THE RELATIONSHIP OF NEGATIVE SELF-SCHEMAS WITH THE EXPERIENCE OF ANGER AND ANGER EXPRESSION

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TABLE OF CONTENTS

TABLE OF CONTENTS (Continued)

LIST OF TABLES

LIST OF TABLES (Continued)

CHAPTER I

INTRODUCTION

Over the past thirty years, the emotion of anger has become an important topic of interest in the mental health research literature. While many clients who come to therapy present with problems related to depression, anxiety, or related issues, anger may also be a problem for these individuals. In fact, it is anticipated that the next edition of the Diagnostic and Statistical Manual for mental health professionals will include a classification of diagnoses related to anger disorders. Anger has been associated with physical health problems such as hypertension (Harburg, Erfurt, Hauenstein, Chape, Schull, & Schork, 1973), coronary heart disease (Friedman & Rosenman, 1974; Matthews, Glass, Rosenman, & Bortner, 1977; Spielberger & London, 1982), and cancer (Greer & Morris, 1975). In fact, researchers have discovered adverse health consequences have been associated with persistently experienced, suppressed, or aggressively expressed forms of anger (Spielberger, Krasner, & Solomon, 1988; Spielberger, Ritterband, Sydeman, Reheiser, & Unger, 1995; Siegman & Smith, 1994). Anger has also been associated with mental health problems such as depression (Clay, Anderson, & Dixon, 1993).

A significant body of research exists that has explored the relationship between anger and gender. This research has produced conflicting results. Some researchers have found no significant gender differences in the expression of anger (Averill, 1983; Greenglass, 1989; Kopper & Epperson, 1991; Spielberger, 1985; & Thomas, 1989). Whereas others have found that gender differences in the expression of anger do in fact exist (Funabiki, D., Bologna, N. C., Pepping, M., & FitzGerald, K. C., 1980; Malatesta-

Magai, C., Jonas, R., Shepard, B, B., & Culver, L. C., 1992; Zuckerman, 1989). Some researchers propose the idea that gender role characteristics rather than gender per se may be associated with different forms of anger expression (Kopper, 1993; Kopper & Epperson, 1991).

Conceptualizations/Theories of Anger

Different theories or conceptualizations of anger have been proposed to explain the development, nature, and maintenance of anger, as well as its expression. Spielberger (1999) conceptualizes the experience of anger as having two major components: State anger and Trait anger. State anger is "a psychobiological emotional state or condition marked by subjective feelings that vary in intensity from mild irritation or annoyance to intense fury and rage" (Spielberger, 1999, p. 1). Trait anger is defined as "individual differences in the disposition to perceive a wide range of situations as annoying or frustrating and by the tendency to respond to such situations with elevations in State anger" (Spielberger, 1999, p.1). The expression of anger is conceptualized by Spielberger (1999), as having four major components: Anger Expression-Out, Anger Expression-In, Anger Control-Out, and Anger Control-In. Anger Expression-Out refers to the outward expression of anger toward others or objects in the environment (with an emphasis on verbal and/or physical aggression). Anger Expression-In refers to the suppression of angry feelings. Anger Control-Out refers to the attempt to control the expression of anger toward others or objects in the environment, and Anger Control-In refers to the control of suppressed angry feelings by attempts to cool off or calm down.

According to Deffenbacher (1996), anger appears to be elicited or influenced by four types of stimuli or precipitants including: external situations, external situations that

trigger memories and images, internal states, and one's immediate preanger state. External situations may not only elicit anger but may also trigger anger-related memories or images, which may further elicit angry feelings. Internal stimuli including cognitive processes may also elicit anger. Anger may also be influenced by an individual's preanger state, or what the individual is feeling at the time. One's preanger state is composed of two parts, enduring personal characteristics and the current physical, emotional, and cognitive state (Deffenbacher, 1996). The precipitating source of the anger is then appraised by the individual, which leads to the anger response. In other words, the individual's interpretation of events (internal/external) influences the experience and expression of anger. These thoughts, or images have an impact on the anger responses. The anger response includes physiological, emotional, and cognitive elements and may be expressed in numerous behaviors.

Schemas

Schemas, as described by Beck (1967), Segal (1988), and Young (1999) are stable and enduring cognitive structures, which form the very core of one's self-concept. Beck (1964), further defines the content of these schemas as core beliefs. According to Young (1999), schemas, or early maladaptive schemas (EMS), develop during childhood as the child interacts with significant others and experiences a series of life situations. Eighteen Early Maladaptive Schemas have been identified by Young including: Abandonment/Instability, Mistrust/Abuse, Emotional Deprivation, Defectiveness/Shame, Social Isolation/Alienation, Dependence/Incompetence, Vulnerability to Harm or Illness, Enmeshment/Undeveloped Self, Failure, Entitlement/Grandiosity, Insufficient Self-Control/Self-Discipline, Subjugation, Self-Sacrifice, Approval-Seeking/Recognition-

Seeking, Negativity/Pessimism, Emotional Inhibition, Unrelenting Standards/Hypercriticalness, and Punitiveness. Once developed, schemas are elaborated throughout the individual's life and it is through these schemas that the individual views the world. Schemas are resistant to change and are perpetuated by selectively filtering for corroborating experiences. While people can have positive and negative beliefs about themselves, it is the negative schemas that are related to psychological distress and emotional suffering.

Correlates of Schemas/Negative Thought Processes

Previous research has focused on negative self-schemas with several mental health variables. Beck (1963) found that the thoughts of depressive individuals are pervasively oriented in the direction of negativity. Subsequent researchers have confirmed this negativity bias to be a logical interpretation of the clinical symptoms of depression (Haaga, Dyck, & Erst, 1991). Early Maladaptive Schemas have been reported to be the source of dysfunctional behavior as well as mental health conditions including depression, phobias and anxiety (Rittenmyer, 1997).

Anticipated Relationships

It seems highly possible, given a review of theoretical models of anger and schemas, that relationships exist between belief systems and the experience and expression of anger. More specifically, it could be anticipated that significant positive relationships exist between endorsement of beliefs related to the expectation that others will intentionally harm or take advantage of one in some way and the experience of anger. In addition, endorsement of beliefs related to dependence or incompetence and setting rigid, unrealistic expectations for oneself would also seem to influence one's experience

with anger. Other anticipated relationships involve the expression of anger. It would seem that people with a belief that they are superior to others and are entitled to special privileges would be more likely to express their anger outwardly, regardless of the feelings of others. Whereas people who tend to suppress their own emotions or believe that expressing emotions leads to negative consequences, would be anticipated to suppress their angry feelings. Finally, it could be anticipated that people who endorse the belief that they have a lack of self control, may make fewer attempts to control the expression of angry feelings.

Statement of the Problem

It is highly possible that the experience and expression of anger may be related to the types of core beliefs that people hold regarding themselves, their world, and their future. However, no existing research has been conducted to explore the relationship between anger and schemas. A better understanding of the factors that influence or are associated with the experience and expression of anger is needed in order to effectively help individuals seeking mental health services for anger or frustration. The problem investigated in this study was the relationship between negative self-schemas and anger.

Purpose of the Study

The purpose of the study was to explore the relationship of negative self-schemas with the experience (State Anger and Trait Anger) and expression (Anger Expression-Out, Anger Expression-In, Anger Control-Out, Anger Control-In) of anger. Given the paucity of research on this topic, this study was exploratory in nature. It was anticipated however, that significant relationships existed between negative self-schemas and the

experience of anger, and negative self-schemas with the expression of anger. These anticipated relationships will be discussed in the hypotheses section of the paper.

Significance of the Study

As mentioned previously, there has been a lack of empirical research exploring the relationship between negative self-schemas and the experience and expression of anger. More research is needed to better understand the relationship of cognitive factors with emotional experiences such as anger. Much of the research to date has established a relationship between negative thoughts, images, memories, and beliefs with the emotional states of depression and anxiety, (Clay, Anderson & Dixon, 1993; Beck, 1963; Haaga, Dyck, & Erst, 1991; Rittenmyer, 1997), but not with anger. Knowing more in this area could guide future interventions with clients in therapy, particularly those beliefs/belief systems associated with anger and anger expression.

Research Questions

The following research questions were addressed in this study:

1. What is the relationship of negative self-schemas (as defined by Young, 1999) with the experience of anger (as defined by Spielberger, 1999)?

1a. What is the relationship of negative self-schemas with State anger?

1b. What is the relationship of negative self-schemas with Trait anger?

2. What is the relationship of negative self-schemas (as defined by Young, 1999) with the expression of anger (as defined by Spielberger, 1999)?

2a. What is the relationship of negative self-schemas and Anger Expression-Out?

2b. What is the relationship of negative self-schemas and Anger Expression-In?

2c. What is the relationship of negative self-schemas and Anger Control-Out?

2d. What is the relationship of negative self-schemas and Anger Control-In?

2e. What is the relationship of negative self-schemas and the general expression of anger.

Research Hypotheses

1. Significant relationships were expected between the negative self-schema subscales and the experience of anger subscales (State and Trait anger). Based on a review of the conceptual models of anger and schemas, it was hypothesized that a significant positive relationship would exist between the negative self-schemas of Mistrust/Abuse, Unrelenting Standards and Dependence/Incompetence with the experience of anger (State and Trait).

2. It was expected that significant relationships exist between negative self-schemas and anger expression. Based on a review of the conceptual models of anger and schema, it was hypothesized that relationships would exist between the schemas in the domain of Impaired Limits, in particular, the Entitlement schema with the outward expression of anger (AX-O). The schemas Emotional Inhibition and Subjugation were hypothesized to be significantly and positively related to holding anger in, or suppression (AX-I). The schema of Insufficient Self-Control/Self-Discipline was hypothesized to be significantly and negatively related to attempts to control the outward expression of anger (AC-O) and attempts to control suppressed anger by calming oneself (AC-I).

Definition of Terms

Schema: Schemas are negative core beliefs about oneself and the environment that are self-perpetuating, resistant to change, and accepted without question by the individual. They typically develop during childhood and become more complex throughout an

individual's life. Schemas are not always in one's awareness and operate in subtle ways. When these beliefs are activated by events, one's thoughts are dominated by them (Young, 1999). Schemas will be measured using the Young Schema Questionnaire (YSQ), short form. Eighteen Early Maladaptive Schemas have been identified by Jeffrey E. Young, which are grouped into five broad schema domains. Each of the schema domains corresponds to the five developmental needs of the child, which Young hypothesizes, may not have been met (Young, 1999). The five broad schema domains and 18 schemas according to Young (1999, pp. 12-16) are:

1. Disconnection and Rejection: The expectation that basic needs will not be met in a predictable manner including, needs for security, safety, stability, nurturance, empathy, sharing of feelings, acceptance, and respect. Several schemas are identified within this domain including Abandonment/Instability, Mistrust/Abuse, Emotional Deprivation, Defectiveness/Shame, and Social Isolation/Alienation.

1a. Abandonment/Instability (AB): Involves the perceived instability or unreliability of anyone available for emotional support and attachment. One believes that significant others will be unable to provide support and protection because they will die imminently, abandon the individual, or because they are emotionally unstable or unreliable.

1b. Mistrust/Abuse (MA): The expectation that others will intentionally harm or take advantage in some way.

1c. Emotional Deprivation (ED): The belief that one's primary emotional needs, including nurturance, empathy, and protection will not be adequately met by others.

1d. Defectiveness/Shame (DS): The belief that one is internally flawed, inadequate or unlovable to significant others. If others get close, they will realize these internal flaws and will withdraw from the relationship.

1e. Social Isolation/Alienation (SI): The belief that one is different from other people and feels isolated from any group or community.

2. Impaired Autonomy and Performance: Relates to expectations about oneself and the world around them that interfere with perceived ability to separate, survive, function independently, or perform successfully. Several schemas are identified within this domain including Dependence/Incompetence, Vulnerability to Harm and Illness, Enmeshment/Undeveloped Self, and Failure.

2a. Dependence/Incompetence (DI): The belief that one is not capable of handling day-to-day responsibilities competently and independently.

2b. Vulnerability to Harm or Illness (VH): The belief that one is perpetually awaiting the experience of a major medical, emotional or external catastrophe.

2c. Enmeshed/Undeveloped Self (EM): The belief that one is lacking in individual identity or inner direction and involves excessive emotional closeness with one or more significant others. Full individuation and normal social development is often compromised.

2d. Failure (FA): The belief that one is inadequate relative to one's peers in areas of achievement, such as career, school, or sports.

3. Impaired Limits: Refers to a deficiency in internal limits, responsibility to others, or long-term goal-orientation. Schemas identified within this domain include Entitlement/Grandiosity, and Insufficient Self-Control/Self-Discipline.

3a. Entitlement/Grandiosity (ET): The belief that one is superior to others and is entitled to special privileges and rights. The belief that one should be able to do, say, or have whatever one wants immediately regardless of whether that hurts others or seems reasonable to them.

3b. Insufficient Self-Control/Self-Discipline (IS): The inability to tolerate any frustration in reaching one's goals, as well as the inability to restrain expression of one's impulses or feelings.

4. Other-Directedness: Refers to an excessive focus on the needs of others at the expense of one's own needs. This focus on others is put forth in order to gain love and approval, to maintain a sense of connection, or to avoid retaliation. This tendency typically involves suppression and lack of awareness of own anger and natural inclinations. Schema within this domain include Subjugation, and Self-Sacrifice, and Approval-Seeking/Recognition-Seeking.

4a. Subjugation (SB): The tendency to suppress one's own needs or emotional expression, especially anger, in order to avoid retaliation or abandonment. One feels coerced into surrendering control to others and perceives own desires, opinions, and feelings are not valid or important to others.

4b. Self-Sacrifice (SS): The excessive voluntary sacrifice of one's own needs in order to help others. The motivation for this behavior may be to prevent causing

pain to others, to avoid feelings of guilt or selfishness, or to maintain connections with others.

4c. Approval-Seeking/Recognition-Seeking (AS): The excessive emphasis on gaining approval, admiration, and attention from others. One's true sense of self may be lost due to excessive concern of fitting in and being accepted by others.

5. Overvigilance and Inhibition: Refers to an excessive emphasis on suppressing feelings and impulses or meeting rigid, internalized rules and expectations about performance and ethical behavior. These rigid internalized rules and expectations are often at the expense of health and happiness as well as self-expression and close relationships. Several schemas are identified within this domain including, Negativity/Pessimism, Emotional Inhibition, Unrelenting Standards/Hypercriticalness, and Punitiveness.

5a. Negativity/Pessimism (N): A constant focus on negative aspects of life while minimizing or denying positive aspects. One often has an exaggerated expectation that things will go wrong and may possess an inordinate fear of making mistakes.

5b. Emotional Inhibition (EI): The belief that emotions and impulses must be inhibited. Any expression of feelings is believed to lead to negative consequences such as harming others or loss of self-esteem, embarrassment, retaliation or abandonment. The most common areas of inhibition include: inhibition of anger and aggression; inhibition of positive impulses such as joy and sexual excitement; difficulty expressing vulnerability to communicating freely about one's needs and an excessive emphasis on rationality rather than emotions.

5c. Unrelenting Standards/Hypercriticalness (US): The belief that one must strive to meet very high-internalized standards of behavior and achievement. This behavior is typically performed to avoid criticism and results in significant impairment in many areas, including relaxation, self-esteem, and satisfying relationships. Unrelenting standards may present as perfectionism; rigid rules, including unrealistically high moral, ethical, cultural, or religious precepts; and preoccupation with time and efficiency.

5d. Punitiveness (PU): The belief that people should be harshly punished for making mistakes, which may lead to a tendency to be angry or impatient with those who do not meet one's expectations and standards.

Experience of Anger: The experience of anger is conceptualized by Spielberger (1999), as having two major components, state and trait anger.

State Anger (S-Ang): An emotional state involving feelings that range in intensity from mild irritation or annoyance to intense fury and rage at a particular moment. This emotional state is psychobiological in that it is typically accompanied by muscular tension, and arousal of the neuroendocrine and autonomic nervous system. State anger will be measured using a 15-item scale that measures the intensity of current angry feelings. Higher scores indicate a greater intensity of angry feelings and a greater extent to which the person feels like expressing anger. State anger is conceptualized as having 3 subscales:

Feeling Angry (S-Ang/F): Refers to the intensity of angry feelings experienced in the current moment.

Feel Like Expressing Anger Verbally (S-Ang/V): Refers to the intensity of feelings experienced in the current moment related to the verbal expression of anger.

Feel Like Expressing Anger Physically (S-Ang/P): Refers to the intensity of feelings experienced in the current moment related to the physical expression of anger.

Trait Anger (T-Ang): An person's disposition to perceive situations as annoying and frustrating and the tendency to respond to these situations with an increase in state anger. High scores in trait anger suggest a higher frequency and greater intensity of state anger across situations/over time. Trait anger will be measured using an 8-item scale that measures the frequency which angry feelings are experienced over time. Trait anger is conceptualized as having 2 subscales.

Angry Temperament (T-Ang/T): Refers to a person's tendency to experience anger without provocation.

Angry Reaction (T-Ang/R): Refers to a person's tendency to experience anger in situations that involve frustration and/or negative evaluations.

Anger Expression: According to Spielberger (1999), the way in which people express angry feelings is conceptualized as having 4 major components. Anger expression will be measured using a 32-item scale that measures the frequency which angry feelings are expressed in each of the 4 subscales. Higher scores indicate a higher frequency of expression in respective subscales.

Anger Expression-Out (AX-O): Refers to the expression of angry feelings in verbally or physically aggressive behavior toward others or objects in the environment.

Anger Expression-In (AX-I): Refers to a person's holding in or suppressing angry feelings.

Anger Control-Out (AC-O): Refers to attempts to control angry feelings by way of preventing the expression of anger toward others or objects in the environment.

Anger Control-In (AC-I): Refers to attempts to control suppressed angry feelings by calming down or cooling off.

Anger Expression Index (AX-Index): Refers to a general index of anger expression based on one's modes of Anger Expression.

Assumptions

1. Participants answered all assessments openly and honestly and with equal motivation.

2. The measures used in this study captured a true representation of participants' experience of anger, expression of anger and negative self-schemas.

3. The participants were representative of a general college student population rather than a clinical population.

CHAPTER II

LITERATURE REVIEW

Introduction

The following literature review will demonstrate a need for further empirical research that examines the relationship between negative self-schemas and the emotion of anger. First, the emotion of anger will be explored. Conceptual models of anger, and research exploring this emotion will be explained. Second, theoretical models and research related to negative self-schemas will be explored. Third, and finally, the need for further research to explore the relationship of negative self-schemas and the experience and expression of anger will be discussed.

Anger

Different theories or conceptualizations of anger have been proposed to explain the development, nature, and maintenance of anger as well as its expression. According to Spielberger et al. (1983), "The concept of anger usually refers to an emotional state that consists of feelings that vary in intensity, from mild irritation or annoyance to fury and rage" (p. 162). Spielberger (1999) conceptualizes the experience of anger as having two major components-State and Trait anger. Spielberger (1999) defines State Anger as an emotional state or condition with psychological and biological components. State Anger is characterized by subjective feelings of anger mentioned above. Anger is typically accompanied by biological elements including muscular tension and arousal of the neuroendocrine and autonomic nervous systems. Spielberger (1999) theorizes that the intensity of State Anger varies over time as a function of perceived injustice, maltreatment, or frustration resulting from barriers to goal-directed behavior. Trait Anger

is defined by Spielberger (1999), as "individual differences in the disposition to perceive a wide range of situations as annoying or frustrating and by the tendency to respond to such situations with elevations in State Anger" (p.1). Individuals who experience high levels of Trait Anger also experience State Anger more frequently and with greater intensity as compared to individuals with low Trait Anger.

The expression of anger is conceptualized by Spielberger (1999), as having four major components. The first component, Anger Expression-Out, refers to the outward expression of anger, with an emphasis on verbal or physical expressions of anger. Anger is directed toward other persons or objects in the environment. Anger expression-In is the second component, which involves holding in or suppressing angry feelings. The third component, Anger Control-Out refers to the attempt to control the expression of anger toward others or objects in the environment. Anger Control-In is the fourth component and refers to the control of suppressed angry feelings. The suppressed anger is controlled by attempting to calm down or cool off when angered.

According to Deffenbacher (1996), "Conceptual confusion exists in defining and delineating meaningful groups of dysfunctional anger reactions"(p.31). The way in which individuals behave when angered varies considerably across a wide range of adaptive and maladaptive responses. Some individuals may physically or verbally assault others, objects or themselves; others may become assertive and engage in active problem solving. Still others suppress their behavioral responding and exhibit minimal outward expression, become withdrawn and distance themselves from provocation or may engage defense mechanisms, while others may pout and sulk. Deffenbacher (1996), proposes four types of stimuli thought to elicit or influence anger including: external situations,

external situations that trigger memories and images, internal states, and one's immediate preanger state. It appears that anger may be elicited by a relatively clear precipitant, which is often easily identified by the individual. Such precipitants may include specific circumstances, behavior of others, specific objects, impersonal events or one's own behavior and characteristics. Deffenbacher (1996) reports that anger may be related to external events, however it may be elicited more through anger-related memories and images rather than direct provocation. In this case, the memories and images themselves may further elicit angry feelings. Anger may also be elicited by internal stimuli, including cognitive processes, as well as other emotions such as hurt, rejection, or anxiety. In other words, "anger is secondary to and heavily influenced by other internal emotional and cognitive processes" (Deffenbacher, 1996, p. 35). Finally, anger may be influenced by one's immediate preanger state, or what the individual is feeling and thinking at the time. Research has shown that if an individual is angry or frustrated, the excitement from that arousal can transfer to subsequent situations (Zillman, 1971; Zillman & Bryant, 1974). Other researchers have found that most other aversive states appear to increase the likelihood and intensity of anger (Berowitz, 1990). In turn, aversive images and memories increase and the threshold for anger reactions is lowered (Deffenbacher, 1996).

Deffenbacher (1996), reports, "The preanger state is composed of two parts, enduring personal characteristics and the momentary physical-emotional-cognitive state" (p. 36). The concept of enduring personal characteristics may be explained using Beck's (1967) concept of personal domain. As reported by Beck (1967), one's personal domain refers to the things that the individual believes in, cares about, or values. According to

Beck (1967), anger results from a perceived violation of or trespass on this personal domain.

Deffenbacher (1996) reports that dysfunctional anger can result from extensive and rigid boundaries to one's personal domain. Anger is also influenced by the momentary or immediate physical-emotional-cognitive state of the person. The individual's enduring and temporary state interact with and appraise the anger-precipitant. The primary appraisal process involves an evaluation of the precipitating source. According to Deffenbacher (1996), "this involves encroachment on the personal domain, violation of expectations and rules for living, and/or blockage of goal-directed behavior" (p. 37). The individual perceives that the situation "should not" be happening. A secondary appraisal process involves the evaluation of the individual's ability to cope with the situation. Anger may elevate when the individual feels unable to cope with the situation or feels that they should not be subject to such feelings and therefore should not have to deal or cope with the event. Deffenbacher (1996) states, "Anger-engendering appraisals activate physiological, emotional, and cognitive response systems" (p. 39). Physiological responses include arousal of the sympathetic nervous system, constriction of the skeletal and facial muscles and release of adrenal hormones. The emotional response to anger is experienced along a continuum that ranges from mild annoyance to fury and rage. Cognitively, anger results from the appraisal of perceived trespass on one's personal domain. The physiological, emotional, and cognitive response systems are somewhat correlated and influence each other (Deffenbacher, 1996).

Correlates of Anger

Previous research has focused on the experience and expression of anger and the relationship with numerous variables. Anger has been associated with a number of different variables including physical health problems such as hypertension (Crane, 1981; Harburg, Erfurt, Hauenstein, Chape, Schull, & Schork, 1973), coronary heart disease (Friedman & Roseman, 1974; Matthews, Glass, Rosenman, & Bortner, 1977; Spielberger & London, 1982), and cancer (Greer & Morris, 1975). Researchers have discovered that high blood pressure is associated with persistently experienced, suppressed, or aggressively expressed forms of anger (Spielberger, Krasner, & Solomon, 1988; Spielberger, Ritterband, Sydeman, Reheiser, & Unger, 1995) and cardiovascular disease (Siegman & Smith, 1994).

In addition to physical health problems, research has also found a relationship between anger and mental health problems (e.g. depression, PSTD). For example, suppressed anger has been reported to be a significant predictor of depression (Clay, Anderson, & Dixon, 1993). Morena et al. (1993) found a clear relationship between measures of anger, hostility, and depression. In another study, a strong relationship was discovered between anger suppression and emotional pain experienced by clients diagnosed with Posttraumatic Stress Disorder (Spielberger, 1999).

Anger has also been associated with demographic characteristics such as gender. Research in this area has produced conflicting results. Some researchers have found no significant gender differences in the expression of anger. Averill (1983) found no gender difference among a community sample in the frequency, intensity, and precipitating factors of anger, nor in the manner of expression. Greenglass and Julkunum (1989) and

Thomas and Williams (1990) found no gender difference in anger expression among a college student population. Kopper & Epperson (1991) reported no significant differences in the expression of anger; however, they did find significant relationships between sex role identity and anger proneness and anger expression. In another study, few overall gender-based differences in anger were found. However, women reported negative emotions stemming from their anger more frequently than men (Deffenbacher, Oetting, et al., 1996). Thomas (1989) found no gender difference in anger expression among middle-aged adults.

Other researchers however, have found that gender differences do in fact exist in the expression of anger. Funabiki, Bologna, Pepping, and FitzGerald (1980) found that gender differences did exist among a college student sample. Specifically, females reported openly expressing hostile statements more frequently than males. Malatesta-Magai, Jonas, Shepard, and Culver (1992) and Zuckerman (1989) found that young, college-aged women were more likely to express anger than men. Some researchers propose the idea that gender role characteristics rather than gender per se may be associated with different forms of anger expression (Kopper, 1993; Kopper & Epperson, 1991).

The cross-cultural analysis of anger has received little attention in the literature, and most findings are based on predominantly White samples. Although anger is thought to be a universal experience, it is possible that the experience and expression of anger may be influenced by an individual's worldview and cultural background (Sharkin, 1996).

Schemas

Schemas have been a focus in the mental health literature for several decades. Despite this focus, terminology and definitions of schemas remain varied. As introduced by Bartlett (1932), a schema is a cognitive structure that organizes past experiences and guides subsequent evaluation and interpretation of information and experiences. Past experiences become constructed memories through the use of schemas, which also determine which information will be attended to, stored and used as the basis for behavior (Taylor & Crocker, 1981). Other theorists (Beck 1967, Segal 1988, & Young 1999) provide similar definitions of schemas, in that they are stable and enduring cognitive structures that form the very core of one's self-concept. According to Segal (1988) schemas are "organized elements of past reactions and experiences that form a relatively cohesive and persistent body of knowledge capable of guiding subsequent perception and appraisals' (p. 147).

Schemas are further defined by Beck (1964), as core beliefs. According to Beck (1964) core beliefs are one's most central ideas about the self. Core beliefs are global, rigid and overgeneralized. Core beliefs are the most fundamental level of belief in Beck's Cognitive Model, which hypothesizes that emotions and behaviors are influenced by perceptions of events (Beck, 1964). These understandings of the self are viewed as so fundamental and deep that they are often never articulated, even to oneself. Core beliefs develop during childhood as one tries to make sense of the world, through experiences and interactions with significant others. Most people develop positive core beliefs, which they maintain throughout most of their lives. However, during times of psychological distress, negative core beliefs may surface. Beck theorizes that negative core beliefs fall

into two broad categories that include beliefs associated with helplessness and beliefs associated with unlovability. It is possible for individuals to hold negative core beliefs in one or both of these areas. Not only are these negative core beliefs applied to oneself, but they may also be applied to others and the world around them (Beck, 1995). Core beliefs influence the development of intermediate beliefs, which in part determine how one perceives a situation (Beck, 1964). Intermediate beliefs consist of attitudes, rules, and assumptions which influence thoughts, feelings, and behavior. The third, and most superficial level of cognition, according to Beck's model, is automatic thoughts. Automatic thoughts are the images or words that go through one's mind in a specific situation. This level of cognition is not the result of deliberation or reasoning, rather it is automatic (Beck, 1995). So, according to the cognitive model, during times of psychological distress, negative core beliefs about oneself trigger intermediate beliefs and challenge rules, attitudes and assumptions. These intermediate beliefs influence one's perception of a specific event and elicit automatic thoughts which in turn influence emotions and behavior.

According to Young (1999), Early Maladaptive Schemas (EMS) "refer to extremely stable and enduring themes that develop during childhood, are elaborated throughout an individual's lifetime, and are dysfunctional to a significant degree" (p. 9). Young defines schemas as templates with defining characteristics, which serve in the cognitive processing of subsequent experiences. Young (1999) states "Early Maladaptive Schemas are unconditional beliefs and feelings about oneself in relation to the environment" (p. 9). Schemas result from the interaction between a child's innate temperament and dysfunctional experiences with significant others in their environment

during the first few years of life. Such beliefs exist at the deepest level of cognition. They are rigid and taken for granted, and when activated, inevitably result in a perceived negative outcome. Schemas are resistant to change and are perpetuated, as they become a means to comprehend and manage the environment. As stated by Young (1999), "Because schemas are developed early in life, they often form the core of an individual's self-concept and conception of the environment. These schemas are comfortable and familiar, and when they are challenged, the individual will distort information to maintain the validity of these schemas" (p. 9). Thus schemas are further elaborated and perpetuated by selectively filtering for corroborating experiences. Schemas are dysfunctional and are hypothesized to lead to psychological distress, including depression and panic (Young, 1999). Schemas are also hypothesized to lead to dysfunctional relationships with others, inadequate work performance, addictions, and psychosomatic disorders (Young, 1999). When activated by events in the environment, schemas often produce high levels of affective arousal.

Schemas are perpetuated and influence behavior through three schema processes: schema maintenance, schema avoidance, and schema compensation. Schema maintenance can operate at both cognitive and behavioral levels. At the cognitive level, schemas are maintained by cognitive filtering--highlighting information that confirms the schema and minimizing or denying information that contradicts it (Young, 1999). Beck (1967) refers to these schema maintenance processes as cognitive distortions. Schemas are also maintained at the behavioral level through self-defeating behavior patterns. According to Young (1999), "Maladaptive partner selection is one of the most common mechanisms through which schemas are maintained" (p. 21). In order to avoid triggering

schemas and prevent the experiencing of high levels of affect, such as anger, anxiety, sadness, or guilt, people develop automatic and volitional schema avoidance techniques. Cognitive avoidance refers to attempts to block thoughts or images that may trigger a schema. Affective avoidance are attempts to block or numb painful emotions that are triggered by schema activation. A final type of avoidance is behavioral avoidance, which refers to the avoidance of situations that trigger schemas (Young, 1999).

Schema compensation are processes used to overcompensate for Early Maladaptive Schemas. This is accomplished by developing cognitive or behavioral styles that are opposite to what would be expected of the schema (Young, 1999).

Eighteen Early Maladaptive Schemas have been identified by Young (1999), and are grouped into five schema domains. The Schema domains are consistent with five primary developmental tasks, that are believed necessary to be negotiated, in order for a child to develop in a healthy manner (Young, 1999). It is theorized that when any of the five tasks are not met, the individual will experience difficulty functioning in one or more of the domains. Young (1999) notes that biology and temperament, as well as parenting styles and social influences, also play some role in the child's ability to negotiate each developmental task and thus the development of schemas.

In the next section, the five schema domains will be discusses. The first domain is Disconnection and Rejection and is characterized by an expectation that one's primary needs will not be met in a predictable manner by significant others. Early Maladaptive Schemas contained in this domain include: Abandonment/Instability, which involves a belief that others are unreliable for emotional support and attachment. Mistrust/Abuse, which is the belief that others will intentionally harm in some way. Emotional

Deprivation, that involves the belief that one's emotional needs will not be met by others. Defectiveness/Shame, characterized by the belief that one is internally flawed, inadequate, or unlovable. Social Isolation/Alienation, involving the belief that one is different from others and feels isolated from any group. The second domain is Impaired Autonomy and Performance which refers to expectations one has about oneself and the world that interfere with one's perceived ability to individuate, survive and function independently or successfully. Schemas in this domain include: Dependence/Incompetence, which is the belief that one is incompetent in functioning independently in everyday life. Vulnerability to Harm or Illness, that involves the belief that something catastrophic is inevitable. Enmeshment/Undeveloped Self, which is characterized by the belief that one is lacking in individual identity or inner direction. Failure, involving the belief that one is inadequate relative to others in areas of achievement. The third domain, Impaired Limits, refers to a deficiency in internal limits and responsibility to others, as well as long-term goal-orientation. Negative self-schemas include: Entitlement/Grandiosity, which is the belief that one is superior, and therefore should be entitled to special privileges. Insufficient Self-Control/Self-Discipline, which involves the inability to tolerate any frustration in reaching goals, and an inability to restrain expression of impulses and feelings. The fourth domain is Other-Directedness, which refers to an excessive focus on the needs and responses of other, at the expense of one's own needs. This focus on others is typically in order to gain love or approval. Schemas in this domain include: Subjugation, which involves a tendency to suppress one's own needs or emotions, and feelings of being coerced into surrendering control to others. Self-Sacrifice, is characterized by the excessive voluntary sacrifice of one's own

needs in order to help others. Approval-Seeking/Recognition-Seeking, that involves the excessive emphasis on gaining approval, admiration, and attention from others. The final domain, Overvigilance and Inhibition, refers to an excessive emphasis on suppressing one's spontaneous feelings and impulses. It also refers to emphasis on meeting rigid, internalized rules and expectations about performance and behavior. Early Maladaptive Schemas in this domain include: Negativity/Pessimism, which is a constant focus on negative aspects of life while minimizing or denying positive aspects. Emotional Inhibition, which is characterized by the belief that emotions and impulses must be inhibited. Unrelenting Standards/Hypercriticalness, that involves striving to meet very high-internalized standards of behavior and achievement. Punitiveness, that involves the belief that people should be punished harshly for making mistakes (Young, 1999).

Correlates of Schemas/Negative Thought Processes

Previous research has focused on *negative self*-schemas with several mental health variables. Beck (1963) found that the thoughts of depressive individuals are pervasively oriented in the direction of negativity. Subsequent researchers have confirmed this negativity bias to be a logical interpretation of the clinical symptoms of depression (Haaga, Dyck, & Erst, 1991). Early Maladaptive Schemas have been reported to be the source of dysfunctional behavior as well as mental health conditions including depression, phobias and anxiety (Rittenmyer, 1997). In one study, self-intimacy and self-trust schemas were found to be related to self-esteem (Black & Pearlman, 1997). Belief systems have also been associated with personality pathology. In a pilot study, personality pathology was associated with a schema-congruent implicit attributional bias (Dreessen et al., 1999). These cognitive biases are believed to underlie

emotional and behavioral problems. In the same pilot study, low self-esteem was found to be associated with cognitive bias.

Relationship of Anger and Negative Thought Processes

Researchers have identified key elements of anger episodes including, precipitants or instigators, cognitive components, physiological reactions and behavior manifestations. Theory and research has identified negative self-schemas and negative core beliefs as important factors in emotion and behavior. It seems quite probable that a relationship exists between negative self-schemas and the experience and expression of anger. However, no research to date has explored the relationship of negative self-schemas with the experience and expression of anger. This will be the focus of this current research study.

CHAPTER III

METHOD

Participants

The participants in this study included 264 undergraduate students at a midwestern university. Of the 264 packets of data that were collected, four of the packets were missing a significant amount of data. Therefore, it was decided to omit those four participants from the sample. The four participants who were omitted from the sample were all white males. Of the 260 remaining participants, approximately 64% were female (64.4%, n=170) and 35% were male (35.2%, n=89). The mean age of the 260 participants was 20.98 (sd=3.90), with a range of 18 to 63 years. The majority of the participants were White (81.5%, n=212), approximately 8% were self-identified as ethnically diverse (8.8%, n=23), 3.8% were American Indian/Native American (n=10), 3.4% were African American/Black (n=9), 1.1% were Asian (n=3), and 1.1% were Hispanic (n=3). The majority of the participants in the sample were single (88.1%, n=229), 5.3% were married (n=14), 4.9% were partnered or living with a partner (n=13), 1.1% were divorced (n=3); and 0.4% was widowed (n=1).

In terms of academic class, 39.2% of the sample were sophomores (n=102), 20.8% were freshman (n=54), 21.2% were juniors (n=55), and 18.8% were seniors (n=49). The mean number of months in college was 27.55 months (sd=14.82), with a range of 4 to 84 months. The majority of the sample were not members of a sorority or fraternity (69.2%, n=180), with 30.8% reporting greek status (n=80). Approximately half of the sample (54.2%, n=141) lived off campus, 25.0% lived in residence halls on campus

(n=65), 20.0% lived in sorority/fraternity houses (n=52); and 0.8% lived in on-campus apartments (n=2).

The 260 participants were raised in predominantly rural communities (45.9%, n=119), but urban (27.4%, n=71), and suburban (26.6%, n=690) participants were also represented. On average, the participants in the study reported a mean yearly family income range of 50,001-60,000.

Instruments

The study attempted to examine beliefs about oneself (negative self-schemas), and the experience and expression of anger. Instruments included the Young Schema Questionnaire-short form (YSQ; Young, 1991), the State-Trait Anger Expression Inventory-2 (STAXI-2; Spielberger, 1999), and a demographic sheet.

The Young Schema Questionnaire. Negative self-schemas were measured using the short form of the Young Schema Questionnaire (YSQ; Young, 1991), a 75-item self-report inventory designed to measure early maladaptive schemas (EMS). Since the publication of the Young Schema Questionnaire, the number of schemas has increased from 15 to 18, now including Approval-Seeking/Recognition-Seeking, Punitiveness, and Negativity/Pessimism (mentioned previously in the definition of terms). Young (1999) reports that a new version of the YSQ will reflect these changes; however, it is not yet available. Each of the 15 early maladaptive schemas that were measured using the YSQ are listed, followed by an example of an item from each schema subscale. Emotional Deprivation, "Most of the time, I haven't had someone to nurture me, share him/herself with me, or care deeply about everything that happens to me". Abandonment/Instability, "I find myself clinging to people I'm close to because I'm afraid they'll leave me".

Mistrust/Abuse, "I feel that people will take advantage of me". Social Isolation/Alienation, "I don't fit in". Defectiveness/Shame, "No man/woman I desire could love me once he/she saw my defects". Failure, "Almost nothing I do at work (or school) is as good as other people can do". Functional Dependence/Incompetence, "I do not feel capable of getting by on my own in everyday life". Vulnerability to Harm and Illness, "I can't seem to escape the feeling that something bad is about to happen". Enmeshment/Undeveloped Self, "I have not been able to separate myself from my parent(s), the way other people my age seem to". Subjugation, "I feel that I have no choice but to give in to other people's wishes, or else they will retaliate or reject me in some way". Self-Sacrifice, "I'm the one who usually ends up taking care of people I'm close to". Emotional Inhibition, "I am too self-conscious to show positive feelings to others (e.g., affection, showing I care)". Unrelenting/Unbalanced Standards, "I must be the best; I can't settle for 'good enough'". Entitlement/Self-Centeredness, "I have a lot of trouble accepting 'no' for an answer when I want something from other people". Insufficient Self-Control/Self-Discipline, "I can't seem to discipline myself to complete routine or boring tasks".

Participants responded to each of the 75 items of the YSQ using a 6-point Likert scale (1=Completely untrue of me, 6=Describes me perfectly). Schema subscale scores are computed by summing the responses to the 5 items of each schema subscale on the questionnaire. Subscale scores can range from 5 to 30. Higher scores indicate higher agreement with the statements.

Coefficient alphas for the long form of the YSQ range from .83 to .96. Test reliability coefficients range from .50 to .82 (Schmidt, N. B. & Joiner, Jr., T. E; Young,

range from 5 to 20. Higher scores indicate a higher intensity of current angry feelings. An example of Feeling Angry item is, "I feel angry".

Feel Like Expressing Anger Verbally (S-Ang/V) is a 5-item State Anger subscale intended to measure the intensity of angry feelings related to verbally expressing anger at the time of administration. A subscale score is computed by summing the 5 item responses of this subscale. Scores can range from 5 to 20. Higher scores indicate a higher intensity of current feelings related to the verbal expression of anger. An example of a Feel Like Expressing Anger Verbally item is, "I feel like swearing".

Feel Like Expressing Anger Physically (S-Ang/P) is a 5-item State Anger subscale intended to measure the intensity of angry feelings related to physically expressing anger at the time of the administration. A subscale score is computed by summing the 5 item responses of this subscale. Scores can range from 5 to 20. Higher scores indicate higher intensity of current feelings related to the physical expression of anger. An example of a Feel Like Expressing Anger Physically item is, "I feel like kicking somebody".

Trait anger (T-Ang) is a 10-item scale, which is designed to measure the degree to which participants generally feel angry. Participants responded to each item using a 4-point Likert scale (1=Almost never, 4=Almost always). A Trait Anger score is computed by summing items 16 to 25 on the questionnaire. Scores can range from 10 to 40. Higher scores indicate a higher frequency of angry feelings experienced over time. An example of a Trait Anger item is, "I am quick tempered".

Angry Temperament (T-Ang/T) is a 4-item Trait Anger subscale intended to measure the intensity of participant's disposition to experience anger without provocation. A subscale score is computed by summing the 4 item responses of this

subscale. Scores can range from 4 to 16. Higher scores indicate a greater disposition to experience anger without specific provocation. An example of an Angry Temperament item is, "I fly off the handle".

Angry Reaction (T-Ang/R) is a 4-item Trait Anger subscale intended to measure the frequency with which participants experience angry feelings in situations that involve frustration or negative evaluation. A subscale score is computed by summing the 4 item responses of this subscale. Scores can range from 4 to 16. Higher scores indicate a higher frequency that angry feelings are experienced in situations that involve frustration and/or negative evaluations. An example of an Angry Reaction item is, "It makes me furious when I am criticized in front of others".

Anger Expression-Out (AX-O) is an 8 item anger expression subscale which measures the frequency with which participants express anger using verbal or physical aggression. Participants responded to the anger expression scale items using a 4-point Likert scale (1=Almost never, 4=Almost always). An Anger Expression-Out score is computed by summing the 8 item responses of this subscale. Scores can range from 8 to 32. Higher scores indicate a higher frequency of angry feelings being expressed using verbally or physically aggressive behavior. An example of an Anger Expression-Out item is, "I express my anger".

Anger Expression-In (AX-I) is an 8 item subscale designed to measure the frequency with which participants generally suppress angry feelings. An Anger Expression-In score is computed by summing the 8 item responses of this subscale. Scores can range from 8 to 32. Higher scores indicate a higher frequency of angry

feelings being suppressed. An example of an Anger Expression-In item is, "I withdraw from people".

Anger Control-Out (AC-O) is an 8 item subscale designed to measure the frequency with which participants tend to control the outward expression of angry feelings. An Anger Control-Out score is computed by summing the 8 item responses of this subscale. Scores can range from 8 to 32. Higher scores indicate a higher frequency of controlling the outward expression of angry feelings. An example of an Anger Control-Out item is, "I keep my cool".

Anger Control-In (AC-I) is an 8 item subscale intended to measure the frequency with participants tend to attempt to control angry feelings by internal processes of calming oneself. An Anger Control-In score is computed by summing the 8 item responses of this subscale. Scores can range from 8 to 32. Higher scores indicate a higher frequency of attempts to control angry feelings by "calming down or cooling off" (Spielberger, 1999, p. 2). An example of an Anger Control-In (AC-I) item is, "I try to soothe my angry feelings."

Anger Expression Index (AX Index) is measured using 32 items and provides a general index of anger expression based on responses to the AX-O, AX-I, AC-O, and AC-I items. An Anger Expression Index score is computed using the formula AX-O + AX-I – (AC-O + AC-I) + 48. High index scores indicate intense angry feelings, which may be suppressed or expressed outwardly or both. The most frequent mode of anger expression can be inferred from the relative elevations in AX-I and AX-O scores.

Coefficient alphas for the anger experience scales (state and trait) range from .73 to .94 (Spielberger, 1999). Coefficient alphas for the anger expression scales range from

.73 to .94 (Spielberger, 1999). The internal consistency estimates for the STAXI subscales ranged from .72 to .90 for this sample (See Table 2).

Demographic Questionnaire: The demographic questionnaire was used to collect basic demographic information on the participants including age, gender, race, marital status, education level/academic class (e.g. freshman, sophomore etc.), current living situation (e.g. residence hall, on/off-campus housing), greek status, type of community in which they were raised, and Socioeconomic Status. The demographic sheet also included three questions related to the acceptance of anger expression in participants' family, race, and peer group.

Procedure

Participants were recruited from undergraduate education, psychology, sociology, and wellness courses at a midwestern university. The primary investigator attended the class and introduced the study that was being conducted. Those students who were interested in participating read and signed an informed consent and completed a packet of questionnaires. The packet included the YSQ, the STAXI-2, and the demographic sheet. Participants were instructed not to write their names anywhere on the forms nor on the packet. The informed consent form was collected separately from the packet to ensure anonymity and confidentiality of participant responses. Data is being kept in a locked file cabinet in Dr. Winterowd's office.

CHAPTER IV

RESULTS

The primary independent variables in this study were the 15 negative self-schemas. The dependent variables were the anger subscales: State Anger, Trait Anger, Anger Expression-Out, Anger Expression-In, Anger Control-Out, Anger Control-In, and the overall anger expression. A summary of means, standard deviation, and ranges of subscales for the STAXI and YSQ can be found in Tables 3 and 4 respectively.

T-test analyses were conducted to explore mean differences on the anger subscale scores by race, gender, age, and yearly family income level. A median split was used to classify people into two age groups (Younger = 18 to 20, Older = 21 to 63 years) and two income groups (Lower income = 0 to $60,000, and Higher income = $60,001 and higher). Race was split into two groups (Nonminority and Minority). Race was divided into only two groups due to the small number of ethnically diverse participants in this sample. It is important to recognize that placing ethnic minority groups into one category describes the general minority experience, rather than the unique experiences of individuals within different minority groups.

Results indicated some significant mean anger subscale differences by race and gender. In particular, significant mean differences were found between nonminority participants and minority participants on the following anger subscales: Trait Anger (T-Ang), nonminority ($M = 17.65$, $SD = 4.94$), minority ($M = 20.01$, $SD = 5.93$), $t(258) = -2.96$, $p = .003$; Trait Anger : Angry Temperament (T-Ang/T) nonminority ($M = 6.15$, $SD = 2.32$), minority ($M = 7.21$, $SD = 3.22$), $t(258) = -2.64$, $p = .009$; Anger Control-Out

(AC-O) nonminority (M = 15.96, SD = 4.02), minority (M = 16.91, SD = 4.30), t(258) = 2.50, p = .013; and Anger Expression Index (AX-Index) nonminority (M = 35.25, SD = 13.91), minority (M = 40.29, SD = 14.34), t(258) = -2.25, p = .025. Thus, minority student participants reported higher levels of trait anger in general, a greater tendency to become angry across situations without provocation, and more frequent anger expression (in or out) compared to nonminority student participants. When comparing the mean scores of these 3 subscales for minority and nonminority students with the normative tables in the STAXI-2 manual, the minority students, on average, had levels of Trait Anger, Trait Anger: Angry Temperament and overall anger expression that are in the normal range of experience. However, minority student participants' average scores on these 3 anger subscales were approximately 1point away from clinically significant levels of Trait Anger, Trait Anger: Angry Temperament, and general anger expression.

A significant mean difference was found between males (M = 9.08, SD = 2.71) and females (M= 8.30, SD = 2.56) on Trait Anger: Angry Reaction (T-Ang/R), t(257) = 2.29, p = .023. Thus the male student participants in this sample reported a greater tendency to feel angry when provoked compared to the female student participants.

Students were asked about the degree to which their expression of anger was acceptable in 1) their family, 2) their racial/cultural group, and 3) among their friends/peers. On average, students scored above 4 on a 7-point Likert scale on each of these 3 items, 1 being strongly disagree and 7 being strongly agree: anger expression in family (M = 4.67, SD = 1.64), anger expression in race (M = 4.72, SD = 1.57), anger expression among friends (M = 4.78, SD = 1.59). Thus, on average, student participants

reported moderate agreement that their anger expression was acceptable in their family, racial/cultural group, and among peers.

Pearson correlational analyses (two-tailed) and stepwise multiple regression analyses were conducted to explore the relationship of the 15 negative self-schemas with the experience of anger (State Anger and Trait Anger), and the expression of anger (Anger Expression-Out, Anger Expression-In, Anger Control-Out, Anger Control-In, and overall anger expression index). The research findings will be presented and organized by the research questions of this thesis project. Young's theoretical domains of self-schema subscales were used to help organize and explain the results of the Pearson correlational analyses. All of the Pearson correlational analyses will be presented first, followed by all of the multiple regression analyses (See Table 5 for the correlation matrix of the YSQ and STAXI-2 subscales).

Research Question 1a: What is the relationship of negative self-schemas (as defined by Young, 1999) with State Anger (as defined by Spielberger, 1999)?

To answer research question 1a, Pearson correlational analyses were conducted. It was hypothesized that the negative self-schemas of Mistrust/Abuse, Unrelenting Standards and Dependence/Incompetence would be positively correlated with State Anger. This hypothesis was confirmed in addition to other findings. In addition, other significant findings are noted.

Disconnection and Rejection: The results of the analyses indicated statistically significant relationships between State anger and all of the subscales in this schema domain. The strongest correlation was found between State anger and Mistrust/Abuse ($r = .36$, $p = .00$). The other significant relationships between State Anger and the following

schemas are noted: Social Isolation (r = .35, p = .00), Defectiveness/Shame (r = .32, p = .00), Abandonment (r = .30, p = .00), and Emotional Deprivation (r = .25, p = .00). Thus, higher levels of situational anger was related to higher endorsement of beliefs related to rejection and disconnection.

Impaired Autonomy and Performance: Statistically significant correlations were found between State Anger and the schema subscales in this domain including: Vulnerability to Harm and Illness (r = .39, p = .00), Failure to Achieve (r = .31, p = .00), Dependence/Incompetence (r = .29, p = .00), and Enmeshment (r = .23, p = .00). Thus, people who tend to believe that they cannot function adequately (for example, fear harm to self or catastrophes, anticipate failure, feel dependent/incompetent, and/or do not have clear boundaries with others) tend to experience higher levels of situational anger than people who tend to believe they can function adequately.

Impaired Limits: Statistically significant correlations were found between State Anger and the following schema subscales in this domain including: Insufficient Self-Control/Self-Discipline (r = .31, p = .00), and Entitlement (r = .19, p = .00). Thus, situational anger was related to endorsement of beliefs related to lack of self-control or extreme empowerment/specialness.

Other Directedness: State Anger was significantly related to the Subjugation schema (r = .32, p = .00). However, there was no significant relationship found between State Anger and Self Sacrifice (r = .09, p = .13). Choosing to put one's needs ahead of others does not significantly relate to situational anger, whereas being oppressed/forced to put others needs first is related to situational anger.

Overvigilance and Inhibition: State Anger was significantly related to Emotional Inhibition ($r = .26$, $p = .00$), but not significantly related to the Unrelenting Standards schema ($r = .05$, $p = .39$). Thus, it appears that higher levels of situational anger is associated with stronger beliefs related to suppressing/blocking emotional expression but not with unrealistic expectations of self.

Therefore, State Anger was significantly related to all of the negative self-schemas except for Self-Sacrifice and Unrelenting Standards. People who tend to believe they are rejected, inadequate, impaired, and/or subjugated tend to experience high levels of anger in certain situations.

Research Question 1b: What is the relationship of negative self-schemas with Trait Anger?

To answer research question 1b two-tailed Pearson correlational analyses were conducted. It was hypothesized that the negative self-schemas of Mistrust/Abuse, Unrelenting Standards, and Dependence/Incompetence would be positively correlated with Trait Anger. This hypothesis was confirmed in addition to other findings. In addition, other significant findings are noted.

Disconnection and Rejection: The results of the Pearson correlational analyses indicated statistically significant relationships between Trait Anger and each of the subscales in this schema domain. The strongest correlation was found between Trait Anger and Mistrust/Abuse ($r = .45$, $p = .00$). The other significant correlations between Trait Anger and the following schemas are noted: Abandonment ($r = .35$, $p = .00$), Defectiveness/Shame ($r = .32$, $p = .00$), Social Isolation ($r = .32$, $p = .00$), and Emotional Deprivation ($r = .25$, $p = .00$). Thus, a greater disposition to perceive situations as

annoying or frustrating is related to higher endorsement of beliefs related to rejection and disconnection.

Impaired Autonomy and Performance: Statistically significant correlations were found between Trait Anger and the schema subscales in this domain including: Vulnerability to Harm and Illness ($r = .42$, $p = .00$), Failure to Achieve ($r = .36$, $p = .00$), Dependence/Incompetence ($r = .28$, $p = .00$), and Enmeshment ($r = .23$, $p = .00$). Thus, people who tend to believe that they cannot function adequately (for example, fear harm to self or catastrophes, anticipate failure, feel dependent or incompetent, and/or do not have clear boundaries or a clear sense of self tend to experience a greater disposition to feel anger across situations.

Impaired Limits: Statistically significant correlations were found between Trait Anger and the following schema subscales in this domain including: Insufficient Self-Control/Self-Discipline ($r = .43$, $p = .00$), and Entitlement ($r = .39$, $p = .00$). It appears that higher endorsement of beliefs related to lack of self-control or extreme empowerment tends to be related to higher levels of Trait Anger.

Other Directedness: Trait Anger was significantly related to the Subjugation ($r = .26$, $p = .00$) schema. However, there was no significant relationship between Trait Anger and the Self Sacrifice schema ($r = .07$, $p = .28$). One's disposition to feel anger across situations was related to being oppressed/forced to put others' needs first; but was not related to one's choice to put others' needs first.

Overvigilance and Inhibition: Trait Anger was significantly related to schema subscales including: Emotional Inhibition ($r = .31$, $p = .00$), and Unrelenting Standards ($r = .19$, $p = .002$). It appears that stronger beliefs related to suppressing/blocking

emotional expression and unrealistic expectations for self were associated with a greater tendency to feel angry across situations.

Therefore, Trait Anger was significantly related to all of the negative self-schemas except for Self-Sacrifice. People who tend to believe they are rejected, inadequate, impaired, and or subjugated tend to have a higher frequency of angry feelings experienced over time, or a greater disposition to anger.

Research Question 2a: What is the relationship of negative self-schemas and Anger Expression-Out?

To answer research question 2a two-tailed Pearson correlational analyses were conducted. It was hypothesized that the negative self-schema of Entitlement would be positively correlated with Anger Expression-Out. This hypothesis was confirmed in addition to other findings. In addition, other significant findings are noted.

Disconnection and Rejection: The results of the Pearson correlational analyses indicated statistically significant relationships between Anger Expression-Out (AX-O) and schema subscales of Mistrust/Abuse ($r = .29$, $p = .00$), and Abandonment ($r = .25$, $p = .00$). A low, yet statistically significant relationship was found between AX-O and the subscale Defectiveness and Shame ($r = .13$, $p = .03$). No significant correlations were found between AX-O and schema subscales of Emotional Deprivation ($r = .07$, $p = .26$), and Social Isolation/Alienation ($r = .10$, $p = .11$). Thus, stronger beliefs related to disconnection from emotions and relationships (not feeling loved and feeling alienated) were not associated with Anger Expression-Out. However, people who tended to perceive rejection and mistrust and fear disconnection (e.g., Mistrust/Abuse and

Abandonment) were more likely to express their anger outwardly through verbal and/or physical aggression.

Impaired Autonomy and Performance: Statistically significant relationships were found between AX-O and schema subscales in this domain including: Vulnerability to Harm and Illness ($r = .29$, $p = .00$), Failure to Achieve ($r = .19$, $p = .00$), Dependence/Incompetence ($r = .17$, $p = .006$), and Enmeshment ($r = .17$, $p = .005$). Thus, people who tend to believe that they cannot function adequately (for example, fear harm to self or catastrophes, anticipate failure, feel dependent/incompetent, and/or do not have clear boundaries or defined sense of self), tend to express their anger outwardly toward their environment (people and objects).

Impaired Limits: Statistically significant relationships were found between AX-O and schema subscales in this domain including Entitlement ($r = .33$, $p = .00$), and Insufficient Self-Control/Self-Discipline ($r = .24$, $p = .00$). It appears that the outward expression of anger is associated with stronger beliefs related to lack of self-control or extreme empowerment or sense of specialness.

Other Directedness: There were no statistically significant relationships found between AX-O and schema subscales in this domain including Subjugation ($r = .07$, $p = .24$), and Self Sacrifice ($r = .01$, $p = .91$).

Overvigilance and Inhibition: There were no statistically significant relationships found between AX-O and schema subscales in this domain including Emotional Inhibition ($r = .11$, $p = .07$), and Unrelenting Standards ($r = .01$, $p = .87$).

Therefore, beliefs related to perceived rejection and mistrust, impairment, inadequacy, insufficient self-control and entitlement were all related to the outward

expression of anger. Whereas, beliefs related to disconnection, other directedness, overvigilance and inhibition were not related to the outward expression of anger.

Research Question 2b: What is the relationship of negative self-schemas and Anger-Expression-In?

To answer research question 2b two-tailed Pearson correlational analyses were conducted. It was hypothesized that the negative self-schemas of Emotional Inhibition and Subjugation would be positively correlated with Anger Expression-In. This hypothesis was confirmed in addition to other findings. In addition, other significant findings are noted.

Disconnection and Rejection: The results of the Pearson correlational analyses indicated statistically significant relationships between anger expression-in (AX-I) and schema subscales in this domain including: Mistrust/Abuse ($r = .41$, $p = .00$), Social Isolation ($r = .40$, $p = .00$), Abandonment ($r = .35$, $p = .00$), Defectiveness/Shame ($r = .34$, $p = .00$), and Emotional Deprivation ($r = .29$, $p = .00$). Thus the tendency to hold in or suppress angry feelings was related to higher endorsement of beliefs related to rejection and disconnection.

Impaired Autonomy and Performance: Statistically significant relationships were found between AX-I and schema subscales in this domain including: Vulnerability to Harm and Illness ($r = .34$, $p = .00$), Failure to Achieve ($r = .31$, $p = .00$), Dependence/Incompetence ($r = .31$, $p = .00$), and Enmeshment ($r = .22$, $p = .00$). Thus, people who tend to believe that they cannot function adequately (for example, fear harm to self or catastrophes, anticipate failure, feel dependent or incompetent, and/or do not have clear boundaries with others) tend to hold in or suppress their angry feelings.

Impaired Limits: Statistically significant correlations were found between AX-I and schema subscales in this domain of Insufficient Self-Control/Self-Discipline ($r = .37$, $p = .00$), and Entitlement ($r = .32$, $p = .00$). Higher endorsement of beliefs related to lack of self-control or extreme empowerment/specialness tend to be related to higher levels of anger suppression.

Other Directedness: Statistically significant relationships were found between AX-I and the schema of Subjugation ($r = .45$, $p = .00$). However, there was no significant relationship between AX-I and schema subscale of Self Sacrifice ($r = .12$, $p = .064$). Choosing to put needs of others ahead of one's own does not relate to the suppression of anger, whereas being forced to put others needs first is related to holding in or suppressing angry feelings.

Overvigilance and Inhibition: Statistically significant relationships were found between AX-*I* and schema subscales in this domain of Emotional Inhibition ($r = .49$, $p = .00$), and Unrelenting Standards ($r = .20$, $p = .001$). Thus, it appears that holding in or suppressing angry feelings is associated with stronger beliefs related to blocking emotional expression and with unrealistic expectations of self.

Therefore, higher levels of the suppression of angry feelings was significantly related to higher endorsement of all of the negative self-schemas except for Self-Sacrifice. People who tend to believe that they are rejected, disconnected, impaired, subjugated or overvigilant and inhibited tend to hold in their anger.

Research Question 2c: What is the relationship of negative self-schemas and Anger Control-Out?

To answer research question 2c two-tailed Pearson correlational analyses were conducted. It was hypothesized that the negative self-schema of Insufficient Self-Control/Self-Discipline would be negatively related with Anger Control-Out. This hypothesis was confirmed. In addition, other significant findings are noted.

Disconnection and Rejection: The results of the Pearson correlational analyses indicated statistically significant negative relationships between Anger Control-Out (AC-O) and the schema subscales in this domain including: Mistrust/Abuse ($r = -.20$, $p = .002$), Abandonment ($r = -.22$, $p = .00$), and Defectiveness/Shame ($r = -.19$, $p = .00$). No significant relationships were found between AC-O and subscales of Social Isolation ($r = -.12$, $p = .06$), and Emotional Deprivation ($r = -.09$, $p = .14$). Thus the fear of rejection and disconnection tends to be related to the desire to control the outward expression of anger. It appears as though if one believes self to be isolated from others and unloved, there is no need to control the outward expression of anger.

Impaired Autonomy and Performance: A statistically significant negative relationships was found between AC-O and the schema subscales in this domain of Vulnerability to Harm and Illness ($r = -.28$, $p = .00$). Low, yet significant negative relationships were found between AC-O and the schemas of Failure to Achieve ($r = -.17$, $p = .007$), and Dependence/Incompetence ($r = -.18$, $p = .003$). However, no significant relationship was found between AC-O and the Enmeshment schema ($r = -.09$, $p = .15$). Thus, higher endorsement of beliefs that one cannot function adequately, particularly the fear of harm to self or catastrophes, appears to be related to fewer attempts to control the outward expression of angry feelings.

Impaired Limits: Statistically significant negative relationships were found between AC-O and schema subscales in this domain of Insufficient Self-Control/Self-Discipline ($r = -.27$, $p = .00$), and Entitlement ($r = -.17$, $p = .00$). Thus, fewer attempts to control the outward expression of anger appears to be related to the higher endorsement of beliefs related to lack of self-control or extreme empowerment.

Other Directedness: No statistically significant relationships were found between AC-O and schema subscales in this domain including Subjugation ($r = -.05$, $p = .471$), and Self Sacrifice ($r = .03$, $p = .59$).

Overvigilance and Inhibition: A statistically significant negative correlation was found between AC-O and the Emotional Inhibition schema ($r = -.16$, $p = .009$). However, no significant relationship was found between AC-O and the Unrelenting Standards ($r = -.05$, $p = .47$) schema. Thus, it appears that a relationship exists between beliefs related to suppressing or blocking emotional expression and attempts to control the outward expression of anger.

Therefore, higher endorsement of beliefs related to the fear of rejection and disconnection, feelings of impairment and lack of self-control, entitlement and emotional inhibition tend to be related to fewer attempts to control the outward expression of anger. Whereas, beliefs associated with unlovability, subjugation, and unrelenting standards are not related to attempts to control the outward expression of anger.

Research Question 2d: What is the relationship of negative self-schemas and Anger Control-In?

To answer research question 2d two-tailed Pearson correlational analyses were conducted. It was hypothesized that the negative self-schema of Insufficient Self-

Control/Self-Discipline would be negatively related with Anger Control-In. This hypothesis was confirmed. In addition, other significant findings are noted.

Disconnection and Rejection: The results of the analyses indicated statistically significant negative relationships between Anger Control-In (AC-I) and schema subscales in this domain including: Mistrust/Abuse ($r = -.23$, $p = .00$), Abandonment ($r = -.26$, $p = .00$), and Defectiveness/Shame ($r = -.23$, $p = .00$), and Social Isolation ($r = -.21$, $p = .001$). However, no significant relationship was found between AC-I and schema subscale Emotional Deprivation ($r = -.12$, $p = .06$). Thus, it appears that attempts to control angry feelings by cooling off or calming down are negatively related to beliefs pertaining to disconnection and rejection.

Impaired Autonomy and Performance: AC-I was significantly and negatively related to schema subscales in this domain including: Vulnerability to Harm and Illness ($r = -.30$, $p = .00$), Failure to Achieve ($r = -.21$, $p = .001$), Dependence/Incompetence ($r = -.21$, $p = .001$). However, no significant relationship was found between AC-I and schema subscale Enmeshment ($r = -.07$, $p = .28$). Thus, it appears that higher endorsements of beliefs regarding an inability to function adequately (for example, fear harm to self, anticipate failure, and/or feel incompetent/dependent) were related to fewer attempts to control angry feelings by calming down or cooling off. The lack of significance found between AC-I and the schema of Enmeshment may be explained by a lack of individual identity and excessive emotional closeness. The schema of Enmeshment is associated with a need to share with significant others and therefore there is no need to attempt to control the suppression of angry feelings.

Impaired Limits: A statistically significant negative relationship was found between AC-I and the Insufficient Self-Control/Self-Discipline ($r = -.25$, $p = .00$) schema. A low, yet statistically significant relationship was found between AC-I and the Entitlement schema ($r = -.15$, $p = .019$). Thus, a negative relationship appears to exist between attempts to control anger expression by calming oneself and beliefs associated with a lack of self-control or extreme empowerment/specialness.

Other Directedness: A low, yet statistically significant relationship was found between AC-I and the Subjugation schema ($r = -.12$, $p = .046$). However, no significant relationship was found between AX-I and the Self Sacrifice ($r = .06$, $p = .34$) schema. Thus, it appears that fewer attempts to control angry feelings by calming down or cooling off are related to the excessive surrendering of control to others, due to feeling coerced. While statistical significance does not account for much of the variation in AC-I scores.

Overvigilance and Inhibition: A statistically significant negative relationship was found between AC-I and the Emotional Inhibition ($r = -.19$, $p = .002$) schema. However, no significant relationship was found between AC-I and schema subscale Unrelenting Standards ($r = -.01$, $p = .87$). It appears as though the tendency to control angry feelings by cooling off or calming down is negatively related to the suppression or blockage of emotional expression.

Therefore, fewer attempts to control suppressed anger by calming down or cooling off was significantly related to beliefs regarding rejection, impairment, insufficient self-control, entitlement, subjugation and emotional inhibition. However, no significant relationship was found between Anger Control-In and Self Sacrifice and Unrelenting Standards.

Research Question 2e: What is the relationship of negative self-schemas and the general index of expression of anger?

To answer research question 2e two-tailed Pearson correlational analyses were conducted.

Disconnection and Rejection: The results of the analyses indicated statistically significant relationships between anger expression index (AX Index) and schema subscales in this domain including: Mistrust/Abuse ($r = .39$, $p = .00$), Abandonment ($r = .38$, $p = .00$), and Defectiveness/Shame ($r = .32$, $p = .00$), Social Isolation ($r = .30$, $p = .00$), and Emotional Deprivation ($r = .21$, $p = .001$). Thus, it seems that a higher overall frequency of anger expression is related to a higher endorsement of beliefs related to rejection and disconnection.

Impaired Autonomy and Performance: Statistically significant correlations were found between AX Index and the schema subscales in this domain including: Vulnerability to Harm and Illness ($r = .43$, $p = .00$), Failure to Achieve ($r = .31$, $p = .001$), Dependence/Incompetence ($r = .31$, $p = .001$), and Enmeshment ($r = .19$, $p = .002$). Thus, people who tend to believe that they cannot function adequately (for example, fear harm to self or catastrophes, anticipate failure, feel dependent/incompetent, and/or do not have clear boundaries with others or clear sense of self) tend to have a higher overall frequency of anger expression.

Impaired Limits: Statistically significant were found between AX Index and schema subscales in this domain including: Insufficient Self-Control/Self-Discipline ($r = .40$, $p = .00$), and Entitlement ($r = .33$, $p = .00$). Higher endorsement of beliefs related to

lack of self-control or extreme empowerment/specialness was associated with higher overall frequency of anger expression.

Other Directedness: AX Index was significantly related to the schema of Subjugation ($r = .25$, $p = .00$), but not significantly related to the schema Self Sacrifice ($r = .01$, $p = .93$). People who tend to believe they must excessively surrender their own needs and emotions to others due to feeling coerced had a higher frequency of overall anger expression compared to those who do not subjugate their needs. Whereas, people who choose to put others needs ahead of their own do not seem to experience a higher frequency of anger expression compared to those individuals who do not self-sacrifice.

Overvigilance and Inhibition: AX Index was significantly related to the schema of Emotional Inhibition ($r = .34$, $p = .00$), but was not significantly related to the schema Unrelenting Standards ($r = .09$, $p = .14$). Thus it appears that a higher overall frequency of anger expression was associated with stronger beliefs related to blocking emotional expression but not with unrealistic expectations of self.

Therefore, a higher frequency of intense angry feelings was significantly related to all of the negative self-schemas except for Self-Sacrifice and Unrelenting Standards. People who tend to believe they are rejected, inadequate, impaired, and/or subjugated tend to have a higher frequency of intense anger and anger expression.

To further analyze the results in this study, a series of stepwise multiple regression analyses were conducted to explore the relationship of negative self-schemas with the experience of anger and anger expression. The fifteen YSQ subscales were the independent or predictor variables and each of the STAXI subscales were the criterion or dependent variables in these analyses. To control for the relationship of demographic

characteristics of this sample with the STAXI subscales, the demographics of race, gender, age, and income were entered into the first block of each analyses. The fifteen YSQ subscales were entered into the second block of each analysis. The results of the stepwise multiple regression analyses will be organized according to the original research questions of the study.

Research Question 1a: What is the relationship of negative self-schemas (as defined by Young, 1999) with State Anger (as defined by Spielberger, 1999)?

State Anger: The results of the stepwise multiple regression analysis for State Anger (S-Ang) indicated that the schema subscales of Vulnerability to Harm and Illness (VH), Social Isolation (SI), and Insufficient Self-Control/Self-Discipline (IS) were significantly related to State Anger, F (3, 246) = 21.42, p = .00 (See Table 6). The linear combination of these three variables accounted for 20.7% of the variation in State Anger scores. Vulnerability to Harm and Illness entered the equation first and accounted for 15.9% of the unique variance in State Anger scores: β = .26, t (246) = 3.86, p = .00. Social Isolation entered the equation second and accounted for 3.0% of the unique variance in State Anger scores: β = .16, t (246) = 2.41, p = .017. Insufficient Self-Control/Self-Discipline entered the equation third and accounted for 1.8% of the unique variance in State Anger: β = .15, t (246) = 2.38, p = .018.

State Anger: Feeling Angry (S-Ang/F): The results of the stepwise multiple regression analysis for State Anger: Feeling Angry (S-Ang/F) indicated that the schemas of Vulnerability to Harm and Illness (VH), and Social Isolation (SI) were significantly related to S-Ang/F, F (2, 247) = 34.41, p = .00 (See Table 7). The linear combination of these two variables accounted for 21.8% of the variance in S-Ang/F scores. Vulnerability

to Harm and Illness entered the equation first and accounted for 19.9% of the unique variance in S-Ang/F scores: $\beta = .37$, $t\ (247) = 5.71$, $p = .00$. Social Isolation entered the equation second and accounted for 1.9% of the unique variance in S-Ang/F scores: $\beta = .16$, $t\ (247) = 2.46$, $p = .015$.

State Anger: Feel Like Expressing Anger Verbally (S-Ang/V): The results of the stepwise multiple regression analysis for State Anger: Feel Like Expressing Anger Verbally (S-Ang/V) indicated that the schemas of Vulnerability to Harm and Illness (VH), and Insufficient Self-Control/Self-Discipline (IS) were significantly related to S-Ang/V, $F\ (2, 247) = 17.12$, $p = .00$ (See Table 8). The linear combination of these two variables accounted for 12.2% of the variance in S-Ang/V scores. Vulnerability to Harm and Illness entered the equation first and accounted for 9.8% of the variance in S-Ang/V scores: $\beta = .25$, $t\ (247) = 3.80$, $p = .00$. Insufficient Self-Control/Self-Discipline accounted for 2.4% of the unique variance in S-Ang/V scores: $\beta = .17$, $t\ (247) = 2.58$, $p = .01$.

State Anger: Feel Like Expressing Anger Physically (S-Ang/P): The results of the stepwise multiple regression analysis for State Anger: Feel Like Expressing Anger Physically (S-Ang/P) indicated that the schemas of Defectiveness/Shame (DS), and Enmeshment/Undeveloped Self (EM) were significantly related to S-Ang/P, $F\ (2, 247) = 28.85$, $p = .00$ (See Table 9). The linear combination of these two variables accounted for 18.9% of the variation in S-Ang/P scores. Defectiveness/Shame entered the equation first and accounted for 16.7% of the unique variance in S-Ang/P scores: $\beta = .37$, $t\ (247) = 6.18$, $p = .00$. Enmeshment/Undeveloped Self entered the equation second and accounted for 2.2% of the unique variance in S-Ang/P scores: $\beta = .15$, $t\ (247) = 2.60$, $p = .01$.

Research Question 1b: What is the relationship of negative self-schemas with Trait Anger?

Trait Anger (T-Ang): The results of the stepwise multiple regression analysis for Trait Anger (T-Ang) indicated that the demographic variable, Race, as well as schema subscales of Mistrust/Abuse (MA), Insufficient Self-Control/Self-Discipline (IS), Entitlement (ET), and Vulnerability to Harm and Illness (VH) were significantly related to Trait Anger, F (5, 244) = 25.43, p = .00 (See Table 10). The linear combination of these five variables accounted for 34.3% of the variation in Trait Anger scores. Race entered the equation first and accounted for 3.7% of the unique variance in Trait Anger scores: β = .12, t (244) = 2.32, p = .021. Mistrust/Abuse entered the equation second and accounted for 17.9% of the unique variance in Trait Anger scores: β = .17, t (244) = 2.56, p = .01. Insufficient Self-Control/Self-Discipline entered the equation third and accounted for 6.7% of the unique variance in Trait Anger scores: β = .19, t (244) = 3.06, p = .002. Entitlement entered the equation next and accounted for 3.7% of the unique variance in Trait Anger scores: β = .22, t (244) = 3.79, p = .00. Vulnerability to Harm and Illness entered the equation last and accounted for 2.2% of the unique variance in Trait Anger Scores: β = .18, t (244) = 2.89, p = .004.

Trait Anger: Angry Temperament (T-Ang/T): The results of the stepwise multiple regression analysis for Trait Anger: Angry Temperament (T-Ang/T) indicated that Race, Vulnerability to Harm and Illness (VH), Entitlement (ET), and Insufficient Self-Control/Self-Discipline (IS) were significantly related to T-Ang/T, F (4, 245) = 17.58, p = .00 (See Table 11). The linear combination of these four variables accounted for 22.3% of the variation in T-Ang/T scores. Race entered the equation first and

accounted for 3.2% of the unique variance in T-Ang/T scores: $\beta = .13$, $t(245) = 2.22$, $p = .028$. Vulnerability to Harm and Illness entered the equation second and accounted for 13.2% of the unique variance in T-Ang/T scores: $\beta = .27$, $t(245) = 4.32$, $p = .00$. Entitlement entered the equation third and accounted for 4.0% of the unique variance of T-Ang/T scores: $\beta = .16$, $t(245) = 2.57$, $p = .011$. Insufficient Self-Control/Self-Discipline entered the equation last and accounted for 1.9% of the unique variance in T-Ang/T scores: $\beta = .16$, $t(245) = 2.47$, $p = .014$.

Trait Anger: Angry Reaction (T-Ang/R): The results of the stepwise multiple regression analysis for Trait Anger: Angry Reaction (T-Ang/R) indicated that Gender, Mistrust/Abuse (MA), Entitlement (ET), Insufficient Self-Control/Self-Discipline (IS), and Unrelenting Standards (US) were significantly related to T-Ang/R, F, $(5, 244) = 18.92$, $p = .00$ (See Table 12). The linear combination of these five variables accounted for 27.9% of the variation of T-Ang/R scores. Gender entered the equation first and accounted for 2.3% of the unique variation in T-Ang/R scores: $\beta = -.078$, $t(244) = -1.40$, $p = .163$. Mistrust/Abuse entered the equation second and accounted for 15.7% of the unique variance of T-Ang/R scores: $\beta = .22$, $t(244) = 3.48$, $p = .001$. Entitlement entered the equation third and accounted for 6.0% of the unique variance in T-Ang/R scores: $\beta = .19$, $t(244) = 2.93$, $p = .004$. Insufficient Self-Control/Self-Discipline entered the equation fourth and accounted for 2.5% of the unique variance in T-Ang/R scores: $\beta = .20$, $t(244) = 3.14$, $p = .002$. Unrelenting Standards entered the equation last and accounted for 1.4% of the unique variance in T-Ang/R scores: $\beta = .13$, $t(244) = 2.16$, $p = .032$.

Research Question 2a: What is the relationship of negative self-schemas and Anger Expression-Out?

Anger Expression-Out (AX-O): The results of the stepwise multiple regression analysis for Anger Expression-Out (AX-O) indicated that the schemas of Entitlement (ET), Vulnerability to Harm and Illness (VH), and Unrelenting Standards (US) were significantly related to AX-O, F (3, 246) = 16.54, p = .00 (See Table 13). The linear combination of these three variables accounted for 16.8% of the variation in AX-O scores. Entitlement entered the equation first and accounted for 10.7% of the unique variance in AX-O scores: β = .32, t (246) = 5.01, p = .00. Vulnerability to Harm and Illness entered the equation second and accounted for 4.5% of the unique variance in AX-O scores: β = .23, t (246) = 3.78, p = .00. Unrelenting Standards entered the equation third and accounted for 1.5% of the unique variance in AX-O scores: β = -.13, t (246) = -2.10, p = .037.

Research Question 2b: What is the relationship of negative self-schemas and Anger Expression-In?

Anger Expression-In (AX-I): The results of the stepwise multiple regression analysis for Anger Expression-In (AX-I) indicated that the schemas of Emotional Inhibition (EI), Subjugation (SB), and Entitlement (ET) were significantly related to AX-I, F (3, 246) = 42.71, p = .00 (See Table 14). The linear combination of these three variables accounted for 34.2% of the variation in AX-I scores. Emotional Inhibition entered the equation first and accounted for 23.5% of the unique variance in AX-I scores: β = .32, t (246) = 5.46, p = .00. Subjugation entered the equation second and accounted for 7.5% of the unique variance in AX-I scores: β = .28, t (246) = 4.95, p = .00.

Entitlement entered the equation third and accounted for 3.3% of the unique variance in AX-I scores: $\beta = .19$, $t(246) = 3.50$, $p = .001$.

Research Question 2c: What is the relationship of negative self-schemas and Anger Control-Out?

Anger Control-Out (AC-O): The results of the stepwise multiple regression analysis for Anger Control-Out (AC-O) indicated that Race, Vulnerability to Harm and Illness (VH), Insufficient Self-Control/Self-Discipline (IS), Subjugation (SB), and Abandonment (AB) were significantly related to AC-O, $F(5, 244) = 8.75$, $p = .00$ (See Table 15). The linear combination of these five variables accounted for 15.2% of the variation in AC-O scores. Race entered the equation first and accounted for 2.0% of the unique variance in AC-O scores: $\beta = -.09$, $t(244) = -1.56$, $p = .123$. Vulnerability to Harm and Illness entered the equation second and accounted for 7.2% of the unique variance in AC-O scores: $\beta = -.23$, $t(244) = -3.07$, $p = .002$. Insufficient Self-Control/Self-Discipline entered the equation third and accounted for 2.2% of the unique variance in AC-O scores: $\beta = -.20$, $t(244) = -2.81$, $p = .005$. Subjugation entered the equation next and accounted for 2.5% of the unique variance in AC-O scores: $\beta = .27$, $t(244) = 3.28$, $p = .001$. Abandonment entered the equation last and accounted for 1.4% of the unique variance in Ac-O scores: $\beta = -.17$, $t(244) = -1.98$, $p = .049$.

Research Question 2d: What is the relationship of negative self-schemas and Anger Control-In?

Anger Control-In (AC-I): The results of the stepwise multiple regression analysis for Anger Control-In (AC-I) indicated that the schemas of Vulnerability to Harm and Illness (VH), Self Sacrifice (SS), and Insufficient Self-Control/Self-Discipline (IS) were

significantly related to AC-I, F (3, 246) = 12.91, p = .00 (See Table 16). The linear combination of these three variables accounted for 13.6% of the variation in AC-I scores. Vulnerability to Harm and Illness entered the equation first and accounted for 9.5% of the unique variance in AC-I scores: β = -.29, t (246) = -4.38, p = .00. Self-Sacrifice entered the equation second and accounted for 2.2% of the unique variance in AC-I scores: β = .16, t (246) = 2.68. p = .008. Insufficient Self-Control/Self-Discipline entered the equation third and accounted for 1.8% of the unique variance in AC-I scores: β = -.15, t (246) = -2.28, p = .024.

Research Question 2e: What is the relationship of negative self-schemas and the general index of anger expression?

Anger Expression Index (AX Index): The results of the stepwise multiple regression analysis for Anger Expression Index (AX Index) indicated that Race, Vulnerability to Harm and Illness (VH), Insufficient Self-Control/Self-Discipline (IS), Emotional Inhibition (EI), Self Sacrifice (SS), and Entitlement (ET) were significantly related to AX Index, F (6, 243) = 17.97, p = .00 (See Table 17). The linear combination of these six variables accounted for 30.7% of the variation in AX Index scores. Race entered the equation first and accounted for 1.9% of the unique variation in AX Index scores: β = .06, t (243) = 1.15, p = .253. Vulnerability to Harm and Illness entered the equation second and accounted for 17.2% of the unique variance in AX Index scores: β = .29, t (243) = 4.77, p = .00. Insufficient Self-Control/Self-Discipline entered the equation third and accounted for 5.5% of the unique variance in AX Index scores: β = .18, t (243) = 2.93, p = .004. Emotional Inhibition entered the equation fourth and accounted for 2.4% of the unique variance in AX Index scores: β = .17, t (243) = 2.84, p = .005. Self-

Sacrifice entered the equation next and accounted for 2.1% of the unique variance in AX Index scores: $\beta = -.15$, $t(243) = -2.72$, $p = .007$. Entitlement entered the equation last and accounted for 1.7% of the unique variance in AX Index scores: $\beta = .14$, $t(243) = 2.41$, $p = .017$.

CHAPTER IV

DISCUSSION

Different theories or conceptualizations of anger have been proposed to explain the development, nature, and maintenance of anger, as well as its expression (Beck, 1967; Deffenbacher, 1996; Spielberger, 1999). These theories explain various stimuli that may elicit anger such as memories, images and cognitive processes. Thoughts, or images are considered to influence and impact both the experience and the expression of the anger response (Deffenbacher, 1996). The experience and expression of anger is also heavily influenced by internal emotional factors and by the way one is feeling and thinking at any given time. Research has shown that if an individual is angry or frustrated, the excitement from the arousal can transfer to subsequent situations (Zillman, 1971; Zillman & Bryant, 1974). Other researchers have found that most other aversive states appear to increase the likelihood and intensity of anger (Berowits, 1990). In turn, aversive images and memories increase and the threshold for anger reaction is lowered (Deffenbacher, 1996).

Jeffrey Young (1999) theorizes that cognitive schemas (Early Maladaptive Schemas) are activated by events in the environment and can often produce high levels of affective arousal. He explains that Early Maladaptive Schemas are dysfunctional and are hypothesized to lead to psychological distress, including depression and panic. However, little is known about the relationships of negative self-schemas with the experience and expression of anger.

Overall, the relationships of negative self-schemas with the experience and expression of anger was supported in this study. The Pearson correlational analyses

revealed that nearly all of the negative self-schemas were significantly related to the experience of anger (State and Trait) except for Self-Sacrifice and Unrelenting Standards. More specifically, Self-Sacrifice was not related to State and Trait Anger, and Unrelenting Standards was not related to State Anger. What these two schemas appear to have in common is individual choice and control of other-directedness. Choosing to give others' needs attention first and setting high standards are in the control of the person. In addition, many of the negative self-schemas were significantly related to the anger expression subscales. However, Self-Sacrifice was not related to any of these anger expression subscales and Unrelenting Standards was only significantly related to Anger Expression-In.

Thus, in general, people with higher beliefs associated with disconnection and rejection, impaired autonomy and performance, impaired limits, and approval seeking had higher levels of State and Trait Anger and anger expression levels (in, out, control), compared to people with lower endorsement of these beliefs.

In the next section, these findings will be discussed by schema domain.

Relationship Between Disconnection/Rejection and Anger

The results of this study indicate statistically significant relationships between State Anger and each of these schemas. The strongest relationships were noted between State Anger and the schemas of Mistrust/Abuse and Social Isolation. Statistically significant relationships were also found between Trait Anger and each of the schemas in this domain. The strongest relationships were noted between Trait Anger and schemas of Abandonment/Instability and Defectiveness/Shame. These results suggest that people who tend to endorse the belief that their needs will never be met by significant others tend

to have more State and Trait Anger. Thus these individuals are more likely to experience feelings that range in intensity from mild irritation to intense fury and rage, and are more likely to perceive situations as annoying and frustrating, than individuals with lower scores on these negative self-schemas. In particular, people with a higher endorsement of the Social Isolation schema, who tend to feel isolated from the rest of the world or different from others, may experience a greater intensity of angry feelings at a given time (State Anger) compared to people with lower levels of endorsement on this schema. Also, people with a Defectiveness/Shame schema who feel bad, unwanted, inferior or unlovable may experience a greater intensity of feelings related to the physical expression of anger. Individuals with a Defectiveness/Shame schema may perceive their angry impulses as an internal flaw (Young, 1999) which may further perpetuate the schema.

These results appear to support cognitive theories of anger (Beck, 1967, Young, 1999). Perceived disconnection and rejection from others appears to be significantly related to the experience of anger. As hypothesized, the self-schema of Mistrust/Abuse was significantly related to State and Trait anger.

Relationship Between Impaired Autonomy and Performance and Anger

Impaired Autonomy and Performance is the second schema domain. Negative self-schemas in this domain include: Dependence/Incompetence, Vulnerability to Harm and Illness, Enmeshment/Undeveloped Self, and Failure. These negative self-schemas were significantly related to State and Trait Anger. In addition, significant relationships were found between these schemas and the anger expression subscales. Vulnerability to Harm and Illness had the strongest relationship to these anger subscales compared to the other schemas in this domain. Again, Vulnerability to Harm and Illness stood out as the

schema having the strongest relationship to Anger Expression-In, Anger Expression-Out, Anger Control-In, Anger Control-Out, and overall anger expression. Young (1999) explains that individuals with this schema hold the belief that they are always on the verge of experiencing a catastrophe, which may lead to extreme caution. People with higher scores on the Vulnerability to Harm and Illness schema tended to experience higher levels of situational and chronic anger and tended to express their anger outwardly as well as suppress it. They were less likely to control the outward expression or suppression of anger compared to people with lower scores on this schema.

These results appear to support the theory proposed by Deffenbacher (1996), that one's perceived inability to cope with a situation may elevate the experience of anger. Again, a relationship seems to exist between cognitive processes (i.e. schemas) and the emotion of anger. The results supported the hypothesis that a higher endorsement of beliefs related to Dependence/Incompetence would be related to the experience of anger in this sample.

Relationships Between Impaired Limits and Anger

The third broad schema domain is Impaired Limits and encapsulates schemas including: Entitlement/Grandiosity and Insufficient self-Control/Self-Discipline. These schemas were significantly related to State and Trait Anger and anger expression. A strong relationship was found between Anger Expression-Out and the two schemas within this domain. Thus individuals who held stronger beliefs that they were superior to others and were entitled to special privileges and/or those who were unable to tolerate frustration and exercise self-control were more likely to express their anger outwardly toward others and the environment, as well as suppressing their anger, yet were less likely

to control the inner or outward expression of anger compared to individuals with lower levels of endorsement on these schemas.

As hypothesized, Entitlement and Insufficient Self-Control were related to the outward expression of anger. A perceived inability to restrain one's expression of impulses and feelings or believing self to be superior to others were related to the outward expression of anger toward others or objects in the environment in this sample. As expected, individuals who strongly endorsed Entitlement and Insufficient Self Control usually did not attempt to control their anger expression.

Relationships Between Other Directedness and Anger

Other Directedness is the fourth broad schema domain. Schemas in this domain include: Subjugation and Self-Sacrifice. Self-sacrifice was not significantly related to the experience of anger (State or Trait). However, a significant relationship was found between Self-Sacrifice and Anger Control-In, attempts to control suppressed feelings by calming down or cooling off. Some possible explanations for these findings may be that people who choose to sacrifice themselves in situations, even though it may be detrimental to the individual, do not tend to feel angry, or do not tend to feel at liberty to feel angry and therefore attempt to control it internally. Young (1999) explains that individuals with this negative self-schema gain a feeling of increased self-esteem or a sense of meaning from helping others. Thus, with choice, comes empowerment.

The schema of Subjugation was significantly related to State and Trait Anger as well as Anger Control-Out and the general expression of anger (AX Index). These findings support findings support the hypothesis that a significant positive relationship exists between anger suppression and the tendency to subjugate self, and confirm

Young's theory that people with a Subjugation schema tend to engage in emotional suppression, especially anger. Unlike Self-Sacrifice, people who feel subjugated in relationships may feel more angry and suppress it due to fears of retaliation.

Relationship Between Overvigilance/inhibition and Anger

The final broad schema domain is Overvigilance and Inhibition. Negative self-schemas in this domain include: Emotional Inhibition and Unrelenting Standards/Hypercriticalness. Unrelenting standards was significantly associated with Trait Anger but not State Anger. That is, people who reported a tendency to have high unrelenting standards tended to be more chronically angry. A statistically significant correlation was found between Unrelenting Standards and the suppression of anger. Results related to Unrelenting Standards and the outward expression of anger were conflicting. While the Pearson correlation between Unrelenting Standards and Anger Expression-Out was not significant, Unrelenting Standards was one of the significant predictors of Anger Expression-Out in the multiple regression analysis, specifically indicating a negative relationship between Unrelenting Standards and the outward expression of anger which is incongruent with anger suppression. Overall, these results indicate that people who are perfectionistic and exhibit unrealistic expectations for themselves may be setting themselves up for chronic anger. If this anger is coupled with a tendency to hold anger in, this could potentially lead to serious psychological and physical health problems.

As hypothesized, Emotional Inhibition was significantly related to State and Trait anger and the suppression of angry feelings. These results support Young's (1999) theory that people who believe their emotions must be inhibited due to the fear of inevitable

negative consequences tend to inhibit anger and aggression. At the same time, higher levels of Emotional Inhibition were associated with lower levels of Anger Control-In and Anger Control-Out. This means that people who tend to suppress their emotions do not feel the need to control the expression of emotions because they suppress them regularly. In other words, they feel in control of their emotional suppression.

Thus, people who believe in high standards and/or who inhibit emotions are likely to suppress their anger.

Stepwise Multiple Regression Findings

Significant patterns between negative self-schemas and the experience and expression of anger were uncovered in the multiple regression analyses. In particular, the schema Vulnerability to Harm and Illness was a significant predictor related of the experience of anger (State and Trait), and anger expression (Anger Expression-out, Anger Control-Out, Anger Control-In). People who tend to believe that they are perpetually on the verge of experiencing catastrophe tend to experience a higher intensity of situational anger in general, are in touch with feeling this anger and verbally express it. In addition, they tend to have a greater disposition to feel anger across situations/over time without provocation. The schema Mistrust/Abuse was a significant predictor of Trait Anger. People who tend to believe that others will intentionally harm them or take advantage in some way tend to experience a greater intensity of anger in general and tend to experience intense anger upon provocation. Possible explanations for these findings may include a hyperawareness of the perceived malicious actions of others and therefore people with a Mistrust/Abuse schema may be prepared to react to these actions with anger. Is seems

logical that people who believe that others will intentionally harm them tend to feel angry.

The schema Insufficient Self-Control/Self-Discipline was also a significant predictor of the experience (State and Trait) and expression (Anger Control-Out, Anger-Control-In) of anger. Higher endorsement of beliefs related to lack of control tended to be significantly related to a higher intensity of the verbal expression of situational anger, a greater disposition to feel angry in general, with and without provocation, and greater attempts to control the expression of anger outwardly and attempts to control suppressed anger by calming self. The Defectiveness/Shame schema was a significant predictor of State Anger. People who believe that they are internally flawed , inadequate, or unlovable tended to feel like expressing situational anger physically. This schema was not a significant predictor of the outward expression of anger however. Possible explanations for these findings may be that people who feel inadequate or unlovable, in general, lack confidence in their own abilities to express their anger, or they do not want to risk being viewed by others as even more inadequate or defective.

Entitlement was a significant predictor of Trait Anger, Anger Expression-Out and Anger Expression-In. People who tend to believe themselves to be superior to others tended to have a greater disposition to feel angry across situations/over time, and tended to feel angry with and without provocation. People who believe themselves to be superior or special tended to express their anger outwardly toward others or objects in the environment, and tended to hold in or suppress anger. Possible explanations for the findings related to anger expression may be that people who tend to feel superior or special, are comfortable expressing their anger toward other and objects in the

environment and may have little regard for the feelings of others. These people may also suppress angry feelings as a way to maintain a sense of power and control. It is possible that these people may have a tendency to hold in their anger and when provoked, or perceive to be provoked, may strike out toward others with verbally or physically abusive behavior.

The schema of Unrelenting Standards was a significant predictor of the experience of anger (Trait) and anger expression (Anger Expression-Out). People who tend to set unrealistically high standards of behavior and achievement for themselves have a higher tendency to experience anger in situations that involve frustration and/or negative evaluations and tend to express anger outwardly toward others and objects in the environment. People who strive to maintain high standards for themselves may become angry when obstacles impede their ability to achieve goals. It is possible that these people may express their anger toward the environment in an attempt to remove these obstacles.

A significant relationship was found between the schema of Social Isolation and the experience of anger (State) in that people with a higher endorsement of beliefs related to Social Isolation tended to experience a greater intensity of angry feelings at any given time. However, there were no significant relationships uncovered between beliefs of being different or isolated from others and anger expression. A possible explanation for these findings may be that people with a higher endorsement of the Social Isolation schema withdraw from society and have little contact with others, and therefore lack opportunities to express their feelings to others, or that people who feel different from others, may lack confidence in their ability to express themselves effectively to others.

As hypothesized, the schema Emotional Inhibition was a significant predictor of the suppression of anger. People in this ample who have a higher endorsement of the belief that any expression of feelings will lead to negative consequences and therefore must be inhibited tended to hold their anger in or suppress angry feelings. Also as hypothesized, people in this sample with a higher endorsement of beliefs related to subjugation, who have a tendency to suppress their own needs or emotional expression, tended to indeed hold in or suppress their anger.

Other important findings in this study include significant mean anger subscale differences by race and gender. In particular, significant mean differences were found between minority and non-minority participants in their experience of anger. When controlling for the effects of demographic characteristics of anger, race was a significant predictor of Trait Anger, Anger Control-Out, and the overall expression of anger. In this sample, ethnically diverse students tended to experience a greater disposition to anger across situations/over time than non-diverse students and tended to experience a greater intensity of anger without provocation. In addition, ethnically diverse students were found to have a greater tendency to attempt to control the outward expression of anger than non-diverse students in this sample. Possible explanations for these findings may include the long history of oppression of ethnic minorities in this country. In addition to a long history of being oppressed, ethnically diverse people may have developed a realistic fear of retaliation for expressing feelings, such as anger (Sue & Sue, 1999). In an attempt to protect oneself from retaliation the tendency to attempt to control the outward expression of anger may have been developed.

In addition to racial differences, the results of this study indicate gender differences. In particular, significant mean differences were found between males and females in that males were more likely to experience anger as a result of provocation or frustration than females. These results might possibly be explained in terms of gender role socialization. Males continue to be viewed as protectors in many societies, including North America. It is possible that a cognitive and behavioral component of the "protector" role involves the freedom to react with anger upon provocation. Women, on the other hand, are often socialized to repair relationships rather than provoke conflict. It is possible that women may not feel free to express feelings of anger when provoked due to the restraints of social norms and socially acceptable behavior. These results appear to add to the conflicting body of existing research which has focused on gender and the experience and expression of anger.

Implications for Practice

A better understanding of the factors that influence or are associated with the experience and expression of anger is needed in order to effectively help individuals seeking mental health services for anger or frustration. As mentioned previously in this paper, there is a lack of empirical research that examines the relationship between negative self-schemas and the experience and expression of anger. Knowing more in this area could guide future interventions with clients in therapy, particularly those beliefs/belief systems associated with anger and anger expression. This study attempted to explore the relationship of negative self-schemas with the experience and expression of anger.

Collectively, the findings support an existing relationship between core beliefs of self and anger--the experience of it and its expression. In addition, the results suggest significant relationships exist between demographic characteristics of individuals and the experience and expression of anger. The results suggest that therapeutic interventions directed toward identifying, evaluating, and modifying negative self-schemas may be helpful to clients in understanding and dealing with their feelings of anger and frustration. In turn, the careful exploration of clients' experiences and expressions of anger during the course of psychotherapy may be helpful in identifying negative beliefs they endorse about themselves, their world, and their future. Thus, these belief systems can be further explored and challenged, leading to enhanced quality of life.

In working with diverse clients, therapists need to be aware that chronic anger and attempts to control the outward expression of anger may indeed be very appropriate ways of coping with oppression. It is important that therapists have an understanding of Trait Anger and attempts to control anger expression within the cultural context of oppression and realistic fear of retaliation. In addition, it is important that therapists remain aware of the possible relationships among gender and gender role characteristics with the experience and expression of anger when working with individuals.

Limitations of the Study

The participants in this study were all undergraduate students recruited from education, psychology, sociology, and wellness courses at a midwestern university. Therefore, the results of this study will be generalizable only to similar populations. The majority of the participants were single, Caucasian students of middle class socioeconomic status. In addition, the measures used in this study were self-report

measures; therefore it is possible that a true reflection of their experiences was not obtained. Finally, only Young's (1991) early maladaptive schemas were explored in this study and not other models (e.g. Beck).

Implications for Further Research

Further research in this area would be beneficial to further explore this relationship and to further examine additional demographic variables. The cross-cultural analysis of anger has received little attention in the literature, and most findings are based on predominantly White samples. Although anger is thought to be a universal experience, it is possible that the experience and expression of anger may be influenced by the cultural background of our clients (Sharkin, 1996). The results of this study suggest that the experience and expression of anger may be influenced by not only one's core beliefs or views of self, but also one's race and gender.

Future research should involve a more detailed cross cultural analysis of anger and belief systems. It would be beneficial to focus on culturally appropriate forms of anger expression, as well as perceived acceptance of anger within one's cultural group and beliefs related to one's own experience of anger. In addition, future studies should be conducted with a focus on anger and gender role socialization. More specifically, differences in coping with anger provocation and related beliefs.

This study used only self-report measures of belief systems and anger. Future studies would benefit from the use of other forms of assessment besides self report, such as behavioral observation or clinical interviews.

Further research expanding the sample beyond the college student population would be beneficial. Future studies including clinical and ethnic minority samples would

be a valuable addition to the research. Although the generalizability of the results in this study is limited, the findings contribute to the understanding of how belief systems are related to the experience and expression of anger.

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APPENDIX A

TABLES

Table 1

Summary of Internal Reliability Coefficients for Schema Subscales

Schema	Coefficient Alpha
Emotional Deprivation	.90
Abandonment/Instability	.93
Mistrust/Abuse	.90
Social Isolation/Alienation	.92
Defectiveness/Shame	.94
Failure	.91
Dependence/Incompetence	.69
Vulnerability to Harm or Illness	.82
Enmeshment	.83
Subjugation	.81
Self-Sacrifice	.82
Emotional Inhibition	.87
Unrelenting Standards	.86
Entitlement	.80
Insufficient Self-Control/Self Discipline	.83

Table 2

Summary of Internal Reliability Coefficients for The State-Trait Anger Expression Inventory-2 Subscales

Anger Subscale	Coefficient Alpha
State Anger	.90
Feeling Angry	.77
Feel Like Expressing Anger Verbally	.90
Feel Like Expressing Anger Physically	.89
Trait Anger	.84
Angry Temperament	.84
Angry Reaction	.72
Anger Expression-Out	.74
Anger Expression-In	.77
Anger Control-Out	.82
Anger Control-In	.90

Table 3

Summary of Means, Standard Deviations, and Ranges of State-Trait Anger Expression Inventory-2 Subscales

Variable	M	SD	Score Range
State Anger	17.72	5.20	15-55
Feeling Angry	6.47	2.43	5-19
Feel Like Expressing Anger Verbally	5.86	2.24	5-19
Feel Like Expressing Anger Physically	5.39	1.56	5-20
Trait Anger	18.10	5.21	10-34
Angry Temperament	6.35	2.54	4-16
Angry Reaction	8.58	2.64	4-15
Anger Expression-Out	16.13	4.08	8-29
Anger Expression-In	17.32	4.88	8-31
Anger Control-Out	23.11	5.20	9-32
Anger Control-In	22.17	5.79	9-32
Anger Expression Index	36.18	14.10	4-73

Table 4

Summary of Means, Standard Deviations, and Ranges of Young Schema Questionnaire Subscales

Schema	M	SD	Score Range
Emotional Deprivation	8.61	5.11	5-30
Abandonment	9.16	5.58	5-30
Mistrust/Abuse	11.08	5.98	5-30
Social Isolation	8.74	5.34	5-30
Defectiveness/Shame	7.13	4.36	5-30
Failure	7.87	4.34	5-28
Dependence/Incompetence	7.30	3.34	5-20
Vulnerability to Harm	7.71	4.10	5-25
Enmeshment	7.50	4.01	5-27
Subjugation	8.70	4.53	5-26
Self Sacrifice	16.84	5.71	5-30
Emotional Inhibition	9.78	5.85	5-30
Unrelenting Standards	18.64	6.78	5-31
Entitlement	12.23	5.56	5-30
Insufficient Self Control	10.88	5.32	5-30

Schema subscale scores can actually range from 5 to 30.

Table 5

Correlation Matrix of Negative Self-Schema Subscales and Anger Subscales

	S-ANG	S-ANG/F	S-ANG/V	S-ANG/P
S-ANG	1.00	.884**	.864**	.718**
S-ANG/F	.884**	1.00	.638**	.476**
S-ANG/V	.864**	.638**	1.00	.454**
S-ANG/P	.718**	.476**	.454**	1.00
T-ANG	.347**	.356**	.269**	.217**
T-ANG/T	.287**	.311**	.204**	.178**
T-ANG/R	.304**	.306**	.245**	.184**
AX-O	.190**	.191**	.213**	.031
AX-I	.235**	.249**	.165**	.160**
AC-O	-.206**	-.231**	-.173**	-.081
AC-I	-.193**	-.242**	-.134**	-.075
AXINDEX	.292**	.326**	.237**	.125
ED	.245**	.221**	.179**	.218**
AB	.303**	.322**	.217**	.196**
MA	.361**	.361**	.257**	.274**
SI	.353**	.345**	.203**	.348**
DS	.317**	.253**	.178**	.409**

Table 5

Correlation Matrix of Negative Self-Schema Subscales and Anger Subscales (continued)

	S-ANG	S-ANG/F	S-ANG/V	S-ANG/P
FA	.306**	.276**	.249**	.234**
DI	.290**	.243**	.226**	.266**
VH	.392**	.438**	.310**	.179**
EM	.234**	.222**	.121	.263**
SB	.320**	.298**	.213**	.297**
SS	.093	.110	.035	.090
EI	.255**	.247**	.169**	.222**
US	.054	.059	-.001	.089
ET	.190**	.175**	.185**	.096
IS	.312**	.291**	.266**	.205**

* $p < .05$ ** $p < .01$

Table 5

Correlation Matrix of Negative Self-Schema Subscales and Anger Subscales (continued)

	T-ANG	T-ANG/T	T-ANG/R	AXO
S-ANG	.347**	.287**	.304**	.190**
S-ANG/F	.356**	.311**	.306**	.191**
S-ANG/V	.269**	.204**	.245**	.213**
S-ANG/P	.217**	.178**	.184**	.031
T-ANG	1.00	.831**	.824**	.607**
T-ANG/T	.831**	1.00	.427**	.560**
T-ANG/R	.824**	.472**	1.00	.413**
AX-O	.607**	.560**	.413**	1.00
AX-I	.319**	.130*	.391**	.204**
AC-O	-.533**	-.565**	-.328**	-.426**
AC-I	-.447**	-.478**	-.257**	-.321**
AXINDEX	.666**	.612**	.481**	.649**
ED	.249**	.170**	.234**	.070
AB	.352**	.291**	.289**	.246**
MA	.447**	.313**	.410**	.288**
SI	.321**	.270**	.266**	.099

Table 5

Correlation Matrix of Negative Self-Schema Subscales and Anger Subscales (continued)

	T-ANG	T-ANG/T	T-ANG/R	AXO
DS	.324**	.309**	.244**	.134*
FA	.356**	.300**	.287**	.185**
DI	.280**	.211**	.249**	.171**
VH	.417**	.381**	.334**	.287**
EM	.233**	.203**	.175**	.174**
SB	.263**	.184**	.260**	.073
SS	.067	.004	.091	.007
EI	.311**	.192**	.348**	.112
US	.190**	.086	.277**	.011
ET	.386**	.276**	.370**	.334**
IS	.426**	.342**	.362**	.243**

* $p < .05$ ** $p < .01$

Table 5

Correlation Matrix of Negative Self-Schema Subscales and Anger Subscales (continued)

	AX-I	AC-O	AC-I	AXINDEX
S-ANG	.235**	-.206**	-.193**	.292**
S-ANG/F	.249**	-.231**	-.242**	.326**
S-ANG/V	.165**	-.173**	-.134*	.237**
S-ANG/P	.160**	-.081	-.075	.125*
T-ANG	.319**	-.533**	-.447**	.666**
T-ANT/T	.130*	-.565**	-.478**	.612**
T-ANG/R	.391**	-.328**	-.257**	.481**
AX-O	.204**	-.426**	-.321**	.649**
AX-I	1.00	-.044	-.127*	.473**
AC-O	-.044	1.00	.782**	-.828**
AC-I	-.127*	.782**	1.00	-.836**
AXINDEX	.473**	-.828**	-.836	1.00
ED	.294**	-.093	-.118	.205**
AB	.346**	-.224**	-.257**	.379**
MA	.409**	-.195**	-.225**	.389**
SI	.397**	-.118	-.209**	.295**
DS	.336**	-.189**	-.232**	.320**

Table 5

Correlation Matrix of Negative Self-Schema Subscales and Anger Subscales (continued)

	AX-I	AC-O	AC-I	AXINDEX
FA	.313**	-.166**	-.207**	.308**
DI	.313**	-.183**	-.214**	.313**
VH	.341**	-.275**	-.299**	.425**
EM	.221**	-.089	-.068	.187**
SB	.453**	-.045	-.124*	.245**
SS	.115	.033	.059	.005
EI	.494**	-.162**	-.192**	.342**
US	.200**	-.045	-.010	.093
ET	.322**	-.167**	-.146*	.329**
IS	.367**	-.272**	-.245**	.398**

* $p < .05$ ** $p < .01$

Table 5

Correlation Matrix of Negative Self-Schema Subscales and Anger Subscales (continued)

	ED	AB	MA	SI
S-ANG	.245**	.303**	.361**	.353**
S-ANG/F	.221**	.322**	.361**	.345**
S-ANG/V	.179**	.217**	.257**	.203**
S-ANG/P	.218**	.196**	.274**	.348**
T-ANG	.249**	.352**	.447**	.321**
T-ANG/T	.612**	.170**	.291**	.313**
T-ANG/R	.234**	.289**	.410**	.266**
AX-O	.070	.246**	.288**	.099
AX-I	.294**	.346**	.409**	.397**
AC-O	-.093	-.224**	-.195**	-.118
AC-I	-.118	-.257**	-.225**	-.209**
AXINDEX	.205**	.379**	.389**	.295**
ED	1.00	.371**	.425**	.643**
AB	.371**	1.00	.535**	.398**
MA	.425**	.535**	1.00	.569**
SI	.643**	.398**	.569**	1.00
DS	.597**	.504**	.561**	.679**

Table 5

Correlation Matrix of Negative Self-Schema Subscales and Anger Subscales (continued)

	ED	AB	MA	SI
FA	.415**	.542**	.447**	.453**
DI	.305**	.529**	.411**	.433**
VH	.326**	.569**	.551**	.491**
EM	.092	.361**	.311**	.239**
SB	.408**	.653**	.555**	.449**
SS	.067	.179**	.294**	.133*
EI	.401**	.270**	.475**	.543**
US	.135*	-.035	.267**	.225**
ET	.176**	.226**	.373**	.260**
IS	.305**	.470**	.396**	.369**

* $p < .05$ ** $p < .01$

Table 5

Correlation Matrix of Negative Self-Schema Subscales and Anger Subscales (continued)

	DS	FA	DI	VH
S-ANG	.317**	.306**	.290**	.392**
S-ANG/F	.253**	.276**	.243**	.438**
S-ANG/V	.178**	.249**	.226**	.310**
S-ANG/P	.409**	.234**	.266**	.179**
T-ANG	.324**	.356**	.280**	.417**
T-ANG/T	.309**	.300**	.211**	.381**
T-ANG/R	.244**	.287**	.249**	.334**
AX-O	.134*	.185**	.171**	.287**
AX-I	.336**	.313**	.313**	.341**
AC-O	-.189**	-.166**	-.183**	-.275**
AC-I	-.232**	-.207**	-.214**	-.299**
AXINDEX	.320**	.308**	.313**	.425**
ED	.597**	.415**	.305**	.326**
AB	.504**	.542**	.529**	.569**
MA	.561**	.447**	.411**	.551**
SI	.679**	.453**	.433**	.491**
DS	1.00	.583**	.459**	.488**

Table 5

Correlation Matrix of Negative Self-Schema Subscales and Anger Subscales (continued)

	DS	FA	DI	VH
FA	.583**	1.00	.646**	.482**
DI	.459**	.646**	1.00	.504**
VH	.488**	.482**	.504**	1.00
EM	.273**	.333**	.475**	.386**
SB	.578**	.623**	.558**	.491**
SS	.142*	.204**	.192**	.213**
EI	.554**	.384**	.296**	.358**
US	.152*	-.077	.032	.121
ET	.166**	.174**	.253**	.220**
IS	.395**	.526**	.509**	.392**

* $p < .05$ **$p < 0.1$

Table 5

Correlation Matrix of Negative Self-Schema Subscales and Anger Subscales (continued)

	EM	SB	SS	EI
S-ANG	.234**	.320**	.093	.255**
S-ANG/F	.222**	.298**	.110	.247**
S-ANG/V	.121	.213**	.035	.169**
S-ANG/P	.263**	.297**	.090	.222**
T-ANG	.233**	.263**	.067	.311**
T-ANG/T	.203**	.184**	.004	.192**
T-ANG/R	.175**	.260**	.091	.348**
AX-O	.174**	.073	.007	.112
AX-I	.221**	.453**	.115	.494**
AC-O	-.089	-.045	.033	-.162**
AC-I	-.068	-.124*	.059	-.192**
AXINDEX	.187**	.245**	.005	.342**
ED	.092	.408**	.067	.401**
AB	.361**	.653**	.179**	.270**
MA	.311**	.555**	.294**	.475**
SI	.239**	.449**	.133*	.543**
DS	.273**	.578**	.142*	.554**

Table 5

Correlation Matrix of Negative Self-Schema Subscales and Anger Subscales (continued)

	EM	SB	SS	EI
FA	.333**	.623**	.204**	.384**
DI	.475**	.558**	.192**	.296**
VH	.386**	.491**	.213**	.358**
EM	1.00	.461**	.258**	.145*
SB	.461**	1.00	.350**	.411**
SS	.258**	.350**	1.00	.215**
EI	.145*	.411**	.215**	1.00
US	.098	.098	.310**	.353**
ET	.229**	.187**	.092	.265**
IS	.341**	.449**	.166**	.319**

* $p < .05$ ** $p < .01$

Table 5

Correlation Matrix of Negative Self-Schema Subscales and Anger Subscales (continued)

	US	ET	IS
S-ANG	.054	.190**	.312**
S-ANG/F	.059	.175**	.291**
S-ANG/V	-.001	.185**	.266**
S-ANG/P	.089	.096	.205**
T-ANG	.190**	.386**	.426**
T-ANG/T	.086	.276**	.342**
T-ANG/R	.277**	.370**	.362**
AX-O	.011	.334**	.243**
AX-I	.200**	.322**	.367**
AC-O	-.045	-.167**	-.272**
AC-I	-.010	-.146*	-.245**
AXINDEX	.093	.329**	.398**
ED	.135*	.176**	.305**
AB	-.035	.226**	.470**
MA	.267**	.373**	.396**
SI	.225**	.260**	.369**
DS	.152*	.166**	.395**

Table 5

Correlation Matrix of Negative Self-Schema Subscales and Anger Subscales (continued)

	US	ET	IS
FA	-.077	.174**	.526**
DI	.032	.253**	.509**
VH	.121	.220**	.392**
EM	.098	.229**	.341**
SB	.098	.187**	.449**
SS	.310**	.092	.166**
EI	.353**	.265**	.319**
US	1.00	.309**	.075
ET	.309**	1.00	.378**
IS	.075	.378**	1.00

* $p < .05$ ** $p < .01$

Key for anger subscales:

S-Ang = state anger, S-Ang/F = feeling angry, S-Ang/V = feel like expressing anger verbally, S-Ang/P = feel like expressing anger physically, T-Ang = trait anger, T-Ang/T = angry temperament, T-Ang/R = angry reaction, AX-O = anger expression-out, AX-I = anger expression-in, AC-O = anger control-out, AC-I = anger control-in, AXIndex = anger expression index.

Key for negative self- schema subscales:

ED = Emotional Deprivation, AB = Abandonment, MA = Mistrust/Abuse, SI = Social Isolation, DS = Defectiveness/Shame, FA = Failure, DI = Dependence/Incompetence, VH = Vulnerability to Harm and Illness, EM = Enmeshment, SB = Subjugation, SS = Self-Sacrifice, EI = Emotional Inhibition, US = Unrelenting Standards, ET = Entitlement, IS = Insufficient Self Control/Self-Discipline.

Table 6

Stepwise Multiple Regression Model For The Prediction Of State Anger (S-Ang) By Negative Self Schemas And Demographic Variables (N = 249)

Significant Predictors	Mult. R	R-sq	R-sq (ch)	F (eqn)	Sig F (ch)
VH	3.99	.159	.159	47.01	.000
SI	.435	.189	.189	8.99	.003
IS	.455	.207	.018	5.66	.018

VH = Vulnerability to Harm and Illness, SI = Social Isolation, IS = Insufficient Self-Control/Self-Discipline.

Table 7

Stepwise Multiple Regression Model For The Prediction Of State Anger: Feeling Angry (S-Ang/F) By Negative Self-Schemas And Demographic Variables (N = 249)

Significant Predictors	Mult. R	R-sq	R-sq (ch)	F (eqn)	Sig F (ch)
VH	.446	.199	.199	61.52	.000
SI	.467	.218	.019	6.05	.015

VH = Vulnerability to Harm and Illness, SI = Social Isolation.

Table 8

Stepwise Multiple Regression Model For The Prediction Of State Anger: Feel Like Expressing Anger Verbally (S-Ang/V) By Negative Self-Schemas And Demographic Variables (N = 249)

Significant Predictors	Mult. R	R-sq	R-sq (ch)	F (eqn)	Sig F (ch)
VH	.313	.098	.098	26.97	.000
IS	.349	.122	.024	6.65	.010

VH = Vulnerability to Harm and Illness, IS = Insufficient Self-Control/Self-Discipline.

Table 9

Stepwise Multiple Regression Model For The Prediction Of State Anger: Feel Like Expressing Anger Physically (S-Ang/P) By Negative Self-Schemas And Demographic Variables (N = 249)

Significant Predictors	Mult. R	R-sq	R-sq (ch)	F (eqn)	Sig F (ch)
DS	.409	.167	.167	49.81	.000
EM	.435	.189	.022	6.73	.010

DS = Defectiveness/Shame, EM = Enmeshment

Table 10

Stepwise Multiple Regression Model For The Prediction Of Trait Anger (T-Ang) By Negative Self-Schemas And Demographic Variables (N = 249)

Significant Predictors	Mult. R	R-sq	R-sq (ch)	F (eqn)	Sig F (ch)
Race	.194	.037	.037	9.65	.002
MA	.465	.217	.179	56.51	.000
IS	.533	.284	.067	23.00	.000
ET	.566	.320	.037	13.17	.000
VH	.585	.343	.022	8.30	.004

MA = Mistrust/Abuse, IS = Insufficient Self-Control/Self-Discipline, ET = Entitlement, VH = Vulnerability to Harm and Illness.

Table 11

Stepwise Multiple Regression Model For The Prediction Of Trait Anger: Angry Temperament (T-Ang/T) By Negative Self-Schemas And Demographic Variables (N = 249)

Significant Predictors	Mult. R	R-sq	R-sq (ch)	F (eqn)	Sig F (ch)
Race	.179	.032	.032	8.20	.005
VH	.404	.164	.132	38.84	.000
ET	.451	.204	.040	12.40	.001
IS	.472	.223	.019	6.10	.014

VH = Vulnerability to Harm and Illness, ET = Entitlement, IS = Insufficient Self-Control/Self-Discipline.

Table 12

Stepwise Multiple Regression Model For The Prediction Of Trait Anger: Angry Reaction (T-Ang/R) By Negative Self-Schemas And Demographic Variables (N = 249)

Significant Predictors	Mult. R	R-sq	R-sq (ch)	F (eqn)	Sig F (ch)
Gender	.152	.023	.023	5.86	.016
MA	.424	.180	.157	47.25	.000
ET	.490	.240	.060	19.55	.000
IS	.515	.266	.025	8.43	.004
US	.529	.279	.014	4.67	.032

MA = Mistrust/Abuse, ET = Entitlement, IS = Insufficient Self-Control/Self-Discipline, US = Unrelenting Standards.

Table 13

Stepwise Multiple Regression Model For The Prediction Of Anger Expression-Out (AX-O) By Negative Self-Schemas And Demographic Variables (N = 249)

Significant Predictors	Mult. R	R-sq	R-sq (ch)	F (eqn)	Sig F (ch)
ET	.327	.107	.107	29.75	.000
VH	.391	.153	.046	13.36	.000
US	.410	.168	.015	4.42	.037

ET = Entitlement, VH = Vulnerability to Harm and Illness, US = Unrelenting Standards.

Table 14

Stepwise Multiple Regression Model For The Prediction Of Anger Expression-In (AX-I) By Negative Self-Schemas And Demographic Variables (N = 249)

Significant Predictors	Mult. R	R-sq	R-sq (ch)	F (eqn)	Sig F (ch)
EI	.484	.235	.235	76.04	.000
SB	.557	.310	.075	26.88	.000
ET	.585	.342	.033	12.23	.001

EI = Emotional Inhibition, SB = Subjugation, ET = Entitlement

Table 15

Stepwise Multiple Regression Model For The Prediction Of Anger Control-Out (AC-O) By Negative Self-Schemas And Demographic Variables (N = 249)

Significant Predictors	Mult. R	R-sq	R-sq (ch)	F (eqn)	Sig F (ch)
Race	.140	.020	.020	4.93	.027
VH	.302	.091	.072	19.52	.000
IS	.337	.114	.022	6.17	.014
SB	.372	.138	.025	7.05	.008
AB	.390	.152	.014	3.93	.049

VH = Vulnerability to Harm and Illness, IS = Insufficient Self-Control/Self-Discipline, SB = Subjugation, AB = Abandonment.

Table 16

Stepwise Multiple Regression Model For The Prediction Of Anger Control-In (AC-I) By Negative Self-Schemas And Demographic Variables (N = 249)

Significant Predictors	Mult. R	R-sq	R-sq (ch)	F (eqn)	Sig F (ch)
VH	.309	.095	.095	26.16	.000
SS	.343	.118	.022	6.26	.013
IS	.369	.136	.018	5.18	.024

VH = Vulnerability to Harm and Illness, SS = Self-Sacrifice, IS = Insufficient Self-Control/Self-Discipline.

Table 17

Stepwise Multiple Regression Model For The Prediction Of Anger Expression Index (AX-Index) By Negative Self-Schemas And Demographic Variables (N = 249)

Significant Predictors	Mult. R	R-sq	R-sq (ch)	F (eqn)	Sig F (ch)
Race	.136	.019	.019	4.69	.031
VH	.437	.191	.172	52.57	.000
IS	.496	.246	.055	17.99	.000
EI	.519	.270	.024	8.01	.005
SS	.539	.291	.021	7.21	.008
ET	.554	.307	.017	5.82	.017

VH = Vulnerability to Harm and Illness, IS = Insufficient Self-Control/Self-Discipline, EI = Emotional Inhibition, SS = Self-Sacrifice, ET = Entitlement.

APPENDIX B

INFORMED CONSENT FORM

INFORMED CONSENT

We invite you to participate in a research study exploring the relationship of belief systems with the experience and expression of anger in college students. Participation in this study involves completing a demographic sheet and two questionnaires.

Completing these instruments will typically take no longer than 30 minutes. Possible benefits of participating in this study include increased awareness of your beliefs and your experience of anger and your expression of anger. It is possible that you may experience some discomfort as you think about your experience and expression of anger. We hope the results of this study will provide important information on this topic.

Your participation is completely voluntary. There is no penalty for refusal to participate, and you are free to withdraw your consent and participation at any time without penalty.

All of the information you provide in the questionnaires is strictly confidential. This consent form and the questionnaires will be gathered separately to ensure the privacy of your responses. You will not write your name anywhere on any of the questionnaires in this packet, so there is no way to connect your identity to your responses on the questionnaires.

If you choose to participate in this study, please sign your name and date at the bottom of this page.

If you have any questions about this study, you can contact the researchers of this study, Jenny Sheader, B.S., and Carrie Winterowd, Ph.D. in the School of Applied Health and Educational Psychology, 434 Willard Hall, Oklahoma State University, at (405) 744-6040. You may also contact Sharon Bacher, IRB Executive Secretary, 202 Whitehurst Oklahoma State University at (405) 744-5700. Thank you for your interest and participation in this study.

I hereby agree to participate in this study. I have read and fully understand the consent form. I sign it freely and voluntarily.

Signed: _____ Date: _____

APPENDIX C

DEMOGRAPHIC SHEET

DEMOGRAPHIC SHEET

Directions: Please answer each question by filling in the blank, checking the blank, or circling the number that best describes you.

1) How old are you? Age ____

2) Gender: ___ Female ___ Male

3) Race: (check all that apply)
- ___ a) African American/Black
- ___ b) American Indian/Native American
- ___ c) Asian/Asian American
- ___ d) Caucasian/White
- ___ e) Hispanic/Latino/Latina
- ___ f) Other: _____

4) Are you:
- ___ a) Single
- ___ b) Partnered (living with partner)
- ___ c) Married
- ___ d) Separated
- ___ e) Divorced
- ___ f) Widowed

5) What year are you in college: ____ a) Freshman ____ b) Sophomore ____ c) Junior ____ d) Senior ____ e) Graduate student

6) How many years of college have you completed? ____ years ____ months

7) Are you a member of a sorority or fraternity? ___ yes ___ no

8) What is your current living situation? ___ residence hall ___ sorority or fraternity ___ off-campus housing ___ on-campus apartment

9) In what type of community were you raised?

a) _____ Urban (city of more than 50,000)
b) _____ Suburban (town or area next to a city of more than 50,000)
c) _____ Rural (town of 50,000 or less <u>not</u> next to an urban area)

10) What is your approximate annual family income (parents income combined)?

a) _____ Less than $10,000/year
b) _____ $10,001-15,000/year
c) _____ $15,001-20,000/year
d) _____ $20,001-25,000/year
e) _____ $25,001-30,000/year
f) _____ $30,001-40,000/year
g) _____ $40,000-50,000/year
h) _____ $50,001-60,000/year
i) _____ $60,001-70,000/year
j) _____ $70,001-80,000/year
k) _____ $80,001-90,000/year
l) _____ $90,001 or more/year

11) Please answer the following questions about the expression of anger in your family, in your racial/cultural group, and among your friends and family. <u>Circle the number</u> that best represents your level of agreement with each item.

1 2 3 4 5 6 7
Strongly disagree Strongly agree

a) The expression of anger was acceptable in my family. 1 2 3 4 5 6 7

b) The expression of anger was acceptable in my racial/cultural group. 1 2 3 4 5 6 7

c) The expression of anger was acceptable among my friends/peers. 1 2 3 4 5 6 7

APPENDIX D

STATE TRAIT ANGER EXPRESSION INVENTORY-2

STAXI-2

This questionnaire is divided into three Parts. Each Part contains a number of statements that people use to describe their feelings and behavior. Please note that each Part has different directions. Carefully read the directions for each Part before recording your responses. There are no right or wrong answers. In responding to each statement, give the answer that describes you best.

Part I Directions

A number of statements that people use to describe themselves are given below. Reach each statement and then **circle the number** which indicates how you feel right now. Remember that there are no right or wrong answers. Do not spend too much time on any one statement. but give the answer which seems to best describe your present feelings.

1 = Not at all 2 = Somewhat 3 = Moderately so 4 = Very much so

How I Feel Right Now

1.	I am furious.	1	2	3	4
2.	I feel irritated.	1	2	3	4
3.	I feel angry.	1	2	3	4
4.	I feel like yelling at somebody.	1	2	3	4
5.	I feel like breaking things.	1	2	3	4
6.	I am mad.	1	2	3	4
7.	I feel like banging on the table.	1	2	3	4
8.	I feeling like hitting someone.	1	2	3	4
9.	I feel like swearing.	1	2	3	4
10.	I feel annoyed.	1	2	3	4
11.	I feel like kicking somebody.	1	2	3	4
12.	I feel like cursing out loud.	1	2	3	4
13.	I feel like screaming.	1	2	3	4
14.	I feel like pounding somebody.	1	2	3	4
15.	I feel like shouting out loud.	1	2	3	4

Part 2 Directions

Read each of the following statements that people use to describe themselves, and then **circle the number** which indicates how you generally feel or react. There are no right or wrong answers. Do not spend too much time on any one statement. Give the answer that best describes how you generally feel or react.

1 = Almost never 2 = Sometimes 3 = Often 4 = Almost always

How I Generally Feel

16.	I am quick tempered.	1	2	3	4
17.	I have a fiery temper.	1	2	3	4
18.	I am a hotheaded person.	1	2	3	4
19.	I get angry when I'm slowed down by others' mistakes.	1	2	3	4
20.	I feel annoyed when I am not given recognition for doing good work.	1	2	3	4
21.	I fly off the handle.	1	2	3	4
22.	When I get mad, I say nasty things.	1	2	3	4
23.	It makes me furious when I am criticized in front of others.	1	2	3	4
24.	When I get frustrated, I feel like hitting someone.	1	2	3	4
25.	I feel infuriated when I do a good job and get a poor evaluation.	1	2	3	4

Part 3 Directions

Everyone feels angry or furious from time to time, but people differ in the ways that they react when they are angry. A number of statements are listed below which people use to describe their reactions when they feel angry or furious. Read each statement and then **circle the number** which indicates how often you generally react or behave in the manner described when you are feeling angry or furious. Remember that there are no right or wrong answers. Do not spend too much time on any one statement.

1 = Almost never 2 = Sometimes 3 = Often 4 = Almost always

When Angry or Furious....

26.	I control my temper.	1	2	3	4
27.	I express my anger.	1	2	3	4
28.	I take a deep breath and relax.	1	2	3	4
29.	I keep things in.	1	2	3	4
30.	I am patient with others.	1	2	3	4
31.	If someone annoys me, I'm apt to tell him or her how I feel.	1	2	3	4
32.	I try to calm myself as soon as possible.	1	2	3	4
33.	I pout or sulk.	1	2	3	4
34.	I control my urge to express my angry feelings.	1	2	3	4
35.	I lose my temper.	1	2	3	4
36.	I try to simmer down.	1	2	3	4
37.	I withdraw from people.	1	2	3	4
38.	I keep my cool.	1	2	3	4
39.	I make sarcastic remarks to others.	1	2	3	4
40.	I try to soothe my angry feelings.	1	2	3	4
41.	I boil inside, but I don't show it.	1	2	3	4
42.	I control my behavior.	1	2	3	4
43.	I do things like slam doors.	1	2	3	4
44.	I endeavor to become calm again.	1	2	3	4
45.	I tend to harbor grudges that I don't tell anyone about.	1	2	3	4
46.	I can stop myself from losing my temper.	1	2	3	4
47.	I argue with others.	1	2	3	4
48.	I reduce my anger as soon as possible.	1	2	3	4
49.	I am secretly quite critical of others.	1	2	3	4
50.	I try to be tolerant and understanding.	1	2	3	4
51.	I strike out at whatever infuriates me.	1	2	3	4
52.	I do something relaxing to calm down.	1	2	3	4
53.	I am angrier than I am willing to admit.	1	2	3	4
54.	I control my angry feelings.	1	2	3	4
55.	I say nasty things.	1	2	3	4
56.	I try to relax.	1	2	3	4
57.	I'm irritated a great deal more than people are aware of.	1	2	3	4

APPENDIX E

YOUNG SCHEMA QUESTIONNAIRE

Y S Q – S1

Developed by Jeffrey Young, Ph.D.

INSTRUCTIONS: Listed below are statements that a person might use to describe himself or herself. Please read each statement and decide how well it describes you. When you are not sure, base your answer on what you emotionally feel, not what you think to be true. Choose the **highest rating from 1 to 6** that describes you and write the number in the space before the statement.

RATING SCALE:

1 = Completely untrue of me
2 = Mostly untrue of me
3 = Slightly more true than untrue
4 = Moderately true of me
5 = Mostly true of me
6 = Describes me perfectly

1. _____ Most of the time, I haven't had someone to nurture me, share him/herself with me, or care deeply about everything that happens to me.

2. _____ In general, people have not been there to give me warmth, holding, and affection.

3. _____ For much of my life, I haven't felt that I am special to someone.

4. _____ For the most part, I have not had someone who really listens to me, understands me, or is tuned into my true needs and feelings.

5. _____ I have rarely had a strong person to give me sound advice or direction when I'm not sure what to do.

6. _____ I find myself clinging to people I'm close to because I'm afraid they'll leave me.

7. _____ I need other people so much that I worry about losing them.

8. _____ I worry that people I feel close to will leave me or abandon me.

9. _____When I feel someone I care for pulling away from me, I get desperate.

10._____ Sometimes I am so worried about people leaving me that I drive them away.

11._____ I feel that people will take advantage of me.

12._____ I feel that I cannot let my guard down in the presence of other people, or else they will intentionally hurt me.

13._____ It is only a matter of time before someone betrays me.

14._____ I am quite suspicious of other people's motives.

15._____ I'm usually on the lookout for people's ulterior motives.

16._____ I don't fit in.

17._____ I'm fundamentally different from other people.

18._____ I don't belong; I'm a loner.

19._____ I feel alienated from other people.

20._____ I always feel on the outside of groups.

21._____ No man/woman I desire could love me once he/she saw my defects.

22._____No one I desire would want to stay close to me if he/she knew the real me.

23._____ I'm unworthy of love, attention, and respect of others.

24._____ I feel that I'm not loveable.

25._____ I am too unacceptable in very basic way to reveal myself to other people.

26._____ Almost nothing I do at work (or school) is as good as other people can do.

27._____ I'm incompetent when it comes to achievement.

28._____ Most other people are more capable than I am in areas of work and achievement.

29._____ I'm not as talented as most people are at their work.

30._____ I'm not as intelligent as most people when it comes to work (or school).

31._____ I do not feel capable of getting by on my own in everyday life.

32._____ I think of myself as a dependent person, when it comes to everyday functioning.

33._____ I lack common sense.

34._____ My judgment cannot be relied upon in everyday situations.

35._____ I don't feel confident about my ability to solve everyday problems that come up.

36._____ I can't seem to escape the feeling that something bad is about to happen.

37._____ I feel that a disaster (natural, criminal, financial, or medical) could strike at any moment.

38._____ I worry about being attacked.

39._____ I worry that I'll lose all my money and become destitute.

40._____ I worry that I am developing a serious illness, even though nothing serious has been diagnosed by a physician.

41._____ I have not been able to separate myself from my parent(s) the way other people my age seem to.

42._____ My parent(s) and I tend to be over involved in each other's lives and problems.

43._____ It is very difficult for my parent(s) and me to keep intimate details from each other, without feeling betrayed or guilty.

44._____ I often feel as if my parent(s) are living through me—I don't have a life of my own.

45._____ I often feel that I do not have a separate identity from my parent(s) or partner.

46._____ I think if I do what I want, I'm only asking for trouble.

47._____ I feel that I have no choice but to give in to other people's wishes, or else they will retaliate or reject me in some way.

48._____ In relationships, I let the other person have the upper hand.

49._____ I've always let others make choices for me, so I really don't know what I want for myself.

50._____ I have a lot of trouble demanding that my rights be respected and that my feelings be taken into account.

51._____ I'm the one who usually ends up taking care of the people I'm close to.

52._____ I am a good person because I think of others more than myself.53.

53._____ I'm so busy doing for the people that I care about, that I have little time for myself.

54._____ I've always been the one who listens to everyone else's problems.

55._____ Other people see me as doing too much for others and not enough for myself.

56._____ I am too self conscious to show positive feelings to others (eg. Affection, showing I care).

57._____ I find it embarrassing to express my feelings to others.

58._____ I find it hard to be warm and spontaneous.

59._____ I control myself so much that people think I am unemotional.

60._____ People see me as uptight emotionally.

61._____ I must be the best at most of what I do; I can't accept second best.

62._____ I try to do my best; I can't settle for "good enough".

63._____ I must meet all my responsibilities.

64._____ I feel there is constant pressure for me to achieve and get things done.

65._____ I can't let myself off the hook easily or make excuses for my mistakes.

66._____ I have a lot of trouble accepting "no" for an answer when I want something from other people.

67._____ I'm special and shouldn't have to accept many of the restrictions placed on other people.

68._____ I hat to be constrained or kept from doing what I want.

69._____ I feel that I shouldn't have to follow the normal rules and conventions other people do.

70._____ I feel that what I have to offer is of greater value than the contributions of others.

71._____ I can't seem to discipline myself to complete routine or boring tasks.

72._____ If I can't reach a goal, I become easily frustrated and give up.

73._____ I have a very difficult time sacrificing immediate gratification to achieve a long range goal.

74._____ I can't force myself to do thing I don't enjoy, even when I know it's for my own good.

75._____ I have rarely been able to stick to my resolutions.

To all participants:

We thank you for completing questionnaires for this study exploring the relationship between belief systems and the experience and expression of anger. Sometimes, when people participate in research studies, they may become aware of their own feelings and experiences that they may wish to discuss with others, including counseling professionals. We have provided you with a list of resources in case you become aware of your interest in seeking assistance to cope with your thoughts, feelings, and behaviors in your relationships with partners. Please feel free to talk with the primary researchers of this study if you have any questions, concerns, or comments: Jenny Sheader-Wood, B.S. or Carrie Winterowd, Ph.D, 434 Willard Hall, Oklahoma State University, Stillwater, Oklahoma, 74078 at (405) 744-6040. We appreciate your participation in this study.

Resource List

This is a list of some centers that provide counseling services to students and to the community.

Psychological Services Center
118 North Murray Hall
Oklahoma State University
Stillwater, OK 74078
(405) 744-5975

Community Services Center
Marriage and Family Services
Oklahoma State University
Stillwater, OK 74078
(405) 744-9442
(Rockey Robbins, Ph.D.)

University Counseling Services-East
310 Student Union
Oklahoma State University
Stillwater, OK 74078
(405) 744-5472

Center for Family Services
243 Human Environmental Sciences
Oklahoma State University
Stillwater, OK 74078
(405) 744-5058

University Counseling Services-West
002 Student Health Center
Oklahoma State University
Stillwater, OK 74078
(405) 744-7007

Gay, Lesbian, Bisexual Community Association
Oklahoma State University
(405) 744-8453

Multicultural Development and Assessment Center
320 Student Union
Oklahoma State University
Stillwater, OK 74078
(405) 744-5481

International Student Services
316 Student Union
Oklahoma State University
Stillwater, OK 74078
(405) 744-5459

APPENDIX G

INSTITUTIONAL REVIEW FOR HUMAN SUBJECTS

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD

Date:	April 12, 2000	IRB #:	ED-00-249

Proposal Title: "NEGATIVE SELF-SCHEMAS AND THE RELATIONSHIP WITH THE EXPERIENCE AND EXPRESSION OF ANGER"

Principal Investigator(s): Carrie Winterowd
Jenny Sheader-Wood

Reviewed and Processed as: Expedited

Approval Status Recommended by Reviewer(s): Approved

Signature:

Carol Olson

Carol Olson, Director of University Research Compliance

April 12, 2000
Date

Approvals are valid for one calendar year, after which time a request for continuation must be submitted. Any modification to the research project approved by the IRB must be submitted for approval with the advisor's signature. The IRB office MUST be notified in writing when a project is complete. Approved projects are subject to monitoring by the IRB. Expedited and exempt projects may be reviewed by the full Institutional Review Board.

VITA

Jennifer Sheader Wood

Candidate for the Degree of

Master of Science

Thesis: THE RELATIONSHIP OF NEGATIVE SELF-SCHEMAS WITH THE EXPERIENCE OF ANGER AND ANGER EXPRESSION

Major Field: Applied Behavioral Studies

Biographical:

Personal Data: Born in Hartlepool, England, On May 10, 1972, the Daughter of Rob and Nora Sheader.

Education: Graduated from Stillwater High School, Stillwater, Oklahoma in May 1990; received Bachelor of Science degree in Psychology from Oklahoma State University in May 1996. Completed the requirements for the Master of Science degree in Counseling and Student Personnel: Specialization Community Counseling in July, 2000.

Experience: Employed by Stillwater Domestic Violence Services as a Parent Support Group Facilitator, May 1996 to January 1997; Employed by Therapeutic Interpretations as a Child Guidance Specialist, February 1997 to August 1997; Employed by Recovery Plus as a Mental Health Counselor, January 1997 to June 1998.

Professional Memberships: American Psychological Association.