence* as “holding firmly and steadfastly to a purpose or undertaking despite obstacles.” Assuming that persistence is a stable personality characteristic or trait, what behaviors might qualify when attempting to identify the persistent individual? If the average person were asked to identify behaviors congruent with persistence, they might reply “the willingness to buckle down to a task, even if the task is unpleasant;” or “the ability to concentrate on the completion of a task even when physically or mentally tired.” It is quite likely that someone would suggest the metaphor of strength or strength of will in relation to the ability to stay engaged with a task. A psychologist might couch persistence in terms of self-regulatory skills and abilities. Self-regulation is the ability to mobilize resources, and to continuously apply, and refine, if necessary, those resources until a goal is met. Appropriately applied self-regulatory strategies provide the individual with a means of controlling their cognitive, motivational, and affective processes.

The Professional Artist

There is an abundance of research focusing on eminent creatives. One reason for this may be that notion of creativity has been elevated to an almost mystical, godlike quality. Creativity is so highly desired that to be labeled as “not creative” is tantamount to outright insult. A few researchers *have* focused on everyday creativity – the woman who paints murals on her dining room

walls over the weekend; the man who does woodworking in his basement as a hobby. This author, however, has been unable to find any research investigating the individuals who reside somewhere between the eminent and the mundane, the famous and the unknown. There are, in fact, large numbers of people who make their living generating creative products who will never be recognized as great, who will never be rich or famous, and whose works will never be displayed in museums. It is this class of creatives, or artists, upon whom this study was focused. These are professional artists, artists who either make their primary living from fashioning a creative product, or artists who, like many of us, are contributing substantially to their household income by engaging in a “second job;” in this case, that second job is the production and sale of some kind of art.

Research Questions

This dissertation focused on the abilities and skills of professional artists with regard to the engagement of appropriate self-regulatory behaviors in fashioning their particular creative product. The following questions were explored in the pilot study and in the dissertation data collection phase:

1. Do professional artists engage in self-regulatory behaviors?
2. Presuming that these artists do engage in self-regulatory behaviors, what specific skills and abilities do they use? Do the behaviors, for example, include control of motivation, affect, cognition, and metacognition?
3. Is there a relationship between engaging in self-regulatory behaviors, and the endorsement of items on scales related to self-regulatory behaviors (i.e., the Negative Mood Regulation Scale (Catanzaro & Mearns, 1990) and the Action Control Scale (Kuhl, 1994))?
4. What do these artists’ personal experiences “look like” when they describe their art-related work experiences?

Chapter 2

LITERATURE REVIEW

Introduction to Research in Self-Regulation and Volition

Why do we, as humans, often find it so difficult to behave in a manner consistent with our wishes, desires, intentions, and professed goals? Why do even those of us who tentatively claim to be “self-actualized” – or perhaps claim to be at least well on the way to self-actualization - eat too much, drink too much, and exercise too little? Baumeister, Heatherton, and Tice (1994) suggest that these behavioral patterns could be considered self-regulatory failures; they even go so far as to claim that “self-regulation failure is the major social pathology of the present time.” They propose that the inability to lose weight, to save money or to stop spending money, to quit drinking, smoking, gambling, and/or using drugs, to refrain from beating our children, wives, husbands and elders, as well as the scourge of unwanted pregnancies and sexually transmitted diseases – even divorce – can, in fact, be blamed on self-regulatory failure. Although research on self-regulation has increased in recent years, there is a marked lack of coordination of this research. Most researchers agree, however, that as humans we have the unique capacity to participate consciously in the “pursuit” of self-regulation. We have not only our unconscious bodily systems on which to depend in the processes of regulating digestion and body temperature, for example, but we have the ability to consciously employ self-regulatory strategies in the pursuit of ideals and long-term goals. Yet a variant of the original question remains: Why do we, as humans, seem to have a *disability* that so often prevents us from behaving in a manner consistent with the realization of our ideals and long-term goals?

It has been suggested that understanding human cognition may be the first step in understanding human behavior. As already noted, however, people do not always act in a manner consistent with their beliefs, values, attitudes, or intentions (Kuhl & Beckmann, 1985a). Many questions must be answered before the gap between cognition and behavior can even be narrowed, much less closed. One of these questions regards addressing the mechanisms underlying the mediation of what Kuhl and Beckmann (1985a) refer to as the *formation* and *enactment* of intentions. In any given situation, an individual has a large number of alternative actions, or behaviors, from which to choose. Once the individual determines the action he or she wishes to put into motion, how does this individual protect and maintain that choice until it comes to fruition?

The earliest concepts of volition had ties to philosophy, and an accompanying range of colloquial terms and meanings, such as “willfulness” and “doggedness” (Corno, 1994). In the early 1900s, primarily European psychologists investigated these ideas under the rubrics of “volition” and “will” (Kuhl and Beckmann, 1985b). Definitions for volition and will include, for example, “an act of willing, choosing, or deciding upon a course of action; self-control, self-discipline; a deliberate intention or wish; strong purpose, determination” (American Heritage Dictionary, 1990). Most of these definitions, however, have more to do with the formation of an intention rather than with the intention’s execution – in other words, with the desire itself rather than the translation of the desire into the behavior necessary to accomplish the desire. This is why, perhaps, that for the last 60 years the study of volition as a psychological construct, if considered at all, has been lumped together with the study of motivation. Motivation has been defined as “the study of why people think and behave as they do,” and includes choice,

intensity, cognitive and emotional reactions, as well as persistence (Graham & Weiner, 1996).

One way to characterize the difference between motivation and volition is to distinguish the processes that occur between the formation of an intention, or goal, and the execution of the behaviors necessary to meet the intention. These processes often include some kind of “protection” of the intention from competing demands and conflicts. It is this protection, and the strategies used during this protection, that researchers typically investigate when studying self-regulation and volition. Today, in fact, psychologists generally define *volition* as “the tendency to maintain focus and effort toward goals despite potential distractions” (Corno, 1994).

Introduction to Literature Review of Theories in Self-Regulation and Volition

There are, quite possibly, as many theories of self-regulation and volition as there are researchers working within these constructs. As with any psychological construct, theorists in self-regulation and volition continually build upon and refine their own work while typically striving to incorporate the work of others. Because it is therefore quite difficult to choose which researchers to include (and exclude) in a literature review, this author would like to iterate some criteria considered when choosing literature for inclusion in this document. First, there is an emphasis on relatively recent literature. As mentioned, most researchers build upon both their own and others’ works. It therefore seems a reasonable assumption that recent literature will be relatively representational of both historical and current thought. An excellent example is the work of Dr. Julius Kuhl. In the early-to-mid 1980s, he led what may now be seen in retrospect as a revival of interest in the topics of self-regulation and volition. While Kuhl’s current work incorporates some of his

earlier ideas, it also reflects a clear progression to more recent opinions and theories, including, even, work in neurobiology that supports some rudiments of volitional control. The second criterion is that literature chosen for review in this document include some researchers working in educational psychology or related field. Much of Kuhl's (1984; 1985) work centers around the volitional characteristics of students; additionally, Corno (1993), Corno and Kanfer (1993), and Snow, Corno, and Jackson (1996) work in the area of student achievement as it relates to student volitional characteristics. And, of course, the names "Pintrich," "Zimmerman," and "Schunk" are virtually synonymous with educational psychology, especially in the United States. The final criterion is completely subjective in nature, and is based primarily on this author's general interests as well as the intended direction of this treatise. In short, this researcher is interested in the types and modes of self-regulatory control strategies a person exercises over his or her motivation, emotion, affect, and cognition in the pursuit of a goal. Therefore, the literature included in this document emphasizes research that explores these issues. The following section of this dissertation is organized into four parts. First, there is a discussion of the distinction between "intention" and "action;" next is a review of several proposed systems, or theories, of self-regulation. The third section focuses on how self-regulatory strategies are activated by an individual in the pursuit of a chosen goal. Finally, possible threats to self-regulation and self-regulatory behaviors are discussed.

The Line between Intention and Action

A great amount of time spent thinking about doing something does not equal a great amount of time spent actually doing (Corno, 1994). Some individuals plan specific steps to accomplish goals, then take those steps regardless of the obstacles encountered. Others construct essentially the same

elaborate plans, but never follow these plans to conclusion. And, for any given individual, the path chosen might be different at different points in life (Corno, 1994). What then, is the difference between intention and action, motivation and volition?

An intention is an abstract, symbolic representation of a set of action plans for which there exists no specific, concrete, executable steps. When forming an intention, an individual must consider both the importance and urgency of the pending intention, as well as their own competence in attaining the desired intention, or goal. Furthermore, an intention is limited to those goals to which an individual expresses commitment, not long-term goals that remain, more likely than not, stated as wishes (Kuhl and Goschke, 1994). The realization of an intention most often requires action control, or the ability of the individual to protect the intention from competing alternatives until the intention is implemented.

Kuhl (1985b) distinguishes between a “motivational tendency” and an “intention,” suggesting that an intention is characterized by the strength, or the quality, of the commitment to the action. When a particular situation is encountered, an individual has a number of behavioral choices from which to select. But, which choice does the individual make? Atkinson and Birch (1970; cited in Kuhl, 1985b) suggest that a person implements the choice carrying the strongest, or most dominant, action tendency from among the competing action tendencies. While different theories of motivation have differing explanations for the process by which an individual chooses from among the competing action alternatives, many of the theories suggest that an individual first processes relevant incoming information, then chooses the alternative with the highest expected utility value. This suggests, however, that there is a single “best” alternative (i.e., the one with the highest utility

value), and that this best is never surpassed, even if new incoming information might, at least temporarily, suggest another alternative. Kuhl (1985b) proposes that there are control functions that work to prevent competing tendencies from becoming dominant over the original intention, and calls these control functions *volitional control*, *action control*, and *self-regulation*. Kuhl (1985b) uses these terms interchangeably to specify those processes that work to protect an individual's current intention. This protection prevents the current choice, or intention, from being displaced by an alternate choice. Kuhl (1985b) characterizes those individuals with deficits in control functions as *state-oriented*, and those individuals without deficits as *action-oriented*. In state-oriented individuals, impaired self-regulatory functions may lead to excessive rumination, procrastination, lack of planning, and extended self-reflection. These impaired self-regulatory functions may occur in an individual's present, past, or future state, and essentially represent an inability to "move on," thus making the initiation of a new action plan difficult, if not impossible (Beswick & Mann, 1994). Such cognitive and emotional interference may also allow competing tendencies to overshadow and displace the individual's original intention. In contrast, action-oriented individuals tend to engage in active problem solving and goal striving. Thus, some individuals seem to be more likely to be strategic and task focused, and to be able to concentrate on the actions necessary for goal completion. Because these individuals are able to make better use of self-regulatory strategies, they may be better able to protect current intentions.

Appropriately applied volitional strategies aid in the maintenance and protection of current intentions, and Kuhl and Goschke (1994) further suggest that the same strategies can be used in the service of mediating task shifts or in the deliberate initiation of both planning and self-reflective thinking (i.e.,

metacognition). Although the enactment of an intention requires a high degree of control over thought processes (i.e., meta-control), self-reflection does not necessarily change the strength of the action schemas, but instead serves as a means for organizing, or possibly reorganizing, the behavior necessary to reach the goal. This strategy of self-reflection provides the individual with a method for categorizing their prior behavior. Thus, the individual is able to retrieve from memory previous instances of failures or successes that can then be used to assist in the avoidance or replication of that particular behavior. Implementation intentions may be effective because they provide a memory for initiating the behavior. In a study of women and the performance of breast self-examination, it was found that women who planned the actual enactment of the desired behavior, specifying both a time and a place for the behavior, were less likely to forget to perform breast self-examination than women who did not similarly plan. It was thus concluded implementation intentions that are cognitively rehearsed might have similarities to behavioral rehearsal, in that both may be characteristic of habit formation (Orbell, Hodgkins, & Sheeran, 1997).

While agreeing that intentions are the immediate antecedent of behavior, Ajzen (1985) notes that not all intentions are eventually translated into behavior. Intentions can be revised, or abandoned entirely. In agreement with Gollwitzer and Brandstatter (1997), Ajzen acknowledges that one of the prerequisites necessary for an intention to translate into behavior is that the behavior must be under the individual's volitional control. However, Ajzen proposes that there are several factors that influence the stability of the behavioral intentions, including, for example, latency between the formation of the intention and its implementation, new incoming information, waxing and waning of the individual's confidence in and commitment to the intention,

and even individual differences. One of the factors that can influence volitional control over a behavioral goal, according to Ajzen (1985) is the “power of will.” However, as Kuhl (1985b) notes, individuals do not have to have an actual declarative representation of their intentions. This may be particularly true when behaviors are habitual or routine. However, while explicit intentions seem to be more likely than other goals to be enacted, some researchers suggest that this is not always an automatic process, which is why self-regulatory control is necessary to protect intentions (Snow, Corno, & Jackson, 1996).

The terms *volition* and *self-regulation* are often used interchangeably, and most researchers agree that there is a strong link between volitional and self-regulatory strategies. However, it may be necessary to step back for a moment and look at what is meant by the terms self-regulation and volition. It has been suggested that we are no longer able to examine any one model without considering other models, in part because models tend to be interactional. This may be particularly true when considering cognitive and motivational models (Pintrich & Garcia, 1993). Pintrich and Garcia (1993) suggest that dependence on only motivational models to explain human behavior may ignore an individual’s knowledge and strategy use, but sole reliance on cognitive models may ignore an individual’s goals and intentions. In order for an individual to translate a motivation or goal into action, he or she must have the strategies necessary to do so. These self-regulation strategies include both cognitive appraisals (e.g., “Do I have the knowledge to complete this task?”) as well as the regulation of motivation and affect. Kuhl (1985b) suggests that volitional processes incorporate the same self-regulated learning strategies useful in self- or task-management (i.e. motivation and emotion), but do not necessarily encompass the planning or appraisal aspects,

such as self-efficacy for tasks. Pintrich and Garcia (1993) conclude “motivation, cognition, and self-regulation are related to each other in significant ways both across individuals and within individuals.” Ornstein (1995) appears to agree, noting that self-regulated learning overlaps with volition, and that students who are able to apply effective strategies to tasks are better able to exercise control and focus on the task. These students may be particularly sensitive to their environment; this sensitivity may allow them to manipulate the environment to their advantage.

The term *volition* can be used to denote the set of functions that mediate between potential actions, such as those necessary to reach a goal, and external distractions or temptations. Volition is also the term used to signify the necessity of disengaging from the immediate intention in favor of a decision to embark upon a new course of action when the original goal has become unattainable or when changing conditions require a new course of action (i.e., a change in the goal hierarchy). *Action control*, in contrast to other theories of volition, focuses on the self-reflective or self-regulatory mechanisms that an individual uses to resolve such conflicts. Although it is generally accepted that adults are better able than children to protect intentions that will result in the fulfillment of a goal, it is not necessarily true that this is due to quantitative differences in volitional processing; there may also be qualitative differences in volitional processing. These qualitative differences may be composed of a series of relatively simple processes that are controlled in a specific way. Although volitional processes can be considered a subset of these controlled processes, volitional and controlled processes differ in that volitional processes may be implemented by means of automatic mechanisms. Specifically, volitional processing can be regarded as an explicit way in which automatic processes are harnessed and constrained.

Corno (1993), working primarily from within the area of academics, characterizes volition as the ability to buckle down to tasks. However, she also notes that this volitional ability goes beyond the traditional concepts of goal-directedness or persistence, particularly when difficulty in enactment is encountered. This “above and beyond” kind of persistence is characterized in similar ways by different researchers. For example, Heckhausen and Kuhl (1985) describe the motivational process as two successive psychological states, in which an individual moves from a predecisional, or motivational state, to a post-decisional, or volitional state. Corno (1993) also characterizes this process as pre- and post-decisional, adding that before commitment to a goal, typical decisional-type processes apply; after the commitment is made, the implementation of the goal becomes the individual’s focus, and competing alternatives may be less attractive. Heckhausen and Kuhl (1985) refer to this transition from motivational processes to implementation processes as a metaphorical “crossing of the Rubicon.” The Rubicon was a river dividing Caesar’s province of Gaul from Italy, and by crossing it under arms he committed himself to a civil war with the Roman government. Hence, to “cross the Rubicon” is to be committed definitely to some course of action. Once the Rubicon is crossed, the formed intentions are protected and fostered by self-regulation strategies; furthermore, these goals are seldom changed, even when difficulties arise.

Other researchers working in self-regulation and action control speak of closing the gap between cognition and action. Frese and Sabini (1985), for example, propose one gap which empirical psychology must address is the one between intention and behavior, and suggest action theory may be able to provide insight into inquiries such as “how our cognitive equipment is put to use in the service of our projects and in relation to the world we happen to

inhabit.” Although not all researchers see action theory, per se, as an insight-providing panacea, most agree that an investigation of the connections between our thoughts and actions is necessary to begin answering the question of why our behavior is so often inconsistent with our professed intentions.

Proposed Theories of Self-Regulation

Most models of self-regulation suggest that an individual can, to varying degrees, regulate aspects of cognition, motivation, affect, and behavior. The individual then manipulates these aspects of self-regulation in the attainment of a goal (Pintrich, 2000). Furthermore, most theories of self-regulation characterize successful self-regulation as operating in a type of feedback loop (Pintrich, 2000; Baumeister, Heatherton, & Tice, 1994; Corno, 1993; Corno & Kanfer, 1993; Heckhausen & Kuhl, 1985). First, the individual forms some desired *standard* or goal; next, the individual *monitors* their behavior in relation to the standard (i.e., “Do I know what I need to do to attain the goal?”). The final process in the feedback loop requires that the individual *alter their behavior* in a way such that the original standard is met. Self-regulation failure may occur at any of these junctures – the standards may be unknown, undecided, or conflicting, there may be a problem with (self) monitoring, or the individual may be unable to complete the action(s) necessary to reach the goal. It is often the last part of this feedback loop – completing the actions necessary to attain the goal – that proves most difficult. Baumeister, Heatherton, and Tice (1994, chap.2) posit failure at this point in the feedback loop is analogous to inadequate strength. The individual has a clear standard to meet, and their ability to monitor may make them painfully aware they are failing to make progress towards meeting the goal. However, the individual typically perceives that he is totally unable to change his responses in the ways necessary to attain the goal.

Zimmerman (1998) suggests that self-regulated students can be distinguished from their classmates by three things: they set appropriate goals for themselves; they are accurate in the self-monitoring of their behavior; and they show richness and resourcefulness in strategic thinking. Like other researchers, Zimmerman (1998) proposes that self-regulation is a cyclical process. During the *forethought* phase, students experience certain processes and beliefs that actually precede learning by setting the stage for learning. In this phase, self-regulated students are characterized by their learning goal orientation, high self-efficacy, and intrinsic interest in the task. These students also tend to routinely set hierarchical goals for themselves. During the *performance* or *volitional control* phase, processes are generated that facilitate learning efforts and affect concentration and performance. For example, students may use self-instruction and self-imagery, as well as active self-monitoring, especially to focus on performance. Finally, during the *self-reflection* phase, a self-regulated student focuses on the processes occurring after learning efforts are completed. Included in this phase are a learner's internal reactions to the learning situation, which, in turn, influences *forethought*, setting the stage for the next learning activity. Regardless of the phase, the hallmark of self-regulated learners appears to be the ability to adapt.

In a special issue of the *Journal of Mind and Behavior* devoted to self-regulation theory and research, Pintrich (2000) suggests there are two operational systems of self-regulation: *active* self-regulation, which is conscious, intentional, and effortful, and its opposite, *dynamic* self-regulation, which is not conscious, intentional, or effortful. Active self-regulation requires an individual to monitor both attentional resources and the cognitive and metacognitive strategies that are part of motivational, volitional, and

behavioral resources. The process of dynamic self-regulation, by contrast, does not require the conscious effort of the individual. Dynamic self-regulation typically operates spontaneously and flexibly across many domains simultaneously. Pintrich (2000) further proposes the processes of dynamic self-regulation may serve as a description of the procedures involved in knowledge and skill acquisition. Because dynamic self-regulation involves tacit knowledge, as well as intuitive self-awareness, this concept may also aid in explaining accomplished performance. Accomplished performance is often characterized by automatization, and this automatization rarely requires the process of active, conscious self-regulation.

Heckhausen and Gollwitzer (1987) recast motivational processes into two separate psychological states. The first state is *predecisional*, and includes all processes related to the initial choice of a goal. When an individual is contemplating a goal, for example, they may deliberate on the possible incentives and expectancies they anticipate from the goal's attainment. During this deliberation process, the individual may accept or reject alternate goals based on these anticipated payoffs. The second psychological state is called *post-decisional*. During this process, the individual considers the details of the actions required for implementing the chosen goal. Once this post-decisional phase is reached, no deliberative issues remain for the individual. The transition from the predecisional, or motivational state of mind, to the post-decisional, or volitional state of mind, implies a qualitative leap with respect to an individual's cognitive functioning.

The Activation of Self-Regulation

As mentioned previously, Julius Kuhl has led a resurgence of interest in volition and self-regulation. Kuhl, and others, have continued with their investigations of theories in these areas, leading to ever-finer distinctions with

regard to the hypotheses pertaining to volitional and self-regulatory strategy use. Although most of these researchers' current ideas incorporate the ideas of the past, this author believes it to be important to review the progression of thought because it provides a way of establishing credibility for what is still primarily a theoretical area of research.

Kuhl and Beckmann (1985a) and Kuhl (1985b) suggest there are essential two components, or really a sequence consisting of two parts, in attaining a goal. The first component involves the requirement that the individual activate volitional processes at three points in the goal process: 1) volitional processes should be activated at the point at which it is necessary to make a decision between alternatives; although this is a relatively early stage in the goal process, volitional failure here may cause excessive perseverating between two or more choices, taking time and energy away from the impending implementation of the goal; 2) volitional processes should be activated when the current intention must be maintained and/or protected; at this point, the individual must protect the goal from competing demands, including distractions or alternatives that may seem attractive; 3) volitional processes must be activated when it becomes necessary to control the amount of action-related information processed in a given situation; essentially, the individual must be able to recognize either that the goal cannot be completed (for any number of reasons other than volitional failure), or that the goal is complete, and actions towards the goal can cease (Kuhl & Beckmann, 1985a). Kuhl (1985b) addresses the second component in this process, which occurs after the intention, or the goal, has been fully formed. At this stage, it may be necessary to activate specific self-regulatory strategies that will aid in the attainment of the chosen goal. It seems to be especially crucial to engage in self-regulatory strategies when there is some type of difficulty encountered

while attempting to enact the current intention. This is not a task-oriented difficulty, but a difficulty that arises because competing alternatives are (or become) especially salient, or because there is a certain amount of social pressure to engage in alternative activities. However, the individual must believe he or she has a sufficient amount of perceived ability to successfully control the implementation of the intended action in order to engage the necessary strategies. To put this in the framework of a real-life situation, take the example of an individual who has decided to spend the afternoon working on a commissioned painting that is promised for the following week. However, a friend calls that morning and suggests lunch and a movie for the same afternoon. In this example, it is not difficult for the artist to physically work on the piece (paint, for example), but going to lunch and a movie is an attractive alternative to working; additionally there may be social pressure to participate in the activity with the friend. In order for the artist to engage the self-regulatory strategies necessary to say “no” to the friend, the artist must perceive they have control over their actions. For any particular individual, this may involve simply taking the actual step of saying “no” to the friend, or perhaps anticipating the negative consequences of engaging in the alternate activity (e.g., “the commission will not be ready on time, and I will not get paid”). Kuhl (1985b) suggests that there are six regulatory processes that may serve the individual in simultaneously protecting the current intention (e.g., staying home to paint) and inhibiting attractive alternatives (e.g., going to lunch and a movie). Briefly, these processes include 1) active attentional selectivity, for example concentrating on information supporting the current intention rather than on information supporting alternatives; 2) encoding control, which serves to make the features of the current intention more attractive and salient; 3) emotion control, which works to inhibit emotional

states which might undermine the current intention; 4) motivation control, which, for example, may prompt the individual to consider negative consequences associated with the competing actions; 5) environment control, or managing the environment in such a way that the current intention is protected; and 6) parsimony of information processing, which may allow an individual to ignore incoming information which is at odds with the current intention. These six regulatory processes may be either actively initiated or may be more automated control processes. If the process is actively initiated, it is often through the declaration of an intention, i.e., “I will or I intend to do....” While Kuhl (1985b) generally considers active control processes superior to passively initiated control processes, he notes that the automated responses require less processing capacity, which can be particularly useful as long as these passive processes are sufficient for maintaining the strength of the current intention.

Kuhl and Goschek (1994) redefine volitional mechanisms as “processes that modulate the interaction between an organism’s subsystems.” This definition varies from Kuhl’s (1985b) earlier definition in that it involves the “modulation” rather than the “activation” of volitional resources. Thus, there is less the idea that self-regulatory strategies are simply engaged in an all-or-none kind of way, and more the idea that volitional and self-regulatory strategies work together in harmony, each ebbing and flowing in ways dictated by the situation. Kuhl and Goschek (1994) propose seven such control processes: 1) *intention control*, during which the current action intention (i.e., goal) is maintained; 2) *attention control*, which serves to selectively strengthen information relevant to the professed intention; 3) *action control*, which works to inhibit impulses associated with competing intentions; 4) *arousal control*, which is engaged when it is necessary to adjust

the level of arousal associated with either the current intention or competing intentions; 5) *motivation and emotion control*, which involves balancing between plans to be executed, their motivational and emotional basis, and the performance control necessary for execution of the intention; 6) *encoding control*, or applying the appropriate selection of volitional strategies during pre-attentional stages of information processing; and, finally, 7) *self-reflective thinking and planning*. The addition of the self-reflective thinking and planning phase is the major change to Kuhl's previous ideations of volitional processing mechanisms. These two functions are considered to be at a *meta* level of control; that is, they control the lower six volitional mechanisms (e.g., intention, action, motivation). Additionally, there are some similarities and some differences in the description of control functions between Kuhl's earlier work (e.g., 1985) and Kuhl and Goschek's 1994 work. These differences are more a matter of language than of substance or changes in underlying theoretical concept. For example, what Kuhl (1985b) previously called *encoding control* is now called *attention control* (Kuhl & Goschek, 1994); both are characterized as being control mechanisms engaged by the individual to make the features of the current intention more attractive and salient than the features of the competing intention.

Although each of the above mechanisms represents different levels of control, it is the *intention* and *attention* mechanisms in particular that may allow an individual to transcend their current need state in order to generate goals on the basis of arbitrary instructions, cognitive inferences, and merely anticipated needs. These mechanisms comprise the *representational* level of control, which is characterized by an individual's ability to form and manipulate both internal and external events and objects (Kuhl & Goschek, 1994). Recall that *intention control* allows an individual to maintain the

current intention, and *attention control* serves to selectively strengthen incoming information relevant to the intention. Intention control is thus a more internalized process, during which the individual focuses upon thoughts relevant only to the current intention. During the attention control process, however, the individual must sort through and process arriving information that is *external* to the intention. This representational level of control (i.e., intention and attention) facilitates the maintenance of a difficult intention by two means: first, there is selective activation of the representations that support the intention; second, there is an inhibition of irrelevant aspects not supporting the intention. Instead of simply experiencing emotions, for example, the individual may be able to use emotions to represent metacognitive knowledge about their own needs and possible reactions to anticipated stimuli; instead of simply experiencing the environment, the individual may be able to form an explicit model of the environment so as to simulate possible outcomes and reactions to outcomes. The individual may even be able to control emotions by focusing on existing emotional memories in order to recapture the desired, as opposed to the current, emotional state (Kuhl & Goschek, 1994).

In his most recently published work on self-regulation and volition, Kuhl again makes a slight revision to his previous definitions of volition. According to Kuhl and Fuhrmann (1998), the term *volition* describes a central coordination of cognitive, motivational, emotional, and temperamental processes. Again, the underlying ideas about volition and self-regulation have not changed; what has changed with subsequent definitions, however, is the embedded description of the way in which the individual and the self-regulatory strategies interact. Specifically, Kuhl, in the earliest definitions of volition, describes volition as something that is *activated*, implying the

individual simply “begins work” on the process (Kuhl, 1985b); the next definition (Kuhl & Goschek, 1994) describes volitional mechanisms as being *modulated*, implying these mechanisms are not simply activated by the individual, but that the mechanisms must be controlled and directed in some way. The most recent definition (Kuhl & Fuhrmann, 1998) essentially substitutes the term *coordination* for the terms modulation and activation in previous definitions. The implication is now that the individual must, in addition to activating and controlling the volitional mechanisms, be cognizant of the ways in which the mechanisms are arranged and the ways in which the mechanisms harmonize with each other in the pursuit of a goal. Kuhl and Fuhrmann (1998) refer to these processes as *psychological subsystems* that must be active in parallel; each subsystem is capable of modulating a different *behavioral tendency*. Once a behavioral tendency is activated, there is competition for access to an “operating system” controlling ongoing behavior. In an augmentation to Kuhl’s (1985b) and Kuhl and Goschek’s (1994) earlier work, Kuhl and Fuhrmann (1998) suggest three different modes, or components, of volition, each with several functional constituents. *Self-reflection* is the mode of control supporting volitional competency. Volitional competency encompasses both volitional self-efficacy beliefs, which is the amount of self-confidence that an individual experiences in situations demanding volition, and volitional optimism, a more general form of optimism focused on the successful enactment of a volitional action. *Self-regulation* is the mode of volition supporting the task of maintaining one’s actions in line with one’s integrated self. In order for an individual to successfully pursue an intention, that intention must be congruent with the individual’s idea, or concept, of self. Finally, the third component is *self-control*, or *action control*. It is this component which supports the

maintenance of an active goal, and aids the individual in processing information relevant to the successful completion of the goal while ignoring information at odds with the successful completion of the goal. Although these subsystems, and the volitional constituents which support them, are thought of as being centrally coordinated, it is suggested they can operate independently of one another, operate simultaneously, or alternate serially in a balanced way. It is, however, the concurrent operation of these systems that seems to be especially important in the early phase of establishing a goal when that goal might later require volitional support. Kuhl and Fuhrmann (1998) further suggest the cooperative participation of these two systems strongly determines the type and degree of goal commitment, which then, in turn, directly influences the amount of volitional efficiency available for goal striving. Thus, the ability of an individual to coordinate these psychological subsystems may be a defining characteristic of volition.

This most recent work in volition is perhaps best illustrated by a specific example: An individual makes the goal of quitting smoking. Within this goal, there are actually two systems of volition that must be exercised in order for the individual to be successful in his quest. The first, *self-control*, is the mode supporting the current intention – in this case, perhaps, the desire for the maintenance of a healthy life-style. The second mode, *self-regulation*, is employed when the individual needs to focus on the ongoing maintenance of the goal of “non-smoker.” This requires not only that the individual focus on the goal of not smoking, but also that the individual be able to ignore competing motivations that may encourage smoking. As an example, he may be part of a “smoking group” of fellow employees who exit the building at the same time each morning to grab a cigarette. If he is able to ignore this and/or other competing motivations, then the goal is maintained. In order to fully

support and maintain the goal of non-smoker, the individual must not only be aware of aspects of the integrated self (i.e., self as a non-smoker), but must be able to maintain these aspects when confronted with competing motivations.

Rather than abandoning the more traditional, global concept of self-regulation entirely, Kuhl and Fuhrmann (1998) suggest the concept of self-regulation can also be used in a broader sense when considering the more global volitional tasks of self-maintenance (i.e., support of the integrated self), and goal maintenance (i.e., support of the specific goal). Although often activated in conjunction, there are two situations in which it may become necessary for an individual to alternate between goal maintenance and self-maintenance. First, for example, an individual may be pursuing a goal that is not (yet) compatible with his or her own personal needs. Second, an individual may be pursuing a personal goal because of an anticipated future “payoff,” but the goal is not (yet) supported by certain aspects of the self, such as past emotions and past experiences. To illustrate, return to the example of an individual who has the goal of quitting smoking. It is a reasonable assumption this goal has been adopted with participation of the self, even if, for example, the actual initiation of the goal came about because of an outside influence, such as a doctor’s advice. At this point, however, the goal is not a part of the individual’s integrated self. The individual might still be able to maintain this goal effectively if there are other long-term goals (i.e., payoffs) that can be reached simultaneously, such as, for example, saving money or gaining respect from others. Self-control in reaching this goal may require a temporary or permanent suppression of the integrated self in order to establish the restriction of attention sometimes needed to prevent a top priority goal from being interfered with by competing preferences, needs, beliefs, or other aspects of the self. This goal maintenance mode of volition requires a high

degree of conscious effort, and is most often seen as a temporary means of accomplishing the initiation or maintenance of a specific goal because the goal-directed behavior is not yet part of the integrated self. Goal maintenance under such circumstances is especially difficult because there are so many variables involved: there must be at least some suppression of the integrated self; this suppression often requires activation of the individual's punishment system; and control exercised in such a way (and under such circumstances) often involves a degree of negative emotionality. Thus, the individual is able to maintain at least limited volitional efficiency, but the psychic, and perhaps even the physical, costs are higher for this individual than for an individual employing self-regulatory strategies in the pursuit of a goal that is congruent with their integrated self.

To summarize, Kuhl and Fuhrmann (1998) conceptualize the self-regulatory mode of volitional control as a process facilitating the maintenance of behaviors congruent with the integrated self. Individuals who operate in the self-regulatory mode while pursuing a desired goal are expected to need less time to arrive at particular decisions related to the goal, and to employ volitional mechanisms and strategies in a phasic, context-sensitive way. For example, these individuals use moderate conscious monitoring of their intentions, which may facilitate both the planning and initiation of specific actions; furthermore, these planned behaviors are time and situation appropriate. These individuals are also implicitly able to control their attention, which may allow for the inhibition of impulses or thoughts contrary to the desired goal. The overarching quality of the self-regulatory mode of volitional control is that the individual is able to behave with enough flexibility to handle even difficult goals, or goals with potentially unpleasant

aspects. Such individuals seem to be very proficient in making intuitive use of metamotivational strategies for controlling motivational and emotional states.

Although not directly suggesting specific situations that might activate self-regulation, Corno (1994) does suggest reasons why an individual may want to exercise volitional control over a situation. First, in order to protect the goal, the individual may want to “nip in the bud” any actual or potential problems. Second, setting a series of proximal goals (“limited time explicitly managed”) may provide an individual with the means for self-motivation to occur. Finally, individuals may want to find ways in which to creatively modify tasks so the pleasure of engaging in these tasks is increased. Corno (1994) refers to this as a “mindful investment of effort.”

Threats to Self-Regulation and Volition

Self-regulatory processes require not only that an individual take charge of their behaviors and emotions in relatively passive situations, but also that they are able to take charge of their behaviors and emotions in more active situations. A passive situation might include, for example, staying inside to study on a sunny day; an active situation might be getting up early from a warm, inviting bed to exercise. Typically, active situations require some type of “performance” by the individual; thus, a majority of occupational or competitive pursuits involve active situations. Baumeister, Heatherton, and Tice (1994, chap. 3) note that the impairment of self-regulatory processes in business, education, sports, or warfare may have costly consequences, and suggest effective performance requires many things, including some level of competence, expertise in a specific domain, and appropriate self-regulatory skills. What types of self-regulation might effective performance require? Baumeister, Heatherton, and Tice (1994, chap. 3) suggest that in order for an individual to avoid a performance failure, they

must be able to control aspects of *underregulation* and *misregulation*. Underregulated individuals are unable to exert control over themselves. Characteristically, underregulated individuals tend to lack persistence and are more inclined to withdraw the effort necessary to complete a task or performance; they may also lack the ability to concentrate, or to “pay close attention” when engaged in a task. In colloquial terms, these individuals seem to *lack strength* when it comes to applying self-regulatory strategies. Misregulated individuals may attempt to exert some control over a situation, but the control exerted fails to bring about the desired result. Misregulation often occurs because of a lack of knowledge, particularly self-knowledge. For example, these individuals may believe they can exert control over a situation when, in fact, they cannot; they may feel what has worked well in one past situation will work well in other situations (often without regard for similarity or dissimilarity between the situations); their beliefs about themselves may not be congruent with reality (i.e., they may believe they are more skilled at a task than they actually are); or they may simply have been brought up to believe “The Little Engine That Could” myth, that persistence alone will be sufficient to accomplish the task.

What reasons might there be for failures, or a “lack of strength,” when attempting to engage self-regulatory behaviors? One reason may be that an individual simply lacks “willpower” as a character trait. Baumeister, Heatherton, and Tice (1994, chap. 2) call this a *chronic weakness*, and suggest that willpower is much like a muscle, which, like any muscle, must be exercised to be at optimal fitness. Individuals who do not habitually exercise their self-regulation muscles are unable to do so when it becomes suddenly necessary. Baumeister, Heatherton, and Tice (1994, chap. 2) also note strength is a limited resource that can be depleted by multiple, simultaneous demands.

They therefore conclude that factors that sap strength, such as physical tiredness or stress, may contribute to an individual's self-regulatory failure. They term this type of self-regulatory failure as *temporary*, suggesting that when the strength-sapping situation or state is resolved the individual will be able to replenish the lost self-regulatory capacity. Baumeister, Heatherton, and Tice (1994, chap. 2) also note there are fluctuations in the demands on self-regulatory processes. Thus, the individual may periodically experience episodes of lesser or greater self-regulatory ability. For example, a very difficult self-regulatory task (such as starting a strict new diet, or writing a dissertation) may require so much self-regulatory energy that little is left for other tasks. Individuals may therefore have to employ metacognitive strategies to control their capacity for self-regulation, in addition to controlling the self-regulatory processes themselves. Baumeister, Heatherton, and Tice (1994, chap. 2) suggest some impulses may be so strong that they thwart self-regulatory efforts. In this case, the strength of the competing response, in comparison to the desired self-regulatory response, is particularly powerful. Although the individual *may* prevail in such a situation, interference from impulses, habits, or other potent desires could lessen the likelihood of an appropriate self-regulatory response.

There are times when the attainment of an important goal can be made more difficult because the individual experiences competing preferences, needs, and beliefs. Because of this competition between the existing integrated self and the projected integrated self, the individual, in order to attain the important goal, must exercise a degree of self-control sufficient to temporarily, or perhaps even permanently, suppress the existing integrated self in favor of the projected integrated self. It is this restriction of attention that aids in the attainment of the top-priority goal. Kuhl and Fuhrmann (1998)

point out this goal-striving form of self-control requires a high degree of conscious effort, and that this type of self-control is most often employed as a temporary means towards accomplishing the initiation or maintenance of goal-directed behavior that is not yet an integrated part of the self. This allows an individual to maintain limited volitional efficiency, but at considerably higher psychic costs than more automatic forms of self-regulation.

Dibbelt and Kuhl (1994) suggest four potential self-regulatory threats individuals must consider when making a decision. First, the individual may face an *information selection* problem. In theory, an individual could continue considering decision alternatives as long as time allows, but the individual typically uses some kind of parsimony of information processing which allows them to limit the type and amount of information being considered. During the *information integration* problem, an individual must consider the comparative aspects of the decision alternatives. Essentially, the individual uses the information selected during the first phase to develop some type of heuristic which allows them to compute the best (subjective) alternative. Third is the *termination* problem. Now is when the individual must decide to stop considering alternate decisions and form a commitment to only one decision alternative. This commitment terminates the evaluative process. Finally, there is the *post-decisional maintenance* problem, during which the individual must deal with potential conflicts brought about by selecting a single alternative. It is suggested that it is during this post-decisional maintenance phase that the individual must protect their current intention against competing alternatives (Dibbelt & Kuhl, 1994).

Kuhl and Goschke (1994) suggest three constraints on action control: *selection*, *maintenance*, and *interruption*. Because goals change, the individual must be able to constantly monitor the current situation with respect to the

desired goal or goals. Selection involves the fact that an individual, although typically faced with a variety of goals in any given situation, is usually limited to choosing only one or a very limited number of highly compatible goals that can be carried out simultaneously. Furthermore, the individual must take the appropriate steps to focus on, or maintain, the goal choice. Unless there is this goal maintenance, competing information may shift the individual's attention away from the intended goal before action is taken. There are, however, situations in which the competing information should *not* be ignored, especially when the individual deems the competing information important. This may prompt the individual to interrupt the current actions contributing to the attainment of the original goal, and to switch to a different course of action. This switch may become necessary if the original goal becomes unattainable, when carrying out the original goal requires more information, or when there is a situational change demanding a corresponding change in the goal hierarchy (e.g., smelling smoke while writing a dissertation). As with many other theories of volition, it is suggested these three elements operate in a feedback loop: the current action may be interrupted in order to shift to a different action, to redefine the problem, or to engage in exploratory orienting behavior or problem solving. Adaptive self-regulation, therefore, requires not only that an individual be able to constantly monitor their current situation, but also that they be able to make appropriate decisions between maintaining and shifting their goals as necessary.

Engagement of Self-Regulatory Strategies

The previous sections of this document encompass a mostly theoretical look at how self-regulation *might* work, how it *might* be activated, and how it *might* be threatened. While the previous discussion includes a great number of properties which various researchers deem to be central to self-regulation,

most, if not all, of these properties can be relegated to one of four basic areas: affect, motivation, cognition, and behavior. There seems to be general agreement among researchers that self-regulation implementation and/or maintenance can encounter a “make or break” situation in any one, or even several, of these areas. It thus seems especially important to examine each of these areas in turn for details about when and why self-regulatory efforts fail; it is equally as important to examine the details about when and why self-regulatory efforts succeed. The following portion of this document is thus divided into sections discussing strategies employed in *Controlling Affect*, *Controlling Motivation*, *Controlling Cognition and Metacognition*, and *Controlling Behavior*. Although it may seem as if *Controlling Behavior* would be a natural culmination and conclusion to the other sections, self-regulatory strategies are too intertwined, in this author’s opinion, to make such an argument.

Controlling Affect. Most researchers agree the regulation of affect, or emotion, is necessary for the accomplishment of goals. Any one of us who has ever felt very “blue” or ecstatically happy, and as a consequence found it difficult to continue with normal activities, can attest to the veracity of this statement. It is somewhat difficult to discuss the regulation of affect and emotion in isolation, however, because the emotions we experience typically overflow into all areas of our lives, affecting cognition, motivation, and behavior. Therefore, although the following discussion is centered on the regulation of affect in the protection of a goal, there is some unavoidable spillover of the discussion into these other areas.

Affect regulation, or the process of controlling moods and emotions, has received considerable research attention in recent years. Baumeister, Heatherton, and Tice (1994, chap. 6) suggest an individual’s failure to

regulate emotion and mood results from the same types of self-regulatory failures discussed previously, namely, underregulation and/or misregulation. Underregulation stems from the inability of an individual to exercise control over the current situation, and misregulation occurs when the individual's attempts to exercise control over the situation fail. The failure to regulate emotion is often a conscious decision. For example, about four percent of the population states they never make any kind of attempt to regulate their affect, and many believe that such efforts – particularly in relation to anger – are harmful, both physically and emotionally. Ironically, however, people sometimes fail at *not* regulating their emotions, exercising some type of emotional control at either a semi-conscious or unconscious level. Because emotions contain many automatic components, they are especially difficult to control directly. Regulation of affect, therefore, is somewhat paradoxically limited in what it can accomplish – how does one try to control something that cannot be controlled?

Misregulated individuals, although at least making an attempt to control emotions, may overgeneralize the situation, attempting to apply strategies that have worked in one situation to another situation even if circumstances are different. Misregulated individuals may also make the error of misinterpreting the emotion, leading them to inappropriate control solutions. They may, for example, be highly stressed (i.e., aroused) because of a work situation. If the feelings surrounding this arousal are not properly interpreted, the individual may, in an attempt to control the emotion, seek out arousing entertainment after work rather than choosing a calmer, more relaxed, environment. In short, misregulated individuals may often try strategies that just do not work.

Kuhl and Goschke (1994) suggest the primary purpose of emotions is to indicate discrepancies between internal need states and external events. Therefore, although emotions themselves do not typically lead directly to specific behaviors, these same emotions may signal to the individual that changes in current actions are necessary. For example, certain emotions may trigger an individual to recall certain behavioral responses which have been adaptive in the past, thus preparing the individual for the initiation of certain broad categories of behavior. An irony here is that the actual effects of emotions may be relatively resistant to this type of cognitive mediation, even though the emotions themselves are often generated, at least in part, on the basis of cognitive mediation.

Motivation is sometimes characterized as an *action-related* emotion, or a pattern of behavior based upon an individual's emotional evaluation of a specific course of action. This emotional evaluation evolves when the individual compares their experiences in the current situation with the outcome of a past similar course of action (Kuhl & Goschke, 1994). Thus, the motivational control of emotions involves an attempt by the individual to generate action-related emotions serving to increase evaluative strength in the current intention. This type of control is also important to the individual as they attempt to assess their current degree of initiative regarding the goal. For example, an individual may associate certain actions or behaviors with positive outcomes in past specific situations. These actions and behaviors will thus gain an intrinsic emotional valence for the individual, and he or she may then base future actions on these positive emotional remembrances. Emotions may also help to regulate a more global mode of information processing. For example, a person may realize they are apt to handle the same problem differently, depending on their current emotional state. For example, dealing

with being stuck in traffic may be quite different for any given individual depending upon whether or not they are angry as opposed to calm, or sad as opposed to happy.

Emotions, by their very nature, are inextricably bound to the specific situation in which they are experienced. Therefore, an individual, in order to facilitate the current intention, must engage in a limited decoupling of the emotion and the action initially elicited by the emotion: an individual must be able to appropriately control emotion and arousal. If the level of arousal or emotion experienced by an individual is interfering with the initiation, maintenance, or termination of an intention, then the individual must work to either strengthen (if the intention is being facilitated) or weaken (if the intention is being debilitated) the current emotion. Kuhl and Goschke (1994) caution that the emotional level of control is inextricably bound to an individual's *evaluation* of the current situation, and is based upon the individual's current need states and past experiences. Because emotions can be elicited by evaluations, it has been suggested an individual can facilitate control of their emotions by imagining possible positive and negative outcomes associated with the particular situation and emotion. In fact, Kuhl and Goschke (1994) suggest this type of projection may serve as one of the major strategies individuals can employ to generate intention-strengthening emotions.

Individuals may fail to regulate emotions simply because they use ineffective methods or resort to methods that backfire. For example, many individuals try to regulate their negative moods by avoiding or suppressing the thoughts that cause them to feel bad (Billings & Moos, 1984). This method, however, seems to be an ineffective one for reducing negative emotionality for most people. Individuals who try to suppress thoughts may, ironically,

become obsessed with the very thoughts they are trying to suppress. It also seems to be particularly difficult to suppress thoughts when under increased cognitive load. So, for example, if an individual is under stress because of being tired or having too many things to do at once, they seem to be less likely to be able to avoid negative thoughts. Similarly, under conditions of fatigue or competing demands on physical strength, individuals are less likely to be able to suppress their mood-relevant thoughts.

Although it can be difficult to suppress thoughts, it does appear the use of distractions or diversions may be helpful in taking one's mind away from emotionally distressing thoughts, thus a useful means of regulating cognitions and emotions (Billings, & Moos, 1984; Wegner, 1989). Needless to say, however, such distractions must be pleasant, able to absorb attention, and able to produce calm or arousal appropriately in order for them to be useful. Bad moods seem to be especially difficult to reduce, and distracters chosen to reduce bad moods must be highly engrossing and have a big probability of positive reinforcement (Nolen-Hoeksema, 1993; cited in Baumeister, Heatherton, & Tice, 1994, chap. 6). Thayer (1987) offers some specific suggestions for distracters: in the short run, a sugary snack might do the trick, or, over the long run, some form of regular exercise may work towards suppressing or reducing bad moods.

There are individual, as well as situational, differences both in the need and the capacity to regulate emotions. For example, not all mood regulation strategies work equally well for all moods or in all situations. A past successful strategy, when revisited, may prove ineffectual. A long drive, used in the past to reduce anger, is not likely to work in the current situation if the individual encounters a traffic jam. It is therefore more a matter of finding "what works" in each specific situation rather than "what works" in general.

Some individuals may also have a tendency to focus on short-term mood regulation. For these individuals, distress may soon return. Short term solutions may include eating favorite foods, interacting with friends and family, listening to music, or indulging in alcohol or drugs.

Some researchers posit there is a certain amount of skill involved in affect regulation, suggesting the basis for a type of “emotional intelligence” (Salovey & Mayer, 1990). Similarly, some individuals seem to actually experience their emotional life more intensely than others. These individuals may have a heightened need to regulate, but may, ironically, have more difficulty regulating their emotions than those individuals who experience emotions less intensely. Taken together, factors such as differences in background, prior experiences, intelligence, personality, and other individual differences suggest some individuals are better able to regulate their emotional experiences than are others.

Many researchers have demonstrated the expression of an emotion may actually induce that emotion in the individual (James, 1890/1950; Allport, 1924; cited in Baumeister, Heatherton, & Tice, 1994, chap. 6). Izard (1990) also demonstrated the *self*-management of controlling facial expressions tended to produce the corresponding emotion in the individual. The conclusion is that the expression of the emotion – any emotion – tends to make that emotion experienced more strongly by the individual.

Controlling Motivation. Motivation is the “process whereby goal-directed activities are instigated and sustained,” while self-regulation is “the process whereby [individuals] activate and sustain cognition, behaviors, and affects” (Schunk & Zimmerman, 1994). Other researchers suggest volitional processes are essentially the same as self-regulatory processes, in that both stimulate thoughts and behaviors directed towards the maintenance of an

intention necessary to attain a specific goal. Volitional processes are particularly important when internal and external distractions might compete with the intended goal (Garcia, McCann, Turner, & Roska, 1998). Although it seems evident motivation and volition have a reciprocal relationship, it also seems evident motivation and volition are *not* the same thing. One view that has gained favor is that volitional processes start where motivational processes end; motivation is the commitment, but volition is the “follow-through” (Corno, 1993; Corno & Kanfer, 1993; Heckhausen & Gollwitzer, 1987; Kuhl, 1985a). As Corno (1994) notes, some individuals plan a series of steps that will lead to the accomplishment of the intended goal, then take those steps regardless of difficulties encountered, while other individuals construct elaborate steps which are never taken. Furthermore, any one individual may experience both of these cycles at different points or times in life.

Many theories of motivation operate on what Kuhl (1984) calls “choice motivation,” which refers to the rules people use to make a distinction between alternatives. Kuhl proposes instead a theory of *action control* that distinguishes between the selection of a decision alternative, and the actual enactment of the decision alternative. The theory of action control posits that the actual enactment of the intention can be based on sources of motivation different than those on which the initial decision was made. For example, the initial decision may have been based on certain cognitive factors that are now in conflict, but strong emotional factors supporting the original decision remain. In such a situation, it is necessary for the individual to employ additional self-regulatory strategies to actually implement the chosen action. Recall that Kuhl characterizes those individuals who are able to rely on internal or external strategies promoting the execution of an intention as *action-oriented*. By contrast, *state-oriented* individuals tend to overly

consider, for example, past, present, or future failures or threats of failure, unrealistic goals, and other competing intentions. Because of these tendencies, state-oriented individuals are more likely to allow excessive rumination to interfere with and impair the volitional strategies that would allow them to move beyond the intention stage to the action-implementation stage.

Controlling Cognition and Metacognition. Appropriately applied cognitive strategies are mental thought processes permitting individuals to focus on the task, or goal, at hand, while ignoring competing demands and alternatives. It has been well established that we are able, to greater or lesser extents, to control our thoughts. Most universities, for example, have as a goal for their students the development of critical thinking skills, based upon the idea that abilities for examining and controlling thoughts can be taught. At times, however, there is the realization that we might really have very little control over our thoughts: neophyte meditators, for example, attempting perhaps for the first time to clear the mind of its steady stream of thoughts, may be astonished that this “simple” task is so difficult (Baumeister, Heatherton, & Tice, 1994, chap. 5). Research is replete with studies on the phenomenon of cognition, but there is, to date, relatively little research on how cognitions might be regulated. Research that does look at the regulation of cognition often centers on *metacognition*, which is, very simply put, thinking about thinking. Cognitive and metacognitive strategies, however, can be employed in the protection of a goal.

It seems as if most efforts towards regulating cognitions can be put into one of two camps: thinking too much, which typically leads to unwanted and potentially obsessive thoughts interfering with the goal at hand, and thinking too little, which typically results in an inability to pay appropriate attention to the task at hand. What is required is not a balance, as would seem

logically evident; rather, what is required is that an individual be able to regulate cognitions in such a way as to protect the goal at hand. Although there are occasions when attention can be split between two or more tasks, an individual must recognize if and when this split is interfering with goal accomplishment. This requires not only that an individual be able to recognize that certain thought processes are taking place, but also that an individual be able to reflect upon the thought processes, and recognize that these thought processes might need to be altered to aid in the protection of a goal.

Baumeister and Newman (1994; cited in Baumeister, Heatherton, & Tice, 1994, chap. 5) suggest two main reasons why individuals may try to regulate their cognitive processes. First, there may be a desire to reach an “accurate, correct, or optimal” conclusion. In this mode, individuals operate in a more or less empirical fashion. They may, for example, gather and weigh evidence, and test hypotheses and alternatives. Second, an individual may want to reach a “particular, preferred” conclusion. In this mode, an individual may desire evidence confirming what is in reality a predetermined conclusion. Because the conclusion may not be optimal, a certain amount of self-deception may be involved.

Baumeister, Heatherton, and Tice (1994; chap 5) again use the analogy of *strength* to discuss self-regulatory failures in cognitive processes. In one study, for example, instructing study participants to “try extra hard” to make good conclusions and decisions did result in the participants making better decisions. It thus seems evident that underregulation may lead to cognitive errors. In another study, in which participants were forced to make a decision under pressure, the participants were more likely to simply choose the first alternative that *seemed* best, without reviewing all the available options (Keinan, 1987). These findings suggest when cognitive load is increased in

the form of stress, thus depleting strength, an individual may pay less attention to all the various possibilities in favor of selecting an answer quickly. As with underregulation, this misregulation of attention can lead to errors in cognitive processing.

Akrasia is the Greek word for “deficiency of will,” and as Mischel (1996) and other researchers recount, self-regulatory failure was, at one time, considered to be a character flaw. Noting that aspects of self-regulation are no less mysterious today, Mischel also characterizes self-regulatory failures in terms of a lack of strength. Calling for a demystification of the individual differences in willpower, Mischel urges psychologists to explore the mechanisms involved when individuals attempt “to turn their good intentions into reality in the face of formidable barriers and frustrations.”

Mischel (1996) has often investigated delay of gratification, in which participants are typically offered the choice of a smaller, easily gained reward that is immediately available, or a better or larger reward that is available at a point in the future. In one study, Mischel (1996) was especially interested in what children choosing the delayed rewards actually *did* while awaiting the delayed rewards. What, exactly, was happening psychologically? Mischel (1996) found the most successful children (in terms of delaying gratification) used some type of purposeful distraction, such as singing to themselves, or covering their eyes. If children were specifically asked to think about the treat awaiting them, delay time was short. The most difficult situation seemed to be when the treat was exposed. In this case, children, in order to delay gratification, had to think of something *other* than the treat awaiting them. Mischel (1996) concluded stimuli can be represented in the mind in an arousing, motivating manner, or in an abstract, informative manner. When the stimuli is coupled with arousal, it is much more difficult to resist the goodie; if

the stimuli are represented in a more abstract way, the individual may be more able to focus on the attractiveness of the alternative. For example, children instructed to think about marshmallows as big, puffy, white clouds (an abstraction) found the marshmallows much easier to resist than children told to think about the sweetness and taste of the marshmallows (an arousal).

Failure to delay gratification can also be seen as a failure to pursue chosen goals sufficiently (Baumeister, Heatherton, & Tice, 1994, chap. 4). It is suggested individuals are sometimes unable to *transcend* the situation, instead *immersing* themselves in the “here and now.” These individuals seem to have an inability to see beyond the immediate incentive, as well as an inability to understand the immediate situation in relation to their long-term values and goals. As Baumeister, Heatherton, and Tice (1994; chap. 4) note, it is much easier to relax than to study, much easier to engage in pleasure now rather than anticipate pleasure at some point in the future. Because so many long-term goals rely on hard, preparatory effort, the tendency to gravitate towards an immediate dividend is tantamount to self-regulatory failure.

Suppressing *unwanted* thoughts seems to be as much of a problem as controlling thoughts. The first few days of a new diet are plagued with thoughts about food; memories of a faux pas committed in front of someone we wanted to impress linger for days. Many researchers have conducted experiments in which participants are given instructions regarding the suppression of thoughts. For example, Wegner (1990) asked college students to speak aloud every thought that came into their heads for five minutes, but to *not think* about a white bear. These students were told to ring a bell every time they thought about the bear. On average, students reported thinking about the white bear more than six times in the five-minute span. Another interesting finding of this study was that there seemed to be improvement with

practice. White bears were thought about more earlier in the five-minute span; over time, students who had been asked *not* to think about white bears did think about them less than students instructed *to* think about the bears. Wegner also found that powerful distracters were effective in aiding students in the suppression of certain thoughts. Students who were told to think about red Volkswagens instead of white bears were able to think about white bears less often than others not similarly instructed. This type of instruction, however, is not completely successful. Once students were told that it was okay to *not* think about thinking about white bears, they found it much more difficult to do so. The *rebound effect* results in individuals in the suppression condition thinking about thoughts they were told to suppress more often after the instruction to suppress was lifted than those individuals who were told to think about those thoughts. In other words, individuals who were initially told *not* to think about white bears, then told it was okay to think about white bears, thought about white bears *more often* than those individuals who were told not to think about white bears all along. This paradoxical struggle to suppress unwanted thoughts may, in fact, contribute to the failure of some self-regulatory efforts.

With regard to self-regulation failure, the attempt to suppress a thought can bring with it the attendant mental process of searching for that very thought. Wegner and Erber (1993) call this an *ironic* operation of mental monitoring processes. Once the desire to suppress a certain thought is expressed, an automatic, unconscious mental process that searches for the particular thought may be activated in order to monitor whether or not the suppression has been successful. The irony is that avoiding a thought requires attending to the thought in some way, and any type of increased cognitive load seems to contribute to difficulty in suppressing unwanted thoughts. An

individual may experience anxiety when attempts to suppress thoughts are unsuccessful; the anxiety increases the cognitive load, making it ever more difficult to suppress the unwanted thoughts. This is consistent with the analogy of strength discussed earlier. The individual is able to continue monitoring their thoughts, but the self-regulation necessary for controlling thoughts is unavailable (Baumeister, Heatherton, & Tice, 1994, chap. 2).

Self-deception, such as when an individual seeks evidence confirming a predetermined conclusion rather than objectively weighing all alternatives, may also lead to cognitive self-regulatory failures. Self-deception typically involves attempts to convince oneself that something is true when it is not. As humans, we seem to be particularly adept at convincing ourselves of our good qualities, our control over our lives, and our favorable prospects (Taylor, 1989). Such miscalculations may thwart the protection or attainment of a goal. A rather common example of such self-deception is the often-ballyhooed claim that we work best under pressure. Rather than recognizing that all our attentional resources are focused because time is short, which occasionally leads to a version of optimal performance, we congratulate ourselves for our superb insight and self-knowledge. If we fail under these circumstances (i.e., under pressure), we can now cite pressure as the convenient culprit.

The ability to concentrate, or to “pay attention,” is also an important aspect of self-regulatory processes. To reach a goal, individuals must be able to simultaneously focus on the task at hand and ignore competing distracters. Not all distracters, however, can be considered competing. There is research evidence, for example, illustrating the potentially positive effects of distracters on a task. In one study, one group of subjects was required to jog a specific number of miles on an indoor lap track; another group was required to jog exactly the same number of miles, but in an outdoor setting. The group

jogging indoors reported being more tired than the outdoor group; additionally, the indoor group ran, on average, more slowly than the outdoor group, even though it is typically more difficult to run over uneven surfaces. Pennebaker and Lightner (1980) concluded the outdoor joggers had the advantage of abundant appealing distracters, such as sky, trees, and other people. These stimuli apparently worked to keep the joggers' minds distracted from the pain and fatigue of running. Thus, there are times when wisely chosen distracters may aid in the protection and attainment of a goal.

Concentration is more difficult to maintain when the task or performance is boring. Sansone, Weir, Harpster, and Morgan (1992) found individuals faced with boring tasks often develop cognitive strategies for dealing with the boredom. People may, for example, attempt to make the task more personally challenging, focus on their competence in performing the task, inject variety into the task, or seek out some interesting aspect of the task and concentrate on that aspect. In one humorous example, workers in a potato chip factory were charged with the task of culling "non-uniform" chips. One employee tried to find intriguing or meaningful images in the non-uniform chips, which were then added to his collection. His prize chip bore, in his mind, a resemblance to Elvis Presley. Baumeister, Heatherton, and Tice (1994, chap. 3) suggest persistence at tedious jobs is much more difficult unless cognitive strategies are developed that will enhance the individual's interest and involvement with the task.

Finally, research suggests the act of paying attention requires the expenditure of both mental and physical effort. Two groups were shown an identical video of a social interaction with meaningless and irrelevant stimuli encoded across the bottom. The control group, who were given no instructions prior to watching the video (i.e., they were neither to ignore or to focus on the

irrelevant stimuli), was able to recount the social interaction information from the video reasonably well. The experimental group was instructed to *ignore* the stimuli playing at the bottom of the video. Subsequently, the experimental group reported they had to consciously divert their eyes and their attention *away* from the meaningless stimuli, and they scored lower on recounting the details of the social interaction than the control group (Gilbert, Krull, & Pelling, 1988). This suggests the experimental group was less successful in fully attending to the content of the video even when given instructions to ignore the irrelevant information.

As mentioned previously, *metacognitive* control strategies must be employed in order to regulate cognitive processes. It is not enough that appropriate thought processes take place: the individual must become *aware* whether or not the thought processes are useful in protecting and attaining the goal. Kuhl and Goschke (1994) refer to metacognition as a *meta-control* level of processing because they envision this level controlling the lower level systems of representational control, evaluative control, and procedural control. They speculate the meta-control level is especially important when an individual's existing skills are insufficient for exercising control in a specific situation.

There are two meta-control processes – planning and self-regulation. *Planning* is required when the individual lacks the experience or action schema necessary for attainment of the intended goal. In this situation, existing schemas and skills must be elaborated and embellished in such a way as to compensate for the missing experience. This permits the individual to generate a novel action sequence that can transform the intention into a goal. *Self-regulation* serves as a type of problem solving facilitating the initiation or maintenance of an intention in certain situations. In these situations, the

individual may possess the skills and environmental information necessary for goal attainment, but the actions are rendered difficult by competing action tendencies. For example, an individual may be faced with emotional preferences in conflict with the attainment of the intended goal. The self-control mode of self-regulation allows the individual to inhibit these competing tendencies, which then facilitates the completion of the current intention (Kuhl & Goschke, 1994).

Corno (1986) suggests metacognitive strategies are important because our first attempts at solving problems are often impulsive. It is not until we gain experience in different situations that an awareness of metacognitive strategy use develops. Over many experiences, metacognitive skill becomes more and more efficient, often reaching the level of automatic processing. This level of metacognitive control is desirable, because the automaticity results in reduced cognitive load, freeing the individual to employ other volitional strategies (e.g., affect and motivational control).

Self-regulatory strategies for managing motivation, affect, and behavior also develop through the acquisition of metacognitive and meta-motivational knowledge and skills (Baumeister, Heatherton, & Tice, 1994; chap. 3). The accumulation of knowledge and skills in a variety of situations allows individuals to detect and interpret both regularities and irregularities between their desired outcomes and their internal and external states. Individuals not only gain skill in examining the relationship between specific behaviors and the behaviors' consequences, but also gain skill in examining the relationship between their internal states and their professed intentions. So, for example, an individual may come to learn that hasty actions frequently have negative consequences, and that they are more likely to engage in hasty actions when they are aroused in some way. Such meta-rules are comprised of

bits and pieces of self-knowledge, and eventually develop into a tried and true model the individual can use for representation of a functional self. It is this fully formed *self-model* that enhances an individual's ability to make well-chosen intentions and decisions. The developed self-model is able to regulate behavior, as well as to integrate behavior and consequences, in such a way that the appropriate intention is formed (e.g., "When an important decision has to be made, it is better to take your time!").

Controlling Behavior. If there is one idiomatic expression that sums up volition, it may be "It is easier said than done." Exactly how do we mobilize resources, then apply those resources towards the attainment of a goal? It has been suggested appropriately applied volitional control translates the "saying" into the "doing" by regulating cognitive, motivational, and affective processes (Corno & Kanfer, 1993). Kuhl (1996) calls for more research into volitional processes, saying "I am convinced that psychologists will never be able to explain the complex phenomena of human behavior without concepts like volition, willpower, self-regulation, and self-control." As mentioned previously, it is difficult to argue that any one category of volitional strategies (i.e., motivation, affect, cognition, or behavior) is more important to a goal's success than the other categories. It is *not* difficult to argue, however, that the strategies chosen must culminate in appropriate *behavior* in order for the goal to be attained. This may be one reason why several researchers suggest the processes involved in meeting a goal operate in a type of feedback loop (Corno & Kanfer, 1993; Heckhausen & Kuhl, 1985). A generally accepted feedback model suggests motivation prompts action by defining commitment to explicit intentions, volitional processes then aid in the transition of goals into action, which in turn affects subsequent motivation. This process is

“recursive and dynamic” – the completion or follow-through of an action serves to reinforce the original decision (Heckhausen & Kuhl, 1985).

The “essential nature” of self-regulation, according to Baumeister, Heatherton, and Tice (1994, chap.1), is our ability to *override* one process or action in favor of another. *Overriding* may encompass starting or stopping a process or action, may require changing an ongoing process or action, or may entail the substitution of one outcome or response for another. At the heart of this concept, however, is the idea that a competition of sorts exists between these multiple processes, specifically between those processes that are “higher ordered” (typically involving longer time spans and/or more distal or abstract goals, such as the goal of self as a “non-smoker”) and those processes that are “lower ordered” (more proximal goals, such as not lighting up a cigarette in favor of the goal of quitting smoking). Quite often, however, proximal goals must be met along the way to meeting more distal goals. In fact, the issue of timing may be critical when engaging appropriate self-regulatory strategies. Baumeister, Heatherton, and Tice (1994, chap. 2) suggest the earlier the self-regulatory response is engaged, the greater the likelihood of success. Once actions gain a certain momentum, they may be difficult for the individual to halt. This *psychological inertia* is akin to the concept of inertia in physics – bodies in motion tend to stay in motion. It thus seems important to perform the behaviors congruent with the goal even at the earliest stages of initiation.

One way to initiate appropriate behaviors early in the goal process is to engage in planning. Gollwitzer (1996) suggests two volitional problems associated with goal achievement. First, the individual may simply have difficulty in getting started; second, the individual may encounter difficulties in bringing the started pursuits to a successful conclusion. The individual is especially likely to encounter difficulties in starting a goal or pursuing a goal

when engaged in other ongoing activities, when experiencing demanding ruminations or intense emotional experiences, or even when the individual is simply tired. Gollwitzer (1996) suggests “planning is the central strategy that prepares the individual for future actions,” and notes that even incomplete plans may facilitate the goal process. Plans may provide the individual with motivation to continue even when the goal seems too difficult or requires increased effort and persistence. Planning also involves at least some commitment to the goal on the part of the individual, and studies have shown that commitment, even to a difficult or aversive activity, is enhanced when the individual is able to deliberately imagine the aversive activity’s initial steps (Kuhl & Goschek, 1994).

Ajzen (1985) proposes three major sources of cognitive-behavior inconsistency: an individual may make changes in, or change completely, the initial intention before it is carried out; an individual may lack the necessary confidence the attainment of the chosen goal is under their volitional control; and finally, there may be a relationship between an individual’s confidence in their ability to exercise control over their own actions, and the extent to which they actually do control events in their lives.

Kuhl and Goschke (1994) suggest a level of behavioral control based upon perception and action, which they consider to be the fastest and simplest way of responding to incoming stimuli. In this model, perception and action are based upon an interconnected set of schemas, which, over time, become somewhat habitual in nature. This level of control shows some of the rudiments of stimulus-response learning, in that the individual receives incoming stimuli, then processes and responds to the stimuli with patterns of response that have proved useful to the individual in the past. It may be this stimulus-response type of connection that helps in explaining the tendency for

some behaviors, even difficult behaviors, to become more habitual. For example, an individual following a strict exercise schedule (i.e., fixed ratio schedule) is more likely to become habituated to an exercise routine than if the exercise is practiced on some type of variable ratio schedule. Thus, even difficult activities may become at least somewhat habitual because a type of quasi-automatic trigger is evoked when conflicts with competing tendencies are detected. Recall that Kuhl and Goschke (1994) suggest that qualitative differences in volitional processing may be composed of a series of relatively simple processes that are controlled in a specific way. These controlled processes require the active participation of the individual, and are especially likely to be invoked in three specific conditions: 1) the immediate situation or stimulus triggers a well-practiced or automatic response, but requires the performance of a new, unpracticed, or infrequent response; 2) the actions required are slow, serial, and effortful, and may overload the individual's capacity (as is often the case with new, unpracticed, or infrequent responses); and 3) the required behavior is stimulus-independent and sensitive to arbitrary instructions or intentions. Thus, whenever the behavior or response required from the individual is relatively new, the individual must activate volitional control to attain the desired goal.

There is some disagreement as to whether or not volition, when considered as a construct, is a persistent, stable, individual difference; however, both Corno (1993) and Kuhl (1985b) generally assert the tendency towards volition is at least somewhat stable, and there is extensive documented history of individuals' predispositions towards acting deliberately and persisting despite distractions (Snow, Corno, & Jackson, 1996). Corno and Kanfer (1993) offer evidence from other researchers suggesting action orientation in adults may be associated with stable individual differences in

personality dimensions, as well as in nonintellectual attributes such as duty, responsibility, and determination (Cross & Markus, 1990; Nuttin & Lens, 1985; cited in Corno & Kanfer, 1993). However, as Corno (1993) notes, research in how volitional styles vary in individuals and how stable these differences may be over time needs further investigation.

Kuhl and Beckmann (1994) suggest a theory of volition explaining complex differences in personality is needed, and argue their construct of *action* versus *state* orientation may contribute to such a theory. According to Kuhl and Beckmann, aspects of this theory correlate with some existing personality dimensions such as conscientiousness, negative emotionality, and anxiety. They note psychologists have long seemingly accepted that such things as worry, rumination, self-blame, and low self-efficacy have debilitating effects on behavior. However, as Kuhl and Beckmann (1994) note, while low-self efficacy may indeed correlate with lack of volitional characteristics in certain people, it may also be that low self-efficacy causes compensatory increases in volitional effort and performance. Questions about the explanation and prediction of behavior should focus on the *specific effects* such mental states or contents have on behavior. Accompanying these questions, however, is the problem of distinguishing emotional states from specific modes of processing. Kuhl and Beckmann (1994) specifically warn *against* associating state-orientation, or the lack of volitional strategies, with maladaptive behavior. They note this tendency is natural, because most researchers seem to be more interested in assessing how people cope with anxiety, stress, failure, or challenging demands rather than in more benign life conditions.

Introduction to Research in Creativity

Is creativity a rare, once-in-a-while phenomenon, or is it a common, everyday occurrence? Like many psychological constructs, these and similar questions about the nature of creativity date back centuries. Plato suggested that poets were set aside from ordinary mortals because the gods spoke through them; more recently Lombroso (1891) argued that genius and madness are closely allied. Although creative behavior has been pondered since the time of Plato and Lombroso, in the last forty decades there has been a resurgence of interest in creativity, accompanied by various theories attempting to explain both its nature and its determinants. Many researchers have found that one determinant, or personality trait, in particular, seems to be clustered in creative individuals. This is the trait of *extreme persistence*, often characterized by these researchers in terms of motivation (Dudek, Berneche, Berube, & Royer, 1991; Radford & Burton, 1974; Sternberg & Lubart, 1991; Walberg, 1988). The basis of this persistence seems to be an enhanced ability on the part of creative individuals to engage appropriate self-regulatory strategies in relation to their work. Although these personality characteristics cross domains of expertise (they are, for example, as likely to be found in scientists as in poets) this dissertation focused primarily on those creative individuals practicing the visual arts, specifically, professional artists.

In 1953, Morgan culled from the psychological literature more than 25 definitions of creativity (cited in Walberg, 1988). The only thing all definitions held in common was that creativity is the development of something unique. However, as Walberg (1988) notes, the definitions did not make the distinction as to whether it must be the person, the process, the product, or some combination of these, which is held unique. Furthermore, he questions whether this distinction of uniqueness is something that can be

recognized by the creative individuals themselves, or whether it is something that must be recognized or judged by qualified others. Although a review of various theories about the determinants of creativity is included in this review, the present study did not seek to find a definitive answer to the question of the nature of creativity. Instead, the author desired to gain a better understanding of but one of the traits so often associated with creativity, that of extreme persistence, and the role that self-regulatory strategies might play in this persistence. Towards that end, this section of the literature review is organized as follows: first, there is a discussion of several theories exploring the nature and determinants of creativity; next there are discussions about creativity as it relates to *motivation*, to *personality traits*, and to *cognition*.

What is Creativity?

R.S. Albert and M.A. Runco, in an article entitled *A History of Research on Creativity* (1999), discuss the progression of our fascination with the process, product, and societal role of creativity. As they note, their ideas are particular to their background as psychologists, which is why they chose to call the article “*A History...*” rather than “*The History...*” Albert and Runco’s (1999) discussion is worthy of a quick review, because, in their words, creativity has remained “The Great and Nearly Endless Debate.” Many of our ideas about creativity come from a pre-Christian foundation, which emphasized the importance of the concept of genius. This idea suggested that genius, and by extension creativity, was associated with the mystical powers of protection and good fortune. Eventually, the Greeks began placing emphasis on an individual’s Daemon, or “guardian angel,” and genius was, at least to some extent, demystified. There was still a hint of the mystical, but at least now the creator could be a mortal. Although in Western philosophies creativity is virtually synonymous with originality, in Eastern philosophies

creativity was regarded as discovery at best, mimicry at worst. Plato (428 B.C. – 322 B.C.), for example, declared there to be “nothing new under the sun,” and art in his time was an attempt to reproduce ideal forms. Just several years later, during the time of Aristotle (384 B.C. – 322 B.C.), creativity began taking on a social value, but it was also during this time that creativity came to be associated with madness, a perspective that still resurges periodically. Even so, it was this gradual demystification of genius that eventually permitted creativity to take on a social value, a value that exists today.

The idea that creativity was a reproduction rather than a creation of something unique did not substantially change until during the Middle Ages. Creativity was again seen as a manifestation of a spirit, but the spirit had something new to say. This outside spirit permitted the conduit (almost always male) to engage in a special talent or special ability. This view of creativity eventually shifted, especially during the Renaissance and the Enlightenment. The importance of this progression is that it reflects there was not really a clearly defined position about creativity or about its exact role in society until the middle of the 18th century.

A few contemporary researchers hold fast to the position that creativity is a rare, once-in-a-while phenomenon with very few truly creative individuals in the history of the world. These researchers tend to emphasize a definition of creativity maintaining the creative product, whether it is an idea, a discovery, a formula, or even a canvas, must be without doubt groundbreaking, literally overshadowing its predecessor products within the domain (for a review, see Csikszentmihalyi, 1996, and Gardner, 1993). Other researchers propose creativity is an everyday phenomenon found in all people, and furthermore that creativity is a facet of personality contributing to the maintenance of mental health (Cropley, 1990). Regardless of which side of the fence the

researcher sits on, there is some general agreement about the factors necessary for creativity to occur. Several researchers, for example, state creativity must depend on some kind of innate or acquired talent (Albert & Runco, 1990; Csikszentmihalyi, 1990; Ericsson, 1996; Walberg, 1988). Additionally, many researchers believe there are cognitive and psychological factors contributing to creativity, and Necka (1986) provides a concise summary of what he terms “psychological elements” that must be present for creative behavior to occur. First, there must be specialized knowledge and skill in the domain; next, there must be special “creativity facilitating” abilities, such as the ability to get new ideas, to see the unexpected, and to make new combinations; and finally, there must be a willingness to expend energy in constructing a product.

While most researchers agree that high intelligence, as measured by various intelligence tests, is not essential for creativity to occur, they agree that at least some minimum level of intelligence is necessary (Sternberg, 1988). Learning theory suggests an essential feature of creativity is the formation of association, which is also an essential feature of intelligence; therefore, the two must be conjoined in at least this way (Radford & Burton, 1974). It is almost certain this “formation of association” is crucial to the problem formulation stage of creativity, sometimes held to be the most important aspect of creative behavior. Sternberg (1988) argues that while there is undoubtedly overlap between intelligence and creativity, the two cannot, at least not yet, be teased apart. Andreasen (1987) questions the relationship between creativity and intelligence, saying that while intelligence may be necessary, it is not sufficient, concluding very high creativity is not the same thing as very high intelligence. And Simonton (1990) suggests one traditional psychometric approach, in which attempts are made to “measure” the intelligence of deceased geniuses through application of established IQ

tests to their published accomplishments, fails, because it removes from the mix the influence an individual's uniqueness may have played in his or her accomplishments.

Recall Sternberg (1985) has serious doubts creativity can be measured by standard creativity tests, such as those published by Torrance (1966) and Guilford (1967). These tests, he argues, are based more upon a conceptualization of what creativity is (or, more precisely, what researchers think creativity is) than upon implicit theories of what creative individuals think creativity is. Sternberg integrates aspects of creativity into a three-facet model of creativity; the facets are intelligence, cognitive style, and personality/motivation. It is the combination and recombination of these facets in essentially limitless ways that permits creativity to take many forms. Csikszentmihalyi (1988) posits creativity is as much, perhaps more, problem finding as it is problem solving. For this reason, he suggests the newer methods of computer modeling used by cognitive psychologists are not sufficient for explaining creativity. For example, he agrees a computer model can come to the same evolutionary conclusions as Darwin, *once the computer is fed only the pertinent bits of data*. However, as Csikszentmihalyi notes, Darwin had to mentally sort through millions of bits of information and choose what bits to use in formulating problems and arriving at their conclusions. Thus, it appears the formulation of a problem is often more essential than its solution. Furthermore, most visual artists (as opposed to scientists, mathematicians, and other creative individuals) cannot be certain of "the moment" when they find the solution. Therefore, Csikszentmihalyi concluded creative thinking seems to be apart from and independent of a rational problem solving capacity.

Csikszentmihalyi (1988) and Schiefele (1991) address the area of interest, which may be one of the most mystic determinants of creativity. Csikszentmihalyi (1988) argues that it must first be determined why a person's "psychic energy" is drawn to a particular domain. The person must have "above ordinary interest and curiosity," because the possession of technical skills and information in a domain is not enough. He suggests certain people might be born with an unusual sensitivity to some domain of experience, which allows them to be particularly responsive to ranges of stimuli eluding other people. It may be necessary that this sensitivity is present at a sufficient level before a domain is attractive enough to pursue. Schiefele (1991) notes current constructs of motivation fail to include crucial aspects of the meaning of interest. He defines interest as "a content-specific motivational characteristic composed of intrinsic feeling-related and value-related valences." Some of the features of this definition, according to Schiefele, are not shared by most other contemporary motivational theories. For example, other theories do not take into account that interest is content-specific, that is, related to specific topics, tasks, and activities; that interest is a directive force which is able to explain a person's choice of an area for pursuit; and that interest consists of valences that are attached to a topic or activity. Feeling-related valences have to do with enjoyment and involvement in a task or activity; value-related valences are the attributions of personal significance to the task or activity. Schiefele also proposes the influence of motivational and cognitive factors might vary depending on a number of conditions, such as ability level, opportunity to choose, and difficulty of the task, while the level of cognitive involvement with the task at hand may contribute to the quality of the emotional experience.

Creativity and Motivation

If there is one theme emerging from the literature on creativity, it is that creative individuals are highly motivated, perhaps extraordinarily so. Furthermore, most researchers seem to agree it is primarily intrinsic motivation that sustains individuals in their creative efforts. Dudek, Berneche, Berube, and Royer (1991), in their study of mature and immature committed artists versus uncommitted artists, conclude the difference between committed and uncommitted seems to be more a matter of drive and conviction than of anything else. They found both mature and immature committed artists, when compared to their uncommitted peers, had higher energy levels, stronger capacity to invest in their work, and greater skill in setting goals. They conclude the uncommitted artists may have a deficient motivational system.

Work in cognitive psychology suggests creative thinking and performance requires high motivation, which is typically reflected in persistence and intensity with regards to the task. Walberg (1988) notes one can attain relatively good amateur performance in a domain with one or two hours of daily practice for a few years, but the highest accomplishments demand great costs and sacrifices. Such accomplishments are a matter of continuous and concentrated effort of one's life on a specialty for one or more decades. Walberg notes as an example Sir Isaac Newton, who, when asked how he managed to surpass the discoveries of his predecessors, in both quantity and quality, replied, "By always thinking about them." Thus, although momentous discovery may occur in an instant, the discovery is usually preceded by decades of preparation in a specific domain. Simon (1988) agrees that creative problem solving takes sustained attention, supported by strong motivation; Golman (1963; cited in Sternberg & Lubart,

1991) suggests creative individuals' motivation includes a willingness to surmount obstacles and persevere in the face of difficulties.

Radford and Burton (1974) propose the most “predominate clue” to the nature of creativity is motivation, and they note the persistence and dedication of many artists is a matter of biographical record. Towards this end, Sternberg and Lubart (1991) offer an *investment theory* of creativity, and posit the same types of investments (e.g., time, money, effort, and energy) needed for the advancements of careers and personal relationships are also necessary for creativity to progress. In this model, creativity is comprised of six such resources or investments: intellectual processes, knowledge, intellectual style, personality, motivation, and environmental context; actual creativity results when there is a confluence of these resources. It is not enough that the individual simply possesses these characteristics – he or she must be motivated to use, or invest, these resources in a creative enterprise. They suggest creativity may be a rare phenomenon because so few people are willing to make sufficient investment in the many resources that must converge in order to generate creativity. Investment theory also highlights the fact that intrinsic motivators, such as personal satisfaction, are themselves goals, and a creative task can be the vehicle for achieving these goals. To engage in a task for its own sake suggests there are as many motivators as there are interesting tasks, but actual engagement in the task requires a sustained task-focused motivation. Even though these intrinsic motivators may be less consciously salient than extrinsic motivators, the level of ongoing motivation necessary to complete the task none-the-less requires a willed and effortful investment by the individual (Schiefele, 1991). Sternberg and Lubart (1991), citing research suggesting creative individuals show a willingness to surmount obstacles and persevere, proposing it may be the “experiences gone

wrong,” in particular, that provide the opportunity for growth as an artist. These unsuccessful experiences seem to have a somewhat recursive and dynamic effect on the artists’ working patterns. The artists not only learn from their actual mistakes, but they also discover learning from mistakes amounts to naught if the pursuit is terminated because of the errors. Gardner (1993), for example, notes Picasso produced an extraordinarily large number of “bad” works in addition to his other work. Using terminology from Dweck (1986), this may be an “adaptive mastery oriented pattern” of behavior, which is characterized by challenge seeking and high, effective persistence in the face of obstacles.

Several researchers talk about motivation in terms of energy, especially psychic energy. Csikszentmihalyi (1988) believes after the issue of interest is explained, next must be explained or accounted for the quantities of psychic energy that a person is willing to invest in expanding creativity in his or her particular domain. Why do some people persevere in the creative endeavor, concentrating on a specific domain for a period of perhaps decades? Csikszentmihalyi feels the answer is intrinsic motivation, and Amabile (1990) suggests creative people enjoy what they are doing for its own sake, and that they find in the process of discovery itself rewards as powerful as those other people seek, such as love, money, or leisure. Effort requires energy, and Cropley (1990) notes high levels of persistence and the willingness to expend effort do indeed characterize creative individuals. Necka (1986) proposes five classes of motives which energize creative behavior: 1) instrumental, or as a means to an end; 2) playful, which leads to a state of inner satisfaction; 3) intrinsic, in which creative behavior is an end in itself (but is often accompanied by a sense of duty or mission); 4) control, which increases feelings of competence and of having the external world under control; and 5)

expressive, the motive making it possible to communicate thoughts, feelings, and ideas to others. It is likely these motives interact and combine, rather than acting singly.

Csikszentmihalyi (1988) suggests the motivation associated with creativity may have an evolutionary perspective. Complex behavior has co-evolved over time as a result of both bodily needs and cultural rules. The brain and its functions, argues Csikszentmihalyi, are quite independent of the rules of logic. This perspective therefore suggests it is unreasonable to equate thinking solely with reason; emotions and motivations must be entered into the equation as well. Our changing desires, coupled with our feelings about what we think about, account for as much of our mental activity as does logic. As Csikszentmihalyi notes, an individual's cognitive capacity alone cannot predict that individual's cognitive achievements. The most gifted of mathematicians or talented of artists will not do mathematics or art if those activities are not a part of their goal structure.

Creativity and Personality Traits

When researchers examine the personality characteristics of creative individuals, there are similarities and differences, agreements and disagreements. Cross, Cattell, and Butcher (1967), using Cattell's 16PF scale on a sample of 63 artists with a demonstrated talent for drawing, 28 "advanced craft students," and 63 controls, found the creative individuals tended to be more withdrawn, of higher dominance, and more self-sufficient. Additionally, the creative group was statistically significantly more anxious than the control group. These researchers conclude that it is likely that non-cognitive factors are of at least equal importance with cognitive in distinguishing highly creative adults from less creative adults. Cropley (1990) suggests a cluster of characteristics he terms the "uncharacteristics" of creativity: a feeling of well-

being, willingness to conform, and a desire to make a good impression. Creative people actually seem to see themselves differently, and Radford and Burton (1974) found thirteen traits of creative people in study after study. These traits include, for example, a high degree of autonomy, distant or detached attitude in interpersonal relations, high ego strength, liking for preciseness, personal dominance, high degree of control of impulse, tolerance for cognitive ambiguity, independence of judgment, superior general intelligence, and engagement in activities in which personal effort decides the outcome. Barron and Harrington (1981; cited in Sternberg & Lubart, 1991) also cite as characteristics of creative individuals a willingness to grow and a willingness to take risks, openness to new experiences, courage to stand by their own convictions, and the ego strength necessary to preclude being a slave to social norms. They observe the “person who backs down too easily is unlikely to be able to sustain creative enterprise.” Interestingly, Treffinger, Isaksen, and Firestein (1983), when describing what they term the “key characteristics in the domain of motivation,” make essentially the same observations Barron and Harrington make about artists’ personality structure. They suggest, for example, that artists are distinguished from their peers by curiosity, a willingness to respond freely in stimulating situations and a willingness to take risks, an openness to new or unusual experiences, sensitivity to problems and a desire to solve them, tolerance for ambiguity, and higher levels of self-confidence than their non-artist peers.

Recall the study comparing three groups: mature, established artists described as “committed over a lifetime,” committed art students, and uncommitted art students (Dudek, Berneche, Berube, & Royer, 1991). Using two personality measures (the Gough (1961) Adjective Check List and the Cattell (1962) 16PF), the researchers found what they call typical artist

profiles in both the mature committed and student committed artists. As these characteristics were found in both the immature and mature committed artists, but not in the uncommitted art students, the authors draw the conclusion that this particular personality profile consists of stable traits. It also seems to be important, perhaps even crucial, that artists identify with this typical profile, or “artist’s role.” A part of this role is extreme interest in work, an interest so intense that it becomes a passion. For the artist, work and life often become indistinguishable from each other. In contrast to the committed artists, the uncommitted art students showed low self-esteem, negative self-image, impaired motivation, and inability to find a clear direction. Examining their own research as well as the research of others, Dudek et al conclude that for committed artists “creativity emerges as a product of an autonomous, independent, aggressive ego, one which prefers chaos and values change but nevertheless counts for its optimum on a balance between affect and intellect, drive and desire, and a sense of self that defers to no one and nothing.” This balance allows for an ego structure that is both strong and flexible, allowing the artist to maximize the capacity of the self in the expression of the work. When the work itself becomes the artist’s life, then the intrinsic rewards involved in the partnership between life and work become the only support the artist needs. Dudek et al suggest it may be the intense pleasure committed artists find in their work that strengthens early artistic interests, charges the creative process with libidinal energy, and solidifies the personality traits associated with artistic activity.

Although not always considered a personality characteristic, mood fluctuations may play an important part in the creative process. Research shows that up to 80% of eminent creators show signs of major mood disorders, especially depression and bipolar disorder (Richards & Kinney,

1990). Many everyday creators also show evidence of some type of mood disorder, although the mood disorders may not be as severe. For example, in a series of studies, cyclothymes showed the highest vocational creativity, and the normal relatives of bipolars seemed to excel in leisure time activities. (*Bipolar disorder* is marked by extreme fluctuations in mood, generally between elation and depression; *cyclothymic disorder* also manifests as fluctuations between elation and depression, but the resulting mood states are typically much less severe than in bipolar disorder.) Even these “normal” individuals, however, demonstrated a slight tendency towards mood fluctuations, although the mood fluctuations were not severe enough to qualify as psychopathology (Richards & Kinney, 1990). Periods of mood elevation are often accompanied by feelings of increased energy, and often, decreased need for sleep. Individuals reported feeling more creative during these periods of increased energy, and it is suggested this excess energy may serve in spurring the individual to creative action (Andreason, 1987; Jamison, 1989; Richards & Kinney, 1990). Additionally, children diagnosed with bipolar disorder have demonstrated obsessive interests and what has been called “attention excess disorder” (DeLong & Aldershof, 1988; cited in Richards & Kinney, 1990). Taken together, these findings have led researchers to suggest there may be cognitive, affective, and motivational advantages of a mild hypomanic state for creativity. Hypomania may provide richer associative and cognitive processes, heightened emotional awareness, and energizing potential. Richards and Kinney (1990) suggest this hypomanic state may serve to translate the attendant increased energy into high levels of what they refer to as a type of motivation. Whether or not strong emotions are regarded as psychopathological, emotions can play a variety of roles for the creative individual. For example, emotions may serve as either the subjects or

the mediums of creative expression, as strong motivating forces, or as a counterpart with cognition in the identification of problems to explore. Both positive and negative mood states can affect how we process information, and may therefore increase our creativity. Creative products are a clear expression of the creator's inner states, needs, perceptions, and motivations, and are, by nature, an externalization of the creator into the public (MacKinnon, 1962). As Barron notes, creative people may be "much troubled psychologically," but they also seem to have far greater resources to deal with their troubles (Barron, 1963; cited in Cross, Cattell, & Butcher, 1967).

Although it has been found creative individuals, as a group, tend to be highly anxious, they seem to have or to be able to develop the resources necessary to cope with this anxiety. In one study, nine adult women met once a week to work on creative handcraft projects such as knitting and crochet in which they were encouraged to make unexpected combinations and try out new ideas. At the beginning of the year, they rated themselves on certain personality traits; at the end of the year they completed the same personality inventory. Statistically significant differences were found between the two ratings. At the year-end inventory, the women, in addition to showing lessened anxiety in unfamiliar situations, were more playful, more self-critical, less cautious, more goal oriented, and more task persistent. Cropley (1990) suggests one reason for this may be that learning to deal with the frustrations of creating taught the women skills they could use in dealing with the frustrations of living, such as regulation of affect and motivation. Although it is difficult to estimate the effect environment might have on fostering the personality aspects associated with creativity, it does appear as if certain environmental factors do play a role. In a study similar to the one with the nine women meeting weekly to work on handcrafts, amateur jazz

musicians showed the same types of gains (Cropley, 1990). Cropley therefore suggests creativity is fostered when everyday situations are attacked in creative ways, and that real life activities should be suffused with creativity enhancing elements. Cropley also suggests abstract programs designed specifically to teach creativity might not be successful because real life elements are removed from them.

Walberg (1988) identified environmentally associated factors that seem to correlate with creativity in adolescence, as identified by teacher nominations, self-report, and creativity test scores. One of these factors is the stimulating quality of the home; another is a wide range and high level of involvement in both school and outside activities. Additionally, Walberg found these creative adolescents had a “persistence and single-mindedness” in following through with activities even when difficulties were encountered, as well as strong intellectual motivation, although not necessarily extremely high levels of ability. Some explanation for these traits may come from biographical research on more than two hundred eminent creators, which revealed that seventy percent had clear parental expectations for their conduct, and that nearly ninety percent were permitted to explore their environments on their own. Since creative products require both a general knowledge of the domain as well as disciplined mastery of the basic elements of special fields, Walberg feels classrooms, homes, peer groups, and mass media could play important roles in the amount and quality of instruction and psychological stimulation provided to individuals. Because creativity may involve rare rather than unique accomplishments, and because it may be useful to think of creativity as being on one end of a continuum of performance or learning attainable by nearly anyone with sufficient instruction and perseverance, appropriate instruction could prove invaluable in enhancing creative

performance. What seems to be especially important is an environment that motivates by expectation. MacKinnon (1962) also suggests parents and teachers must teach, model, and encourage discipline and self-control, should not criticize new ideas and possibilities too soon, and should encourage openness of ideas. Although it is difficult, if not impossible, to conclude whether the essence of creativity is external stimulation, or internal motivation to persevere in the face of difficulties, it is evident that both of these can be cultivated by appropriate environmental circumstances (Walberg, 1988).

Creativity and Cognition

Although beliefs associated with the mystique often surrounding creativity may preclude the idea that cognitive and metacognitive factors play a dominant role in creativity, most researchers agree that creativity has several such components that must work in harmony during the formation of a creative product. Armbruster (1989) argues for a “cognitive model of creativity,” saying the creative process involves the acquisition of knowledge and skills, the transformation of knowledge and skills into new forms, and finally, the rendering of these forms into a sharable product. As Armbruster notes, each of these stages entails cognition. However, as Simonton (1997) observes, what cognitive psychologists have to say about creativity should not conflict with the findings of personality, developmental, and social psychologists, because psychology should represent a unified discipline that attempts to gain an integrated understanding of the phenomena under study. While it is relatively easy to find a general definition of *cognition*, it is not always easy to apply that general definition to the specific domain of creativity. Cromptley (1990), however, has developed a definition of cognition that can be directly applied to the domain of creativity but that does not neglect the more general underpinnings of cognitive psychology. Cromptley’s

definition is concerned with the way individuals obtain, organize, process, store, and use information, and involves a process of thinking about the ways in which symbols are constructed, revised, linked to other symbols, reorganized, and applied to abstract or concrete situations. From this initial cognitive process, patterns, categories, networks, and systems are developed; however, even during this organizational process, the original symbols continue to be explored, organized, and coded in ways that are ultimately used to illustrate the individual's internal representation of the external world. Finally, the individual adds control mechanisms such as styles, strategies, and tactics that guide the processes; these control mechanisms affect the final product (Cropley, 1999).

Maddi (1975) expresses the concern the study of creativity has been seriously limited because there is a general failure by researchers to fully recognize the "enormous strenuousness" of the creative life. Although part of this labor is, of course, physical, Maddi addresses the mental work of creativity. In agreement with Walberg (1988), Maddi concludes the creative product is not the result of a flash of insight, but rather the conclusion of a period of "long, grueling, intense" mental work. The statement sometimes made by a creative individual that a great insight was totally unexpected is what may confuse this issue. What the creative individual does not recount is that he or she has spent almost limitless hours first organizing knowledge structures and ideas, then discarding any number of these ideas and structures as ineffective, and finally optimizing the appearance of perhaps only one novel and useful product. Thus, when creative success comes, it is often greeted with wonder: "It is a romantic, though understandable reaction, to imagine the creative act to be unrelated to the exhausting, seemingly unsuccessful toil that preceded" (Maddi, 1975). Maddi also has an interesting

view of why standard creativity tests may not be helpful in assessing creativity. Many such tests present an individual with a brick or paperclip, for example, and then ask them to find as many uses for the item as possible. However, because this test is performed in a controlled laboratory situation, there are none of the uncontrollable pressures and constraints that would be encountered in the real world. Thus, concludes Maddi, creative performance in the controlled environment could not necessarily be replicated in the uncontrolled environment.

Hayes (1989) is interested in answering two questions regarding creativity: “What are the characteristics of creative people?” and “What cognitive processes are involved in creative acts?” Hayes, like many other researchers, found that absorption in work, usually over a long number of years and to the exclusion of almost everything else, is a hallmark of the creative individual. One of the reasons creative individuals are so absorbed in their work may be that they also have a strong drive for independence of both thought and action. Their own exceptionally high standards are met only if they make their own decisions about their work, then take the actions necessary to meet those high standards. Translated to the lingo of cognitive psychology, these individuals first set goals, then initiate activities to accomplish those goals.

It has already been noted in this document that many researchers regard preparation as one of the most important conditions of creativity. Typically, the creative individual must acquire knowledge and skills relevant to the creative domain; this acquisition often takes a number of years. Hayes (1989) agrees, but couches this acquisition in terms of “goal setting,” which he argues is the most critical element in a creative act. Hayes suggests several reasons why creative individuals may be especially adroit at finding problems

and recognizing opportunities in a domain. First, their extensive knowledge of a field may provide analogies that would not be apparent to less knowledgeable others; second, their extensive knowledge may simply provide them with an increased chance of recognizing opportunities when compared with previous experiences; and finally, because of their extensive knowledge, these individuals most likely have strong evaluation skills allowing them to recognize problems and opportunities that others would miss.

As mentioned elsewhere in this document, many researchers have questioned the connection between creativity and intelligence, with the general consensus being that intelligence is necessary, but not sufficient, for creative output to occur. Bloom (1963) further investigated this issue using as a sample two groups of chemists. One group was nominated by their peers to be highly productive; the other group was matched for age, education, and experience, but was not judged as highly productive. Even though the highly productive group out published the control group by a margin of eight-to-one, their IQ was no higher than the IQ of the unproductive group. There are two possible explanations for this difference. First, there may be some type of intelligence threshold, and increments in IQ above this threshold make little or no difference (the threshold is estimated to be around 120). Another possible explanation, however, is that the highly productive group was able to harness their resources in some way that the other group was not. They may have been able, for example, to apply the self-regulatory strategies necessary to accomplish creative output. This study has been replicated, yielding similar results, with other populations. Bloom (1963) examined a group of mathematicians; MacKinnon (1968) examined groups of scientists, mathematicians, and architects; and several years later, Hayes (1989) replicated the study with professors and architects.

There are also *metacognitive* components involved in creativity. Metacognitive processes are often referred to as *executive processes* that oversee, regulate, and orchestrate the activities of cognition. These metacognitive processes include both the knowledge individuals have about their cognitive processes, as well as the actual control individuals exercise over their cognitive processes. Armbruster (1989) suggests there are several stages in the creative process, all involving some type of control or self-regulation by the individual. Each of these stages involves setting goals and subgoals, planning the next cognitive move, monitoring and evaluating the effectiveness of cognitive strategies, and revising cognitive strategies if necessary. Borrowing from Wallas's (1970) "stages of the creative process," Armbruster reframes these stages in terms of cognitive psychology. In *preparation*, the individual lays the foundation for the creative process by acquiring knowledge and skills. This preparation allows for the formation of abstract knowledge structures, and creative individuals may be particularly adept at restructuring these knowledge structures. During the *incubation* stage, the creative problem may not be actively pursued, but the creative individual may be selecting and organizing or reorganizing the knowledge structures into some pattern. Armbruster argues creative individuals may be especially skillful at forming successive approximations, or coming closer and closer to the desired end state during this incubation stage. *Illumination* is the Eureka! stage. Wallas refers to this stage as a "click," which is, as Armbruster notes, the same term Anderson (1979) uses to describe an individual's awareness of successful comprehension. In the case of comprehension, it is the recognition of successful interpretation of the information; in creativity, it is the recognition of a mental structure that fulfills, or has the potential to fulfill, the creative enterprise. Armbruster again suggests creative individuals may have an

advantage here, allowing them to recognize that “this particular click is a good one.” The creative process may end here, if the creative product is fully formed, but a final stage, *verification*, may be necessary. In this stage, there may be a “dialog” between the artist and the product, during which the artist may measure the product against some kind of internal standard and/or attempt to measure the product against an external standard, such as an anticipated audience. Both of these dialogs are cognitive, in that both involve the examination and possible restructuring of some kind of existing mental image.

Pesut (1990) contends creative thinking can be defined as a self-regulatory process. Self-regulation includes the ability to voluntarily modify, among other things, the processes of consciousness; metacognition is specifically the knowledge concerned with one’s own consciousness, or cognitive processes and products. Pesut suggests self-regulated creative thought is a function of an individual’s ability to deploy attention and awareness appropriately. The individual is “aware of being aware,” and uses this awareness to actively monitor, regulate, and orchestrate the thinking processes associated with creativity. Like Armbruster (1989), Pesut believes that metacognitive strategies can be enhanced and developed over time and experiences. The creative individual may therefore be able, or become able, to use “creative technologies” to guide thinking and behavior so creative associations are formed; these associations are eventually used in the development of the creative product. It is important, however, that the individual have in mind a general idea of what the creative output will resemble. In other words, the individual must have a goal or subgoals. The individual’s successes and failures with the metacognitive strategies used in

striving towards these goals provides them with information about reaching future creativity goals.

Britton and Glynn (1989) also refer to metacognition as an executive system overseeing and supervising the operations of cognition. They suggest metacognition is “mental time” that must be managed by creative individuals. Individuals who fail to manage this mental time are not in control of their processing resources, and are thus fated to uncertain outcomes. In contrast, creative individuals who are able to manage their mental time have a much greater likelihood of meeting their creative goals. These individuals are able to pursue their goals in a formulaic, orderly way because they have established precedence relationships relevant to the completion of these goals. Like other researchers, Britton and Glynn underscore the importance of setting goals, and suggest metacognitive processes are particularly important in performing the discrete steps necessary to achieving these goals.

Chapter 3

PILOT STUDIES

Pilot Study 1

Introduction

This dissertation was designed to explore the role self-regulation plays in the life of an artist. As previously mentioned, the function of self-regulation is well documented, especially in relation to academic success. Also documented, although with somewhat less robust results and somewhat more controversial conclusions, are the various determinants of the creative individual, or artist, and the creative enterprise, or product. Although many of the terms used to describe the personality characteristics of the successful student and the successful artist are the same in their respective literatures, these common characteristics are often couched in terms of self-regulatory abilities when portraying the student, but not when portraying the artist. The purpose of this dissertation was the exploration of self-regulatory characteristics among a specific non-student population, the professional artist.

While it is fairly easy to identify the successful student, how is the successful artist identified? Complicating this already complicated question further is the issue that “art” itself is often ill defined and almost always subjective in nature. While the successful student can be measured quite accurately (at least in our society’s terms) by his or her end-of-semester grades, how can success be measured in the artist? These are questions central to the exploration of this topic. My first inclination was to declare “The successful artist is the artist who makes his or her entire living from producing

and selling their art.” I then thought about all the people I know, including myself, who have *multiple* jobs, not always just to make ends meet but also because there are often multiple appealing opportunities. Additionally, one of my graduate school professors suggested that there must be self-regulated artists who are unable to sell their product due to factors beyond their control. Although I do not entirely agree with this perspective, I do acknowledge this may be a valid viewpoint.

Another question I was faced with was whether or not there would be support for this research topic from the artist community. Obviously, this population would have to be tapped whether I used a survey method, personal interviews, or case studies. I had to anticipate that these individuals may consider me to be completely off base for conducting a study which would 1) relegate the muse to the backseat; 2) sidestep issues of what constitutes *art* and *creativity*; and 3) focus on the “nitty gritty” of art production as *labor*. My confidence in approaching this community was somewhat bolstered by my long-time peripheral inclusion in the art community. Although I have never seriously pursued the artistic life, I maintain an interest in art and artists, and have been fortunate enough to study with several of Austin’s most successful and well-known artists. Furthermore, I am an avid observational consumer of art, regularly attending local galleries and juried events and shows. Therefore, I decided the best approach to having these initial questions answered was to ask artists directly.

Overview

The first pilot study was conducted at three Austin area art shows/sales: October, 2000 at Artists Harvest; December, 2000 at the Armadillo Christmas Bazaar; and April, 2001 at the Austin Fine Arts Festival. This pilot study needed to fulfill several purposes. First, I wanted to test the

waters with regards to the questions posed in the introduction above. Additionally, I wanted to get some first-hand experience interviewing artists as a group. While I had no reason to believe interviewing this population would be different than interviewing any other population, I wanted to confirm this through initial interviews. I also wanted to query artists about how amenable they might be, in general, to responding to a survey or questionnaire, or interview, when the time to collect dissertation data arrived. Finally, I wanted to specifically explore the possible roles self-regulatory abilities and skills play in the production of an individual's art or craft.

Method

Setting

Artists were informally interviewed in a semi-structured format at an art event where their products were being exhibited and sold. I am designating these interviews as informal because 1) I did not have a standard set of questions for each artist; 2) the interviews were not recorded; and 3) notes were not taken at the time of the interview, but were written up in the form of field notes after each interview's conclusion. To facilitate the integrity of these field notes, notes were written immediately following each interview. I did not, for example, interview several artists, then write up notes on multiple interviews in a single sitting.

Specifically, interviews were conducted at three events. In October 2000, I interviewed artists participating in Artists Harvest, in Austin, Texas. Artists Harvest is an annual event open to all Texas artists; the year 2000 marked the 33rd year for this event. Artists Harvest is a juried show; in general, a juried show is one in which artists must first submit slides and detailed descriptions of their work to a panel of jurists who then assess the

merit of the work. If the work is favorably judged, the artist is then asked to participate in the event. For Artists Harvest 2000, jurists were three independent individuals chosen from professional artists, craftsmen, museum curators, and art critics.

Interviews were also conducted at the Armadillo Christmas Bazaar, also held in Austin, Texas. This annual event, which celebrated its 25th year in 2000, runs for approximately the “12 days of Christmas.” This event has had a waiting list of artists wanting to be included in the show since 1979, and is ranked 22nd in the nation by Art Fair Source Book, a compendium of information about various art shows as submitted by the artists themselves. Artists rate shows on factors such as exhibitor inclusion (application to exhibitor ratio, for example), sales totals, and event promotion and management.

In April 2001, marking an impressive 51st year for this event, I interviewed artists at the Austin (Texas) Fine Arts Festival (formally Fiesta Laguna Gloria). This event, also a juried show, is produced by, and is a fundraiser for, the Austin Museum of Art. There were 180 artists in attendance, representing 12 different mediums.

Participants

Participants were artists working in a variety of mediums. I interviewed a total of 22 artists from the three events.

Data Collection Strategies

Artists were interviewed while manning their booths. Interviews lasted approximately 20 minutes, although I occasionally spent more time with the artist in the booth, waiting while business was conducted. All interviews were written up as field notes as soon as possible after the interview; in most cases, notes were written within 15-30 minutes after the interview. The length of

time between the interview and recording field notes was never more than one hour. There were no intervening interviews conducted between one interview and the writing of field notes.

Data Analysis Overview

Pilot data were analyzed using grounded theory methodology (Strauss & Corbin, 1998). Grounded theory methodology provides the investigator with the opportunity to develop a theory through the use of specific procedures for analyzing qualitative data. Data are analyzed in a systematic, but cyclical way: The initial interview provides fodder for subsequent interviews, while these subsequent interviews provide insights contributing to the continuing reanalysis of the previous interviews. Data collection and analysis occur simultaneously, and through this analysis and reanalysis, categories of meaning evolve from the data. The researcher designates categories when commonalities of meaning are found between and within the data sets. The core category is the central phenomenon around which all other categories are integrated (Strauss & Corbin, 1998).

The researcher plays an integral part in the collection and analysis of qualitative data. Because of this, the researcher's personal values, existing theories, and possible biases must be explored at the beginning of the study. The possible closeness of the researcher to the data is not necessarily detrimental to the analysis of the data, however, because the researcher may be able to provide valuable insights based on personal experiences. I, indeed, did bring my own biases, as well as insights, to this study. Some of these biases had at least the underpinnings of truth based on personal experiences; other biases had no real rational foundation. Because I have had personal and professional relationships with several working artists, for example, I had a preconceived notion of the work behavior I would find in this group. Through

discussions and time spent with these artists, I formed the opinion that successful artists work very hard, which is somewhat in contrast to the oft-held opinion that the life of an artist is play, a bohemian lifestyle rather than a Type A lifestyle.

Because the interviews would center on behaviors related to the work habits and methods of the artists, there was a danger these preconceived notions might contribute to misinterpretation of the data (emphasis on the work aspect, for example, rather than the play aspect). Furthermore, the use of grounded theory methodology posed some problems. In this methodology, as previously mentioned, the investigator's task is to develop a theory from the data. As already stated, however, my primary research interest was the engagement of appropriate self-regulatory strategies. To assist with avoiding the potential problem of focusing on only this issue, I continually reminded myself during the interviews and data analysis that I was "just collecting information" about the work characteristics of each artist. Additionally, as the last step in the data analysis, I reread each interview, and then wrote a storyline memo about the interviews. A storyline involves writing descriptive sentences that capture the essence, rather than the details, of the data, and it is suggested that developing a storyline helps to stimulate thought about the data, while also providing the researcher the opportunity to get a more general feel for the entire data set (Strauss & Corbin, 1998). I also wanted to develop a survey instrument that would take the place of a semi-structured interview; therefore, I continually reminded myself that I was collecting information that would evolve into survey questions. These methods worked together to limit the possibility I would ask questions and interpret data relating only to my primary research interest. However, as with any qualitative data collection and analysis, there is still the possibility of researcher bias.

A total of 22 artists were interviewed for this pilot study, including six at Artists Harvest, twelve at Armadillo Christmas Bazaar, and four at the Austin Fine Arts Festival. More artists were interviewed at the Armadillo Christmas Bazaar because it is a multiple day event, thus there was simply more opportunity to conduct interviews. Also, again because this is a multiple day event, I had the opportunity to ask four of the artists for follow-up interviews to help clarify and organize data. In general, artists were asked about their work process, including the cognitive, emotional, motivational, and behavioral aspects. In keeping with the suggestions of Strauss and Corbin (1998), I included substantive questions (e.g., “What kinds of interruptions do you have trouble dealing with?”) as well as theoretical questions (e.g., “What does *motivation to work* mean to you?”). I asked them questions relating to their specific emotional and physical motivation to work, as well as questions relating to the cognitive factors involved in the actual labor (e.g., “How do you handle it if you’re having a ‘blue’ day?” “Do you set specific work goals?” “Do you do things to help you concentrate when you’re feeling distracted?”). Other questions were about the actual strategies they used in their work (“Do you [paint] items you don’t really like, but that customers seem to want? How do you keep focused in such cases?” “What do you do when you really don’t feel like working, but feel that you should or need to be working?”). Artists were asked an average of 20 questions, including follow-up type questions. For example, if an artist responded that they are likely to do certain things to help them maintain their concentration, but then did not volunteer specifics, I would follow-up with a question such as “What specific things do you do to maintain concentration?” There was often some initial misunderstanding because many of the artists thought I was asking them about the creative muse rather than the actual labor involved as a result of following

that muse (apparently, they are quite often queried about the purely creative aspect of their work). After I clarified the focus of my questions, I found, without exception, that the artists were very excited to talk about this aspect of their occupation. Many artists produced comments similar in flavor and tone to Bob (all artists' names have been changed; quotations are approximations of the artists' comments, and are italicized and enclosed in quotation marks), one half of a husband and wife team who design and handcraft tapestry accessories: *"No one thinks this is work! Many people think we have to love our work, because it's just a 'hobby,' right? We put two kids through college with this hobby!"* Following are some details about four of the interviews I conducted.

Bob and Sue, who design and manufacture tapestry accessories, related that the business is full time for both of them. He designs the items, keeps up with the business end, maintains their website, and usually mans the booth at the 30 or so events they attend each year. Sue, Bob's wife, procures the Italian fabric used in their designs and handcrafts the items. Bob was so excited by my initial interview with him that he asked me to return several evenings later when his wife would be present so that I could also interview her. Sue's story, when combined with Bob's, could be that of a typical dual working parent household. In contrast, however, are some of the perceptions their non-artist friends and neighbors have about their occupation. For example, Sue told me how frequently other parents believe that she and Bob can fill in when needed (to help out with school activities, for example), because they don't *"really have a work schedule."* Additionally, as Sue pointed out, their livelihood is in the production and sale of these items. Thus, if there is a show approaching, "sick days" are a luxury they cannot afford.

Sue said, “*There are days I just don’t feel like getting up and going to work, just like other people. But who do I call in sick to?*”

I also interviewed Mark, a leatherworker, who has exhibited at the Armadillo Christmas Bazaar for each of its 25 years. Mark is delightful, speaking with a very pronounced German accent. I have a little more of a relationship with Mark, as my husband has bought several items, including two exquisitely tooled guitar straps, from Mark over the years. In addition to pretty much defining the term “laid back,” Mark is an old-world craftsman in the truest sense, totally invested in his work, taking pleasure not only in the crafting of his items, but also in the “oohs and aahs” of his customers. Like Bob and Sue, Mark related spending approximately 60 hours a week working, in addition to the time spent selling his wares at various events. Mark related it is often difficult for him to maintain his motivation for work, because he often finds himself having to make “*what will sell*” rather than working on the more artistic pieces he prefers. He is quite philosophical about this state of affairs, saying that making items that sell helps him indulge his “hobby” of making items that he really enjoys (as well as his hobby of playing harmonica in a local band).

Kathy is a watercolorist who has exhibited at Artists Harvest for 15 years. I asked Kathy questions relating to her work, and she, too, responded with information about the ways in which she maintains her motivation. Kathy said that “*commiserating*” with other artists who know how hard the life is helps to some extent, but that this is somewhat difficult because the work, by nature, is solitary. Kathy said that, for her, one of the most difficult aspects is managing her emotions during shows and exhibitions, as well as after these events at her studio. Viewers walking by and commenting with distaste about the work are difficult for most artists, but especially difficult for Kathy are the

viewers who make remarks such as “Oh, she showed work just like this *last* year!” Kathy prides herself on her growth as an artist, both in keeping up with new techniques and in keeping her own work fresh for new and returning patrons. Kathy said going back into the studio is often quite difficult right after a show, because one part of her knows that she should just ignore such comments, but the other part of her will “*constantly criticize*” her work in progress for a while.

Bruce is a glass artist who was new in 2000 to the Armadillo Christmas Bazaar. He fashions the most amazing large platters and bowls, as well as some smaller items including “wall art” and jewelry, from dichroic (glass impregnated or coated with various metals to achieve different colors) and clear glass. Working in glass presents some specific challenges. Glass products often require repeated controlled heating and controlled cooling of glass. Because of the repeated handling and stressing of the glass, there are many chances for the object to be damaged or ruined, often with no discernable explanation, during the process. Because of all of these variables, Bruce reports that he may get only one acceptable larger sized piece out of 15 firings, and typically gets one acceptable piece out of every three or four attempted on his smaller pieces. Somewhat of an understatement, Bruce says, “*Working with glass can be very frustrating.*” Additionally, because of the high temperatures required for firing and the methods involved in working with glass (using blow torches, for example), glass working is a potentially dangerous occupation. For Bruce, learning how to manage his cognitions has been somewhat difficult. Even though he knows and understands that mistakes sometimes occur for no apparent reason, Bruce often questions his abilities as an artist when these mistakes happen.

Results

Category Descriptions

Open coding is a process through which concepts are identified from the data. Furthermore, the specific properties and dimensions of the categories should emerge as the data is analyzed (Strauss & Corbin, 1998). The analysis of the 22 interviews revealed eight categories and fifteen subcategories. Because, for purposes of this pilot study, I was primarily interested in the categories relating to self-regulation and self-regulatory characteristics, the number of subcategories retained for further analysis was reduced to four. The primary category, or phenomenon, under which the subcategories can be subsumed, is labeled *Artists at Work*; the retained subcategories are somewhat reflective of existing literature in both self-regulation and self-regulatory characteristics of creative individuals.

Managing Cognition and Metacognition. Each artist discussed aspects of the thought processes involved in their work. Some artists were able to simultaneously work and let their thoughts wander to matters other than art more than other artists; this may be an artifact of the medium in which the artist worked. For example, watercolor artists (four were interviewed) generally reported having to pay closer attention to the task at hand than artists working in oil (three were interviewed). Watercolor dries very quickly, in minutes, and is known as a fairly unforgiving medium (it is very difficult to recover from mistakes made during the working process). The drying time for oil, however, is quite long, and there is plenty of time to make corrections to the piece. Additionally, artists who had to depend on tools such as torches (for working in metals or in glass) tend to pay much closer attention while engaged in their work than artists working with less hazardous implements.

Cognitions related to achieving the goal of producing a piece of art showed little variation among artists. Not surprisingly, working on a piece they particularly liked required less cognitive control than working on a piece they liked less or a piece they were under pressure to produce. Artists typically used terminology such as “*I have to trick myself*” or “*I have to psych myself out*” when talking about the cognitions related to producing the less desirable (in their eyes) work.

Managing Affect. Artists engaged in a variety of strategies for regulating moods and emotions. Many of the emotions experienced by these artists are similar to emotions typically experienced by a student population: they expressed fears about failure and evaluation, often get discouraged during “slow” (i.e., slow selling) periods, and sometimes have a desire to be doing something other than working. Tactics used by artists to control emotions ranged from self-talk strategies (e.g., “*I just tell myself that right now I have to work*”), to suppression of distracting thoughts (particularly thoughts involving worry), to types of environmental control (e.g., “*I’ll play a favorite compact disc*”).

Managing Motivation. All of the artists interviewed really enjoy the work they do, and almost all (20 out of 22) enjoy the interaction with the public that their work requires. Controlling motivation was typically not a problem unless the artists perceived they were being forced to work on something they did not like. Examples named by artists included commissioned pieces (even though commissions are, for some of the artists, a substantial source of business/income), pieces made primarily because they tend to be reliable sellers, and pieces that simply were not “coming out” like the artist desired. For as yet unapparent reasons, almost all of these artists have more trouble managing their motivation in the face of an impending

deadline, such as the due date for a commissioned piece or a sale/show/exhibit. One possible explanation for this is the role anxiety might play in work perceived as stressful, such as deadline-oriented work. Researchers have shown, for example, that perception of a workload as excessive can lead to emotional exhaustion (Greenglass, Burke, & Riksenbaum, 2001). And, as Baumeister, Heatherton, and Tice (1994) suggest, increased cognitive load in one area (such as emotional exhaustion) may reduce the ability of the individual to engage in appropriate self-regulatory strategies in other areas. One interesting strategy employed by several artists was the overpricing of an item. For example, if a customer asks for a commission piece that the artist is not keen to produce, they will quote the customer an “*outrageous*” price. If the customer agrees to the price anyway, the artist then uses anticipation of the large “reward” as motivation.

Managing Behavior. The artists I interviewed are, by anyone’s standards, a very hard-working group of people. Weekdays are typically spent working on the pieces; weekends are spent selling. The average amount of time spent working on the products was approximately 50 hours a week (a range of 35 to 65), the amount of time spent on the business end (including attending shows, doing paperwork, making contacts, etc.) averaged approximately 30 hours per week (a range of 5 to 40, with the lower range artists typically receiving help from a family member or employee). Even though they consider what they do to be real work, they all said they are doing something they love, and they consider themselves fortunate to be doing so. One woman, however, interviewed at the Austin Fine Arts Festival, said her husband has been “*at me to give it up.*” She went on to say the act of painting is still enjoyable, but the almost every weekend travel is difficult. Because her work involves large canvases, she must drive to the shows she attends. As she

said, “*It’s just getting to be too much.*” Most of these artists also take some type of fairly extended vacation, ranging from three to eight or more weeks out of the year. Humorously, however, when I asked these artists about the specifics of their “time away from work,” I discovered they are still really working, but it is just different work than being in the studio. For example, during this “vacation,” many of the artists take photographs for inspiration and later reference, attend workshops and demonstrations, or try out new mediums or techniques that their regular schedule prohibits.

View of Self as Artist. Although this is not one of the categories selected for further analysis, a somewhat surprising finding emerged from the data that merits a brief discussion. In retrospect, it seems logical this group of individuals would identify with their primary work role, but I neglected to anticipate that the “role of self as artist” would contribute to the data. Recall that Kuhl and Fuhrmann (1998) suggest a broader type of self-regulatory control may facilitate the more global task of self-maintenance, or support of the integrated self. A goal congruent with an individual’s integrated self is often easier to achieve than a goal not congruent with the integrated self because the individual typically needs fewer psychic and physical resources to attain the goal. Recall also that Radford and Burton (1974) found creative people actually seem to see themselves differently, and that Dudek, Berneche, Berube, and Royer (1991) conclude it may be critical for artists to identify with a typical profile, or “artist’s role.” They suggest the product of the strong ego structure, as characteristically found in artists, permits the maximization of the creative process, allowing the artist to fully utilize the capacity of the self in the expression of the work. It thus may be that simply identifying with a role aids the implementation of self-regulatory strategies congruent with the

behaviors required to achieve that role's goal, as suggested by these researchers' conclusions.

The Paradigm Model. Following the open coding process, axial coding was performed on the data. During axial coding, the researcher begins the process of relating categories to their subcategories. The researcher must consider both the characteristics, or properties of the categories, as well as the variability, or dimensions, of the categories (Strauss & Corbin, 1998). Strauss and Corbin (1998) suggest the use of a paradigm model to aid in axial coding. A paradigm model is basically an organizational scheme permitting the researcher to approach the data from a certain perspective. Strauss and Corbin (1998) suggest the use of this model assists the researcher in examining both the structure and the process of the data by providing an analytic tool for the identification of conditions, actions and interactions, and consequences emerging from the data. Briefly, conditions are a way of grouping together answers to the questions of *why*, *where*, and *when*; taken together, these answers can be used to determine the structure of the situation in which the phenomena is embedded. The responses participants give to questions about the issues and events of the condition allow the researcher to interpret actions and interactions. In general, actions and interactions are represented by questions about *whom* and *how*. Finally, consequences answer the question of what happens as a result of the action or inaction of the participants. However, as Strauss and Corbin (1998) note, conditions, actions/interactions, and consequences are simply terms guiding the investigator in interpreting the data; the researcher should not be a slave to terms, but should instead code to maximize explanatory power. When the data is analyzed, the researcher must consider both her conceptualization of the actual words of the participants, as well as the actual words themselves.

Additional information emerged during axial coding. One finding was that the place in which the artist works seems to have an impact on how the artists manage their behavior and motivation, but not on how they manage their affect and cognition. Furthermore, the degree of impact was related to the physical distance between the work space and the living space. For example, artists who had studios or work places in a location away from their residences (including on-site studios) seemed to be better able to manage behaviors and cognitions when compared with artists who had in-home studios (usually a room or other space that was or was not shared with other family activities). Also, as previously mentioned, the subcategory of “View of Self as Artist” developed from the open coding process. While all the artists interviewed exhibited strong role identification, those who identified more closely with the more eccentric characteristics sometimes associated with the creative life seemed to have more difficulty managing their affect than artists who identified less strongly with these characteristics. Artists who, for example, had traditional families (i.e., spouse and children) and who had more time invested in their art or craft (in terms of number of years as a professional artist) were less likely to mention factors such as “*inspiration,*” “*being guided,*” or “*just letting the work speak*” in relation to their work. Another interesting aspect of the interviews was my observations of the artists’ dress. Although somewhat difficult to translate into words, artists who mentioned their own eccentric characteristics were more likely to dress in an eccentric manner – odd clothes, “creative” hair, multiple piercings. This contrasted with the majority of the artists, who were dressed in what would probably pass as “business casual.” Also interesting to note, however, is that identification with esoteric characteristics did not seem to impact their ability to manage their behavior as an artist.

Discussion and Direction for Future Research

The pilot study served to answer the initial questions I had relating to 1) the specifics of conducting the research; 2) how artists would respond during an interview (i.e., their manner of response); and 3) the support of artists for the research. Conducting a total of 26 interviews, including the four re-interviews, allowed me to build a database of questions specific to several underlying research questions: “Do artists use self-regulatory strategies in their work?” “Exactly how and when do artists engage these strategies?” and “How do artists feel these strategies contribute to their work?” As the interviews progressed, I was able to eliminate questions not contributing to the data. Additionally, analysis and reanalysis of the data, inherent to grounded theory methodology, permitted me to continually refine the interview questions, thus maximizing the opportunity to discover underlying concepts.

Pilot Study 2

Introduction

Because a survey questionnaire (Artists’ Work Behaviors Questionnaire, Way, unpublished) was developed from the results of Pilot Study 1, a decision was made to pilot the survey before collecting final dissertation data. However, because of the limited possible subject pool (professional artists), the survey was administered to students enrolled in summer art classes; permission was obtained from the Art Department at a large southwestern university to distribute and collect the survey.

Method

Participants

Participants for this study were solicited from students enrolled in summer art classes. Participation was voluntary, and participants were not compensated for their participation. The mean age for participants was 22.3 years of age. Although surveys were distributed to 46 students, only nine surveys were returned.

Procedure

The investigator contacted four instructors in Studio Arts for permission to distribute and collect surveys in their summer art classes. Participants were enrolled in Drawing I and II (a combined class); Beginning Painting and Intermediate Painting (a combined class); and Beginning Life Drawing, Intermediate Life Drawing, and Advanced Life Drawing (a combined class). I attended each of the above classes on two consecutive days (classes are held daily during the summer sessions) to distribute the surveys. Participants were given an overview of the study and the questionnaire, and were told that I would return in one week to collect the surveys. When I returned after the first week, only two participants had completed the survey. I arranged to return the following week; five surveys were collected at that time. I also distributed (on this second visit) stamped, self-addressed envelopes for participants from whom the survey had not been collected. Two additional surveys were returned in the following two weeks.

Measures

Data was collected using three measures: The Artists' Work Behaviors Questionnaire (AWBQ) (Way, unpublished); the Action Control Scale (ACS-

90) (Kuhl, 1994); and the Negative Mood Regulation Scale (NMR) (Catanzaro & Mearns, 1990).

Artists' Work Behaviors Questionnaire (AWBQ) (Way, unpublished) (Appendix A). This is a 60-item questionnaire designed for the purposes of this study. The questionnaire included 44 statements that participants responded to on a 7-point Likert-type scale (1 = strongly agree; 7 = strongly disagree); questions were designed to investigate emotional, motivational, behavioral, and cognitive self-regulatory aspects associated with artists' working strategies. There were 14 items each on the Cognitive Subscale, the Motivation Subscale, the Emotion Subscale, and the Behavior Subscale. Participants were instructed to respond to these questions using their work as artists as a reference. Five questions on the AWBQ were open-ended, and were designed to prompt discussions about the ways in which artists deal with issues relating to the management of motivational, emotional, cognitive, and behavioral self-regulatory strategies in relation to their work as artists. Participants responded to these questions in writing. The remaining 11 questions were biographical or demographical in nature.

The specific questions on both the open-ended and closed-ended portions of the questionnaire were derived from the open and axial coding results of the interviews conducted during the first pilot study. As previously mentioned, artists in the first study were interviewed about a variety of factors surrounding their work, with the majority of the questions being slanted towards the exploration of possible strategies used to manage motivation, emotion, cognition, and behavior. Thus, the categories resulting from open and axial coding provided a theoretical basis for the specific questions. Additionally, some of the questions on the AWBQ were worded to reflect a tone similar to that of the Action Control Scale (Kuhl, 1994), in that the

response can be interpreted as leaning more or less towards an action or state orientation (e.g., If I'm bored with working, I quit before I had planned to; When something I've produced doesn't turn out like I wanted it to, and I am disappointed, it is pretty easy for me to get over it).

Action Control Scale (ACS-90) (Kuhl, 1994) (Appendix B). The ACS-90 is a 36 item forced-choice scale designed to measure an individual's ability to enact and maintain intentions. Because this ability is a characteristic often associated with an individual's overall aptitude for engaging in appropriate self-regulatory characteristics, it was expected that the use of this instrument would contribute additional information to the data collected from the AWBQ, especially when these two instruments were considered simultaneously. The ACS-90 is composed of three subscales of 12 items each: the Hesitation Subscale assesses potential problems an individual might encounter in initiating actions; the tendency of intrusive or perseverating thoughts to impair an individual's initiation of a change of behavior is measured by the Preoccupation Subscale; and the Performance-Volatility Subscale assesses an individuals' ability to stay on task. Preoccupation, hesitation, and performance-volatility are characteristics associated with state-orientation (for a review of state orientation, see page 12 of this document). There appears to be satisfactory reliability for the ACS-90, with Cronbach alpha coefficients ranging from .70 to .81 (Kuhl, 1994).

Negative Mood Regulation Scale (NMR) (Catanzaro & Mearns, 1990) (Appendix C). As several of the Artists' Work Behaviors Questionnaire items probe an individual's ability to regulate moods and emotions during work, it was expected that the NMR Scale would provide additional information to the quantitative portion of the study. Additionally, there was the possibility that the scale could serve to provide adjunct information useful to the qualitative

portion of the study. This scale contains 30 items that complete the stem “When I am upset, I believe that...” The scale includes subscales assessing cognitive and behavioral strategies, as well as general beliefs, that might be employed when individuals attempt to regulate or alleviate negative moods. Catanzaro and Mearns (1990) suggest the individual subscales be examined when prediction of emotional responses is desired. Because prediction was not an issue in the current study, the NMR was analyzed as a single scale indicative of generalized expectancies for mood regulation. Responses are rated on a Likert-type scale, ranging from 1 (strongly agree) to 7 (strongly disagree). Internal consistency is regarded as acceptable, with alpha coefficients ranging from .86 to .92. Test-retest reliability is considered to be good, with correlations ranging between .67 to .78 over time periods of several weeks (Catanzaro & Mearns, 1990)

Results

Overview

Unfortunately, due to the small sample size, results are somewhat inconclusive for all measures. An additional problem with this sample was that only two of the nine respondents indicated that they were committed to the vocation of art. Recall that Dudek, Berneche, Berube, and Royer (1991) investigated committed and uncommitted art students, and found that committed art students had personality profiles similar to mature committed artists. These personality characteristics were not found in the uncommitted students. It was thus not possible to make the argument that uncommitted art students’ responses from this pilot study would contribute to the interpretation

of data gathered from mature, committed artists in the dissertation data collection phase.

Qualitative Data Analysis

Of the nine surveys returned, only six provided responses to the open-ended questions; one of these six classified themselves as committed to art as a career. However, the results were somewhat similar (after accounting for the basic student/artist differences) to answers given in the first pilot study. For example, when asked to respond to the question concerning working on a piece they were not particularly enjoying, five of the six responded that they often have to do this as a part of an art assignment. Coping strategies included such things as *“I sing silently to myself,” “I practice Spanish vocabulary in my head,”* and *“I remind myself that I took an art class to relax – so relax!”* The single committed artist responding to the open-ended portion of the AWBQ said, *“I use this time to practice – both art and life as an artist. My mom is an artist – I know she often has to do stuff she doesn’t want to. So I just make the best of it now, knowing that someday I’ll have to anyway.”* All respondents, committed and uncommitted, said that working on a piece they enjoy is much easier than working on a piece they do not enjoy, and made comments such as *“I loose [sic] track of time,” “class is over before I know it,”* and *“this is really fun.”* When queried about distractions while working, the general consensus was that working in a studio environment (such as the classroom) presents few external distractions; none of the participants commented on internal distractions. This was contrasted, however, with working on location, outside the studio. *“It’s harder to work outdoors. Wind, sun. And I’m afraid people will wander over to see what I’m drawing.”*

The analysis of the limited qualitative data suggests these participants do engage in a variety of self-regulatory strategies. However, because all the

respondents were college students, it is difficult to speculate how much their lives as students influence their self-regulatory strategy use. However, it may be that self-regulatory strategy use crosses boundaries, and that such strategy use is equally likely to be found in many segments of the population. Based on the responses of this sample, the open-ended items were not revised for subsequent data collection.

Quantitative Data Analysis

Action Control Scale (ACS-90) (Kuhl, 1994). The mean overall score for the ACS-90 was .74 ($SD = .16$). The means for the subscales were as follows: performance-volatility, $M = .92$, $SD = .14$; hesitation, $M = .68$, $SD = .29$, and preoccupation, $M = .65$, $SD = .31$. (Data were coded as 0 = state orientation and 1 = action orientation for purposes of analyses.) Kuhl (1994) suggests the results of the scale be summed for interpretation, and that participants with lower scores are generally considered to be state-oriented. It thus appears that this sample tends towards action-orientation.

Negative Mood Regulation Scale (NMR) (Catanzaro & Mearns, 1990). The mean score for the combined NMR scale was 5.52, with a standard deviation of .81, thus suggesting this sample is reasonably able to engage coping strategies in emotionally distressful situations. Further analyses of the scale revealed this sample seemed to have the greatest success with general strategies for regulating affect (i.e., “When I’m upset, I believe that...I can usually find a way to cheer myself up” ($M = 6.03$, $SD = 1.01$) and the least success with behavioral strategies for regulating affect (i.e., “When I’m upset, I believe that...I can feel better by treating myself to something I like) ($M = 4.94$, $SD = .89$). The mean score for cognitive affect regulation strategies (“When I’m upset, I believe that...I’ll feel okay if I think about more pleasant

times”) was 5.58, with a standard deviation of .92. Chronbach’s alpha for the scale with this sample was .88.

Artists’ Work Behaviors Questionnaire (AWBQ) (Way, unpublished).

One of the primary purposes of this pilot study was to evaluate a survey that would be used to collect dissertation data. The reliability of the overall scale appeared to be quite good, with an alpha coefficient of .86. However, alpha coefficients for the expected subscales were much lower (Cognitive Subscale, alpha = .57; Behavioral Subscale, alpha = .67; Motivation Subscale, alpha = .23, and Emotional Subscale, alpha = .58. Because of the very small sample size, additional statistical techniques were unavailable, thus it was not possible to determine if the demonstrated reliability of the total scale versus the low reliabilities of the subscales was because the scale measured only a single latent variable (i.e., self-regulatory strategy use) or because the items were not valid measures of the expected underlying constructs. Means and standard deviations of the total scale and subscales are as follows: total scale, $M = 5.17$, $SD = .69$; Cognitive Subscale, $M = 5.02$, $SD = .84$; Behavior Subscale, $M = 5.25$; $SD = .80$; Motivation Subscale, $M = 5.13$; $SD = .58$; and Emotion Subscale, $M = 5.42$; $SD = .78$. Even with the low sample size, several items were revised or eliminated from this version of the AWBQ before the measure was used to collect dissertation data.

Pilot Study 2 – Discussion

Because of the results of this pilot study, several items on the AWBQ were reworded or eliminated. Several items on the Emotion Subscale were revised to be more reflective of items on the NMR, while still retaining their original purpose, that of measuring artists’ abilities to regulate emotions while working. Additionally, a closer look was taken at the Motivation and Behavior Subscale items by the author and one of her dissertation advisors. This review

resulted in items that reflected more differentiation between these two constructs, as well as the assignment of several of the items to other subscales. For example, the item “I enjoy trying new methods or techniques” was removed from the Behavior Subscale and added to the Emotion Subscale; the item “I prefer to work on something I like, even if I know it may not sell well” was revised to “I am more motivated to work on something I like, even if I know it may not sell well” (a Motivation Subscale item). These decisions were based partly on an investigation of the inter-item correlations of the subscales, and partly on underlying theoretical or conceptual issues.

The open-ended items appeared to elicit fairly rich responses, especially when the nature of this sample was considered. Based on the responses, the questions did not appear to be either ambiguous or illogical. However, because these questions would be used as a primary source of data for the dissertation study, and because the sample in Pilot Study 2 was not representative of the expected dissertation sample, I distributed the open-ended portion of the AWBQ to several ($n = 8$) professional artist friends. I had not planned on using these friends as a part of the dissertation sample because a personal relationship between us already existed, but their advice at this stage of the study proved useful. Each of these artists supported the conclusion that the open-ended portion of the AWBQ demonstrated face validity.

The only other analysis performed on this data set was a correlational analysis between the NMR and the Emotion Subscale items of the AWBQ. It was expected that both sets of items would tap the same underlying construct, specifically, emotional regulation. The correlation between the two scales was $r = .67$, which was non-significant at the $\alpha = .05$ level ($p = .07$). Again,

this finding may be due to either the low sample size or to the inability of the AWBQ Emotion Subscale to tap the underlying construct.

Chapter 4

METHODOLOGY

Introduction

Any particular research project begins because of a variety of factors, including the investigator's interests, values, and resources. Regardless of the specific factors, however, the investigator always focuses on a particular question to which he or she wants a satisfactory answer (Tashakkori & Teddlie, 1998). Furthermore, Tashakkori and Teddlie (1998) suggest this initial research question is embedded in what they refer to as a research cycle. This cycle includes moving from grounded results, such as facts and observations, to general inferences, or abstract generalizations. After this inductive logic phase, the question moves through a phase of deductive logic during which tentative hypotheses or predictions about specific events and outcomes are formed. All research questions move through this cycle at least once. One of the first considerations the investigator must make regarding their initial research question is what type of data to collect and what type of data analysis to use. The use of a combination of qualitative and quantitative techniques can be a logical choice because it allows for switching back and forth between the deductive and inductive phases of the research cycle (Tashakkori & Teddlie, 1998).

My initial research question, regarding the self-regulatory aspects of artists' thoughts, motivations, and actions, is indeed embedded in Tashakkori and Teddlie's research cycle. I began the pilot studies with certain perspectives, although these were largely opinions (i.e., based on personal observations in a non-researcher role), rather than empirically derived. Interviewing 22 artists, however, provided me with a researcher's perspective,

permitting me to refine my initial research questions by moving through an inductive logic phase. I now had evidence from individual artists that could be used to generalize to this particular population: Artists do appear to employ self-regulatory strategies in their work. At this point in my research, therefore, I had a small body of data that could be used to refine and increase my knowledge about the self-regulatory abilities and processes used by artists during subsequent data collection. Questions remained, however, about the type and methods of data collection. In a sequential mixed method design, a researcher may first conduct qualitative data collection and analysis. This qualitative phase serves as information for and segues to a subsequent quantitative phase. The quantitative phase, in addition to being an outcome of the qualitative phase, serves to contribute additional data and information to the study. One way of collecting this additional data is through the development of a questionnaire, which often represents a tangible outcome of the qualitative phase (Tashakkori & Teddlie, 1998). A questionnaire, or survey, can use closed-ended questions, open-ended questions, or a combination of both. Closed-ended questions are those in which participants' answer choices are well defined, or standardized; open-ended questions ask participants to respond using their own words (Babbie, 1990). The use of a single survey combining these types of questions provides the researcher with the opportunity to collect both quantitative and qualitative data simultaneously. Similarly, a combination approach can be used to conduct both confirmatory and exploratory studies (Tashakkori & Teddlie, 1998). Additionally, other researchers suggest that both the quantitative and qualitative research paradigms have weaknesses, which can, to a certain extent, be compensated for by the strengths of the other when the two

paradigms are combined (Steckler, A., McLeroy, K.R., Goodman, R.M., Bird, S.T., & McCormick, L., 1992).

Participants

Participants for this study were recruited from an initial pool of 271 artists and craftspeople. At each of the events identified in the pilot study, contact information (the artist's address and telephone number, and website and e-mail addresses, if available) was gathered from the artists attending the event. Additionally, several artists selling on *eBay*, the on-line auction site, were contacted for participation. Seventy-six (76) of the artists contacted completed and returned the survey (28%). Participation was voluntary, and participants were not compensated for their participation, although approximately 25% of the respondents expressed interest in obtaining the results of the study. For details about the survey mailing and subsequent data collection, see the *Data Collection* section on the next page.

Procedure

The questionnaire was sent by either electronic mail or by ground mail to a total of 271 artists (details about these collection methods follow). Enclosed with each survey was a cover letter containing a brief description of the study and contact information for the author and one of her advisors.

Measures

Data was collected using three measures: The Artists' Work Behaviors Questionnaire (AWBQ) (Way, unpublished); the Action Control Scale (ACS-90) (Kuhl, 1994); and the Negative Mood Regulation Scale (NMR) (Catanzaro & Mearns, 1990).

Artists' Work Behaviors Questionnaire (AWBQ) (Way, unpublished) (Appendix A). Participants completed the revised form of the original 60-item survey. There were 44 questions using a 7-point Likert-type scale (1 =

strongly agree; 7 = strongly disagree); these questions investigated emotional, motivational, behavioral, and cognitive aspects associated with artists' working behaviors. Participants were instructed to respond to these questions using their work as artists as a reference. Five questions on the AWBQ are open-ended, and were designed to prompt discussions about the ways in which artists deal with issues associated with the management of strategies related to emotional, motivational, behavioral, and cognitive aspects of their work. Participants respond to these questions in writing. The remaining 11 questions are biographical or demographical in nature.

Action Control Scale (ACS-90) (Kuhl, 1994) (Appendix B). For a description of the ACS-90, see page 96 of Pilot Study 2.

Negative Mood Regulation Scale (NMR) (Catanzaro & Mearns, 1990) (Appendix C). For a description of the NMR, see page 98 of Pilot Study 2.

Data Collection

Electronic Mail Data Collection. A total of 160 surveys were sent by electronic mail (59%). The response rate for this method of data collection was 23% (37 responses). Artists not responding to the initial e-mail were sent an electronic reminder approximately two weeks after the initial contact. Of the surveys received, approximately 71% were returned within one week of the initial contact, 22% were received within two weeks of the initial contact, and the final 7% were received within one month after the initial contact. Data collection by electronic means (i.e., e-mail) is a relatively new possibility for the researcher. In fact, a search on *PsycINFO* combining the terms *data collection* and *e-mail* yielded only four hits. Additional *PsycINFO* searches, using different search terms (but still including reference to electronic data collection) yielded more hits, but none of the citations dated before 1997. Existing research does report several positive aspects of this method of data

collection. One study included 500 participants at a Hong Kong university; half were sent a survey via e-mail, the other half sent the survey via in-house mail. The e-mail generated faster rates of response with a comparable level of quality of reply (however, criteria used to judge quality were not reported). Although the return rate from e-mail was lower than that from in-house mail, the researcher noted that e-mail has not yet been well received in the Hong Kong community (Tse, 1998). Another study suggests that the salience of the survey appears to have an effect on the response rate of e-mailed surveys (Sheenan & McMillan, 1999). Additionally, it has been found that follow-up memos double the response rate of an e-mailed survey, providing an adequate response rate (Kittleson, 1997). Finally, a structured questionnaire was e-mailed to 8,859 randomly selected e-mail addresses. Although the response rate was only 19% (1,713 responded), 90% of these responded within four days (Swoboda, Muehlberger, Weitkunat, & Schneeweiss, 1997). Because the response rate cited by the authors did not control for other factors, such as invalid e-mail addresses, it is likely that a salient e-mail questionnaire sent to a selected audience, especially when coupled with appropriate reminders, would yield higher response rates. In the present study, responses received by e-mail, thus typed, averaged approximately 75 more words per question than the hand-written responses received by ground mail.

Ground Mail Data Collection. Surveys were sent by ground mail to 111 artists (41%). Artists not responding within two weeks were sent a post-card reminder. The response rate for this type of data collection was 35% (39 surveys returned). Surveys sent by ground mail included a self-addressed, stamped envelope for return. Approximately 94% of the surveys were returned within two months; the final 6% were returned within 4 months.

Follow-up Data Collection. Two artists from the initial pool of respondents were selected for face-to-face interviews to supplement and elaborate on the AWBQ open-ended survey questions. The decision of which artists to approach for follow-up was based on a subjective evaluation of the quality and usefulness of the initial responses. Quality was based on the following criteria: completeness of response with regard to the initial question (for example, did the respondent appear to make a genuine attempt to answer the question and prompts?); degree to which it appeared that the respondent was engaged in the survey overall (for example, did it appear the survey was carefully and considerately completed? Were all the questions answered?); and the amount of details provided by the respondent (for example, did the respondent provide specific examples of work behavior?) Eleven artists in the Austin-San Antonio area were contacted about participating in a follow-up interview. Of those contacted, seven agree to be interviewed, two declined, and two did not respond. Two artists were randomly chosen from the seven agreeing to be interviewed. These interviews were conducted in the artists' studios. Additionally, seven artists were contacted for follow-up data collection by electronic mail. These artists provided interesting or informative data in the initial survey, but responses to several questions were ambiguous or otherwise unclear. These artists were "interviewed" using an *instant messaging* program. This type of program is similar to a TTY system, in that the responses are instantly transmitted to each of the participants via the computer keyboard. Questions and answers can thus flow in a logical, conversational, manner.

Qualitative Data Hypotheses

Qualitative Data Hypotheses Formation

Although qualitative research is most often conducted without a priori statements of hypotheses, the presence of themes or categories that may have been established a priori permits the researcher to form tentative hypotheses before data collection (Tashakkori & Teddlie, 1998). The pilot studies for the current project were fundamentally exploratory research, but a certain range of answers was expected given the nature of the questions asked. When the pilot data were analyzed, the anticipated themes and categories did seem to emerge from the data. Consequently, what was initially an exploratory study was transformed into a study retaining elements of exploratory research as well as adding elements of confirmatory research. Therefore, hypothesis formation, especially hypothesis formations incorporating both the quantitative and qualitative data, is acceptable.

Hypothesis No. 1

It is predicted that individuals who endorse items on the Negative Mood Regulation Scale (Catanzaro & Mearns, 1990) associated with the effective regulation of affect will also use self-regulatory skills, abilities, and strategies related to the regulation of affect during the analysis of the qualitative data portion of the Artists' Work Behaviors Questionnaire.

Rationale: Individuals who seem to have efficacy for coping with emotional distress are those who also seem to be able to regulate their moods (Catanzaro & Mearns, 1990). Therefore, individuals endorsing items indicating high levels of negative mood regulation expectancies should also be those individuals who recount specific skills and abilities associated with controlling negative moods on the Artists' Work Behaviors' Questionnaire.

Hypothesis #2

It is predicted that individuals who endorse items on each of the subscales of the AWBQ (Behavior, Motivation, Emotion, Cognition) will also evidence usage of related strategies in the qualitative data portion of the AWBQ.

Rationale: It has been suggested that volitional characteristics are relatively stable across time and across individuals (Corno & Kanfer, 1993; Kuhl, 1985b; Kuhl & Fuhrmann, 1998). Therefore, individuals who endorse items specifically related to definite types of self-regulatory strategies should talk about those same types of strategies in their narratives. Furthermore, several researchers suggest finding out “what works” for regulating goal directed behavior may be more a matter of finding out what works in a specific situation rather than what works globally (Baumeister, Heatherton, & Tice, 1994; Billings & Moos, 1984). It is therefore reasonable to assume that, when queried about a specific situation (such as a work-related situation), the participants will make similar responses whether endorsing the closed-ended items or relating their experiences through the open-ended format.

Qualitative Research Issues

There are always issues relating to reliability and validity when considering the use of an instrument. In general, the question of reliability relates to the accuracy of an instrument, and there are several common methods of determining the reliability of an instrument in the quantitative research tradition. While issues relating to the reliability of a qualitative instrument cannot be as neatly resolved as those in a quantitative instrument, the qualitative researcher does have resources upon which to draw. Lincoln and Guba (1985), for example, suggest the trustworthiness of qualitative data is somewhat analogous to the reliability and validity of quantitative

instruments. Part of the concept of trustworthiness is the attempt by the researcher to convince others that her conclusions regarding the data are accurate. Although there is no substitute for the general, usually earned, credibility of the researcher, Lincoln and Guba (1985) do suggest four criteria that can be combined and used to convince the audience of the trustworthiness of the data collected. Briefly, these four criteria, with their quantitative equivalents, are credibility (internal validity), transferability (external validity), dependability (reliability), and confirmability (objectivity).

There are several methods that can be used to help determine the trustworthiness of the data (Lincoln & Guba, 1985). Following is a brief discussion of the methods used by this researcher in the collection and interpretation of the study's qualitative data.

Triangulation of the Data. This method is often employed in quantitative research, and some of the same properties and methods can be applied to qualitative research. Triangulation involves comparing different sources across the information collected. In the present study, information collected from the Action Control Scale (Kuhl, 1994) and the Negative Mood Regulation Scale (Catanzaro & Mearns, 1990) was compared with information obtained from the Artists Work Behaviors Questionnaire, as well as the two follow-up interviews. Data from all sources were checked for congruency among sources.

Peer Debriefing. I engaged the assistance of a peer debriefer during the collection and analysis of the qualitative data. A peer debriefer is usually an individual of equal status with the researcher who also possesses substantive knowledge of the area under investigation. This individual's role is to examine both the raw data as well as the researcher's interpretations of the data; the peer debriefer then poses questions relating to the data and the data's

interpretation, ideally serving the role of devil's advocate when necessary. For the present study, a fellow graduate student, who is also studying self-regulatory processes, acted as my peer debriefer. This graduate student has completed both survey research methodology and qualitative research methodology courses as a part of her graduate curriculum, and has additionally completed the Masters' Degree in Program Evaluation. We met several times over the course of data collection and analysis. I first forwarded the transcribed interviews, as well as open and axial coding categories that seemed to be emerging, to the peer debriefer. After reviewing this information, she and I would meet to discuss the analyses of the data. Although we never had disagreements about the data and the resulting analyses, there were several times when the debriefer's comments were particularly helpful. These comments typically centered around assumptions that I occasionally made about artists' work habits that were not necessarily founded in the data. This individual proved to be particularly valuable as she was able to lend a skilled eye to both the qualitative and quantitative data analyses.

Reflexive Journal. The use of a reflexive journal is recommended to allow the researcher an additional place to record information about both the study and the relationship of the self to the study. In this study, two entries were made to the reflexive journal for each data analysis "session." The first entry was made before the data were examined; the second entry was made upon conclusion of the analysis session. Because the nature of qualitative data analysis is cyclic, in that each coding or analysis session provides information that will be used in subsequent analyses, each analysis session began with a review of the previous two or three reflexive journal entries (the review was done after the newest entry was made). Additionally, the reflexive journal was

reviewed in total once a week throughout the qualitative analysis period, which spanned approximately four months.

Quantitative Data Hypotheses

Because the current study employed quantitative data collection in addition to the qualitative data collection, hypotheses were formulated regarding the quantitative data.

Hypothesis No. 1

It is predicted that the total score on the Action Control Scale (as an indication of action-orientation) will correlate significantly with the total score on Part 1 (closed-ended portion) of the Artists' Work Behaviors Questionnaire.

Rationale: Recall that the tendency to use volitional strategies is associated with fairly stable personality states and traits. In Kuhl's (1984) terminology, individuals who tend to engage in appropriate self-regulatory strategies are action-oriented, while individuals who typically fail to engage appropriate self-regulatory strategies are state-oriented. According to Kuhl (1984, 1985, 1994), an action orientation is congruent with an individual's ability to protect and maintain an intention until it reaches fruition. The closed-ended items of the AWBQ were designed to investigate volitional strategy use by artists when engaged in their work. Therefore, an individual endorsing action-related items on the ACS-90 should also evidence usage of self-regulatory strategies engaged for the purpose of maintaining the focus of their work on the AWBQ.

Hypothesis #2

It is predicted that there will be a significant correlation between the action-orientation endorsement of the Performance-Volatility Subscale of the

Action Control Scale (Kuhl, 1994) and the Behavior Subscale of the Artists' Work Behaviors' Questionnaire (Way, unpublished).

Rationale: The Performance-Volatility Subscale of the ACS-90 is designed to measure an individual's ability to stay on task; individuals able to stay on task are, in Kuhl's terminology, action-oriented. Action-oriented individuals are expected to engage regulatory strategies facilitating specific actions necessary to reach goals. Behavioral items on the AWBQ, while not designed to specifically measure an individual's ability to stay on task, are reflective of an individual's ability to persist in already initiated activities or work goals (i.e., "I don't let other activities intrude upon my work time," "I set and stick to clearly defined goals when I work."). Because the ability to stay on task and the ability to maintain initiated activities is conceptually related, individuals endorsing action-oriented items on the Performance-Volatility Subscale of the ACS-90 should also endorse items evidencing self-regulatory behavioral strategies on the AWBQ.

Hypothesis #3

It is predicted that there will be a significant correlation between scores on the Negative Mood Regulation Scale and scores on the Emotion Subscale of the Artists' Work Behaviors Questionnaire.

Rationale: The Negative Mood Regulation scale is designed to assess an individual's overall ability to cope with emotionally distressing situations. While not designed as a measure of self-regulation, per se, items on the NMR scale are conceptually similar to items on the AWBQ Emotion Subscale (NMR - "When I'm upset, I believe that...I can usually find a way to cheer myself up." AWBQ - "When I'm in a bad mood, and don't feel like working, it is relatively easy for me to cheer myself up enough to work." Furthermore, Kuhl and Goschke (1994) suggest emotions may be used to indicate

discrepancies between current internal need states and external events or situations, and that some individuals seem better able to referee between these internal and external states. Therefore, individuals able to control emotions in a more global manner may also be more adept at controlling emotions in specific, i.e., work related, situations. Additionally, Kuhl (1985b) suggests that emotion control works to inhibit emotional states undermining current intentions. Therefore, as the “intention” probed in the AWBQ is the ability to produce work, strategies used to control emotions counter to working should be evident.

Hypothesis #4

It is predicted there will be a significant correlation between action-orientation items endorsed on the Preoccupation Subscale of the ACS-90 and the Cognitive Subscale of the AWBQ.

Rationale: Recall that the Preoccupation Subscale of the ACS-90 measures the tendency of intrusive or perseverating thoughts to impair an individual’s initiation of a change in behavior; the Cognitive Subscale items of the AWBQ are designed to measure an individual’s ability to control thought processes in such a way as to protect their current intentions (i.e., working). The hallmark of self-regulatory use of cognitive and metacognitive strategies may be the ability of the individual to focus on the task at hand while simultaneously ignoring competing demands and alternatives (Baumeister, Heatherton, & Tice, 1994, chap. 5). Therefore, individuals who are able to protect their intentions through the judicious use of cognitive self-regulatory strategies should also be those individuals who are able to turn away cognitive intrusions incongruent with the goal at hand.

Hypothesis #5

It is predicted that items on the AWBQ will form four categories of self-regulatory strategies related to the subscales of cognition/metacognition, behavior, motivation, and affect regulation when subjected to factor analytic techniques.

Rationale: It has been suggested that there are several aspects of self-regulatory strategy use. Zimmerman (1989), for example, suggests self-regulation consists of metacognitive, motivational, and behavioral components; Weinstein and Mayer (1986) suggest goals and subgoals are met through the engagement of cognitive, metacognitive, and emotional resources. Furthermore, Kuhl (1985b) suggests several subsystems of self-regulation, including motivational control, emotional control, and cognitive/metacognitive control, must *all* be available to the volitionally enabled individual. Although the underlying construct is “self-regulation,” it appears the individual must master each strategy category before becoming volitionally competent, and each of these four categories should be evident in data analysis given that the questions are valid measures of categories.

Chapter 5

RESULTS AND DISCUSSION

Introduction

This dissertation was initially conceptualized as an exploratory study of self-regulatory strategy use in a specific population. Although there have been many studies investigating self-regulatory strategy use in students, there has been a distinct lack of studies about such strategy use in other populations. While the flavor of this dissertation could have as easily been maintained by exploring any other group of self-employed or highly autonomous working individuals, such as computer programmers, professors, or commissioned salespeople, artists were chosen because of the general interests of the author.

A mixed models study design was employed for this dissertation because of the richness such a design promised. In this design, data are typically gathered using both quantitative and qualitative methods. Then, in addition to the traditional analysis of the each type of data, the data are examined for contributions each type of data might make to the other. For the current study, qualitative data were gathered to allow artists to speak about their self-regulatory strategy use (or lack thereof) directly. Directing artists to answer questions within the context of their work as artists served two purposes: first, artists were provided with a venue for talking about and exploring their work in an unusual way; second, as a researcher, I was provided with a portrait of these artists that quantitative instruments alone could not provide. Quantitative data were collected as an adjunct to the qualitative data. The use of traditional quantitative, as well as mixed method analyses, provided a more objective, dispassionate way of viewing the

population, as well as contributing to the depth of the overall study. Additionally, the collection of quantitative data provided information for an initial validation process of the Artists' Work Behaviors Questionnaire. Not only could reliability coefficients be calculated on the scale and subscales of the AWBQ, but results from the AWBQ could be compared with the analyses from established quantitative instruments (i.e., Negative Mood Regulation Scale (Catanzaro & Mearns, 1990), Action-Control Scale, Kuhl, 1994)). Quantitative data analyses were also used to validate information from the qualitative portion of the study, as artists mentioning self-regulatory strategy use, for example emotion regulation, should also evidence usage of those strategies through appropriate endorsement of corresponding items on the respective scales.

The collection of qualitative data presented no unusual challenges, other than, perhaps, the primary reliance upon a distributed survey rather than face-to-face interviews. The collection of quantitative data was somewhat stymied, however, because of a lack of self-regulatory instruments suitable for non-student populations. There are several instruments with proven track records in the area of student self-regulation, such as the Learning and Study Strategies Inventory (Weinstein, Schulte, & Palmer, 1987) and the Motivated Strategies for Learning Questionnaire (Pintrich, Smith, Garcia, & McKeachie, 1991), as well as several less well-known instruments addressing student populations (e.g., Academic Volitional Strategies Inventory, McCann, 1999). The Action-Control Scale (Kuhl, 1985b, 1994) is not endorsed by its author as specifically designed for a student population. However, although many of the items on this scale can be considered suitable for a more heterogeneous audience, many of the instrument's questions revolve around schoolwork or are situationally geared towards a school-aged population. Because of the

unavailability of instruments appropriate for use with a non-student population, a new instrument was developed for this dissertation (Artists' Work Behaviors Questionnaire, Way, unpublished). Although the development and validation of a new instrument was not one of the goals of this dissertation, it was necessary to address the issues of reliability and validity with regards to the new instrument in order to discuss its usefulness to the current study.

As this study was, again, primarily an exploratory investigation of artists, the qualitative results from the study are presented first. During this analysis, a rich portrait of the population of interest emerges, providing a logical segue, as well as an underpinning, for the ensuing quantitative results and discussion section. Finally, as the mixed methods analysis incorporates portions of both the quantitative and qualitative data, the results and discussion from the mixed model is presented last. Recall that hypotheses were proposed in the current study for both quantitative results and for mixed method results; the results and discussion of these hypotheses are presented in their respective (i.e., quantitative and mixed models) sections.

Results and Discussion Qualitative Data Analysis

This dissertation began with the following qualitative-related research questions:

- Do professional artists employ self-regulatory strategies in their work?
- Presuming that these artists do use self-regulatory strategies, what specific skills and abilities do they use? Do the skills, for example, include control of behavior, motivation, affect, cognition, and metacognition?
- What do these artists' personal stories look like when they describe their art-related work experiences?

The interviews from participants, including the 76 structured survey-interview questionnaires, 7 follow-up interviews (all conducted by electronic mail) as well as the two semi-structured, face-to-face interviews, were analyzed using the constant comparison method (Strauss & Corbin, 1998). In this method, data are analyzed in an iterative way, in that each interview analysis contributes to the analyses of previous interviews; these earlier analyses then contribute to each subsequent analysis. Because the majority of the data for this study was collected from surveys, I used the time-line of survey return to assist with this method. Towards the beginning of data collection, response rate to the surveys was approximately 10 per week; these surveys were analyzed as they arrived, in the order they arrived. Towards the end of the data collection process, surveys trickled in at the rate of 1 or 2 per week, and these surveys were also analyzed upon arrival. The seven follow-up interviews, as well as the two face-to-face interviews, were analyzed upon completion of each interview. Thus, I was able to use a version of the constant

comparison method described by Strauss and Corbin (1998). The processes of open coding, axial coding, and selective coding were used for the analyses of the survey data and interviews. Open coding is the process through which general concepts, as well as the concepts' properties and dimensions, are discovered. There are several units of meaning that can be used for open coding, including line-by-line analysis. This form of coding is the most time-consuming, but is also judged to be the most generative (Strauss & Corbin, 1998). Because the majority of the data for this study was collected through survey questions, rather than interviews, I felt I needed to maximize the information from the data; therefore, I chose to use line-by-line analysis. During the open coding process, the researcher also begins assigning descriptive names to the categories that seem to be emerging. These descriptions help guide the researcher in the continuing analysis of data, and provide the basis for category descriptions.

Axial coding begins the process of relating the categories denoted during open coding to their subcategories, linking the categories at the level of properties and dimensions. Axial coding typically culminates in a paradigm model of the concept under review, further aiding the researcher in the development of category properties and dimensions (Strauss & Corbin, 1998).

Finally, selective coding is the process of integrating and refining categories until a theoretical scheme emerges. This culminates in *theoretical saturation*, or the point at which no new properties, dimensions, or relationships emerge from the categories. During the process of selective coding, a narrative or story line about the data should develop; this narrative provides the connection between the categories and their relationships (Strauss & Corbin, 1998). The results section of the qualitative analysis is written in this narrative form.

I will make a distinction between responses received from the surveys and from the interviews where appropriate and/or necessary in the following discussion, although coding categories were combined for purposes of discussion. Also, for organization purposes, I previewed the discussion with a list of the major categories emerging from the data, as well as a brief description of each category, in Table 1 below. As an additional note, direct quotations from the interview data (except for block quotations) are in *italics*, and are designated with quotation marks (“ ”).

Participants responded to five open-ended questions when answering the survey; these questions asked them to relate their experiences during a variety of working situations (see Appendix A for the specific questions). When viewed in total, many of the categories that emerged through a description of their work experiences seem very much like categories that might emerge from interviews with any group of successful employees or successful students (Table 1). They reported, for example, a variety of strategies used in the work-related management of behaviors, cognitions, emotions, and motivation, and, just like typical employees the world over, these artists had days and times they did not feel like working. And, although these artists overwhelmingly reported enjoying their work, there were occasionally remarks in agreement with one artist who said, “*Work is just part of life – sometimes it’s enjoyable – sometimes it’s not.*” (For a synopsis of biographical and demographical data on the participants, see Appendix E.)

Table 1: Overview of Categories and Their Descriptions

Category:	Category Description:
1. Coping with not feeling like working	Strategies used when work is boring, undesirable, unsatisfying
2. Coping with not feeling like working, but must work	Same as first category, but denotes specific strategies used to overcome bouts of not feeling like working in the presence of impending deadlines
3. Dealing with distractions (general, external, and internal)	Strategies used to cope with general (anticipated rather than imminent) distractions; external distractions; internal distractions
4. Process of working	Information about pleasurable and unpleasurable aspects of the work process
5. Love of work	Details surrounding aspects of creativity and creation
6. Flow experiences (as conceived by Csikszentmihalyi)	Aspects related to the narrowed sense of time and place associated with flow experiences
7. Work/working as personal fulfillment	Work as a satisfying, fulfilling aspect of life experience; work as a natural aspect of life
8. Emotionality of work	Separate from the <i>internal distractions</i> category, because many artists make the distinction between emotions encountered when working and the need to regulate those emotions
9. Confluence of work with outside world	Work as a connection to the outside world; “There are little pieces of me out there”
10. Spirituality of work and working	Work as a spiritual act; using spiritual guidance to facilitate work
11. Dealing with commissions	Different aspects of this type of work when compared with typical (i.e., everyday) work

Artists overwhelmingly (98%) reported that even when they do not feel like working, they cajole or force themselves into working in some way. Although artists were queried separately about their strategies between times they just did not feel like working (Category 1; Table 1) versus times they did not feel like working but felt that they must work for some reason (Category 2; Table 1), strategy use between these two categories was essentially the same. They reported the use of quite literal, blatant tactics, for example “*I just do it*” and “*I make myself plough through,*” to more subtle strategies such as rearranging the work environment in some way so that work can be made more pleasant (“*...if the work is too routine, then I will make sure to have some good book on tape at hand, and hot tea or coffee – something that makes me feel comfortable and well cared for*”).

Several artists reported adjusting the length of the workday so that at least some work is accomplished during the periods when work is regarded less desirably. Artists often reported that they are able to keep working a little longer than they had initially promised themselves when using this strategy. Of the 76 artists interviewed, only 1 artist reported not forcing himself to work when he does not feel like working. This artist does not proceed because he feels there is a greater likelihood of costly mistakes (he carves large pieces of furniture) when he forces himself to work under these circumstances. All artists, except one, reported that they always make themselves (eventually) finish. The exception said: “*I don’t always finish – I have lots of unfinished projects, but I also have tons of finished products.*”

Many of the strategies used to prompt work involve the direct regulation of behaviors related to work (Category 3; Table 1). Many of the artists plan their work schedules so that boring, undesirable, or mundane tasks are completed first. Several artists noted that this is an important strategy to

them because they are then able to end their work pleurably: “*It’s always nice to work on a piece that you like. I usually do all the stuff that I dread doing first to end on an enjoyable note.*” The anticipation of pleurable work at day’s end seems to serve as a stimulus for the less pleurant work. A similar strategy is making specific plans to get through these less desirable types of tasks. Again, there are dimensions to this strategy. For example, some artists adjust the length of their workday (“*I may work only 4 or 5 hours instead of the whole day*”), feeling that it is important to complete at least some work while acknowledging that it is also okay to not force certain types of work. Other artists literally “*plan one step at a time,*” or “*break down the work into more manageable pieces,*” so that the amount of undesirable work does not seem so overwhelming. A related strategy is the prioritization of work that needs to be done. One artist reported “*continually ask myself ‘what is priority,’ which makes it easy to always be doing the right thing.*” Other artists handle this prioritization by setting timetables for the work that needs to be done. At the other end of this continuum are the artists who report working regardless: “*I always worked when planned,*” “*I always follow commitments.*” Approximately 30% of the artists made statements similar to the statements above.

Many artists (approximately 30%) made the distinction between working and productive working, noting that these are not the same. During the times described as non-productive, artists work on chores (their term) or tasks related to the non-creative aspects of their art. Sometimes they are able to make a transition between these two, easing into the creative aspects by starting with the non-creative aspects (e.g., matting, framing, studio clean-up). A few artists make certain that they always have non-creative chores available that need to be done. These chores may be directly related to their art (as

above) or related to the business end of their art (e.g., marketing, paperwork). Several artists make use of this time by doing what might be called “rainy day” chores. For example, some organize photos or reference materials used in their work, look at books of other artists’ work, or even engage in an outing to the library, fabric store, or historical district of their town for inspiration.

Motivational strategies for managing work ranged from the external (“*no pots, no dough*”), to the internal (“*the satisfaction of working is my ‘carrot on a stick*”) to someplace in-between (“*I motivate myself by picturing it finished*”), with internal motivational strategies being used almost twice as often as external motivational strategies. Many artists reported that searching for ways to discover satisfaction in and from their work was their greatest motivator. Specific strategies named for managing motivation included finding ways to make the work more challenging (“*When I really do not feel like working or I get bored with something I am working on, I do something more challenging with it or try a new technique*”), recognition that working makes them feel more centered (“*I recognized that I always feel centered and satisfied once I actually begin the work process – so that motivated me to get started*”), and reminding themselves that some good might come from the (undesirable) situation (“*I remind myself of good that has come from similar situations, such as learning a new technique that was useful*”). One artist used a somewhat extreme tactic: “*I motivate myself by deferring simple pleasures, such as eating.*”

Many artists also engaged in cognitive and metacognitive self-regulatory strategies, responding with variants of “*I remind myself of the misery I felt for all those years in a non-artist job,*” or modifications of “*I remind myself that I could be doing something infinitely more boring and unsatisfying.*” Thinking about the rewards working brings (both now and in

the future) also enables these artists to keep working under difficult circumstances. Like most of us, many of them envision the pleasures that time off from work can bring. Sometimes this is the few hours or days off that comes from pushing through on a project (“*If I can get this commission finished, I can take a day off*”), to extended time off (“*I plan a vacation after the Spring shows are finished*”).

Artists also reported the use of many affective or emotional tactics, especially during the times working was perceived as a problem. Some of these strategies were indirect. For example, many artists made statements similar to these: “*I know it [working] will be enjoyable once I get started;*” “*The closer to the finish the better I feel,*” and “*I’m okay once I start.*” Artists were much more likely to report the use of more direct methods of controlling affect when they were specifically asked about how they cope with working when they do not want to work, but feel that they must. For example, in this category, many artists reported that they exercise control over the environment in some way. This ranged from buying fresh flowers (for the studio), to “*straightening up*” to provide a more pleasant work environment, to purposefully thinking about how good finishing would feel. Seven artists reported playing the radio, compact discs or books on tape while they are working, reporting that this strategy allows them to focus on something other than the unpleasant aspects of the project, while leaving enough of their attention free to actively engage in work. One strategy in the same vein, particularly interesting because it might be fairly exclusive to this group (i.e., artists) was two artists who reported listening to movies with good dialog (both saying that “old” movies are best). In retrospect, this strategy is, of course, quite similar to listening to books on tape, but it may be that artists are

better able to ignore actually watching the movie than another group of participants might have been.

I also asked the artists to relate specifically their methods for dealing with distractions while they work. Although the expected categories of dealing with internal (i.e., worry) and external (i.e., other people intruding on work time) distractions emerged, many artists also reported that they insulate themselves against potential, general distractions. This is perhaps a function of familiarity with the work experience in general, one that would be exercised by any group of successful working individuals. However, it may be that this strategy is more necessary when periods of sustained attention are necessary, such as in the generation of an artistic product. Additionally, if the flow experience is especially important to this group, they may perceive protection of that experience as imperative. Although this protection may be on more of a subconscious than conscious level, they none-the-less engage in specific strategies to protect the experience.

To make a very informal statement, boy-oh-boy does this group hate unsolicited telephone calls! This is easily the top category of distraction triggers (more than half specifically mentioned the telephone as a problem), and artists use a variety of methods for dealing with the problem (“*I take the phone off the hook;*” “*I don’t have a phone in the studio;*” “*I let the answering machine pick up*”). One artist interviewed (i.e., face-to-face) reported, very gleefully, that she had “*discovered the joys of a Tele-Zapper!*” (a device preventing certain numbers from ringing through). (She happily insisted on demonstrating this little marvel for me.)

Many artists also made specific schedules for their workdays; some of these schedules allowed for a little flexibility (“*I set a flexible schedule, and I’m disciplined with that*”), although most did not. It seems as if one of the

most often used strategies in this category is making, and sticking to, a very definite, predetermined schedule. Comments included “*days are set up as workdays,*” “*I ignore distractions during studio hours,*” and “*I lock the door to the studio.*” Although perhaps somewhat extreme, one individual actually reported that he had purposefully moved to a small, rural town to “*avoid the temptations of cities.*” Many artists said that the problem often comes from others viewing their (i.e., the artists’) work schedules as flexible: “*Because I work at home, people think that means my time is free. They wouldn’t dream of disturbing me if I worked in an office, but because I work at home, it’s o.k.*” This artist went on to relate that she compensates by making a strict work schedule for herself: “*When I’m in my studio, I’m at work.*”

Distractions are almost unavoidable, and many artists used or incorporated normal or typical distractions in some way. For example, several artists said that they use dealing with distractions as an enforced break. Others said that they build time into their schedule for handling distractions, while others noted the necessity of multitasking. Only one artist reported being easily distracted. However, she uses this as self-knowledge, and works “*very hard in spurts.*” A couple of the artists noted that they are grandparents, and distinguished between welcome distractions, such as visits from children and grandchildren, and unwelcome distractions, such as unsolicited visitors. One artist, a glass worker, works in her garage because of the nature of her work. Her view of distractions is somewhat humorous:

I’ve learned to work with the distractions, although it does help that the pieces I’m working on can go in the kiln and be brought out and worked on later. My studio is in the garage and to keep from carbon monoxide poisoning I have to work with the garage door open, so I have a constant stream of neighbors, children, UPS guys, garbage men, cats and

squirrels coming in for entertainment and/or handouts. I have bags of kibble and walnuts on hand for the livestock, and I've learned to work on complicated pieces while explaining to everybody what I'm doing and why. This has improved the heck out of my demos, presentations, and classes...so in my case distractions are beneficial. If there's something extremely challenging that I'm working on, I'll do it in the evening when everybody's asleep.

There also seems to be many cognitive components of distractions, and a few artists view distractions as somewhat their fault (*"I feel guilty when I'm distracted, when something draws me away from my work"*). More than half of the artists specifically mentioned that distractions are much less a problem when the work is going well, and would likely agree with the statement made by one artist: *"I'm not distracted when things are going well."* I found it interesting that the distinction between being easily distracted when the work is difficult and not being easily distracted when things are going well quite interesting. This may imply that concentration is closely linked to our interest and engagement with a task, as many researchers have suggested. However, it does appear that this group recognizes that concentration must be more closely protected in circumstances without optimal engagement, and that they are able to take the steps necessary to protect concentration when it is essential to do so. And, one artist, the same one who moved to a small town to avoid big-city distractions, said that he has eliminated others from his life so that distractions are completely minimized: *"Pottery is more important to me than a social life. I am a real hermit and purposefully do not encourage social relationships, I have no "friends" that we go out with or entertain. The only relationship that I put energy into is with my wife and mate of 23 years. Everybody else, including family, is*

secondary.” He went on to say that he refuses to make friends or engage in social events that might lead to social obligations so that he can focus completely on his work. However, this one artist’s experiences are definitely atypical, as many artists mentioned social engagement, especially with other artists, as one of their most pleasurable activities.

Artists also mentioned very specific strategies for dealing with internal distractions. Several artists feel that creative work is unproductive when internal distractions are present (“*I put the creative work on hold until the mood passes*”), and several use such times to concentrate on the non-creative aspects of their job (framing, firing, etc.). Several artists simply turn to other activities such as exercise (there are several avid runners), napping, reading, or shopping. It is also possible that one internal distraction subcategory emerging from data analysis relates specifically to this population – several made comments mirroring the statement of one artist: “*I accept and embrace bouts of depression because it is part of being an artist.*” One artist gave a very personal recounting of her bout with major depression, and said that she had to “*ease myself back into working.*” She did this by copying others’ paintings, looking through reference books, etc. She said she knew the “*big stuff would come again*” if she concentrated on doing just what she could at the moment, until the feelings passed. However, other artists reported the process of working itself is what helps get them through these blue moods, and that the pleasure of working in the studio is often enough to bring them out of a funk. Several artists also mentioned the events of 9/11/01 (the surveys were mailed during the last weeks of September and the first weeks of October), one saying that this event “*wiped me out for days.*” Most artists, however, referred to the event in somewhat more philosophical terms, mentioning it within the context that distractions, both internal and external,

are often unavoidable and are as much a part of life as is working. Several artists also said that before the events of 9/11, they would have been more likely to deal with distractions more firmly, especially distractions involving family and friends. The events of 9/11 seem to have had led the country, as a whole, to a new appreciation of the moment and a general reassessment of values, and it would be interesting if there was a way to compare and contrast this group of artists' comments prior and post that September date.

Many artists talked about the processes involved in working (Category 4; Table 1). In general, the process of working involves the actual "hands-on" part of the work, as opposed to the more cognitive, and perhaps creative, aspects of the work. Several commented that working is their hobby, while several others conceptualized work as therapeutic ("*Work is therapeutic,*" "*Working is cheaper than therapy, and I get the same results*"). Part of this process of working appears to be the ability to set subgoals and goals conducive to the working process ("*I plan one step at a time;*" "*I do each thing in turn;*" "*I plan the rest of my work around the firing [of pottery]*").

However, when talking about their experiences with distractions, artists again made a distinction between working on pieces they enjoy versus working on pieces they do not enjoy. Work (i.e., specific pieces or products) that is not enjoyable is apparently quite difficult for many of them, and they are able to make the work more enjoyable when they are able to find a way to make the work more challenging and/or different than previous work. Some artists incorporate new techniques into their work so that there is more of a challenge, as well as the stimulus of something new. One artist, who has enjoyed greatly increased success in recent years, came to that success, she says, by accident:

I was very bored with working in watercolor. I tried doing different things with the matting and framing, but that just felt so uncreative. One day, I was repairing a frame with leaf, some of it fell on the painting. It looked great! I was very excited, and immediately started a new painting adding the leaf as I went. Wow! Then I started adding other things – bits of stone, feathers. One of the results was increased sales, but the real result for me was that working was fun again.

Artists refer to some work as “production work.” This may be a potter making multiples of a mug that is a proven best seller, or a painter cranking out a series of similar pictures because the series sells well. This type of work is often the work that is saved for periods they feel are creatively unproductive: *“When that happens...I sit there and make hundreds of little dot beads. It’s productive, because they sell at shows, but there’s no creative joy in it. But after I’ve made lots of the damn things, I get go bored with them that the creativity comes back, out of self-defense.”*

On the other end of the continuum, there was one artist that said that he does not really enjoy working, but that he takes satisfaction from the work once the piece is finished. However, this attitude was quite unusual, and he said in another area of the survey that he feels *“burned out;”* thus, it may be that no longer finding pleasure in his work is an artifact of this generalized feeling. Another artist, however, had a perspective that may more fully reflect aspects of working when the piece is not enjoyable: *“Pieces that ‘turn out better’ may just be ‘pieces I enjoy more.’”*

I observed an enormous number of exclamation points (!) to the last open-ended question of the AWBQ (“Do you enjoy working?”) (Category 5; Table 1). Over half of the artists directly responded *“I love working!”* while

many others had very similar variants of this statement. One artist's statement seems to accurately capture the feelings of many artists:

....greatest blessing in my life is to have a skill that I can do and make a living at which I really really like to do. If it all fell apart tomorrow and I had to spend the rest of my life digging ditches, I could console myself that I at least had a few years of paradise.

Other particularly salient comments about work were "*better than sex*," "*it's a perfect balance*," "*immersion in the sweet spot*," and "*it's deeply exhilarating and profoundly peaceful all at the same time*." Many artists spoke of what could be viewed as the inseparability of themselves and their work: "*...my work is me and I am compelled*," and "*Work is an addiction*." Almost all of the comments in this category centered on the relationship between themselves and the work, but several artists did mention the joy they get from their work being enjoyed by others. Again, the number of exclamation points in response to the question "Do you enjoy working" was somewhat overwhelming. It appears that this group of individuals does, indeed, follow some kind of muse that ties them inextricably to their work, a muse that many of us have yet to find. Although, undoubtedly, some people in other professions would respond to this interview question with similar enthusiasm, I am unable to remember the last time I heard someone describe their work with words such as "*It is exhilarating!*" or "*It's the ultimate experience in life!*"

For most of these artists, their work as artists is preferable to other work, even other activities, in which they could be engaged. Several artists made comments similar to this one: "*If you love what you do you'll never have to go to work a day in your life – I haven't worked in years!*" Many

artists also talked about their involvement in the community, and in community projects. Without exception, this involvement centered, in some way, on art. One woman paints and donates paintings (for subsequent sales) to a South American relief agency, and several artists donate their time and services by teaching art to segments of the population (disabled adults, autistic children, schools without art programs) who are unable to get this instruction otherwise. Perhaps this statement from one woman sums up the view of these artists: *“An extreme punishment for me would be a sentence of lunches with non-creative women and endless rounds of bridge parties.”*

As mentioned above, artists distinguish between work they enjoy producing and work they do not enjoy producing. This seems to be especially true when they talk about commission pieces (Category 11; Table 1). There was not a single artist who talked about the “joys” of commissions in ways similar to talking about the joy of working in general. As with several of the other categories, many artists use a variety of strategies to deal with commissions (although a few artists refuse to accept commission work because of what they see as the attendant problems). It seems the most commonly cited feeling about accepting commissions is one of regret. They mention disliking the feeling they have had to compromise, as well as expressing the sentiment that *“trying to do what customers want is a pain.”* Additionally, many artists feel like work produced under these circumstances is second rate. There are actually two aspects of this feeling, however. One aspect is that the artist simply feels that he or she cannot do their best work under “must produce” circumstances. The other aspect is a feeling that they have had to compromise certain techniques or work standards in order to please the customer. One artist, for example, was commissioned to do a large painting for a *“very prominent woman in town.”* The artist related that she

was unable to make the client understand some basic principles of light and shadow, and that the painting the client wanted her to produce would be technically wrong with regard to these aspects. The artist was not only unhappy about what she saw as compromising her own standards, but also unhappy because the client had numerous visitors in her home, and many people would see the “mistakes” in the painting. When I asked her how she ended up coping with the situation, she said “*Visualizing the check helped me finish – as well as visualizing myself hurling the canvas across Lake Austin!*” (And, as an aside, the client loved the painting.) In fact, many artists mentioned versions of “I envision the check” and “I fantasize about destroying the piece” when relating their techniques for managing motivations when confronted with unwanted or undesirable commissions.

When having to deal with commissions, more artists mentioned strategies falling into the motivation category, as above, than strategies falling into any other category. In addition to monetary rewards, one artist mentioned that she will not let herself have chocolate until the commission is finished, another said that she does “*lots of fun stuff*” the day before she works on the commission. Artists do, however, use a few behavioral strategies, most commonly mentioned was working straight through on the commissioned piece until it is finished. Additionally, some artists manage their cognitions to meet the goal by reminding themselves of how happy the client will be with the work (“*I think about how happy the client will be*”), and by reminding themselves of the commitment they have made to the client (“*I always follow through on my commitments*”).

Artists, as a group, do appear to be highly self-motivated with regard to their work (Category 7; Table 1). Many mentioned variations of personal fulfillment (both internal and external) as motivations to work. For example,

many artists mentioned that working provides them with a sense of worth, pride, and satisfaction. Again, there is an inextricable linking between themselves and the work: *“I create, therefore I am,” “my work is me and when it is good I am good,” “I was born an artist,”* and *“[work] is the essence of my soul.”* Obviously, these artists also produce art as a way to make a living, yet they also seem to be able to find motivational fulfillment in this aspect: *“I enjoy the piece being used and appreciated,”* and *“I get enjoyment from the enjoyment others will feel.”* Several artists even mentioned that it is not the sales, per se, that provides this type of external satisfaction: *“I love it when people come into my booth and pick up my work. It doesn’t matter that they don’t buy anything – it’s enough that they like it enough to take a close look at it.”*

Additional Qualitative Results

There were several interesting aspects of the artistic life that were not initially addressed as research questions, but which permeated enough of the artists’ interviews to be considered for additional analysis. One thing that really seems to sustain artists is what they perceive to be their connection with the outside world (Category 9; Table 1). These connections range from the relatively mundane to the relatively divine. Many artists, for example, mentioned the interpersonal connections work provides, seeing a connection between themselves and the people who buy their work. One potter, for example, said this: *“I enjoy hearing people tell me they think of me every time they use my bowl or mug. I find satisfaction in producing by hand useful, beautiful work.”*

Artists also seem to derive personal growth from their work and its relation to the world, reporting that they are able to learn and to grow through the observation of the world that their art provides. Still other artists

mentioned that their work provides them with a global perspective, and noted that art crosses social, economic, and geographic boundaries. Also mentioned was that work as an artist provides them with a historical connection to all the other artists (both unknown and famous) who have come before. Finally, many artists mentioned their connection to the world through art from a somewhat divine perspective. Several mentioned that they feel obligated to bring forth beauty to the world, not only because they can, but also because they are motivated to do so (*“I also look upon it [work] as a spiritual obligation to bring forth beauty into reality to share with the world. It is my gift to give”*). Others feel that their art is the ultimate connection to the world: *“It’s what the world will remember you for.”* One artist talked quite poignantly about his place in the world, saying that his obligation as an artist was *“to complete as many circles as possible in my lifetime.”* He clarified this statement by saying that being as he has the ability to be an artist, not using that artistic ability would leave a circle incomplete, thus perhaps leaving other circles incomplete as well.

Many artists spoke of the spiritual or the divine in relation to their work as artists (Category 10; Table 1). Probably the overarching theme here is that this group perceives they have been given a special gift, and not using the gift would be immoral in some sense. This divine perspective ranged from traditionally Western (*“I begin each [work] session with a prayer to God to remove distractions and temptations”*) to the traditionally Eastern (*“I study Buddhism to find a connection to the world”*). Several mentioned the use of meditation to accomplish aspects associated with their work such as *“I meditate to achieve peace”* or *“I meditate to ask for guidance to find new images.”* Still other artists have a non-traditional view of spirituality which, none-the-less, guides them in their work. One woman related how she had

never had any artistic talent most of her adult life, in spite of taking a variety of drawing and other art classes. She says, *“I didn’t have it, didn’t feel it, was frustrated by obvious lack of ability in that arena.”* Read the rest of her story:

Believe this if you will or not...my initial ability to draw came to me 6 months after the death of my mother, who had studied at the best art schools in the country as a girl. It was as if my talent sprang forth out of me like Athena from the head of Zeus! She and I were extremely close, and I consider it to be her final gift to me. I was attending college at night at that time going for a degree in literature, and decided to take a beginning drawing class to see if my perceptions about my new talent were correct. They were. My instructor and the rest of the class... were amazed.

Although I cannot, of course, reveal this woman’s identity, her renderings are some of the finest I have ever seen. Her work has been collected by Christopher Forbes and Bo Derek, and hangs in the Southwestern Bell Corporate offices and at the Fremont Center for the Arts.

The final category for inclusion in this document relates to what Csikszentmihalyi (1991) terms “flow” (Category 6; Table 1). Flow is most easily defined by its characteristics: absolute absorption in an activity, feeling strong and in control of the activity, senses of time and place disappear, senses related to self disappear or are obliterated, and the activity itself feels effortless and totally pleasurable. Csikszentmihalyi argues that the experience of flow is the experience of true happiness, and posits that flow, or rather the ability to experience flow, can be learned, typically through engaging in activities that are neither too difficult nor too easy for our current ability level. It appears from the interviews that artists, as a group, are particularly adept at experiencing the flow state. It may be that they have a particular ability to

push themselves just far enough without pushing themselves too far, or, somewhat inversely, that they generally consider aspects of their chosen career path to be so pleasurable that flow is the typical result. Or, it may be neither of these, but instead that flow is a state totally congruent and harmonious with the creative enterprise. Regardless, artists reported many flow-related experiences. In relation to time, artists said “*Time falls away, flies by,*” “*Time stands still,*” and “*Hours go by in minutes.*” Humorously, perhaps, three artists mentioned variations on this specific theme: “*I never missed a meal until I took up painting.*” In relation to place, artists reported “*I lose total track of the environment,*” and “*Nothing else exists.*” And, effort is made effortless: “*I don’t want to quit, and when I do, I can’t wait to get back;*” and “*I’m not thinking about painting, I am painting.*” Several artists used divine or sublime terminology to define this experience: “*It is a Zen state of mind,*” “*The work is a meditation, a mantra,*” and “*It paints itself – the hand is disengaged from holding the brush.*”

Discussion

Artists do appear to use a number of self-regulatory strategies, and they use those strategies in a variety of situations. Artists use self-regulatory strategies when the work is going well to protect that work; they use self-regulatory strategies when the work is not going well, to attempt to get back on track. They use self-regulatory strategies to prompt themselves to work, and one or two who reported 20-hour workdays should perhaps use different types of self-regulatory strategies geared towards stopping work. Several artists use one or two different types of self-regulatory strategies regularly, and with apparent success, but do not use other types of strategies at all. It appears that this may happen for one or two reasons: 1) some artists may have a limited repertoire of strategies, being quite adept at behavioral strategies, for

example, but not adept at cognitive strategies; and 2) some artists feel that, in some situations, strategy use in some categories (such as emotion regulation) is inappropriate.

One oft-held view of artists is that they are pursuing a muse that calls them seductively, yet strictly, to their vocation. In this view, their *life* may be difficult, but the difficulties in life are more than compensated for by the joy in their *art*. Even if the secular world admits that there may be unpleasant aspects of the artistic life, aspects of that unpleasantness are often glorified (Irving Wallace's *The Agony and the Ecstasy* comes to mind). Although this study suggests that many, if not most, artists do follow some kind of muse, this study also makes it apparent that they wrestle with that muse at times. Indeed, rather than being a unique population, they may be quite ordinary, simply following a *different* muse than others have chosen. However, artists seemed to make little distinction between "life" and "work," many, in fact, stating that life and work are one and the same for them. It is possible, although it seems unlikely, that other working populations hold this view. The lyrics from a popular song from a few years ago seem to summarize the difference between work and life for most of us: "*everybody's working, working for the weekend.*"

Artists, like most of us, have tasks they enjoy and tasks they do not enjoy. And, also like most of us, less enjoyable tasks require greater self-regulatory efforts. Although entirely speculative, one self-regulatory difference between artists and the "rest of us" may be that artists seem to require fewer self-regulatory efforts when the task is especially difficult. To the contrary, artists reported much more frequently that it was the *boring* tasks that were especially difficult for them, that these were the tasks that required the greatest self-regulatory efforts.

Results and Discussion Quantitative Analyses

This section has several components. First, the reliability analyses from the three quantitative instruments are discussed, followed by a discussion of the results from the five proposed hypotheses. This discussion is followed by a summary of the descriptive statistics and a discussion of these statistics with regard to the population under investigation, as well as with regard to a student population. Finally, there is a brief discussion of exploratory analyses revealing additional statistically significant results from the quantitative instruments that were not investigated as hypotheses. Although this organization is somewhat unusual, it is important that the results of the reliability analysis of the AWBQ are discussed before moving to other discussions involving that instrument.

Reliability Analyses

Reliability Analysis, Action Control Scale. Coefficient alpha (calculated with Cronbach's alpha) for the entire scale was .74, which fell within the expected range (.70 to .81). Reliability for the Preoccupation and Hesitation Subscales was also good (alphas .81 and .77, respectively), although alpha for the Performance-Volatility Subscale was somewhat below what was expected (.59).

Results suggest that this scale, despite the small sample size, is fairly reliable. However, the low alpha for the Performance-Volatility Subscale, a purported measure of an individual's ability to stay on task, is somewhat surprising. One possible explanation for the poor performance of this subscale may be that the items on this subscale are inappropriate for measuring the corresponding construct in this group of participants. Interestingly, two of the

items on the Performance-Volatility Subscale have to do with playing games (“When I have learned a new and interesting game: 1) I quickly get tired of it and do something else; 2) I quickly get into it for a long time” and “When it turns out that I am much better at a game than the other players: 1) I usually feel like doing something else; 2) I really like to keep playing”). Eight (8) participants made comments on one or both of these items that they never play games. Thus, again, it may be that some items on the ACS-90 are inappropriate for this group of participants. There is also the possibility, of course, that the low reliability of this subscale is an artifact of the small sample size.

Reliability Analysis, Negative Mood Regulation Scale. Coefficient alpha for the entire scale, as well as for the each subscale, was quite high (entire scale = .91, within the expected range of .86 to .92; general emotion regulation subscale, alpha = .90; cognitive-emotion regulation subscale, alpha = .77; and behavior-emotion regulation subscale, alpha = .69, all measured with Cronbach’s alpha).

Reliability Analysis, Artists’ Work Behavior Questionnaire. Coefficient alpha for the entire scale was moderate (alpha = .77). However, alphas for the subscales were much lower than desired: Behavior, .58; Cognition, .55; Emotion, .58; and Motivation, .19. An investigation of the items on both the total scale and the subscales individually revealed that there were four items with negative item total correlations; three of these items are from the Motivation Subscale, and one is from the Emotion Subscale. Dropping these items and recalculating the alphas resulted in a small increase in reliability for the entire scale (alpha = .81) and for the Emotion Subscale (alpha = .63). More importantly, however, the reliability for the Motivation Subscale is substantially increased (alpha = .46). Although this alpha is still

low, the result suggests that efforts to improve the items may result in higher alphas in subsequent testing. These items are presented in Table 2.

There is some theoretical basis for dropping these items, given the comments of the participants noted on the scale itself as well as in their qualitative narrative. Several artists, for example, made comments directly on the questionnaire in the vein of “it depends what people” when responding to item #29. In their narratives, many artists commented that the feedback from friends, family, and patrons is psychologically sustaining to them, that is, they often derive as much satisfaction from others’ enjoyment of their work as they do from the work itself. Additionally, many artists made comments in their narratives that art is, bottom line, a business, and that selling their products is what allows them to continue to produce the art. I must consider that my own biases about the production and sale of art contributed to the weaknesses of these two particular questions. Additionally, artists’ comments (in their narratives) revealed possible problems with item #24. Artists do not, it seems, always try to ignore their feelings, especially when it comes to producing commission pieces they dislike. Many artists complained in their narratives about having to do these pieces, which is not at all the same thing as ignoring feelings. One artist, for example, called distasteful commission pieces “damthings,” and, the day she designates to work on commission work the “Day of Evil.” Thus, it seems that just the opposite of “ignoring feelings” is true: the feelings associated with commissioned pieces seem to be especially strong. Artists may have incorporated these feelings when responding to this item.

Table 2: AWBQ Items with Low or Negative Total Item Correlations

Item	Mean	SD	Corrected Item Total Correlations
24. I dislike having to do a commission (or promised) piece when I'm not excited about the piece, but I try to ignore my feelings.	5.30	1.83	-.1514
28. It is important to me to master a technique before trying a new technique.	3.13	1.91	.0002
29. I don't try to produce what I think other people will like.	4.40	1.92	-.0445
35. The most important thing for me is that my work sells well.	3.70	1.88	-.2611

The apparent poor reliability of the subscales of the AWBQ makes it difficult to draw firm conclusions about analyses relying upon these subscales. Therefore, the following results, including the discussion of the hypotheses related to the AWBQ, are tentative. To make the ensuing discussion as valid as possible, therefore, results from the adapted scale (i.e., dropping the items presented in Table 2) are used.

Hypotheses: Results and Discussion

Hypothesis No. 1

It is predicted that the total score (as an indication of action-orientation) on the Action Control Scale will correlate significantly with the total score on Part 1 (closed-ended items) of the Artists' Work Behaviors Questionnaire.

Results

This hypothesis was supported ($r = .43, p < .001$) as was expected given existing literature in self-regulatory abilities and character traits. Although the ACS-90 was primarily developed for and tested on a student population, as opposed to the AWBQ, which was developed for an artist population, several researchers have demonstrated that self-regulatory characteristics are displayed across a variety of populations, including scientists and mathematicians (Radford & Burton, 1974; Sternberg & Lubart, 1991). Additionally, although not investigated in the literature review, it is reasonable to assume self-employed individuals might display more characteristics of action control, especially as categorized by Kuhl. For example, individuals who have difficulty initiating actions (measured by the Hesitation Subscale) and difficulty staying on task (measured by the Performance-Volatility Subscale) are unlikely to be successful in endeavors in which their own efforts determine the success or failure of the enterprise. Also recall Bloom's (1963) research, in which he matched productive with unproductive chemists (as defined by number of publications). These groups were matched for several factors, including IQ. One explanation for the productive group's success was that they were able to exploit available resources, which may have included self-regulatory strategy use.

Additionally, several items on the ACS-90 and the AWBQ formulate specific problems to which (self-regulatory) solutions are required for the ideal response. For example, one item on the ACS-90 reads "When I have to solve a difficult problem: I usually don't have a problem starting on it (action-oriented response); When I have to solve a difficult problem: I have trouble sorting out things in my head so that I can get down to working on the problem (state-oriented response). Several researchers suggest that a

substantial part of the creative enterprise is the ability to solve and reformulate problems until a satisfactory solution is found (Csikszentmihalyi, 1988; Schiefele, 1991), and artists, as a group, may be particularly adept at employing self-regulatory strategies in the resolution of problems. However, neither of these subscales (i.e., the Behavior Subscale of the AWBQ and the Performance-Volatility Subscale of the ACS-90) had sufficient reliability coefficients ($r = .58$ and $r = .59$, respectively); therefore, interpretation of the data is somewhat speculative.

Hypothesis #2

It is predicted that there will be a significant correlation between the action-orientation endorsement of the Performance-Volatility Subscale of the Action Control Scale and the Behavior Subscale of the Artists' Work Behaviors Questionnaire.

Results

This hypothesis was not supported by the data ($r = .08$, $p > .10$). Although the concepts of *staying on task* and *persistence in initiated activities* seem conceptually related, there may be subtle but important differences between the two concepts. Alternately, or perhaps additionally, it may be that items on the ACS-90 Performance-Volatility Subscale and items on the Behavior Subscale of the AWBQ are worded such that the two concepts remain distinct. For example, one item on the Behavior Subscale of the AWBQ reads "Even if I'm working on something I don't especially like, I stick with it until I'm finished." Contrast this with a Performance-Volatility item from the ACS-90: "When I'm busy working on an interesting project: a) I need to take frequent breaks and work on other projects" (state-oriented response); b) I can keep working on the same project for a long time" (action-oriented response). Even though the underlying construct, that of regulating

behavior until a goal is met, is the same, the inter-item correlations between the ACS-90 item and AWBQ item are non-significant ($r = .15, p > .10$). Thus, although the underlying self-regulatory construct might be labeled *persistence*, the distinction between desirable and undesirable projects may be enough to skew responses. Additionally, it has been suggested that it may be the strength of the commitment to an action that determines whether or not self-regulatory strategies protecting that action are invoked (Kuhl, 1985b). It may be that items on either or both of these subscales failed to impart the sense of subjective urgency necessary to facilitate the appropriate commitment to the hypothetical goal.

Baumeister, Heatherton, and Tice (1994) also make the distinction between passively initiated and actively initiated situations; actively initiated situations require that an individual engage in an action in some way, while passively initiated situations are more likely to require simply that an on-going action be fostered. Differences in passive and active items on the ACS-90 and the AWBQ need to be investigated more fully.

It may also be that “staying on task” means different things to different subgroups of individuals. Recall that the ACS-90 was developed using students as a sample. Although Kuhl does not state specifically that the scale is intended as a measure of student action-orientation, many of the items are worded in such a way that it appears the intended audience is, in fact, students. It may be that students, for example, view each task or project as a single isolated entity, whereas artists may view each task or project as a culmination of previous tasks and projects, as well as a contribution to future tasks and projects.

It is possible that items on the AWBQ are more reflective of isolated incidents of behavior rather than ongoing incidents of behavior. For example,

one Behavior Subscale item on the AWBQ reads: “I set and stick to clearly defined work goals,” another item reads: “I don’t let other activities intrude upon my work time.” Contrast these items with an item from the Performance-Volatility Subscale of the ACS-90: “When I read an article in the newspaper that interests me: 1) I usually remain so interested in the article that I read the entire article” (action-oriented response); b) I still often skip to another article before I’ve finished the first one” (state-oriented response). Finally, recall that the reliability coefficient for the Behavior Subscale of the AWBQ was .58, and that the reliability coefficient for the Performance-Volatility Subscale was also quite low (.59). It thus may be that items on either or both of these subscales simply did not perform well enough to detect similarities and differences between the two subscales.

Hypothesis #3

It is predicted that there will be a significant correlation between scores on the Negative Mood Regulation Scale and scores on the Emotion Subscale of the Artists’ Work Behaviors Questionnaire.

Results

The results of correlational analysis between the NMR scale and Emotion Subscale of the AWBQ support this hypothesis ($r = .52, p < .001$). Catanzaro and Mearns (1990) define their construct as “the expectancy that some behavior or cognition will alleviate a negative mood state,” and developed this scale as a measure of the coping processes involved in negative mood regulation. Although the Emotion Subscale of the AWBQ was designed to investigate the use of emotional strategies specifically in relation to the protection or attainment of a goal, it makes theoretical sense that coping strategies used to alleviate a negative mood are the same regardless of whether or not there is a goal to pursue. Furthermore, Catanzaro and Mearns (1990)

report that their scale “measures a variable influencing a person’s secondary appraisal of one’s coping resources when emotion-focused coping is possible or required.” This is consistent with Kuhl and Goschke’s (1994) suggestion that emotional coping mediates between internal states and external events. Additionally, it may be that this group of individuals is simply quite practiced in the engagement of strategies related to the regulation of affect. Cognitive rehearsal may be an important mediator in the regulation of emotional events (Ajzen 1985, Orbell, Hodgkins, & Sheeran, 1997) and the result may be habit formation in relation to affect regulation that crosses situations and events. This type of habit formation may be reflected in these participants’ answers to emotion coping items on the ACS-90 and AWBQ. Although the reliability coefficient for the Emotion Subscale was quite low (.63), it may be that the scale successfully measures at least some aspects of emotion regulation.

Hypothesis #4

It is predicted there will be a significant correlation between action-orientation items endorsed on the Preoccupation Subscale of the ACS-90 and the Cognitive Subscale of the AWBQ.

Results

The use of cognitive and metacognitive strategies to control ongoing behavior is well documented (Corno, 1986; Kuhl, 1985b, Zimmerman, 1998), lending conceptual support to the confirmation of this hypothesis ($r = .52, p < .001$). Endorsement of action-oriented items on the Preoccupation Subscale of the ACS-90 is indicative of an individual’s ability to manipulate or control cognitions. For example, one item reads: “If I have to talk to someone about something important and, repeatedly, can’t find him or her at home: 1) I can’t stop thinking about it, even while I’m doing something else” (state-oriented response); 2) I easily forget about it until I can see the person again” (action-

oriented response). Thus, the difference between action- and state-orientation is not that the problem is alleviated or resolved, but that the action-oriented individual may be able to find a way to compartmentalize the problem so that other on-going, goal-related actions can be completed. Additionally, recall that Zimmerman (1989) suggests self-regulated students may be able to use self-instruction and self-imagery when it is necessary to focus on performance. This is reflective of an item on the Cognition Subscale of the AWBQ: “If I think I might have trouble with a piece, I visualize the steps I need to take in my mind.” Individuals who are able to maintain focus on proximal and/or important distal subgoals while ignoring competing difficulties and attractive options would be likely to endorse these subscale (i.e., the above-noted Preoccupation and Cognition Subscales) items. As Baumeister, Heatherton, and Tice (1994) argue, self-regulated individuals are able to banish or reformulate thoughts incongruent with the goal at hand.

Hypothesis #5.

It is predicted that items on the AWBQ will form four categories of self-regulatory strategies related to the subscales of cognition/metacognition, behavior, motivation, and affect regulation when subjected to factor analytic techniques.

Results

Several underlying assumptions of factor analysis suggest that this analysis not be performed on the current data set. First, and probably most importantly, the technique requires a ratio of five times the number of observations to the number of variables to meet the requirements of reliability (Grimm & Yarnold, 1998); other researchers suggest a ratio of 20-to-1 (Koch, personal communication). Furthermore, it is recommended that factor analysis not proceed (even if the 5-to-1 ratio is met) unless there is a minimum of 100

observations in the data set (Grimm & Yarnold, 1998). The current study, with 76 participants and 44 variables, did not meet either of the minimum requirements.

However, because this study is largely an exploratory investigation of the self-regulatory strategies engaged by a specific population, I made the decision to continue with factor analytic techniques (using principal axis analysis) to see if any underlying structures might emerge from the existing data, even though these would have to be regarded as essentially unreliable. Structure emerged in terms of a one-factor solution; again however, this result may be a statistical artifact of the inappropriate sample-to-variable ratio. Additionally, a scree test (although violating the suggestion for at least 250 variables, but not violating the suggestion of communalities equal to at least .60 (Grimm & Yarnold, 1998)) also suggested a structure of only a single factor. Variables were then examined for correlations between each other (within the originally anticipated subscale) and between items in other subscales, as well as for conceptual adequacy. Based upon this investigation, five items from each subscale were retained for analysis. Because the total number of variables was thus reduced to 20 (5 items for each of 4 subscales), the 5-to-1 ratio was closer to being met. Again, however, the hypothesized 4-factor structure failed to emerge. The only potentially interesting finding was that four of the five emotion items loaded highly on a single factor. Taken in isolation, however, this result is uninterpretable. (Results of factor analysis presented in Appendix

Additional Results

Descriptive Statistics. Means and standard deviations for each total scale and each subscale of the ACS-90, the NMR, and the AWBQ are in Table 3 below. The ACS-90 is a forced-choice instrument; state-oriented responses

were coded as “0;” action-oriented responses were coded as “1.” For ease in interpretability, Table 3 below lists the average scores for the scale and each of its subscales. Kuhl does not provide either a firm suggestion for analyzing the data nor normative information that can be used in data interpretation. However, Kuhl (1985b, 1994) does specifically suggest, “the scores...are computed by summing up all action-oriented responses for the scale.” An average is then obtained. Participants endorsing more action-oriented items on the scale, thus having a higher scale average, are, in Kuhl’s theory and terminology, “action-oriented.” The NMR is scored on a 7-point Likert type scale. Catanzaro and Mearns (1990) do not provide information for score interpretation, indicating only that “high score = high expectancy,” or, in simpler terms, the higher the score on the NMR, the more likely it is that the individual will be able to experience general mood regulation. The NMR scores in Table 2 below are averages of the total scale and the subscales for the current sample. Finally, the AWBQ is also scored on a 7-point Likert-type scale, and the total score and subscores below are noted as averages.

Table 3: Means and Standard Deviations of Scales and Subscales

	Mean	SD
<u>AWBQ</u>		
Total	5.27	.50
Cognition	5.29	.75
Behavior	5.37	.69
Emotion	5.03	.66
Motivation	5.06	.57
<u>NMR</u>		
Total	5.35	.92
Cognitive	5.23	.99
Behavioral	5.12	.93
General	5.72	1.14
<u>ACS-90</u>		
Total	.69	.14
Hesitation	.72	.22
Performance-Volatility	.72	.23
Preoccupation	.68	.26

Taken in isolation, these means provide little information. And, although this study was not intended as a comparative analysis, there is limited information available about student populations with regard to the means on the NMR and ACS-90, which does serve to enrich the interpretability of the means from this study. McCann (1999) found that undergraduates ($n = 247$) scored substantially lower on the ACS-90 and its subscales (using the same coding scheme, i.e., state-oriented responses = 0; action-oriented responses = 1) than the current sample. Means and standard

deviations for the McCann sample are as follows: total scale, $M = .44$, $SD = .16$; Preoccupation Subscale, $M = .56$, $SD = .24$; Hesitation Subscale, $M = .49$, $SD = .25$, and Performance-Volatility Subscale, $M = .28$, $SD = .20$. Additionally, this student sample scored substantially lower on the NMR ($M = 4.91$, $SD = 1.16$) than the current sample. It thus appears that the current sample is quite adept at utilizing general, as well as emotional, self-regulatory strategies.

Exploratory Analyses

Although not proposed or investigated as hypotheses, several other interesting findings emerged from the data.

There was a statistically significant correlation between the Preoccupation Subscale of the ACS-90 and the Emotion Subscale of the AWBQ ($r = .51$, $p < .001$). The Preoccupation Subscale of the ACS-90 measures the tendency of intrusive thoughts to impair the initiation of a change in behavior, and the Emotion Subscale of the AWBQ measures an individual's ability to regulate moods with respect to their work. As effective regulation of mood often incorporates overcoming intrusive thoughts (Baumeister, Heatherton, & Tice, 1994), it seems theoretically feasible that this relationship was found. See Table 2 for means and standard deviations of the subscales; see Appendix D for correlation matrix.

Statistically significant correlations were also found between the ACS-90 Hesitation Subscale and the AWBQ Cognition Subscale ($r = .38$, $p < .001$) and the between the ACS-90 Hesitation Subscale and the AWBQ Behavior Subscale ($r = .40$, $p < .001$). Recall that the Hesitation Subscale is designed to measure on individual's tendency to encounter difficulties in initiating actions. In the current study, participants' scores on the Hesitation Subscale suggest that these participants are action-oriented with regard to this characteristic

(i.e., they do not have difficulties initiating actions) ($M = .72$; $SD = .22$). The Cognition Subscale of the AWBQ measures an individual's ability to manage thoughts in a manner conducive to staying on task, and the Behavior Subscale of the AWBQ was designed to measure an individual's ability to engage in or control a task. Thus, these findings tentatively suggest that strategies related to the successful management of cognitions and behaviors protect against potential difficulties in task initiation. (For a complete correlation matrix on all scales and subscales, see Appendix D.)

Results and Discussion Mixed Methods Analysis

Introduction

Tashakkori and Teddlie (1998) propose several types of alternate analytical strategies that can be used as general templates for research studies utilizing a mixed methodology. Typically, a mixed methods study collects data from both quantitative and qualitative sources. The analyses resulting from these two sources should work together, each contributing to the other. One way of searching for these contributions is to utilize what Tashakkori and Teddlie (1998) refer to as *concurrent* analysis of the data. In this form of analysis, the quantitative data is transformed, or *qualitized*, to narrative themes; the qualitative data is *quantitized*, or transformed into a numerical form, such as frequency counts of certain themes or events reported by the participants.

In the current study, the qualitization of data occurred through the use of profiles. These profiles can take many forms, for example, a modal profile may be developed that centers on the most frequently occurring characteristic

of the sample (i.e., sex, age); another possible profile category is a normative profile, in which the sample of interest is compared with a standardized sample. Furthermore, several profiles may be combined to provide a more thorough depiction of the data under scrutiny (Tashakkori & Teddlie, 1998). For the current study, I employed a combination of *average profile* and a *comparative profile*. An average profile is a narrative based on the average (i.e., mean) results of the attributes of individuals, and a comparative profile is a narrative emphasizing similarities and differences between groups of individuals (Tashakkori & Teddlie, 1998). Information for both the average and comparative profiles was derived from calculating descriptive statistics on the sample, as well as from biographical and demographical information gathered from the participants.

The method of quantization in the current study was accomplished by examining the underlying constructs of the scales and subscales of the quantitative instruments used in the study. These scales and subscales were then collapsed and recombined to form theoretical groupings of the construct of interest. For example, the NMR and the Emotion Subscale of the AWBQ represent the underlying construct of affect management, thus these two scales are combined for discussion. Statements made by participants in the interviews were then tallied with regard to the theoretical grouping, and compared with the means on the scales and subscales of the quantitative instruments. (Complete details about how the subscales were collapsed and recombined are included below.)

The hypotheses formed prior to data collection are reviewed below, but a discussion of the results of the hypotheses is delayed until the quantization discussion section.

Hypothesis #1

It is predicted that individuals who endorse items on the Negative Mood Regulation Scale (NMR) (Catanzaro & Mearns, 1990) associated with the effective regulation of affect will also use self-regulatory skills, abilities, and strategies related to the regulation of affect during the analysis of the qualitative data portion of the Artists' Work Behaviors Questionnaire.

Hypothesis #2

It is predicted that individuals who endorse items on each of the subscales of the AWBQ (Behavior, Motivation, Emotion, Cognition) will also use of related strategies in the qualitative data portion of the AWBQ.

Data Analysis

Data Qualitization. The qualitization process began with the quantitative analyses (for means and standard deviations of the scales and subscales, see Table 2). During the initial analysis, a portrait of the participants emerged. It can be surmised from the quantitative data, for example, that this group tends towards action-orientation (ACS-90: $M = .69$, $SD = .14$), that they effectively utilize strategies in the regulation of emotions (NMR: $M = 5.35$; $SD = .92$), and that they tend to engage in general self-regulatory strategies related to their work (AWBQ: $M = 5.27$; $SD = .50$). Furthermore, there is an objective snapshot of the participants. Sixty percent are women, and of that 60%, 30 (65%) have completed education beyond the high school level. Approximately 76% (22) of the men have completed an education beyond high school. Additionally, although many methods of obtaining an art education were noted, 86% (65) of the artists reported that at least some of their training came from self-instruction. Fifty-one of the artists (67%) make their primary living from selling their art, although 21% (16)

have an outside job at which they work an average of 25 hours per week. They spend an average of 46 hours per week at their art or craft, and most (63%) work primarily from a room at their primary residence that has been designated exclusively for their work. The majority of the artists (88%) reported that they most frequently sell their work at public shows. Finally, only 12% (9) of the artists surveyed have never won an award for their work; 33% have won more than 20 awards for their work. (For complete biographical information, see Appendix E).

Average profile. This appears to be a hard-working group of individuals dedicated to their chosen profession. Although many of them work close to what is considered a standard work week (i.e., a 40-hour week) approximately 10% of them mentioned in the interviews that they consider their lifestyle to be a perk of the job. Their perception of a desired lifestyle is generally one that permits them to arrange their work schedules around the demands of their families and other obligations, not one that permits unlimited time off from work. As mentioned, 48% (34) of the respondents indicated that they had completed a college degree. The 1999 national average for the completion of a college degree was 32%, with a 1990 completion rate of 27% (U.S. Department of Commerce, Bureau of the Census). As the obtainment of a college degree is, in large part, a matter of appropriately applied self-regulatory strategies, the fact that this group was 16% above the national average seems to support the conclusion drawn from the instruments, that these individuals are, as a group, highly self-regulated. The large number of participants reporting that they are self-trained also seems to indicate a high degree of self-regulation, as learning by this method is often trial-and-error, a method that can be very frustrating, generally requiring a high degree of persistence.

Comparative Profile. Some of the information for a comparative profile comes from the biographical information provided by the participants. While there are a number of similarities between the participants, such as those noted above, there are also some differences. One difference between the groups is a difference based on sex with regards to making a living with their art or craft. For example, 72% of the males and 64% of the females report that they earn their primary living from their vocation; 23% of the females and 17% of the men hold outside jobs. However, females spend approximately 10 hours per week more in that outside job (29.55 weekly hours) than males (19.6 weekly hours). Thus, not only do a higher percentage of females have outside jobs, they also work more hours at that outside job. (Males, however, reported that they work more hours on their vocation (49.03 weekly hours) than females (41.28 weekly hours)). Adding to this picture is information obtained from the qualitative data: approximately 6% of the females reported that they integrate family obligations (such as children, grandchildren and household chores) into their work schedule, while no males reported similar issues. While the number of variables involved in this combination of situations makes speculation difficult, it does appear that males may be more easily able to pursue an artistic lifestyle. It may be that women, as a group, are less comfortable with aspects of entrepreneurship or self-employment, or that they have a different orientation towards family and familial obligations than their male counterparts.

Data Quantitization. The first step in this process was to examine the instruments used in this study and develop theoretical themes that the instruments seemed to represent. The ACS-90 presented three themes, already designated by Kuhl (1994) in the design of the instrument: The Hesitation Subscale measures an individual's ability to effectively initiate tasks; the

Preoccupation Subscale measures the effect intrusive thoughts might have on initiating a change of behavior; and the Performance-Volatility Subscale examines an individual's ability to stay on task. Similarly, the NMR comes with several themes intact: *general* items measure the possibility that a negative mood can be alleviated, but do not examine the specific strategies used to alleviate mood; *cognitive* items tap thoughts and cognitions used as specific strategies for mood regulation; and *behavioral* items were designed to measure the tendency of an individual to engage in actions (either alone or with others) that might be useful in regulating moods. Finally, the AWBQ was designed with the general theme of tapping self-regulatory strategy use in the protection of a goal. The subscales were designed to measure four categories of specific strategies that might be used by individuals' to protect a goal: behavior, cognition/metacognition, emotion, and motivation. Although the subscales of the AWBQ demonstrated fairly low reliability, the decision was made to continue with the analysis described below for two reasons: first, although the reliability coefficients were low, three of the four subscales performed at a level approximately equal to one of the subscales of an established instrument (the Performance-Volatility Subscale of the ACS-90); second, the analysis below may contribute additional information which can be used to improve the subscales of the AWBQ in subsequent studies.

The subscales from the ACS-90, the NMR, and the AWBQ can be combined to represent theoretically congruent themes. Although the NMR was not designed as a measure of self-regulation, the themes it represents are similar to the Emotion Subscale of the AWBQ in that both were designed to measure an individual's predisposition towards effectively regulating moods. Therefore, the theme emerging from the Emotion Subscale of the AWBQ and the NMR is *Mood Adaptation*. The Behavior Subscale from the AWBQ and

the Performance-Volatility Subscale of the ACS-90 are similar in that they both measure an individual's tendency to actively engage in behaviors conducive to meeting goals; the Hesitation Subscale of the ACS-90 represents a similar theme. The difference between the Performance-Volatility Subscale and the Hesitation Subscale is that the individual is already engaged in an action and needs to stay on task to meet a goal in Performance-Volatility items, whereas specific actions have yet to be initiated in items on the Hesitation Subscale. In spite of this distinction, however, both scales measure behavioral tendencies engaged when it is necessary to perform a task or meet a goal. Therefore, the Behavior Subscale (AWBQ), the Performance-Volatility Subscale (ACS-90) and the Hesitation Subscale (ACS-90) can be collapsed to represent a theme that can be labeled *Behavioral Adaptation*. The Preoccupation Subscale from the ACS-90 is designed to measure the tendency of intrusive thoughts to impair initiation of a desired behavior; the Cognition Subscale of the AWBQ is designed to measure the roles that thoughts and cognitions have in protecting a desired behavior. Therefore, these two scales have been collapsed to represent the theoretical theme of *Cognitive Adaptation*. Finally, the Motivation Subscale on the AWBQ was designed to explore internal and external stimuli contributing to the attainment of a goal. Although this subscale does not have a counterpart on either the NMR or the ACS-90, and although this subscale performed especially poorly in a reliability analysis ($r = .46$) it has been retained as a theme because there was substantial evidence from the interview data that artists engage in a variety of motivational techniques to enhance completion of a goal. This theme has thus been labeled *Motivational Adaptation*.

Table 4: Theoretical Themes and Sample Items from Instruments and Their Subscales

Mood Adaptation

NMR:	(When I feel upset, I believe that) I can usually find a way to cheer myself up.
Emotion (AWBQ)	When I'm in a bad mood, and don't feel like working, it is relatively easy for me to cheer myself up enough to work.

Behavior Adaptation

P-V (ACS-90)	When I'm working on something that's important to me: a) I still like to do other things in between working on it; b) I get into it so much that I can work on it for a long time.
Hesitation (ACS-90)	When I am getting ready to tackle a difficult problem: a) It feels like I am facing a big mountain that I don't think I can climb; b) I look for a way that the problem can be approached in a suitable manner.
Behavior (AWBQ)	Even if I'm working on something I don't especially like, I stick with it until I'm finished.

Cognitive Adaptation

Preoccupation (ACS-90)	When I have lost something that is very valuable to me and I can't find it anywhere: a) I have a hard time concentrating on something else; b) I put it out of my mind after a little while.
Cognition (AWBQ)	While I am working, I don't think about other things I should be doing.

The second part of the quantization process was to examine the qualitative report data (i.e., interviews) from the artists to identify themes congruent with the theoretical themes designated from the instrument data. This process was somewhat different than the coding process used for qualitative analysis. For the quantization process, the data were examined in a more holistic manner. Thus, rather than line-by-line, or even word-by-word analysis, the data were typically examined in larger chunks than in the open coding process. Probably the primary difference, however, is that themes were established a priori, and then the data examined for similarities and dissimilarities with these themes. In traditional qualitative analysis, the researcher develops themes and categories *from* the data rather than designating themes and categories a priori. The quantization process used for this study also differs in another way from traditional qualitative analysis, in that themes not fitting the categories are ignored. For example, a category initially designated as *spirituality in working* was developed from the open coding process (several artists spoke, for example, of beginning their work with a prayer to God, or of meditating before beginning work). Unless an artist specifically mentioned the use of spiritual techniques or guidance in relation to one of the established themes, the comments are ignored. So, for example, one artist related “*I start each work session with a prayer to God,*” and elaborated that this prayer is to help remove temptations to his work. Another artist said, “*I pray while I work,*” but did not talk about this action within the context of managing his work behavior. Therefore the comment by the second artist was ignored, while the comment from the first artist was included in the *Behavior Adaptation* category. As an additional note, ignoring certain themes does not mean that evidence contrary to appropriate strategy use was ignored. In traditional qualitative analysis, the researcher examines

dimensions and properties of the categories, and that tradition was retained in the quantization process.

The final step in the quantization process was to examine the data for the designated themes, and to make frequency counts of number of occurrences of the themes. Counts were made according to the number of statements made regarding the theme. So, for, example, one artist said the following: *“In order to have a sufficient quantity to sell, I must keep to my schedule so the pressure of sufficient inventory is enough to get me to work. No pots, no dough. I want to have to have a variety of pieces for customers to view.”* Although this is a single reply made in response to a single question, it is counted as two *Motivation Adaptation* responses: 1) having sufficient inventory in order to promote sales/make money; and 2) desire to have a variety of pieces for customers to view. Although it could be argued that having a variety of pieces available is also conducive to sales, the underlying motivation seems to be slightly different. The following response, however, is counted as a single occurrence of *Behavior Adaptation* and a single occurrence of *Motivation Adaptation*: *“If I am working on a commission whether it is fun or not, I can usually get it done because I know I have to do it regardless of whether I want to or not. I will make myself finish. The compulsion of satisfying a client is sufficient enough motive for me to do my best and get the job done.”* The “I will make myself finish” is considered as an extension of the previous statement, whereas the next statement adds additional information on another dimension.

After these counts were made, the data were reexamined for properties and dimensions within the occurrences.

Quantitization Results

Table 5: Frequency Counts of Qualitative Statements by Category

Behavior Adaptation	121
Motivation Adaptation	60
Cognition Adaptation	32
Emotion Adaptation	44

Characteristics of Categories

Items in the Behavior Adaptation category tended to utilize action statements, for example, “*I have set up my work environment to allow for a lot of solitude,*” and “*Distractions are easy to contend with if things are prioritized.*” Of the number of statements in this category, the overwhelming majority (96%) related behavioral strategies specifically aimed at allowing the work to continue. Most artists related that external distractions are dealt with in an immediate manner so that return to work is imminent. Approximately 13% (16 statements) of the statements incorporated terms related to obligation, such as “*Commitments keep me working.*” And, several artists (four statements made by four different artists) related that, bottom line, art is a form of employment: “*This is my job, and I treat it as such.*”

Items in the *Motivation Adaptation* category relate a specific way or situation in which the artists report managing their motivation: “*Quite frankly, being self-employed literally means that if I don’t work, I don’t get paid so that is usually the biggest motivator,*” and “*I would think that I need to work, to make a product to sell. A show coming up is a good motivator.*” Motivation items tended lay along the lines of one of three different dimensions. One dimension was being motivated by specific events, such as the examples

above. Another dimension is a type of self-motivating dimension, in which the artists either express that the work itself is the primary motivator (“*Most of the times when I do a piece that I feel is very fine, it is because I don’t care if anyone else in the universe likes it or not – I am painting it for the pure joy of painting itself*”) or express that personal rewards are viewed as motivation (“*I can’t make any of the fun stuff or have any chocolate until the damthings are finished*”). And, as with most work, money was occasionally (four statements) mentioned as a specific motivator: “*I am greatly motivated by selling my beads and making money.*”

Cognition Adaptation was the smallest category. The most-often mentioned dimension of this category related to the management of cognitions when either the piece was not going well (sometimes technically, sometimes because the artist was not enjoying the piece): “*When I’m working on a piece I’m not crazy about, I focus my attention on the things I love about drawing;*” “*Some working...is simply boring. I put aside thoughts of how uninteresting a piece is and focus instead on getting it done so I can move on to more fun projects.*”

Although many artists seem to be able to successfully regulate emotions, they tended to mention difficulties more often in this category than in any other category (of the 44 statements made in the Affect Adaptation Category, eight statements related to *difficulty* in affect regulation). There were a number of dimensions in the *Emotion Adaptation* category. Many artists, for example, mentioned that it is the work itself they rely on to alleviate negative emotions: “*If I’m worrying about something I find that work always helps.*” Emotionality also becomes a component of the work: “*...it has to be somewhat acceptable to begin with or I rip it up and start again;*” “*I will not let a painting beat me!*” Artists also use emotional

regulation tactics when they are working on pieces they do not enjoy: *“I think about how good it would make me feel to complete the job and be satisfied with the final product.”* Some artists (three statements) are able to easily deal with negative moods (*“I usually talk myself out of feeling blue so this is not a problem”*) while others (two statements) have great difficulty in the arena: *“I get very little done at these times. I wallow in my depression.”* Three artists made statements that depression is a condition of being an artist, for example, *“I accept and embrace bouts of depression because it is part of being an artist.”*

Discussion, Quantitized Results

Recall that Hypothesis #1 predicted that individuals who endorsed items on the NMR would also evidence strategy use related to the regulation of affect during their interviews. There were 44 specific instances of strategy use reported by 41 of the 76 participants (46%); the mean for the NMR scale was 5.35 ($SD = .92$) and the mean for the Emotion Subscale of the AWBQ was 5.03 ($SD = .66$) (both scales were on a 7-point Likert type scale). Thus, it appears the hypothesis was supported, although not robustly. There were two somewhat surprising findings relating to and influencing this hypothesis. First, several artists acknowledged that negative emotions exist, but that they feel no need to regulate them (*“I accept and embrace bouts of depression;” “I just wait until the mood passes”*). Second, neither of the scales (i.e., NMR, Emotion AWBQ) utilized the possibility that work itself can be exploited as a mood regulator, however approximately 20% of the artists specifically mentioned that when they are in a bad mood, work itself helps (*“If I’m depressed, I find that working helps;” “I always find that I feel better once I begin painting”*). It may be that these results are specific to the population; however, this finding should also be investigated with other populations.

Hypothesis #2 predicted that participants endorsing items on the subscales (i.e., Emotion, Behavior, Motivation, Cognition) of the AWBQ would relate similar strategies when talking about their work experience. It appears that this hypothesis was supported with regards to behavior and motivation regulation strategies, but not with regard to cognitive strategies (for discussion of Emotion, see Hypothesis #1 above). The mean for the Behavior Subscale of the AWBQ was 5.37 ($SD = .69$); artists made 121 statements specifically related to the regulation of behavior, with approximately 92% (111 statements) geared towards appropriate (i.e., useful in meeting a goal) self-regulatory strategies. The mean for the Motivation Subscale was 5.06 ($SD = .54$), and artists made 60 statements related to the regulation of motivation. Eighty percent (48) of the statements regarded managing motivation so that work continues. Taken together, these results suggest that this population is quite adept at strategies aimed at keeping them working, even in the face of obstacles. Many of the strategies the participants reported are strategies that would likely be common to any working population (i.e., money for work, buckling down to the task when necessary). Although many of the strategies mentioned are strategies that could be used by any working population, it may be that this high level of strategy use is particularly important when the individual is self-employed or has a high degree of autonomy on the job.

Participants did not appear to use a large number of cognitive strategies when the qualitative results were analyzed (only 32 statements in this category), but the quantitative results suggest otherwise. The mean for cognitive strategies ($M = 5.29$; $SD = .75$) was second only to the mean for behavior strategies on the AWBQ. Some of the statements made by artists classified as cognitive strategies were: “*You know doing art does not take*

100% concentration some area or parts are just executing what you thought out or already know exactly what to do it's almost like driving and sometime you think of other things on long road trips or concentrating on other levels;" "I say to myself [artist's first name] get out to your studio and take one little baby step and the rest will fall into place;" and "Thought of walking the dogs; getting the mail; this would be a great day to be outside. Those thoughts helped me get through." Again, however, the caution here is the low reliability of the Cognitive and Behavior Subscales of the AQBW, making these conclusions speculative.

There are several possible reasons why it appears that cognitive strategies are not used. First, of course, there may a problem with misclassification of the statements. Second, it may be that artists tended to make statements that were more action-related, such as "I do" or "I don't do," than thought related. It may also be that artists are unused to examining the thought processes involved in working. One problem with talk-aloud protocols, for example, is that individuals generally lack practice using this method. Although the artists were not asked to do talk-alouds, the examination of thoughts may be difficult for some of the same reasons. Finally, it may be that this population has enhanced control over the tendency for intrusive thoughts to impair attainment of a goal, thus making it less likely that this group would report cognitive strategy use. Although one possible reason for this tendency might be that they have, as a group, more practice, or to use Baumeister, Heatherton, and Tice's (1994) terminology, more strength with regard to controlling cognitions, it may also be that an enhanced control of cognitions is an artifact of the flow experience.

Chapter 6

CONCLUSION

This study focused on two related issues. The first issue was the investigation of self-regulatory strategies in general, and I was most interested in specific evidence of self-regulatory strategies in specific situations - i.e., what do people do (or not do) when confronted with information that seems to be, or perhaps actually is, counter to their professed goals? Although Kuhl (1985b) and Corno and Kanfer (1993) have investigated this question with students, their investigations have more often focused on supplying an imposed structure of what they think self-regulation or volition looks like, then seeing whether or not students endorse that structure. While this method is well established in the research community, it prevents participants from creating their own structure. Although standardized testing measures, such as the ACS-90 and the NMR, make an important contribution to research, a qualitative approach allows the participants to identify the themes and approaches to a problem that they consider to be important. One of the primary criticisms of qualitative research, however, is that it may not impose *enough* structure. This lack of structure may foment the tendency of the researcher to impose her or his own opinions and biases on the data. However, the use of qualitative and quantitative data in tandem permits the researcher investigate issues from two viewpoints, perhaps improving the overall accuracy of data interpretation.

A second issue of this study was the examination of a specific population, professional artists. Although findings from the study suggest there are components of self-regulatory strategy use that may be specific to this population, their reported strategy use looks much like that of successful

students, based on research already done with that population. Additionally, it is likely that their experiences would look similar to that of any other specific population of successful individuals. As mentioned very early in this paper, “success” is a difficult concept to define. I think, however, the comment of one artist provides a relevant guideline. He distinguished between “people who just show up and people who actually work,” and any one of us who has been in the workplace (or in the classroom) immediately knows and understands the underlying concept of this difference. Self-regulatory strategies appear to be, in large measure, a skill that can be learned, and it may be that the difference between people who show up and people who work (including students) is a function of the desire to learn and apply self-regulatory strategies.

Significant correlations between several of the subscales of the AWBQ, the ACS-90, and the NMR suggest that some strategies can be categorized into specific components, although conclusions are tempered because the low reliability coefficients of the AWBQ subscales. However, the overall acceptable reliability of the AWBQ may indicate that “self-regulation” is a single, latent construct. Kuhl and Fuhrmann (1998) suggest that a hallmark of volition is the ability of an individual to coordinate psychological subsystems in the attainment of a goal. Thus, this coordination may blur individual components (e.g., motivation, cognition, etc.) to such a degree that underlying constructs of self-regulation, if they do exist, are difficult to disentangle. It may also be that self-regulatory skills and strategies become more global with practice. Students are still quite young, and thus have not had as much time to practice strategy use as more mature adults. As strategy use develops, both in scope and in quality, there may be fewer and fewer distinctions between types of strategy use. This may be an actual, active

application of strategies on the part of the individual, or may be more of an unconscious, automated process. Recall that Kuhl and Fuhrmann (1998) suggest that goals that are especially difficult to enact may require a high degree of conscious effort, but that this type of self-control is most often employed as a temporary means towards accomplishing the initiation or maintenance of behavior congruent with the difficult goal. It may be that they do not regard most of the work goals of artists as especially difficult (this may also be congruent with the flow experience), thus passively initiated strategies are sufficient for goal completion. Because passively initiated strategies often operate at an unconscious level, they may be less available to individuals for perusal and discussion. And, as Kuhl (1985b) notes, passively initiated processes are satisfactory as long as they are of sufficient strength to maintain the current intention.

Although I have argued more in favor of a single, underlying construct in the above paragraph, it appears that the underlying construct of emotion regulation may need to be examined more closely. The NMR is a well-respected, often-used instrument, and there was a highly significant correlation between the NMR and the Emotion Subscale of the AWBQ ($r = .52, p < .001$); additionally, the reliability of the NMR was quite high in this study ($\alpha = .91$). When the quantitative results of this study are viewed in the light of research literature in emotion regulation (for example, see Baumeister, Heatherton, & Tice, 1994), it suggests further investigation of this area may be important to the study of self-regulation and the study of personality characteristics associated with self-regulated individuals. Kuhl (1985a), a native of Germany, for example, notes that German school children are able to sit for hours on end – patiently and politely – at a school desk, while American children cannot remain seated for five minutes at a stretch.

Furthermore, the results from the qualitative portion of this study reveal a rather narrow range of emotional coping strategies, yet these strategies had to be engaged each time the artist encountered work they considered to be difficult due to a wide variety of reasons (e.g., commissions, work not coming out right, etc.) Because emotions do seem to permeate many layers of our behavior, it may be that further investigation of the biological, as well as cultural, mechanisms, of emotion regulation will provide important information to the study of self-regulation.

This study also serves to confirm what much of the literature in creativity has to say about creative individuals. From the interview data, it can be concluded that the life of a professional artist involves a great deal of work, hours of solitude, and an overwhelming desire to follow the muse. The *extreme persistence* noted in the creative population by Dudek, Berneche, Berube, and Royer (1991) certainly seems to be evident in the individuals interviewed for this project. Part of the “muse following” seems to be instigated by a high degree of motivation, and it would be interesting to make efforts towards disentangling motivation related to chasing the muse from motivation related to other aspects of work (such as the motivation experienced by students and non-artist working individuals). Many of the personality characteristics of creative people suggested by Radford and Burton (1974) were found in this group, even though the interviews did nothing to specifically unearth these characteristics. For example, Radford and Burton suggested that creative people are “distant and detached in interpersonal relationships” (several artists reported that they keep their non-artist friendships to a minimum); “high degree of control of impulse” (artists who made themselves work regardless greatly outnumbered artists who did not, even during those times they did not feel like working); and a “high

degree of autonomy” (many artists mentioned their appreciation that they alone determine the outcome of their product).

Although this study served to confirm some aspects of the artistic life suggested by other researchers, it also added new information to the artists’ profiles. One thing that other researchers may have neglected is an investigation of how artists actually *feel* about their work. The capacity to invest in work has often been mentioned in terms of motivation and interest, but these constructs have been approached more in terms of existing, traditional psychological constructs than in terms of emotional investment. Most theorists agree that motivation is the confluence of a large number of variables, typically suggesting that motivation depends upon such things as the need state(s) of the individual, the perceived incentive or utility value of the goal, the expectations for success in reaching the goal, as well as the resources, both internal and external, available for reaching a goal. Although the drive or needs states are often characterized in terms of physiological needs, most researchers now agree that emotional need states are important, and may be as much a basis for motivational actions as are physiological needs. Although the existing body of research in creativity and creative individuals is sizeable, this author was unable to find any studies that simply asked artists “How do you feel about your work?” The fact that so many of the respondents in the current study replied so enthusiastically and so positively to this question suggests that there may be something other than typical motivational interest present in these individuals. Most of us, no matter how engaging our daily work life might be, welcome breaks in that routine. We find motivation in the money aspect of our work, and quite often find our jobs fulfilling and enriching. Again, however, we are glad when the clock strikes 5 p.m. (metaphorically, if not in actuality), and we begin anticipation

of the weekend sometime around Tuesday afternoon. Time away from work, for almost any reason, is often more preferable than time at work. Thus, it is quite unlikely that, given the chance to answer the question “Do you enjoy working?” we would respond in this way:

I really didn't know how much I did enjoy working until this year. We are trying to make a move to Washington State and I lived up there in a Residence Inn for half of this year. No work. Now I'm home painting the exterior of our 100-year-old 3,500 square foot home to get it ready to sell this spring. No work. You can't imagine how excited I was to see your request for interview. I felt like I was working again!

As previously mentioned, several artists made comments reflecting the opinion that they and their work are one and the same, that one does not exist without the other. This type of interest, if it can be called that, seems far greater than the “interest” typically investigated. It is important that this extreme, almost fanatical, interest be investigated more thoroughly: does the muse supply the interest, or does interest feed the muse?

Another potentially interesting finding from the current sample was their high level of educational attainment: 100% had completed high school (the national average is 77%), 45% had completed college (the national average is 32%), and 24% had completed a graduate education. Although the completion of college or graduate school is not, in all cases, a valid measure of intelligence, a general assumption can be made that a certain intelligence level is required. Additionally, some researchers suggest that high intelligence alone is not a reliable predictor of creativity, but that there must be some minimum level of intelligence for creativity to occur (Andreason, 1987;

Radford & Burton, 1974; Sternberg, 1988). (Interestingly, although Sternberg (1988) somewhat discounts high intelligence as factor in creativity, he also incorporates intelligence into his three-facet model of creativity, along with cognitive style and personality/motivation.) As mentioned previously, educational attainment may also be a matter of persistence, or the ability to engage self-regulatory strategies in the protection of a goal. What might it suggest, however, that this group has high levels of both education and creativity? At this point, this is somewhat of a “the chicken or the egg” question. Teasing out the roles of self-regulation and intelligence in both of these enterprises (i.e., education and creativity) may provide answers that the investigation of either role in isolation cannot give.

Limitations

There are several limitations of the current study. First, the current study was largely an exploratory look at self-regulatory strategy use in a specific population, but it could be argued that one limitation of the current study was that it did investigate just a single population. However, students have often been the focus of such studies, and it thus seems reasonable that other populations should be considered as well. There are several questions that I did not ask of the artists that, in retrospect, might have contributed substantially to the study. For example, several researchers suggest that one reason artists may be able to maintain their motivation is because of their high degree of interest in their vocation (Csikszentmihalyi, 1988; Schiefele, 1991). I did not ask them about how they acquired, or how they thought they maintained, their interest in the profession. Because this group of individuals is doing something they highly desire to be doing, perhaps as a result of pure interest, their experiences may look quite different than students, for example, who are typically *not* especially interested in what they are doing. Somewhat

in the same vein, I did not query them about what they might do if they were unable to sustain a living from producing their art. Although the idea of a “starving artist” is most likely myth, it would be interesting, and informative, to determine how these individuals would cope with inability to make a living from their art (or what would happen if other circumstances in their lives changed such that art become financially prohibitive).

Another limitation is somewhat tied to the low potential population for the current study. Because the pool of artists from which I had to draw was somewhat finite, it was difficult to obtain meaningful data from the pilot study using the AWBQ. Additionally, the small sample size of the primary study did not allow for further substantial contribution to the instrument. Although the qualitative data portion somewhat compensated for this shortcoming, more information might emerge if the AWBQ was administered to additional participants. Small samples are also somewhat unreliable in that they can be biased from the general population. Also related to the population bias of this study is that approximately 70% of the sample was from the state of Texas. Although there is no reason to assume that Texans would answer questions differently than artists from other states, this hypothesis is untested.

Although self-report data can be a useful medium for collecting information, it comes with attendant problems. There are several potential aspects of such problems in the current study. First, it may be that only a certain category of artists returned the survey. Interestingly, perhaps, it can be argued that this may have skewed the data in one of two opposite directions. First, it may have been only the artists who were not self-regulated enough to conscientiously pursue their work that answered the questionnaire. Artists not returning the survey may have been so highly self-regulated with regard to their work that they chose to ignore the survey. Recall that a hallmark of self-

regulation is the ability to stay on task in the face of competing alternatives, including unsolicited surveys. The other possibility is that artists who did not return the survey did not do so because a summary investigation of the survey, especially the open-ended portion, would have revealed that they would be required to talk about real or perceived shortcomings in their work life. Few of us are willing to draw attention to our faults. Conversely, of course, it may have been that the artists returning the survey chose to reflect themselves in the best possible light. Thus, self-presentational biases can affect the outcome of data analyses in unpredictable ways.

There are also limitations inherent to the grounded theory approach to qualitative data analysis. Because this method relies almost entirely upon the perceptions and interpretations of the investigator, there is the possibility of both conscious and unconscious bias errors. Although several methods, including the use of a peer debriefer, help guard against these biases, the researcher is ultimately responsible for the interpretation and presentation of results.

Finally, an additional limitation of this study is the relatively poor performance of the close-ended portion of the Artists' Work Behaviors Questionnaire. Although the decision to launch a new instrument because of lack of existing instruments that could be used with this population was sound, the poor performance of the instrument limited the capacity of the researcher to draw firm conclusions about the data collected from the instrument. Additionally, the desire of the researcher to use the quantitative results from the AWBQ in conjunction with the qualitative portion of the AWBQ to reach extended interpretations of the data was somewhat hindered by the instrument's performance. There are several directions that could be followed in improving the instrument. First, of course, additional studies, with

larger sample sizes, could be conducted to assist with determining whether or not the small sample size of the current study was an artifact in the instrument's performance. Larger sample sizes would also allow the performance of more sophisticated statistical techniques, such as factor analysis, which would contribute further information about instrument itself as well as the population under investigation. The instrument also needs to be examined for possible confusing or ambiguous wording. In addition to the frustration awkward wording causes for the respondent, unclear wording could also influence a participant to select a response choice contrary to their intended preference. Additionally, although a random number table was used to generate the order of questions for the current instrument, several quite similar items were clustered together. Thus, the order in which the items were presented also needs to be investigated. Finally, the items themselves need to be examined for content. Specifically, how can the items be improved to the extent that they will reflect an underlying structure? Again, this may be best approached through additional testing with the specific population. As previously mentioned, the open-ended report of the surveyed population presented several different concepts of motivation and emotion than what are typically found in student populations. Further examination of these presented concepts are necessary. Although the investigated population was artists, there were concurrent distinguishing features of this population, especially when compared to students. They were, for example, older, self-employed, and self-sufficient. Any of these characteristics, singly or in combination, could have contributed to the performance of the instrument.

Future Directions

It is important to continue the study of self-regulation and self-regulatory strategies with varying populations. Although, given the results of

the current study, there appear to be more similarities than differences, additional pieces of information will contribute more fully to the entire picture. Although Baumeister, Heatherton, and Tice (1994) may be overstating somewhat when they declare self-regulation failure to be the major social pathology of our time, they do make the point that many societal ills could be alleviated if self-regulatory strategies were more readily at hand in a general population. As it appears that self-regulatory strategies can be taught and learned, then improved with practice, the potential outcome of relieving societal ills is especially enticing.

The present study can also be used as an argument for teaching self-regulatory skills and strategies in the schools. Although it is difficult to predict the outcome of such instruction, introducing children to such strategies would, at the very least, introduce them to the concept that goals are structured and can be obtained in a structured way. And if, as Baumeister, Heatherton, and Tice (1994) suggest, appropriately applied self-regulatory strategies aid in the prevention of such things as sexually transmitted diseases and unwanted pregnancies, coupling the teaching of self-regulatory strategies with sexual education may provide an additional facet to this type of instruction.

It may also be important that future studies address the specific relationship between art and self-regulation, especially in school-aged populations. Although the current study investigated the role of self-regulation in creative individuals, an interesting, possibly related question might be “What role does the pursuit of art play in learning self-regulatory strategies? If the creation of art is fraught with attendant frustrations, the frustrations themselves might be used to help teach self-regulatory strategies. Children could be taught that frustrations are a part of everyday life, but that there are methods that can be used to temper the frustrations while maintaining the goal

direction. Art classes may also provide another way to teach specific self-regulatory strategies. The reason most children give for stopping drawing spontaneously (usually around the age of eight or ten) is the fear of evaluation by others. These children may stop drawing because they lack a repertoire of emotion regulation strategies that would insulate them against critiques, and stopping at this one activity may predict a future of stopping other activities because of the same limited repertoire. The relationship between persistence in difficult situations and the engagement of self-regulatory strategy use merits further attention.

Finally, the current study suggests that there is a need for instruments designed for populations other than students. It has long been lamented that one foible of psychological research is that a student population is often the only population readily available to researchers because these researchers are almost always associated with colleges and universities. Thus, many instruments in use are often developed and tested with a student population. Although research *for* students is invaluable, research *with* students may not always produce results that will be valid for other populations. Ironically, perhaps, it has been cautioned that qualitative research is not conducted for generalizability, but rather for transferability, which allows a careful researcher to investigate the possibility of transferring the conclusions of from one setting or study to another setting or study of a similar nature (Lincoln & Guba, 1985). One of the hallmarks of quantitative research, however, is the implied generalizability of the results. In the current study, it appears that the only instrument remotely available for general use in testing the construct of self-regulation (ACS-90) was not appropriate for the population under investigation. Thus, it was neither transferable nor generalizable. This does not mean, of course, that separate instruments need to

be developed for each segment of the population, but that investigators should thoroughly scrutinize the possible limitations of instruments they have chosen to use. Then, actions can be taken a priori to eliminate or mediate such limitations, or post priori when reporting results.

APPENDIX A
ARTISTS' WORK BEHAVIORS QUESTIONNAIRE
(Way, unpublished)

(This questionnaire consists of 3 parts. Part 1 asks participants to respond to statements (7 = very typical of me; 1 = not at all typical of me) using their *work as an artist* as reference; Part 2 consists of 5 open-ended questions responded to in writing; Part 3 asks for biographical and demographical information)

Part 1.

1. Sometimes I imagine myself doing an especially good job on a piece. ____
2. I don't let other activities intrude upon my work time. ____
3. I don't think about and develop a plan for the details of a work before I start. ____
4. I don't give up easily, even if the work seems very difficult. ____
5. If a piece isn't going especially well, and I am tempted to do something else, I don't try visualizing the finished piece in my mind. ____
6. I make mistakes or errors while I am working because I haven't been paying attention to what I am doing. ____
7. If I think I might have trouble with a piece, I visualize the steps I need to take in my mind. ____
8. If the work seems difficult, I give up easily. ____
9. While I'm working, I don't try to keep my attention strictly on what I am doing. ____
10. When I'm in a bad mood, and don't feel like working, it is relatively easy for me to cheer myself up enough to work. ____

11. I don't find it difficult to ignore temptations when I am working. ____
12. I'm not excited when I'm working in my work place or studio. ____
13. I set and stick to clearly defined goals when I work. ____
14. When something I've produced doesn't turn out like I wanted it to, and I'm disappointed, it isn't very easy for me to get over it. ____
15. When something I've produced doesn't turn out like I wanted it to, I use the opportunity to learn from my mistakes. ____
16. When I make a work schedule, I force myself to stick to it. ____
17. It's difficult to get over being unhappy when my work doesn't turn out like I want it to. ____
18. When I start a new piece, I don't feel confident that it will turn out well. ____
19. Even if I'm working on something I don't especially like, I stick with it until I'm finished. ____
20. I don't get upset when I try something new and it doesn't turn out like I wanted it to. ____
21. Once I've made a work schedule, I may not stick to it. ____
22. I prefer to work on things that really challenge me. ____
23. When I'm concentrating on my work, I find it difficult to ignore distractions. ____
24. I dislike having to do a commission (or promised) piece when I'm not excited about the piece, but I try to ignore my feelings. ____
25. If I'm stuck on a piece, I don't think back to a similar work to help me find a solution. ____
26. I work in a place that allows me to concentrate fully. ____

27. I don't make good use of my time in my workplace or studio. ____
28. It is important to me to master a technique before trying a new technique. ____
29. I don't try to produce what I think other people will like. ____
30. I have a designated work area, and seldom work anywhere else. ____
31. If today is a "work day," but it is a really beautiful day and I want to be outside, I will decide to work another day instead. ____
32. If I'm bored with working, I try to find ways to make the work more interesting. ____
33. I'm less motivated to work on something I like. ____
34. While I'm working, I don't think about other things I should be doing. ____
35. The most important thing for me is that my work sells well. ____
36. I often plan several days in advance for what I intend to do during a certain work period. ____
37. When I am learning a new technique, I have difficulty getting myself to practice it. ____
38. I don't worry that others won't like my work. ____
39. I have plenty of work supplies on hand. ____
40. I don't enjoy trying new methods or techniques in my work. ____
41. If I have decided that today is a "work day," it isn't easy for me to stick with that decision. ____
42. Working makes me happy. ____

43. If others (such as family, friends, or patrons) don't like my work, it makes it difficult for me to keep working. _____
44. I have difficulty getting started on work. _____

Part 2

1. Think about a time during which you really didn't really feel like working, but at the same time you felt that you needed to be working. What kinds of thoughts went through your mind? Did you work, or not work. Why? What kinds of things did you think or say to yourself?
2. Think about a time when you were working on a piece that you weren't particularly enjoying or excited about, but that you felt like you had to finish. Maybe you needed the piece for a show, or maybe it was a commission piece, or maybe you just needed to finish for some other reason. Did you make yourself finish? How? If you did finish, did you do certain things that helped you to finish? What? What kinds of thoughts went through your mind as you were working? What kinds of things did you do to help you finish?
3. Now, think about a time when you were really enjoying the piece you were working on. What was this like for you? How did it differ, or not differ, from when you were working on a piece that you were *not* really enjoying?
4. What specifically do you do when you have to deal with distractions while you are trying to work? These distractions may be external (e.g., the phone ringing, feeling that other things need to be done) or internal (e.g., feeling "blue," worrying about something). What things do you try to deal with such distractions? Is this easy or difficult for you? Why?
5. Do you enjoy working? Why? Please tell me whatever you would like for me to know about how you feel about working.

Part 3.

Please complete the following questions:

1. Please specify your primary art or craft: _____
2. Is the production and sale of your art the primary way you make your living?
 yes no
3. Do you have a job outside the home **other than** the production and sale of your art or craft?
 yes no
4. If you answered *yes* to the previous question, approximately how many hours per week do you spend at that outside job? _____
5. Approximately how many hours per week do you spend in producing and selling your art or craft? _____
6. Approximately what percentage of your **total household income** comes from the sale of your art or craft?
 0 – 25%
 26 – 50%
 51 – 75%
 76 – 100%
7. What is your highest level of traditional formal education completed?
 High school diploma or equivalency
 College (undergraduate) degree
 Graduate degree
 Other (*please specify:* _____)

8. Considering only your primary art or craft, how did you get your training? *Please check all that apply.*

- Art school
- College
- Apprenticeship(s)
- Instructions or training with other artists
- Self-taught
- Other (*please describe:*_____)

9. Where is your primary workspace? That is, where do you *most often* work?

- Extra room or designated space at primary household residence (i.e., the room or space is also used for other activity(s))
- Designated studio or workspace at primary household residence (i.e., the room or space is used **only** for your work)
- Designated studio or workspace at a location other than primary residence
- Other (*please describe:*_____)

10. How do you sell your work? *Please check all that apply.*

	<u>Never</u>	<u>Rarely</u>	<u>Occasionally</u>	<u>Frequently</u>	<u>Always</u>
Commission	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public shows	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Private shows	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Galleries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Auctions (e.g., <i>ebay, Amazon</i>)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11. Have you ever won any awards or commendations for your work? Please elaborate.

APPENDIX B
ACTION CONTROL SCALE
(Kuhl, 1984)

(This questionnaire asks respondents to select what they consider to be the best of the two response options with regard to their usual tendencies in thinking and acting in the various situations presented)

1. When I have lost something that is very valuable to me and I can't find it anywhere:
 - a) I have a hard time concentrating on something else
 - b) I put it out of my mind after a little while
2. When I know I must finish something soon:
 - a) I have to push myself to get started
 - b) I find it easy to get it done and over with
3. When I have learned a new and interesting game:
 - a) I quickly get tired of it and do something else
 - b) I quickly get into it for a long time
4. If I've worked for week on one project and then everything goes completely wrong with the project:
 - a) It takes me a long time to adjust myself to it
 - b) It bothers me for a while, but then I don't think about it anymore
5. When I don't have anything in particular to do and I am getting bored:
 - a) I have trouble getting up enough energy to do anything at all
 - b) I quickly find something to do
6. When I'm working on something that's important to me:
 - a) I still like to do other things in between working on it
 - b) I get into it so much that I can work on it for a long time
7. When I'm in a competition and have lost every time:
 - a) I can soon put losing out of my mind
 - b) The thought that I lost keeps running through my mind

8. When I am getting ready to tackle a difficult problem:
 - a) It feels like I am facing a big mountain that I don't think I can climb
 - b) I look for a way that the problem can be approached in a suitable manner

9. When I'm watching a really good movie:
 - a) I get so involved in the film that I don't even think of doing anything else
 - b) I often want to get something else to do while I'm watching the movie

10. If I had just bought a new piece of equipment (for example, a CD player) and it accidentally fell on the floor and was damaged beyond repair:
 - a) I would manage to get over it quickly
 - b) It would take me a long time to get over it

11. When I have to solve a difficult problem:
 - a) I usually don't have a problem getting started on it
 - b) I have trouble sorting out things in my head so that I can get down to working on the problem

12. When I have been busy for a long time doing something interesting (for example, reading a book):
 - a) I sometimes think about whether what I'm doing is really worthwhile
 - b) I usually get so involved in what I'm doing that I never think to ask about whether it's worthwhile

13. If I have to talk to someone about something important and, repeatedly, can't find him or her at home:
 - a) I can't stop thinking about it, even while I'm doing something else
 - b) I easily forget about it until I can see the person again

14. When I have to make up my mind about what I am going to do when I get some unexpected free time:
- a) It takes me a long time to decide what I should do during this free time
 - b) I can usually decide on something to do without having to think it over very much
15. When I read an article in the newspaper that interest me:
- a) I usually remain so interested in the article that I read the entire article
 - b) I still often skip to another article before I've finished the first one
16. When I've bought a lot of stuff at a store and realize when I get home that I paid too much – but I can't get my money back:
- a) I can't concentrate on anything else
 - b) I easily forget about it
17. When I have work to do at home:
- a) It is often hard for me to get the work done
 - b) I usually get it done right away
18. When I'm on vacation and I'm having a good time:
- a) After a while, I really feel like doing something completely different
 - b) I don't even think about doing anything else until the end of my vacation
19. When I am told that my work has been completely unsatisfactory:
- a) I don't let it bother me for too long
 - b) I feel paralyzed
20. When I have a lot of important things to do and they must all be done soon:
- a) I often don't know where to begin
 - b) I find it easy to make a plan and stick with it
21. When someone brings up an interesting topic for discussion:
- a) It can easily develop into a long conversation
 - b) I soon lose interest and want to go do something else

22. If I'm stuck in traffic and miss an important appointment:
a) At first, it's difficult for me to start doing anything else at all
b) I quickly forget about it and do something else
23. When there are two things that I really want to do, but I can't do both of them:
a) I quickly begin one thing and forget about the other thing I couldn't do
b) It's not easy for me to put the thing that I couldn't do out of my mind
24. When I am busy working on an interesting project:
a) I need to take frequent breaks and work on other projects
b) I can keep working on the same project for a long time
25. When something is very important to me, but I can't seem to get it right:
a) I gradually lose heart
b) I just forget about it and go do something else
26. When I have to take care of something important but which is also unpleasant:
a) I do it and get it over with
b) It can take a while before I can bring myself to do it
27. When I am having an interesting conversation with someone at a party:
a) I can talk to him or her the entire evening
b) I prefer to go do something else after a while
28. When something really gets me down:
a) I have trouble doing anything at all
b) I find it easy to distract myself by doing other things
29. When I am facing a big project that has to be done:
a) I often spend too long thinking about where I should begin
b) I don't have any problems getting started

30. When it turns out that I am much better at a game than the other players:
- a) I usually feel like doing something else
 - b) I really like to keep playing
31. When several things go wrong on the same day:
- a) I usually don't know how to deal with it
 - b) I just keep on going as though nothing had happened
32. When I have a boring assignment
- a) I usually don't have any problem getting through it
 - b) I sometimes just can't get moving on it
33. When I read something I find interesting:
- a) I sometimes still want to put the article down and do something else
 - b) I will sit and read the article for a long time
34. When I have put all my effort into doing a really good job on something and the whole thing doesn't work out:
- a) I don't have too much difficulty starting something else
 - b) I have trouble doing anything else at all
35. When I have an obligation to do something that is boring and uninteresting:
- a) I do it and get it over with
 - b) It usually takes a while before I get around to doing it
36. When I am trying to learn something new that I want to learn:
- a) I'll keep at it for a long time
 - b) I often feel like I need to take a break and go do something else for a while

APPENDIX C

NEGATIVE MOOD REGULATION SCALE

(Catanzaro & Mearns, 1990)

(This scale asks respondents to rate themselves on methods they use for coping with being upset. Ratings range between “very true of you” (7) to “not at all true of you” (1)).

When I feel upset, I believe that....

1. I can usually find a way to cheer myself up.
2. I can do something to feel better.
3. Wallowing in it is all I can do.
4. I'll feel okay if I think about more pleasant times.
5. Being with other people will be a drag.
6. I can feel better by treating myself to something I like.
7. I'll feel better when I understand why I feel bad.
8. I won't be able to get myself to do anything about it.
9. I won't feel much better by trying to find some good in the situation.
10. It won't be long before I can calm myself down.
11. It will be hard to find someone who really understands.
12. Telling myself it will pass will help me calm down.
13. Doing something nice for someone else will cheer me up.
14. I'll end up feeling really depressed.

15. Planning how I'll deal with things will help.
16. I can forget about what's upsetting me pretty easily.
17. Catching up with my work will help me calm down.
18. The advice friends give me won't help me feel better.
19. I won't be able to enjoy the things I usually enjoy.
20. I can find a way to relax.
21. Trying to work the problem out in my head will only make it seem worse.
22. Seeing a movie won't help me feel better.
23. Going out to dinner with friends will help.
24. I'll be upset for a long time.
25. I won't be able to put it out of my mind.
26. I can feel better by doing something creative.
27. I'll start to feel really down about myself.
28. Thinking that things will eventually be better won't help me feel any better.
29. I can find some humor in the situation and feel better.
30. If I'm with a group of people, I'll feel "alone in a crowd."

APPENDIX D
CORRELATIONS BETWEEN VARIABLES

	WB MOT	WB EMO	WB COG	WB BEH	WB TOT	ASC PV	ACS PRE	ACS HES	ACS TOT	NMR COG	NMR BEH	NMR GEN
Work Behavior Motivation (MOT)	1.00											
Work Behavior Emotion (EMO)	.27*	1.00										
Work Behavior Cognition (COG)	.46**	.56**	1.00									
Work Behavior Behavior (BEH)	.51**	.29*	.44**	1.00								
Work Behavior Total (TOT)	.70**	.67**	.79**	.75**	1.00							
Action-Control Perf-Volatility (PV)	.11	-.21	-.13	.08	-.07	1.00						
Action Control Preoccupation (PRE)	.35**	.51**	.10	.17	.35**	-.14	1.00					
Action Control Hesitation (HES)	.38**	.17	.38**	.40**	.39**	.04	.34**	1.00				
Action Control Total (TOT)	.42**	.37**	.21	.37**	.44**	.37**	.73**	.75**	1.00			
Neg. Mood Reg. Cognition (COG)	.47**	.50**	.40**	.25*	.53**	-.14	.44**	.42**	.42**	1.00		
Neg. Mood Reg. Behavior (BEH)	.27*	.29*	.22	.12	.26*	-.08	.27*	.27*	.31*	.57**	1.00	
Neg. Mood Reg. General (GEN)	.43**	.52**	.29*	.33**	.48**	-.23	.62**	.48**	.48**	.78**	.54**	1.00
Neg. Mood Reg. Total (TOT)	.46**	.52	.37**	.29*	.52**	-.17	.55**	.47**	.46**	.91**	.79**	.91**

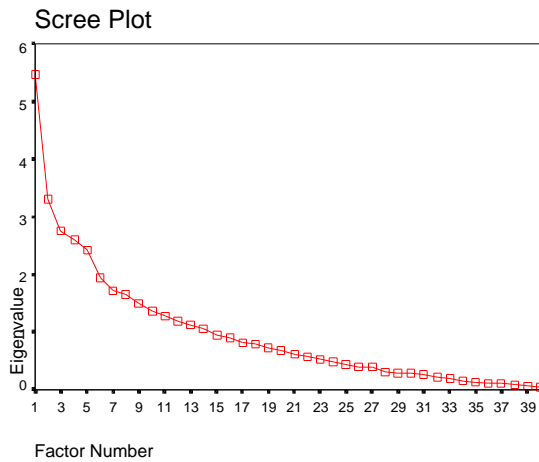
Note: *p < .05; **p < .01

APPENDIX E
FACTOR ANALYSIS RESULTS

Total Variance Explained, Eigenvalues < 1 (Factors 1-10)

FACTOR	TOTAL	% OF VARIANCE	CUMULATIVE
1	5.47	13.67	13.67
2	3.31	8.27	21.94
3	2.75	6.88	28.82
4	2.61	6.52	35.34
5	2.42	6.05	41.38
6	1.94	4.84	46.22
7	1.73	4.32	50.55
8	1.65	4.11	54.66
9	1.51	3.77	58.43
10	1.36	3.41	61.84

Scree Plot



**APPENDIX F
BIOGRAPHICAL AND DEMOGRAPHICAL
PARTICIPANT INFORMATION**

Educational Information

<u>Traditional Education</u>	Female	Male
High School	16	7
Undergraduate Degree	21	13
Graduate Degree	9	9
<u>Art Education</u>		
Art School	12	2
College	22	10
Apprenticeship	5	3
Training w/ other artist(s)	28	13
Self-Taught	38	27
Other	4	5

Appendix F (Continued)

How Artists Make Their Living

	Is Art Primary Living?		Have Outside Job?		Avg. Hours at Outside Job (range)	Avg. Hours at Art Production (range)
Females (<i>n</i> = 47)	Yes	30	Yes	11	29.55 (5-60)	41.28 (9-80)
	No	17	No	36	X	
Males (<i>n</i> = 29)	Yes	21	Yes	5	19.6 (6-40)	49.03 (10-100)
	No	8	No	24	X	

How Artists Sell Their Work

	Never	Rarely	Occasionally	Frequently	Always
Commission	9	16	32	19	0
Public shows	3	3	3	67	0
Private shows	21	22	25	7	1
Galleries	13	19	22	22	0
Auctions	52	17	2	4	0

Appendix F (Continued)

Where Artists Work

Art Awards Earned

<u>Studio Location</u>	Female	Male
Designated Studio	6	11
Designated Room at Primary Residence	33	15
“Borrowed” Room at Primary Residence	7	3
Other	1	0
<u>Art Awards</u>		
None	4	5
1 – 5	16	7
5 – 10	8	3
> 10	4	3
>20	14	11

APPENDIX G
SURVEY INTERVIEW SAMPLES

Note: These are data excerpts from each of the 5 open-ended questions on the AWBQ. The question is reproduced first, and then a sampling of artists' answers to each question is given. Responses are numbered to indicate a change in respondent.

Question 1

Think about a time during which you really didn't feel like working, but at the same time you felt that you needed to be working. What kinds of thoughts went through your mind? Did you work, or not work? Why? What kinds of things did you think or say to yourself?

1. If I don't have a project that has a definite completion date, and if I don't have a show coming right up to prepare for, I simply don't work because, for me, it's not a productive time and I will do much better by spending my time on some unrelated activity that will enhance my quality of life and open up more creative paths within me. If, however, I simply "must" finish something or have a deadline, then I have a very tenacious, plow right through mentality that kicks in, and I will make that studio time as pleasant as possible. For example, if I'm doing something that does not require a lot of thought or planning, but is simply routine and familiar work, then I will make sure to have some good book on tape at hand, and hot tea or coffee – something that makes me feel comfortable and well cared for.

2. If I talked myself into doing it, then I also talked myself into believing I was short on time and had to get it done. If I did not do it, then I talked myself into believing I could do it at another time and it would be not problem to put it off. I do not like to pressure myself to work and when I do it is a drag – I usually work all summer and all winter and go to art shows

during the fall and spring. Sometimes I don't go to shows in the fall because I don't want the pressure of going to an art show.

3. I can kick-start better in the morning. Sit, think of what to do and concentrate. Only the 1st step, then the next. Doing this usually eliminates mistakes as well. Thinking 1 step at a time eliminates fear of the whole picture.

4. I should be working right now, but I'm easily distracted at the moment. I'll get back to it soon, I'm sure, I go through periods when I do other things, like errands and paying bills when I am not working. I know I'll get the work done eventually, and won't go broke if it isn't done today.

5. Usually I try to get the most out of available time to paint. I think this may be because most of my painting life I have had a regular "day" job and had to paint between times of family obligations, children, and education. When there are times when I don't feel like painting but really need to, I quickly remember that I need to take advantage of the time at hand because the time may not be as easy to come by later on.

6. Rarely do I not feel like working, but since the first of August it has been a little difficult because of a family situation, as well as the events of September 11. I have worked, just not as much as usual. One thing that I concentrated on was a fundraiser for scholarships for Honduran children to go to school beyond the 7th grade. My website (domainname.com) has more information on this. I had committed to do them paintings for the event on October 18, so they had to be finished. It was important to me that this event be successful, so I worked! Doing something for others during the time of national tragedy seemed one way I could contribute.

7. I work best in a formatted environment. I had that in corporate data processing, but since I quit to work with glass full time, I've had a hell of a

time developing a good, productive work ethic. Life gets in the way of work, and I'll put off turning on the kiln and starting work, even tho the work is so much fun once I get going. And sometimes I get the equivalent of writers block, and things aren't turning out, and I'm uninspired. When that happens I get a good entertaining audiobook, stick it in the player, and sit there and make hundreds of little dot beads. It's productive, because they sell at shows, but there's no creative joy in it. But after I've made lots of the dam things, I get go bored with them that the creativity comes back, out of self-defense. I don't blame myself for being lazy and unmotivated sometimes, and the blocks happen. Worst case scenario, I take some days off.

8. I thought I should be working to prepare for an exhibition. Then I thought about what was more important – making products or being with people I care about. I put off working and figured I could reach the work goals I had on a different time frame. I knew that with my level of skill and persistence I could reach my goal in a revised schedule. Sticking to a pre-conceived plan without consideration of unforeseen circumstances makes no sense. Human relationships are more important than making money. The important thing is the big picture. Small events and details will always change while the real thing is the big picture.

Question #2

Think about a time when you were working on a piece that you weren't particularly enjoying or excited about, but that you felt like you had to finish. Maybe you needed the piece for a show, or maybe it was a commission piece, or maybe you just needed to finish for some other reason. Did you make yourself finish? How? If you did finish, did you do certain things that helped you to finish? What? What kinds of thoughts went through your mind as you were working? What kinds of things did you do to help you finish?

1. Yes, I would finish. It if was a commission piece that I took on and wasn't crazy about, I would find some aspect or angle that *did* "light my fire"

and work towards that aspect primarily, putting the less exciting aspects in the background (mentally) and ramping up the things that excited me. For example – if I was doing a pencil/graphite piece and didn't particularly care for the subject matter (although I rarely agree to do commission work that doesn't interest me), then I would focus my attention on the things I love about drawing – the ability to really push the contrasts and values to the place where the subject matter comes to life for me and I feel like I'm drawing on a three dimensional object instead of 2 dimensional paper. That excites me. It is getting to that Zen state of mind...that place where time falls away and there is just the thing. If I could not get to that place during some aspect of the work, the piece simply might not happen.

2. If I am working on a commission whether it is fun or not, I can usually get it done because I know I have to do it regardless of whether I want to or not. I will make myself finish. The compulsion of satisfying a client is sufficient enough motive for me to do my best and get the job done. If it is a piece for a show, then it is a different matter. Why, I'm not so sure, but to finish something for a show on a deadline is almost a suicide trip for me. I need unpressured time to do my best for a show. It takes total workmanship to do art for shows. It has to be my best and my emotional feeling about the finished piece must be secure. Whereas with a commission which for me is usually a portrait of someone the success of the piece is determined by a likeness of the subject. And that is easy to determine. It is or it isn't like the subject. Whereas a show piece, say a landscape, has an emotional appeal and a finesse to it that has to be weighed. The color balance may be almost correct, but not quite and one has to keep working on it until he gets it right. The feel of the gut has to be good or it isn't right.

3. Obligation is a good motivator for me – but I’m prone to not take a commission if I’m not really into what the customer wants. I won’t do anything half way. I won’t start on it until I have 99% worked out in my head. Then it’s off to work – I like being challenged by my customers – plus I usually learn new “licks” on custom projects.

4. The last time I had a commission I didn’t want to do, my first attempt ended in failure. I knew I could do it, but I didn’t have the energy to force it to happen. Rather than do it then, I found something else to do and went back to it another day. There are some projects that take me forever to finish, and I’m getting comfortable with that. I’m sure there are clients that don’t like it, but I have other people who like to buy the things I like to make, so the special orders don’t always have to happen.

5. I have a dogged compulsion to make things work, even if they are going badly. I have only rarely done commissioned pieces and in these cases I try to do projects I am excited about. In one case, I did agree to a commissioned piece I didn’t want to do. I completed it though I knew the work was second rate for me. The client liked it (I think) but I didn’t think it reflected my style or my interests. What helped me finish was just knowing I had made an agreement to do the work. It wasn’t fun or interesting to me many times.

6. Many times when you work on a piece you become uncomfortable about the results and feel like you would really rather start something else, but I usually take a short break by watering plants, sweeping the walk or some other “no brain” task and then get back in front of the piece and ask myself some questions – out loud – about why it isn’t where I want it to be. By doing this it seems I can take action in one direction that will suddenly get me excited about the piece again and usually I will be able to pull it together.

7. I motivate myself by deferring simple pleasures. For example, I won't allow myself to eat my next meal until I have completed a certain task. Or, I won't allow myself to have a drink until I've done a day's work.

Question #3

Now, think about a time when you were really enjoying the piece you were working on. What was this like for you? How did it differ, or not differ, from when you were working on a piece that you were not really enjoying?

1. A quote comes to mind, from Mozart's letters, something like: I compose the way a fig relieves itself, i.e., freely and with joy. I don't think that the enjoyment is in the piece, but in the person who is working on the piece. It is probably a natural feeling to be productive, involved, focused. The difference from "not really enjoying:" the work is usually external: time pressures, social duties, inability to give 100% of one's self to the task.

2. It is exhilarating! It becomes a high, like magic! Like did I do this or did an angel guide me? For I am human and this could not possibly be done by a human! And when I hit this high, I can almost do anything then. I could paint another one, maybe not that day or the next hour, but I am encouraged greatly to start another piece. As I have grown older, my energy level won't allow me to keep doing this high for a long period of time. I finish and I can become drained tremendously and emotionally for a short time before I can start again. Maybe a day or two before I try another one or I may switch mediums and try it for a while. From oil painting to sculpture!

3. The only word that I can come up with to describe it is "excited," but that doesn't cover it all. Most of the pottery pieces I create I have made hundreds of, if not several thousand times, and when I am through it is almost a meditation, with the repetitive motions of my hands as the mantra. When I

think of something new to create I am not in that trace state, and my conscious mind is totally focused on the project at hand.

4. Really enjoying a piece is when you are in the flow. Every color chosen, every line or stroke put down, every design decision is completely right for the piece. You are reacting to what is happening and making choices with insight to discover new and different solutions, bringing the piece to another level. Even when problems occur, you are quickly able to solve them satisfactorily. Sometimes it is fun to take a problem piece that has been put aside and discover a solution that makes it much better than the original concept. I do not enjoy working on a piece that will not come together. It is especially true of water media that overworking is usually a disaster. You must work with confidence, purpose, and a knowledge of what your media will do under certain circumstances to achieve the effects you are after. Planning is important. Knowing your colors, their hue, how they interact, amount of water, correct brushes or other tools for laying in washes, line, or other effects you want. Stopping at the right time is critical. When everything you do makes the piece worse, that is frustrating. It is hard for me to set it aside and admit failure for now.

Question #4

What specifically do you do when you have to deal with distractions while you are trying to work? These distractions may be external (e.g., the phone ringing, feeling that other things need to be done) or internal (e.g., feeling “blue,” worrying about something). What things do you try to deal with such distractions? Is this easy or difficult for you? Why?

1. External distractions are usually much easier for me because I have developed good, solid boundaries. I will either take the phone off the hook, for example, or screen calls through the answering machine. If there are deliveries, or other un-ignorables, then I will simply take care of them as

quickly as possible, then get back to work. I have also set up my work environment to allow for a lot of solitude. When the distraction is internal, I have a difficult time with it. I can usually plow ahead with mechanical tasks (matting, framing, etc) but I haven't really figured out a good way to cope with them, except to put my creative work on hold until they pass.

2. Distractions are not a problem. I work at home and am constantly distracted throughout the day: demands of family, pets, house. But my schedule is flexible enough and I am disciplined enough to get my work done and not be concerned with distractions. I plan my day around my pots, which need immediate attention, which need more drying time, which need finishing. Then I pace my daily "chores" around them. It works pretty well.

3. Distractions are a real problem for me. If it is an emotional thing or a family relation or sickness etc., it can wipe me out of doing anything for a while. Like the Sept 11 terrorist day. It put me out of commission for at least a week or so. If it is minor things, like the telephone ringing, then it is only temporary. Many times, playing my music (CDs or radio) can get me back into the groove.

4. I try to deal with it quickly or ignore it. You know doing art does not take 100% concentration some area or parts are just executing what you thought out or already know exactly what to do it's almost like driving and sometime you think of other things on long road trips or concentrating on other levels.

5. Very easy. I work alone, the only possible distraction is the phone. But, it usually is a customer, so...No problem. Making more sales. If the phone does bother me, I simply unhook it, then pick up the messages (read sales) later!

6. If I really want to focus I eliminate as many of the external distractions as possible – I unplug the phone. I live in the country and rarely does anyone “drop in.” Ignoring chores is not a problem if I really want to create – creating chores is what I do when I am avoiding creativity! Mind distractions are another thing and if there is something serious going on with my family – e.g. illness – then creativity gets shelved. Minor distractedness is something that I can work thru though with a good dose of willfulness. Minor irritations, etc. I work thru by doing a round of “shop straightening” and then a round of simple production work and then a round of more complex stuff.

7. I do not usually begin a project when I am absorbed worrying about something not related to art. I am a runner which helps me deal with the frustrations of life. I run in the morning and this helps my work. When I run, I also think about ideas for paintings, how to solve problems in a piece or other matters such as what kind of mat or frame I want for a piece, etc. When I finish running I’m usually energized and ready to paint. As to interruptions of all kinds – I try to ignore them. Shut the studio door, don’t answer the phone or doorbell. Try to get to a stopping place in a project before it is time to attend to duties of life. Try to simplify my schedule. I don’t paint on days I need to run errands or go to meetings. When I elect to be involved in spare time, it is always art related. I don’t do the social thing unless art related. I often work late at night when distractions are minimal. Easy? Hard? I have always been able to tune out distractions. I can focus when really engaged in an activity, even in a crowd.

Question #5

Do you enjoy working? Why? Please tell me whatever you would like for me to know about how you feel about working.

1. When I am excited about a project, a new series of etchings, a new technique that I have found to work well, a particular drawing – there is no place I'd rather be in the world than engaged with my work...it is being immersed in the sweet spot of the creative flow.

2. Creative energy is difficult to explain as it is even a mystery to me. It becomes compulsive energy in a lot of ways. Once it starts it's hard for me to stop. So is it work or something else such as the need to create. If I am unable to come to my studio and "work" for a period of time I do become frustrated and work on my obligations to get them out of the way and free me. I'm not sure this has anything to do with happiness in the ordinary way. I want to say it's more contentment.

3. Yes, I enjoy working because I know the outcome is going to be good or even great! But if I'm at a low for whatever reason, it is tough to keep going. The only way for me to get out of the doldrums is to go to the Lord and pray. Or just go read some Bible scripture during a quiet time. 90% of the time, this will get me going again for sure. If it doesn't, then my problem is a deeper one and needs strict attention to the Lord and there is something that God is trying to demand my attention about and I will be made aware of it and I just act upon it before I will be free of it. This prayer time at the onset of any project is very important to me because temptation even in the slightest and seemingly harmless way can blow my whole day if I'm not free of it. One must pray that these things will be removed from his pathway before he starts or be strong enough to not let them rob him of his time, etc.

4. I love what I do. I'm always experimenting and trying to go further – and my work encourages this. Learning to pace myself and allot the appropriate amount of time for my commissioned works was essential. It took years to figure this out and not always be behind. One must also have viable distractions available for those moments when working in the studio simply isn't happening that day.

5. Yes I do enjoy my work – the creative process is like cocaine, the more you do the more it takes. I've been an artist, a working artist, since I was 13 years old (I'll be 50). I tried "real" jobs but found them stifling. I guess that art crosses all barriers, social, economic, geographic. My art has taken me all around the world and then some. I also enjoy the return of good energy from my customers.

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