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

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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. Anger has been described as an important, yet sometimes problematic emotion among the range of human emotional experience (Averill, 1982; Novaco, 1975). The way in which individuals behave when angered varies considerably across a wide range of adaptive and maladaptive responses. (Deffenbacher, 1992). When mild and expressed in a constructive, non-aggressive manner, anger can result in positive outcomes. Anger can motivate effective behavior, lead to assertive behavior, active problem solving and the expression of important feelings. However, when experienced as intense and expressed in a dysfunctional or hostile manner, anger can lead to many other problems. Some individuals may verbally or physically assault themselves, others or the environment when angry. Others may suppress their behavioral expression of anger and may withdraw isolate, pout, or sulk. Maladaptive responses to anger have been shown to result in relational, mental and physical health problems (Deffenbacher, 1992).

Many clients who come to therapy present with problems related to anger. A growing number of counseling referrals are through community sanctions that prescribe court-mandated anger management treatment. According to Deffenbacher (1996), a major theorist in the area of anger, there is conceptual confusion in labeling and describing meaningful groups of dysfunctional anger. It is anticipated however, that the

next edition of the Diagnostic and Statistical Manual for mental health professionals will include a classification of diagnoses related to anger disorders. A greater understanding of the experience and expression of anger is needed in order to develop effective treatment strategies for the growing number of clients seeking counseling for problems with anger.

Anger has been associated with physical health problems for some time, such as hypertension (Gentry et al., 1981; Harburg et al., 1979;), coronary heart disease (Haney & Blumenthal, 1985; Julkunen et al., 1994; Spielberger & London, 1982; Williams et al., 1980), 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 (Siegman & Smith, 1994; Spielberger et al., 1988, 1995). Anger has also been associated with mental health problems such as depression (Clay et al., 1993) and Post Traumatic Stress Disorder (Lasko et al., 1994; McNew & Abell, 1995).

A significant body of research has developed 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 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. According to Deffenbacher (1996), an active figure in the anger research, anger is influenced by complex interactions between multiple personal and environmental variables, including neurological and endocrine processes as well as temperament. Furthermore, interactions between eliciting stimuli (i.e. external events, external events that trigger memories and images, internal processes), the individual's preanger state and appraisal processes result in the internal experience of anger and subsequent behavioral responses. As hypothesized by Deffenbacher (1996), anger may be elicited by a relatively clear external precipitant, which is often easily identified by the individual. Such precipitants may include specific circumstances, behavior of others, specific objects, or impersonal events, or one's own behavior. Deffenbacher (1996) reports that anger may also be elicited through anger-related memories and images, triggered by external events, 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). The immediate preanger state or what the individual is feeling and thinking in the moment can also influence anger. Researchers have found that if an individual is angry or frustrated, the excitement from that arousal can transfer to subsequent situations (Zillman, 1971; Zillman & Bryant, 1974). Others 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). Deffenbacher (1996) describes enduring personal characteristics as relevant personal characteristics similar to Beck's (1979) concept of the personal domain or Lazarus's (1991) concept of ego identity. As reported by Beck (1976), one's personal domain refers to the things that the individual believes in, cares about, or values. Anger results from a perceived violation of or trespass on this personal domain. Moreover, as proposed by Beck (1999), anger results from the adherence to rigid and distorted belief systems, and is connected with beliefs related to loss, fear, and self-esteem. Deffenbacher (1996) also reports that dysfunctional anger can result from extensive and rigid boundaries to one's personal domain. Another influence of anger is one's momentary or immediate physical-emotional-cognitive state. Theindividual's enduring and temporary states interact with the anger-precipitant and lead to appraisal. 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).

Spielberger (1999), another well-known researcher of anger, conceptualizes the experience of anger as having two major components-state and trait anger. "State anger is defined as a psychobiological emotional state or condition marked by subjective feelings that vary in intensity from mild irritation or annoyance to intense fury and rage" (p. 1). Anger is typically accompanied by biological elements including muscular tension and arousal of the neuroendocrine and autonomic nervous systems. The intensity of state anger changes over time through the operation 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, Anger Expression-Out, Anger Expression-In, Anger Control-Out and Anger Control-In. Anger Expression-Out is the expression of anger toward others or

objects in the environment. An emphasis is placed on the verbal or physical expressions of anger. Anger expression-In involves holding in or suppressing angry feelings. Anger Control-Out refers to the attempt to control the expression of anger toward others or objects in the environment. Finally, Anger Control-In is the control of suppressed feelings by attempts to calm down or cool off when angered.

Schemas

Schemas have been a focus in the mental health literature for several decades. However, terminology and definitions of schemas are 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 2003) 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 defined by Beck (1995) as core beliefs. According to Beck (1995), core beliefs are one's most central ideas about the self. Core beliefs are global, rigid and over generalized. 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, 1995). 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 (1995) 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. Intermediate beliefs consist of attitudes, rules, and assumptions that influence thoughts, feelings, and behavior (Beck, 1995). 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 (rules, attitudes and assumptions) which influence one's perception of a specific event and elicit automatic thoughts which in turn influence emotions and behavior.

According to Young (2003), an active researcher and theorist in cognitive and schema therapies, a schema can be defined as a "broad organizing principle for making sense of one's life" (p. 7). Young (2003) asserts that schemas are largely formed early in life, during childhood and adolescence, although states it is possible for them to

develop across the life span. Once developed, schemas continue to be elaborated as they are applied in making sense of later life events and situations, thus filtering and distorting information to fit the pattern. Young (2003) proposes that because they are developed in childhood, schemas form the core of the self-concept and are continued to be used even when they may no longer be applicable. This phenomenon known as "cognitive consistency", results as schema are familiar, and in that sense comfortable to the individual, thus becoming more elaborate and stable. Schemas can be adaptive or maladaptive in nature, with some authors proposing a corresponding adaptive schema for each maladaptive schema (e.g. Elliott & Lassen, 1997). Young (2003) considers Erickson's (1950) psychosocial stages and argues that successful resolution of each stage results in adaptive schemas, and failure to resolve a stage leads to maladaptive schemas. Schemas exist along a continuum from strong to weak with those developed early in life, during childhood, considered to be stronger (i.e. more entrenched and resistant to change), than those that develop in adulthood.

Early Maladaptive Schemas (EMS), according to Young (2003), are enduring emotional and cognitive patterns that are self-defeating in nature and dysfunctional to a significant degree. These schemas develop out of unmet core emotional needs in childhood and trigger maladaptive behavioral responses. Young (2003) identifies five core emotional needs that are thought to be universal and include: 1) Secure attachments to others, 2) Autonomy, competency and self-identity, 3) Freedom to express valid needs and emotions, 4) Spontaneity and play, 5) Realistic limits and self control. Temperament, or personality, is thought to influence the development of schemas at different points. For example, Young (2003) notes that the child's temperament, as well

as early environmental factors, interact to influence whether or not the child's core needs are met. For example a dysthymic or anxious child may prove difficult for parents in forming a secure attachment, or a shy child may be afforded fewer opportunities for autonomy by overprotecting parents. Early Maladaptive Schemas develop through a toxic childhood environment and are engendered through four processes that include: 1) Toxic frustration of needs (i.e. too little is given to meet needs), 2) Traumatization/Victimization (i.e. Child is harmed or victimized), 3) Indulgence of needs (i.e. too much given to met needs), and 4) Selective internalization or identification with significant others (i.e. the child internalizes the parents thoughts, feelings and behaviors).

Eighteen Early Maladaptive Schemas have been identified by Young (2003), and are grouped into five schema domains, consistent with the five core needs, or developmental tasks, that are believed necessary to be met, in order for a child to develop in a healthy manner. It is theorized that when any of the five needs are not met, the individual will experience difficulty functioning in one or more of the domains. 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 (i.e. others are unreliable for emotional support and attachment), Mistrust/Abuse (i.e. others will intentionally harm in some way), Emotional Deprivation (i.e. emotional needs will not be met by others), Defectiveness/Shame (i.e. one is internally flawed, inadequate, or unlovable), and Social Isolation/Alienation (i.e. 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 (i.e. one is incompetent in functioning independently in everyday life), Vulnerability to Harm or Illness (i.e. something catastrophic is inevitable), Enmeshment/Undeveloped Self (i.e. one is lacking in individual identity or inner direction) and Failure (i.e. 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 (i.e. one is superior, and therefore should be entitled to special privileges) and Insufficient Self-Control/Self-Discipline (i.e. 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 (i.e. tendency to suppress one's own needs or emotions, and feeling 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), and Approval-Seeking/Recognition-Seeking (i.e. 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 (i.e. constant focus on negative aspects of life while minimizing or denying positive aspects), Emotional Inhibition (i.e. emotions and impulses must be

inhibited), Unrelenting Standards/Hypercriticalness (i.e. striving to meet very high-internalized standards of behavior and achievement) and Punitiveness (i.e. people should be punished harshly for making mistakes) (Young, 2003).

As stated previously, Early Maladaptive Schemas are dysfunctional and are hypothesized to lead to psychological distress, including depression and panic (Young, 2003). Schemas are also hypothesized to lead to dysfunctional relationships with others, inadequate work performance, addictions, and psychosomatic disorders (Young, 2003). Coping with EMS's are thought to often underlie many Axis I disorders and furthermore, secondary EMS's can develop as a result of a particularly damaging and entrenched schema. For example an individual can spend an inordinate amount of time trying to be perfect (Unrelenting standards schema) in response to feelings or inferiority, badness or lack or worth (Defectiveness/Shame schema). When activated by events in the environment, schemas often produce high levels of affective arousal including shame, grief, fear and rage.

Schemas are perpetuated through maladaptive coping styles that are a compilation of specific coping responses (behaviors and strategies), developed in response to the schema and serve to influence behavior. The three coping style processes are: schema surrender, schema avoidance, and schema overcompensation. When schemas are surrendered the individual yields to it without challenging its validity. 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, 2003). Beck (1995) refers to these schema maintenance processes as cognitive distortions. Schemas are also maintained at the behavioral level through self-defeating

behavior patterns such as maladaptive partner selection, which according to Young (2003) is one of the most common mechanisms through which schemas are maintained. Schema avoidance is used to avoid triggering schemas and prevent the experiencing of high levels of affect, such as anger, anxiety, sadness, or guilt. Cognitive avoidance refers to attempts to block thoughts or images that may trigger a schema, for example drinking an excessive amount of alcohol. Affective avoidance are attempts to block or numb painful emotions that are triggered by schema activation, such as avoiding situations that may include conflict. A final type of avoidance is behavioral avoidance, which refers to the avoidance of situations that trigger schemas, such as avoiding intimate relationships altogether. Finally, Schema Overcompensation involves fighting the schema by thinking, feeling and behaving in ways that are opposite to what would be expected of the schema. For example an individual with a dependence/incompetence schema may become so self-reliant that he or she does not ask for anything.

Negative self-schemas have been associated with depression and anxiety (Beck, 1976; Haaga et al, 1991; Rittenmyer, 1997), anger (Deffenbacher, 1996); self esteem (Black & Pearlman, 1997), as well as personality pathology (Dreesen et al, 1999) and attachment (Bowlby, 1988).

Personality

The psychological study of personality development has its roots in the late nineteenth century and flourished during the early decades of the twentieth century (Pervin & John, 1999). The study of individual differences and the study of individual persons as unique, integrated wholes are two related, yet contrasting endeavors that have spurred the generations of personality theories. Over the years, theories of personality

have evolved from two distinct bases, traits and temperament and personality types. Even today, there exists no single agreed upon theory of personality and thus no clear picture of how human personality develops (McCrae et al., 2002).

Gordon Allport is credited for defining and systemizing the field of personality in his focus upon the organization and profiling of an individual's traits. Allport set the stage for a tradition of trait theorists, such as Cattell,Eysenck, Goldberg, and more recently Costa and McCrae (Pervin & John, 1999). It has become widely accepted that personality traits are hierarchically arranged, with broad and global dimensions at the top and narrow and specific traits at lower levels (Goldberg, 1993). In recent years, focus on higher-level traits has led to the development of three-factor (Eysenck & Eysenck, 1975) and five-factor (Digman, 1990) models of personality structure.

The Big Five conceptualization of personality grew out of two distinct approaches, the Lexical approach and the Questionnaire approach. The Lexical approach, developed by Allport, Cattell and Goldberg, was based on the assumption that the most socially relevant and salient personality characteristics have become encoded in the natural language (Pervin & John, 1999). Personality assessments within the lexical tradition were generated from dictionary terms used to describe traits. Cattell reduced Allport's original list of 4,500 trait terms to 35, identifying 12 personality factors and eventually developed the 16PF questionnaire. Tupes and Christal (1961) upon further factor analysis, found five relatively strong and recurrent factors that became known as the Big Five, a title chosen to reflect their extreme breadth. These five factors are thought to represent personality at the broadest level of abstraction and have been typically labeled as I. Extraversion or Surgency (talkative, assertive, energetic); II.

Agreeableness (good-natured, cooperative, trustful); III. Conscientiousness (orderly, responsible, dependable); IV. Emotional Stability versus Neuroticism (calm, not neurotic, not easily upset); and V. Intellect or Openness (intellect, imaginative, independent-minded).

The Questionnaire approach began in the 1980s with Costa and McCrae's cluster analysis of Cattell's 16PF and the development of the NEO Personality Inventory. A series of studies demonstrated that the five questionnaire scales developed by Costa & McCrae converged with adjective-based measures on the Big Five. Furthermore, Costa & McCrae demonstrated that these five factors could also be recovered in various other personality questionnaires including Block's California Adult Q-set (Costa & McCrae, 1992).

The five factor model (FFM), although not a theory of personality per se, adopts the basic tenets of trait theory in that, as described by Pervin & John (1999) "individuals can be characterized in terms of relatively enduring patterns of thoughts, feelings, and actions; that traits can be quantitatively assessed and that they show some degree of cross-situational consistency" (p. 140). Costa and McCrae (1994) have developed their own "model of the person" which they refer to as the FFT personality system to distinguish it from the five-factor model.

The Five Factor Theory (Costa & McCrae, 1992) was developed with the intention of being empirically testable with most of the 16 original postulates based on a body of empirical literature. The FFT explicitly acknowledges four assumptions about human nature: knowability, rationality, variability, and proactivity. Knowability asserts that personality is a proper object of scientific study. Rationality is the assumption that

people are in general capable of understanding themselves and others. Variability assumes that people differ from each other in psychologically significant ways. Proactivity is the assumption that people are responsible for the causation of their own behavior, and thus actively involved in shaping their own lives (Pervin & John, 1999).

FFT consists of core and peripheral components and dynamic processes that indicate how the components are intercorrelated. The core components include Basic Tendencies, Characteristic Adaptations and the Self-Concept. Basic tendencies can be described as abstract psychological potentials, or traits, that influence patterns of thoughts, feelings and actions (McCrae & Costa, 1996). Personality traits are endogenous in nature and develop through childhood, reaching a mature form in adulthood, after which they remain relatively stable. Traits are organized hierarchically from narrow and specific, to broad and general dispositions and include: (N) Neuroticism (i.e. a general tendency to experience negative affects such as fear, sadness, embarrassment, anger, guilt, and disgust); (E) Extraversion (i.e. tendency to be sociable, assertive, active, talkative, optimistic); (O) Openness (i.e. elements of attentiveness to inner feelings, active imagination, intellectual curiosity, aesthetic sensitivity, and independence of judgment); (A) Agreeableness (i.e. fundamentally altruistic, sympathetic, eager to help, expects others to be helpful); and (C) Conscientiousness (i.e. tendency to be purposeful, strong-willed, and determined).

Characteristic Adaptations are culturally-conditioned phenomena such as personal striving and attitudes that evolve into patterns of thoughts, feelings and behaviors. These concrete manifestations of basic tendencies change over time in response to biological maturation, changes in the environment, or deliberate interventions. Furthermore,

adaptations can be maladaptive in regard to cultural values or personal goals. According to Costa and McCrae's (1992) theory, characteristic adaptations both reflect the enduring psychological core of the individual, and help the individual fit into their ever-changing social environment, and thus vary tremendously across cultures, families and stages of the lifespan. Basic tendencies however, do not vary and are found in all cultures studied so far (McCrae & Costa, 1997b) and are generally stable across the lifespan (McCrae & Costa, 1990).

The Self-Concept is derived from self-schemas and personal myths that make up a cognitive-affective perception of self-maintained by the individual. Self-concept is developed and maintained in a way that selectively incorporates only that information which is consistent with personality traits and thus gives a sense of coherence to the individual.

Peripheral components represent the interfaces of personality with adjoining systems and include biological bases, external influences and the objective biography. Presently, biological bases are given little attention in FFT. External influences however, are described in terms of interaction, apperception and reciprocity. The social and physical environment of the individual interacts with personality dispositions, which in turn shape characteristic adaptations and ultimately influence behavior. As in the case of self-concept, individuals selectively attend to and construe the environment in ways that are consistent with their personality traits.

In addition, individuals influence the environment to which they selectively respond. The objective biography is determined by multiple complex functions of characteristic adaptations triggered by life events and situations. It involves the

individual's life course, or plans, schedules, and goals that are organized over time and are consistent with personality traits.

Finally, dynamic processes describe the ongoing functioning of the individual in creating and expressing adaptations. These processes are regulated by universal or differential dynamics. Universal dynamics involve cognitive, affective, and volitional mechanisms, whereas other dynamic processes are differentially affected by basic tendencies and personality traits

Over the past thirty years, personality variables have been applied to the development of models to understand subjective well being (Hayes, 2001). The Temperamental Model emphasizes the critical role of personality traits on subjective well-being (McCrae & Costa, 1991). The Temperamental Model proposes that personality domains (Neuroticism, Extraversion, Openness, Agreeableness, Conscientiousness), which have strong genetic components, either directly affect subjective well-being or indirectly affect subjective well-being by their influence on various other processes. Personality indirectly affects subjective well-being by influencing, among other processes, one's perceptions and attributions regarding life events (DeNeve & Cooper, 1998). Thus personality is thought to be the primary determinant of subjective well-being and influences can be direct or mediated.

Personality variables have been associated with stress, coping, and health (Penley et al, 2002), as well as relationship dysfunction and personality pathology (Dreesen et al., 1999). Other researchers have asserted links between personality and self-esteem and adjustment to life events (Magnus et al., 1993). A study conducted in Germany found

beliefs about self-pity correlated with certain FFT personality domains and with anger (Stober, 2003).

Anticipated Relationships

A review of the theoretical models and correlates of anger, schemas, and personality suggests that important relationships likely exist among these variables. It is probable that significant relationships exist between personality and anger, between negative self-schemas and anger, and between personality and negative self-schemas. Given that some similarities exist between personality traits and negative self schemas (i.e. both can be described as stable and enduring characteristics that develop in childhood and influence thoughts, feelings, and behaviors), as well as meaningful differences (i.e. personality traits are endogenous in nature), it is highly possible that schemas add to the knowledge that personality provides in understanding the relationship with the experience and expression of anger.

Statement of the Problem

To date there have been no known studies that have explored the contributions of personality and negative self schemas in understanding the experience and expression of anger. Moreover, studies that have examined relationships between beliefs and anger, and personality and anger yield only partial understanding due to the variety of ways in which the variables have been defined and measured. A deeper understanding of the factors that influence or are associated with the experience and expression of anger is necessary in order to identify meaningful groups of anger responses and effectively help individuals seeking mental health services for anger or frustration.

Purpose of the Study

The purpose of the study will be to explore relationships between and among personality, negative self-schemas, and anger as well as to explore what negative self-schemas can add above and beyond what personality explains in understanding the experience and expression of anger. Given the paucity of research on this topic, this study will be exploratory in nature. It is anticipated however, that there will be significant relationships among these variables of interest. These anticipated relationships will be discussed in detail in the hypotheses section of the paper.

Significance of the Study

As stated previously, despite research on each of the variables that will be explored in this study, there is no known research that explores whether negative self-schemas add anything beyond what personality explains in understanding the experience and expression of anger. Gaining a deeper understanding of anger and knowing more about processes that influence the development, maintenance and expression of this emotion will result in the development of increasingly effective treatment interventions. Given that counseling practitioners are faced with increasing numbers of clients presenting with anger problems, and the fact that conceptual confusion regarding anger remains, studies that profit the body of knowledge on anger are vital.

Research Questions

The following research questions were addressed in this study:

1. Which personality factors (as defined by Costa & McCrae, 1992) are significant predictors of the experience of anger (as defined by Spielberger, 1999)?

    1a. Which personality factors are significant predictors of trait anger?

2. Which personality factors (as defined by Costa & McCrae, 1992) are significant predictors of the expression of anger (as defined by Speilberger, 1999)?

2a. Which personality factors are significant predictors of Anger Expression Out?

2b. Which personality factors are significant predictors of Anger Expression In?

2c. Which personality factors are significant predictors of Anger Control Out?

2d. Which personality factors are significant predictors of Anger Control In?

3. Which personality factors (as defined by Costa & McCrae, 1992) are significant predictors of negative self schemas (as defined by Young, 1999)?

4. Which negative self-schemas (as defined by Young, 1999) are significant predictors of the experience of anger (as defined by Speilberger, 1999)?

4a. Which negative self-schemas are significant predictors of Trait Anger?

5. Which negative self-schemas (as defined by Young, 1999) are significant predictors of the expression of anger (as defined by Speilberger, 1999)?

5a. Which negative self-schemas are significant predictors of Anger Expression Out?

5b. Which negative self-schemas are significant predictors of Anger Expression In?

5c. Which negative self-schemas are significant predictors of Anger Control Out?

5d. Which negative self-schemas are significant predictors of Anger

Control In?

6. Do negative self-schemas add anything beyond what personality provides in predicting the experience of anger?

6a. Do negative self-schemas add anything beyond what personality provides in predicting trait anger?

7. Do negative self-schemas add anything beyond what personality provides in predicting the expression of anger?

7a. Do negative self-schemas add anything beyond what personality provides in predicting Anger Expression Out?

7b. Do negative self-schemas add anything beyond what personality provides in predicting Anger Expression In?

7c. Do negative self-schemas add anything beyond what personality provides in predicting Anger Control Out?

7d. Do negative self-schemas add anything beyond what personality provides in predicting Anger Control In?

Research Hypotheses

1. Personality domains were expected to be significant predictors of the experience of anger.

1a. Neuroticism was expected to be significant predictors of Trait Anger.

2. Personality domains were expected to be significant predictors of the expression of anger.

2a. Neuroticism and low Agreeableness were expected to be significant predictors of Anger Expression-Out.

2b. Neuroticism, Agreeableness, Conscientiousness and low Openness were expected to be significant predictors of Anger Expression-In.

2c. Neuroticism and low Extraversion were expected to be significant predictors of Anger Control-Out.

2d. Neuroticism, Agreeableness, and Conscientiousness were expected to be significant predictors of Anger Control-In.

3. The Personality domain of Neuroticism was expected to be significant predictor of Negative Self Schemas.

4. Negative Self-Schemas were expected to be significant predictors of the experience of anger (Trait Anger).

5. Negative Self-Schemas were expected to be significant predictors of the expression of anger: (a) Anger Expression-Out, (b) Anger Expression-In, (c) Anger Control-Out, (d) Anger Control-In.

6. Negative Self Schemas were expected to contribute significantly beyond what personality provides in understanding the experience of anger (Trait Anger).

7. Negative Self Schemas were expected to contribute significantly beyond what personality provides in understanding the expression of anger: (a) Anger Expression-Out, (b) Anger Expression-In, (c) Anger Control-Out, (d) Anger Control-In.

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, negative self-schemas and personality dimensions.

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

Definition of Terms

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 which can 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.

Trait Anger (T-Ang): A person's disposition to perceive situations as annoying and frustrating and the tendency to respond to these situations with an increase in state anger. Trait anger will be measured using an 8-item scale that measures the frequency which angry feelings are experienced over time. Higher scores indicate more trait anger.

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): Refersto the expression of angry feelings in verbally or physically aggressive behavior toward others or objects in the environment. Higher scores on this scale indicate more anger aggression.

Anger Expression-In (AX-I): Refers to a person's holding in or suppressing angry feelings. Higher scores on this scale indicate more anger suppression.

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. Higher scores on this scale indicate more anger control efforts.

Anger Control-In (AC-I): Refers to attempts to control suppressed angry feelings by calming down or cooling off**.** Higher scores on this scale indicate more anger control efforts.

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. However, when these beliefs are activated by events, one's thoughts are dominated by them (Young, 2003). Schemas will be measured using the Young Schema Questionnaire (YSQ; Young, 1990), short form. Fifteen Eighteen Early Maladaptive Schemas are measured which are grouped into five broad schema domains. Each of the schema domains corresponds to the five developmental needs of the child, which Young (2003)

hypothesizes, may not have been met. The five broad schema domains and 15 schemas that will be measured, according to Young (2003, pp. 13-20) 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.

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. 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.

5b. 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.

Personality: Basic tendencies are described by Costa and McCrae (1996) as abstract psychological potentials, or traits, that influence patterns of thoughts, feelings and actions. Personality traits are endogenous in nature and develop through childhood, reaching a mature form in adulthood, after which they remain relatively stable. Traits are organized hierarchically from narrow and specific, to broad and general dispositions. The five personality domains as defined by Costa and McCrae (1992) include:

(N) Neuroticism: A general tendency or disposition to experience negative affects such as fear, sadness, embarrassment, anger, guilt, and disgust

(E) Extraversion: A general tendency or disposition to be sociable, assertive, active, talkative, optimistic

(O) Openness: A general tendency or disposition to be attentive to inner feelings, have an active imagination, intellectual curiosity, aesthetic sensitivity, and independence of judgment

(A) Agreeableness: A general tendency or disposition to be fundamentally altruistic, sympathetic, eager to help, and expect others to be helpful

(C) Conscientiousness: A general tendency or disposition to be purposeful, strong-willed, and determined).

CHAPTER II

REVIEW OF LITERATURE

Introduction

The research related to anger, schemas, and personality will be reviewed. First, the research exploring anger in relation to a number of variables will be presented. Second, research exploring belief systems and schemas in association with variables, including anger will be discussed. Third, research exploring personality dimensions in relation to variables including anger and beliefs will be discussed. In order to narrow the focus of this literature review, only empirical studies that explore variables specific to this research project (i.e. anger, self-schemas, and FFM) will be included in the critical review.

Correlates of Anger

Anger has been associated with a number of different variables including physical health problems such as hypertension (Gentry et al., 1981; Harburg et al., 1973), coronary heart disease (Haney & Blumenthal, 1985; Julkunen et al., 1994; Spielberger & London, 1982; Williams et al., 1980), and cancer (Greer & Morris, 1975). Researchers have discovered that cardiovascular disease (Siegman & Smith, 1994) and high blood pressure is associated with persistently experienced, suppressed, or aggressively expressed forms of anger (Siegman & Smith, 1994; Speilberger et al., 1988,1995).

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). Lasko et al. (1994) found significant group differences on each of the State Trait Anger Expression Inventory (STAXI) scale scores, except one subscale of Trait anger, between Vietnam War veterans with and without chronic PTSD. These results not only support the relationship between anger and PTSD but also point to individual differences in the tendency to experience chronic anger. In another study that compared the STAXI scores of Vietnam War veterans with PTSD and adult survivors of childhood sexual abuse, veterans were found to express anger (both outwardly and inwardly) more frequently than abuse survivors. However both of these groups reported that the degree to which they experienced and expressed anger interfered with optimal functioning.

Anger has also been associated with different maladaptive relationship characteristics including partner violence, abusive parenting patterns, disturbed family functioning, as well as school violence, bullying and disrupted teen relations (Deffenbacher, 2002). Recently, state-trait anger theory has been adapted to the context of driving (Deffenbacher et al., 2001) suggesting individual differences in the propensity to become angry while driving.

Demographic characteristics such as gender have also been explored in association with the experience and expression of anger. Research in this area has produced conflicting results. Some researchers have found no significant gender differences in the expression of anger in community samples (Averill 1983; Greenglass & Julkunum 1989) and college student samples (Thomas & Williams 1990). Kopper & Epperson (1991) reported no significant gender 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 et al., 1996).

Other researchers, however, have found that gender differences do in fact exist in the expression of anger. In the Funabiki et al., (1980) study, college women reported openly expressing hostile statements more frequently than college men. Malatesta-Magai et al., (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). In a study that explored the experience and expression of anger in American Indian peoples, anger was found to be significantly related to hope, post-colonial stress,

and acculturation (Winterowd et al., 2000). More specifically, Native American people who reported higher levels of post-colonial stress were more chronically angry than those with less stress. In addition, Native American peoples who were more hopeful tended to feel less angry than those who were less hopeful, and more traditional Indians experienced less anger (state, anger-out) and more anger control than non-traditional Indians.

Correlates of Schemas

Negative self-schemas have been associated with various types of mental illness including depression, phobias, anxiety (Rittenmyer, 1997) as well as self-esteem (Black & Pearlman, 1997) and anger (Deffenbacher, 1984, 1985, 1986). Negative self-schemas have been related to personality pathology (Dreessen et al, 1999), and relationship factors including attachment (Bowlby, 1988). Beck (1963) asserted decades ago 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 et al., 991). The negativity bias is an evident characteristic in the negative self-schemas, as defined by Young (2003).

In a study by Black and Pearlman (1997), the hypothesis drawn from constructivist self development theory (CSDT) that self-esteem schemas mediate the relationship between self-trust schemas and self-intimacyschemas, and schemas about other-intimacy was tested. According to CSDT intrinsic needs are believed to be relatively enduring personality traits that manifest in cognitive representations, or schemas. Schemas develop over the life span, becoming increasingly resistant to change, and serve to motivate behavior as well as shape interpersonal relationships. The

researchers administered the TSI Belief Scale (Pearlman et al., 1990) an 80-item self-report questionnaire designed to measure disruptions in safety, trust, intimacy, control and esteem schemas to four samples (college students, trauma therapists, psychologists, outpatient therapy clients). Participants responded to questions (i.e. "I can usually trust my own judgment", "I can comfort myself when I'm in pain", "I am basically a good person) using a 6-point Likert scale (1 = strongly disagree, 6 = strongly agree). Results were analyzed using ordinary least-squares (OLS) to test for the mediating role of self-esteem schemas in the relationship between self-trust and self-intimacy schemas and other-intimacy schemas. Findings supported the hypotheses that 1) self-intimacy and self-trust schemas each accounted for unique variance in self esteem schemas, and 2) self-esteem schemas mediated the effects of self-trust and self-intimacy schemas on other-intimacy schemas. A one-way MANOVA was conducted to assess the ability of variables on the TSI to discriminate between clinical and non-clinical samples. A series of one-way ANOVAs were also conducted to compare clinical and nonclinical scores across all variables, resulting in clinical samples demonstrating the greatest schema disruption on every subscale compared to non-clinical samples.

Black and Pearlman's (1997) study provides support for Constructivist self-development theory (CSDT) regarding the nature of how schemas develop from enduring traits or needs which become increasingly difficult to change throughout the lifespan and serve to motivate behavior. The study also provides evidence for the mediating role schemas play in the relationship among other variables, in this case, other schemas.

Belief systems have also been examined in association with personality pathology. In a pilot study by Dreessen et al (1999), the hypotheses of cognitive theory

proposed by Beck et al. (1990), that each personality disorder is marked by certain maladaptive schemas and that these schemas selectively process information resulting in schema-congruent bias were tested in people with avoidant personality disorders. Participants were selected from a sample of 192 college freshman (mean age = 21.3 years; SD – 4.2) in the Netherlands, who's avoidant personality scores on the SCID Personality Questionnaire (SCID-IIQ) were either in the lower quartile or upper quartile. Of the 57 remaining participants, 29 were placed in a High SCID-IIQ avoidant group (upper quartile scores) and 28 in the low SCID-IIQ avoidant group (lower quartile scores). Participants completed additional questionnaires including the avoidant subscale of the Personality Disorder Belief Questionnaire (PDBQ: Dreessen et al., 1996) which addresses 20 beliefs that are hypothesized to be related to avoidant personality disorder (e.g. "If others really get to know me, they will reject me", and "I act stupidly and not the way others expect me to in social situations"). Respondents rate the strength of his/her belief on a 100 mm visual analogue scale (0 = "I don't believe this at all", 100 = "I believe this completely"). The Rosenberg Self-Esteem-Scale (RSES; Rosenberg, 1965) and the Social Phobia and Anxiety Inventory (SPAI; Tuner et al, 1989) were administered to the original sample of 192 students for purposes unrelated to the study, although data were used in the study. A priming self-reference task was used to lead participants to use the self in the rating of adjectives relevant to avoidant schemas. Participants listened to 24 audio taped adjectives and rated whether it described them or not. Results indicated that avoidant personality pathology was associated to avoidant beliefs and avoidant beliefs were associated with schema-congruent information

processing bias. Avoidant personality pathology was not associated with a schema-congruent information processing bias however.

Dreesen et al.'s (1999) pilot study provides support for certain characteristics of schemas, such as the presence of a schema-congruent information processing bias. This finding support's Young's (2003) hypothesis that negative self-schemas selectively filter information to maintain the validity of the schema. Dreesen et al. (1999) demonstrated support for the link between personality pathology and beliefs. More research is needed in order to further explore the relationship between personality and beliefs.

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 belief systems as important factors in emotion and behavior. Although several studies have examined relationships between belief systems and anger (Hazaleus & Deffenbacher, 1985; Hogg & Deffenbacher, 1986; Ford, 1990; Zwerdling & Deffenbacher, 1984), there remains a paucity of research exploring negative self-schemas/early maladaptive schemas specifically, and their relationship to anger. Some researchers have studied the relationship between belief systems and anger and these studies will be reviewed next.

In a study by Hazaleus and Deffenbacher (1985), the relationship between endorsement of irrational beliefs and self-reported anger arousal was investigated. A sample of 343 (113Male, 229 female) college students, with a mean age of 18.98 (SD = 2.20) years, completed the Anger Inventory (Novaco, 1975; AI) and the Irrational Beliefs Test (Jones, 1969; IBT). The AI is a 90-item Likert-type, self-report inventory designed

to measure how much a situation described would anger or provoke him or her. Responses range from 1 to 5 from not at all (1) to very much anger arousal (5) with greater total scores indicating higher levels of anger arousal. The IBT is a 100-item self-report inventory designed to measure irrational beliefs as described by Ellis (1962). Participants respond to statements on a 5-point scale, ranging from strongly agree to strongly disagree with total sum scores indicating greater endorsement of irrational beliefs. Results indicated mean sex differences on the IBT. More specifically, men were more likely to endorse irrational beliefs regarding blame proneness (i.e. when events go wrong someone or something should be seen as bad and punished) and helplessness (i.e. past experiences determine present affect and behavior; the influence of the past cannot be changed), whereas women reported more endorsement of irrational beliefs regarding dependency (i.e. one must have someone stronger to rely on). Correlational analyses revealed significant positive relationships between anger and the following beliefs: demand and need for approval (i.e. it is essential to be loved and approved by significant others), personal perfection (i.e. one must be perfect to be worthwhile), blame proneness (as previously described), catastrophizing (i.e. it is terrible when things are not as one wants), emotional irresponsibility (i.e. unhappiness is caused by external uncontrollable circumstances), anxious over concern (i.e. threatening things are cause for great concern and their possibility must be constantly dwelt on), helplessness (as previously described), and perfect solutions (i.e. there is always a right solution that must be found). Stepwise multiple regressions revealed that two irrational beliefs, anxious over concern and blame proneness were significant predictors of anger. Discriminant analysis using extreme groups revealed that anxious overconcern was the best discriminator for high anger for

the men and women in this study. The absence of blame proneness in the discriminant analysis suggests that it is a predictor only when the full range of anger is considered, i.e. moderate arousal.

Hazaleus and Deffenbacher (1985) demonstrate support for the link between irrational beliefs and anger. However, the study has some limitations in its ability to aid in the understanding of the relationship between schemas and the experience and expression of anger. First, the study used a measure of beliefs based on Ellis's theory and does not incorporate other measures of negative beliefs or schemas. Second, the study used a general assessment of anger arousal, which yields little information regarding the experience and expression of anger as defined by state-trait theory. The authors offer only a vague description of the anger measure and provide no information regarding question content. Despite these limitations however, Hazaleus and Deffenbacher (1985) present broad and preliminary evidence for a relationship between belief systems and the emotion of anger.

In another study by Granic and Butler (1998), the relationship between anger and antisocial beliefs in young offenders was investigated. Participants were 42 adolescent participants (34 males, 8 females) with a mean age of 14.72 years, all of who were referred to a Family Court Clinic in an urban psychiatric hospital for court-ordered assessment. Participants were divided into two groups: aggressive/versatile offenders (AV) and non-aggressive offender (NA). Decisions regarding group inclusion were based on participant history as well as delinquency theory and were adequately justified by the authors. Participants completed two instruments: the State-Trait Anger Expression Inventory (Spielberger, 1988; STAXI) and the Criminal Sentiments Scale

(Andrews, Wormith & Kiessling, 1985; CSS). The STAXI is a 57-item self-report inventory designed to measure the experience, expression, and control of anger. Six scales (State Anger, Trait Anger, Anger Expression Out, Anger Expression In, Anger Control Out, Anger Control In), five subscales, (Feeling angry, Feel like Expressing Anger Verbally, Feel Like Expressing Anger Physically, Angry Temperament and Angry Reaction), and an Anger Expression Index are yielded with higher scores indicating a greater intensity or frequency of angry feelings or expression. The STAXI will be described in more detail in the methodology section of this study. The CSS is a 41-item-self report inventory designed to assess the degree to which an adult individual holds antisocial cognitions (i.e. is contemptuous of the police, the law and the courts; the extent of identification with criminal peers and tolerance of deviant acts). Participants select "agree", "disagree" or "unsure" in response to prosocial and antisocial statements with higher scores indicating greater antisocial beliefs. The CSS was adapted for the adolescent population and 13 of the items were omitted because they were considered too confusing for the cognitive-developmental level of the sample. Correlational analyses revealed a significant correlation between anger and antisocial beliefs, a finding that was maintained after the possible effects of age were controlled for by partial correlation. A one-tailed t-test was conducted to examine differences between the two groups Aggressive/Versatile offenders (AV) and Non-aggressive offenders (NA). Trait anger scores in the aggressive/versatile (AV) group were significantly higher than those in the nonaggressive group. Another one-tailed t-test revealed that the aggressive/versatile group endorsed statistically greater antisocial beliefs than nonaggressive offenders. Thus, results supported the hypothesis that individuals in this sample who feel chronically

angry also tended to endorse numerous antisocial beliefs and those who reported low levels of anger reported fewer antisocial beliefs.

Granic and Butler's (1998) study had some significant limitations. First, the instruments used in the study were normed and intended for use with adults, thus affecting the validity of the findings. Specifically, the version of the STAXI used in the study is normed on adults, age 16 years and older. Obviously, the age of the subjects and the fact that they were adolescents rather than adults has limitations specific to the aim of the current research project. Nevertheless, results provide additional support to suggest a relationship between belief systems and the experience and expression of anger does exist. .

In a study by Tafrate, Kassinove and Dundin (2002), anger episodes and negative cognitions were investigated in high and low trait anger community adults. Participants were recruited through newspaper announcements seeking individuals described as easily frustrated, annoyed, and angered, or easy going, patient, and laid back. The Trait-Anger Scale (TAS; Spielberger, 1988) was administered to all respondents and the results were used to define individuals as high trait anger or low trait anger, based on cutoff scores taken from previous research (Tafrate & Kassinove, 1998). Out of 228 individuals screened, 129 met either high or low trait anger criteria. Of those, 51 were in the upper quartile group and 42 were in the lower quartile group. The 93 participants (48 men and 45 women) reported a mean age of 34.28 (SD = 7.50), were racially diverse (61% white, 21% Black/African American, 14% Hispanic/Latino), and well educated (11% reporting less than 12 years of school). Participants completed the Trait-Anger Scale (Spielberger, 1988; TAS), a 10-item self-report measure designed to assess an individual's propensity

to experience and express anger across a variety of situations. Respondents rated how they feel generally on a 4-point likert scale (1=almost never to 4= almost always) with higher scores indicating greater trait anger. Based on Trait anger scores, participants were divided into two groups. The High Trait Anger Group (HTA) was composed of 51 participants who scored in the upper quartile of the Trait-Anger Scale. The Low Trait Anger Group (LTA) was composed of 42 participants who scored in the lower quartile of the Trait-Anger Inventory. A nine-page questionnaire, adapted from Kassinove et al. (1997) was used to access information regarding a single anger episode, which was analyzed across six dimensions: triggers or event description; frequency, intensity, and duration; cognitions or appraisals; physical sensations experienced; desired and actual expressions; and outcomes. Appraisal questions were based on the cognitive behavioral theories of anger of Beck (1976) and Ellis (1994). Specifically, Beck's (1976) hypothesis that people with emotional problems tend to engage in distortions of reality and Ellis's (1994) four core beliefs (awfulizing, low frustration tolerance, demandingness, and global self/other rating) were incorporated. Participants evaluated overall short and long-term effects of their anger as positive, negative or neutral. Chi-square analyses for categorical data and independent t-tests to compare group means were used to examine differences between High Trait Anger (HTA) and Low Trait Anger (LTA) groups. Selected $\chi 2$ analyses tested for sex differences between HTA and LTA groups. Results indicated that in both HTA and LTA groups', anger was most often triggered by the actions of another person (85%). HTA men and women reported experiencing anger more frequently, more intensely and for a longer duration that LTA men and women. Results also revealed that HTA men and women were more prone to dysfunctional

thinking. Demandingness and global rating of others were the most frequently reported cognition in both HTA and LTA groups. HTA adults endorsed awfulizing and low frustration tolerance more often than did LTA adults with HTA women reporting awfulizing more frequently than HTA men. Furthermore, HTA adults were more likely to engage in global self-rating and much more likely to admit that their thinking was distorted or exaggerated. Regarding physical sensations, muscle tension, rapid heart rate and headaches were most commonly reported with HTA adults reporting more physical symptoms overall. HTA adults reported a significantly greater desire to engage in negative verbal and physical expression, anger suppression and substance use. HTA participants were twice as likely to engage in negative verbal responses, three times more likely to respond with physical aggression and three times more likely to use substances than LTA participants. HTA adults reported significantly more depression, disgust, foolishness, and shame following an anger episode, with HTA women reporting more negative feelings than HTA men. Regarding long-term negative outcomes of anger, HTA adults reported negative outcomes four times more frequently than LTA adults.

Tafrate et al.'s (2002) study had some important strengths. First, the sample is more racially diverse than in previous studies. Second, participants responded to a newspaper advertisement that provided for a more varied sample. Many previous research studies on beliefs and anger have been conducted using a college student sample. Third, the research design allowed for comparison between groups based on level of trait anger. The focus on trait anger has relevance to the present study and offers significant insight into the experience and expression of adults. Furthermore, Tafrate et al (2002) incorporated measures of belief systems closely related to negative self-

schemas, the focus of the present study, and thus offered important information regarding the relationship between beliefs and anger. Finally, anger was assessed across a wide variety of dimensions, which provided a breadth of information regarding the development, maintenance and expression of anger. Despite the numerous strengths of Tafrate et al.'s (2002) study, an important limitation is that the results were analyzed and discussed primarily in reference to comparison between the HTA and LTA groups. It is possible that the differences found in the study were magnified because of this method and thus characteristics of participants' experiences of moderate trait anger, largely ignored.

Waller, Babbs, Milligan, Meyer, Ohanian and Leung (2003) investigated the relationship of anger and core beliefs in 140 women who met DSM-IV criteria for eating disorders (Anorexia Nervosa of the restrictive subtype N = 20; Anorexia nervosa of the bulimic subtype N = 39; Bulimia Nervosa N = 68, and Binge-eating disorder N = 13). Participants completed the State-Trait Anger Inventory (Spielberger, 1999; STAXI), a 44-item self-report questionnaire described previously and the Young Schema Questionnaire-Short Version (Young, 1990; YSQ-S). The YSQ-S is a 75-item self-report measure designed to assess maladaptive self-schemas, unconditional core beliefs about oneself and the world. The YSQ-S measures 15 schema subscales across 5 broad domains, described previously in this study. Participants respond to statements that may describe themselves using a 6-point scale from 1 = completely untrue to 6 = describes me perfectly. Higher scores reflect a greater endorsement of maladaptive beliefs. Results were compared across groups (four clinical groups and one nonclinical group) using Kruskal-Wallis tests with post hoc Mann-Whitney tests to determine pairwise differences

on anger scores, and Mann-Whitney tests to analyze anger scores in relation to disordered eating behaviors. Spearman's rho correlations were used to analyze relationships between negative self-schemas and the experience and expression of anger. Results of group comparisons on anger scores revealed significant differences in state anger and anger suppression. Specifically, nonclinical women had lower levels of state anger than any of the clinical groups and lower levels of anger suppression than the three clinical groups of women with bulimic behaviors. Higher levels of trait anger were found in women who used bingeing and vomiting behaviors compared to those who did not, and higher levels of state anger were found in women who exercised excessively. Greater levels of anger suppression were revealed in those women who abused laxatives. Regarding core beliefs and anger, overall, women in clinical groups endorsed more negative self-schemas than those in non-clinical groups. Results showed significant relationships between a number of negative self-schemas and trait anger in all women (ex. mistrust/abuse, dependence/incompetence, vulnerability to harm and illness), regardless of clinical versus non-clinical group status. A striking finding revealed significant relationships between anger suppression and 13 of the 15 schemas in clinical women. In fact the only two schemas not related to anger suppression in the clinical group were emotional deprivation and insufficient self-control.

Waller et al.'s (2003) study provides strong empirical support for a relationship between negative self-schemas (YSQ) and the experience and expression of anger (STAXI). Since the sample in the study was all women, an obvious limitation of the findings is in the generalizability of the results to men. Despite this important limitation

however, Waller et al. offer an important contribution to the understanding of the relationship between belief systems and the experience and expression of anger.

Correlates of Personality

Since the emergence of the Big Five conceptualization of personality in the late 1980s, a growing body of literature has evolved examining personality characteristics and dimensions such as, Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness, in association with a number of variables. Some researchers have explored associations among the Big Five and subjective well-being (DeNeve & Cooper, 1998; Hayes, 2001), while others have examined personality variables associated with stress, coping, and health (Penley et al, 2002), as well as relationship dysfunction and personality pathology (Dreesen et al., 1999). Still other researchers have asserted links between personality and self-esteem and adjustment to life events (Magnus et al., 1993). A study conducted in Germany found beliefs about self-pity correlated with certain FFT personality domains and with anger (Stober, 2003).

In a study by Hayes and Joseph (2003), the Big 5 personality dimension (N,E,O,A,C) were examined in relation to happiness. Participants were 111 residents (36 men, 75 women, mean age 37.77, SD = 17.45) of a southern town in the UK. Each participant was administered the NEO Five Factor Inventory (NEO-FFI: Costa & McCrae, 1992), a shortened, 60-item NEO Personality Inventory. The NEO FFI yields scores for (N) Neuroticism, (E) Extroversion, (O) Openness, (A) Agreeableness, and (C) Conscientiousness. Participants also completed the 29-item Oxford Happiness Inventory (OHI: Argyle, Martin, & Crossland, 1989), the 25-item Depression-Happiness Scale (DHS: Joseph & Lewis, 1989) both designed to assess cognitive and affective aspects of

happiness, and the Satisfaction With Life Scale (SWLS: Diener, Emmons, Larsen, & Griffin, 1985) designed to measure cognitive/evaluative aspect of happiness. Higher scores on each of the three instruments indicate greater subjective well-being. Correlational results revealed that the personality dimensions of Conscientiousness, Extraversion, and Neuroticism were positively related to subjective well-being. Multiple regression analysis revealed that high scores on Extraversion and low scores on Neuroticism significantly predicted happiness (OHI scores). Regarding the other well-being measures (DHS and SWLS), high scores on Conscientiousness and low scores on Neuroticism predicted happiness and well-being. Overall, personality was found to account for between 3 and 56% of the variance in subjective well-being scores.

Hayes and Joseph's (2003) study provides empirical support for the relationship between personality dimensions and well-being. The authors provide important support of the predictive relationship between personality and positive emotions, such as happiness. These results support those found by DeNeve and Cooper (1998) who also found personality to be predictive of positive emotions, however not negative emotions. The study unfortunately did not examine negative emotions, such as anger, in relation to personality dimensions.

In a study by Penley (2002), associations among the Big Five (N,E,O,A,C), emotional responses, and coping with acute stress were explored. A sample of 97 (34% male; mean age = 21.05, SD – 4.79 years) undergraduate psychology students from a southern university participated in this study. Participants arrived at the lab and first completed a 75-item shortened version of the NEO Personality Inventory (NEO-PI; Cost & McCrae, 1985), created by Ahadi (2000). This brief version was designed to measure

the same five factors as the NEO-PI and respondents answer questions in the same manner. Participants then listened to prerecorded instructions that they would be given 1 minute to prepare a 3-minute controversial speech on "the level of bilingualism in America, is reaching dangerous proportions" that they would present to a research assistant. Participants then answered cognitive appraisals related to stress and emotion (e.g. How demanding do you expect the upcoming task t be?" and "How able are you to cope with the task"?), on the computer. The research assistant entered the room and the participant was instructed to give the speech. If the participant stopped speaking, the research assistant asked prodding questions for the participant to go on speaking. After the speech, the research assistant left the room and the participant completed the post-task questions (i.e. "How stressful was the task you just completed"? and to what extent they had experienced 16 distinct emotions, 6 positive emotions, and 7 negative emotions, including anger) on the computer and the written coping questionnaire. The COPE Questionnaire (Baggett et al., 1996), a 48-item self-report questionnaire was used to assess coping. Results supported intercorrelations found in previous research (e.g. Costa & McCrae, 1985) with N being negatively correlated with the remaining 4 dimensions (E,O,A,C). Furthermore, results showed positive correlations between N and perceived stress, negative emotion, and emotion-focused coping strategies. E was positively associated with coping appraisals. O was positively correlated coping, self-responsibility and self-control appraisals as well as active coping strategies. A was positively associated with support seeking coping and passive endurance coping strategies. C was positively associated with Self-responsibility and self-control appraisals, active coping and total positive emotions.

Penley and Tomaka (2002) provide support for relationships between personality dimensions (as measured by NEO-PI) and cognitive processes such as appraisals. They also provide support for a relationship personality and emotion, both positive and negative. A major strength of this study was the use of a laboratory setting which allowed for control of variables, i.e. standardized situational stressor. The generalizability of the results to real life-situations is an obvious limitation of the study.

In another study by Stober (2003), a sample of 141 (66 male, 75 female; mean age = 22.6, SD = 3.1 years) university students in Germany participated to explore the links between personality, control beliefs and anger in predicting self-pity. Participants completed the Self Pity Scale (Janke et al., 1985), the NEO-Five Factor Inventory (NEO-FFI; Costa & McCrae, 1992; German version: Borkenau & Ostendorf, 1993), the Questionnaire on Competency and Control Beliefs (Krampen, 1991), the State Trait Anger Expression Inventory (STAXI; Speilberger, 1988; German version: Schwenkmezger et al., 1992), and the UCLA Loneliness Scale (Russell et al., 1980). Results of zero-order correlations yielded a strong positive relationship between self-pity and Neuroticism. Self-pity was not significantly related to the other dimensions of personality (E,O,A,C). Positive correlations were found between self-pity and anger expression (anger-in, and anger-out) and a negative correlation was found with anger control.

Stober's (2003) study supports a relationship between self-pity beliefs and the personality dimension of Neuroticism. The study also demonstrates a link between self-pity beliefs and anger. The study suggests relationships among personality dimensions; belief systems and anger may exist.

CHAPTER III

METHODOLOGY

Participants

The participants in this study included 362 undergraduate students at a Midwestern university. Of the 362 packets of data that were collected, 47 were missing a significant amount of data. Therefore, it was decided to omit those 47 participants from the sample. Of the 315 remaining participants, approximately 45% were female (45.5%, n = 143) and 54% were male (54.6%, n = 172). The mean age of the 315 participants was 20.92 (sd = 2.48), with a range of 18 to 34 years. The majority of the participants were Caucasian (84.1%, n = 265). Approximately 20% of the participants were self-identified as ethnically diverse: 8.6% were African American/Black (n = 27), 7% were Native American/American Indian (n = 22), 2.5% were Asian (n = 8) and 2.2% were Latino/Latina (n = 7). The majority of the participants in the sample were single (88.8%, n= 278), 6.4% were married (n = 20) and 4.8% were partnered (n = 15).

In terms of academic class, 36.2% of the sample were seniors (n =114), 28.3% were freshman (n = 89), 18.1% were juniors (n = 57), and 17.5% were sophomores (n=55). Approximately half of the sample (53.5%, n = 168) lived off campus, 21.3% lived in a residence hall (n = 67), 16.5% lived in a sorority or fraternity house (n = 52) and 8.9% lived in an apartment on campus (n = 28).

Of the 315 participants, 38.1% were raised in rural communities (n =120), 34.3% were raised in urban communities (n = 108), and 29.2% were raised in suburban communities (n = 92). Regarding family income, over 40% reported an average of 90,001 or more (n = 124) with a range of less that 10,000 to 90,001 or more.

Instruments

Participants were given a packet of questionnaires including the State-Trait Anger Expression Inventory-2 (STAXI-2; Spielberger, 1999), the Young Schema Questionnaire-short form (YSQ; Young, 1990), the NEO Five-Factor Inventory (NEO-FFI; Costa & McCrae, 1992), and a demographic sheet.

The State-Trait Anger Expression Inventory-2. The experience and expression of anger was measured using the State-Trait Anger Expression Inventory-2 (STAXI-2; Spielberger, 1999), a 57-item self-report inventory designed to measure the experience, expression, and control of anger. The 57 items form six scales, five subscales, and an Anger Expression Index. The six scales include: State Anger (S-Ang), Trait Anger (T-Ang), Anger Expression-Out (AX-O), Anger Expression-In (AX-I), Anger Control-Out (AC-O), and Anger Control-In (AC-I).

State Anger (S-Ang) is a15 item scale, which is designed to measure how angry participants feel at the time of administration. Participants respond to each state anger item using a 4-point Likert scale (1=Not at all, 4=Very much so). The State Anger score is computed by summing items 1 to 15. Scores can range from 15 to 60. Higher scores indicate a greater intensity of angry feelings and a greater extent to which the person feels

like expressing anger at the time of the administration. An example of a State Anger item is, “I am furious”.

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”.

Anger Expression-Out (AX-O) is an 8-item anger expression subscale that 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 do things like slam doors”.

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-2 subscales for this sample were: Trait anger = .84; Anger Expression-Out= .74; Anger

Expression-In= .77; Anger Control-Out= .82 and Anger Control-In= .90. Researchers have found strong evidence of the relationships between the anger subscales and other measures of hostility and personality (i.e. Buss-Durke Hostility Inventory, BDHI, 1957; Eysenck Personality Questionnaire, EPQ, 1975), thus confirming the convergent validity of the STAXI-2. The individual subscales of the STAXI-2 were based on the results of principle components analyses (Spielberger, 1996).

The Young Schema Questionnaire. Negative self-schemas were measured using the short form of the Young Schema Questionnaire (YSQ; Young, 1990), a 75-item self-report inventory designed to measure early maladaptive schemas (EMS). Since the publication of the YSQ,the number of schemas in Young's model has increased from 15 to 18, now including Approval-Seeking/Recognition-Seeking, Punitiveness, and Negativity/Pessimism. Young (2003) reports that a new version of the YSQ will reflect these changes; however, it is not yet available. Each of the five domains and the 15 early maladaptive schemas that were measured using the YSQ are listed, followed by an example of an item from each schema subscale.

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 (AB), Mistrust/Abuse (MA), Emotional Deprivation (ED), Defectiveness/Shame (DS), and Social Isolation/Alienation (SI). Abandonment/Instability is a perceived instability of one's connection to significant others and the belief that others are unreliable for emotional support and attachment (e.g. "I find myself clinging to people I'm close to because I'm afraid they'll leave me").

Mistrust/Abuse is the belief that others will intentionally harm in some way (e.g. "I feel that people will take advantage of me"). Emotional Deprivation involves the belief that one's emotional needs or desires for emotional connection will not be met by others (e.g. "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"). Defectiveness/Shame is the belief that one is internally flawed, bad or inadequate and would be unlovable if exposed (e.g. "No man/woman I desire could love me once he/she saw my defects"). Social Isolation/Alienation is the belief that one is different from others and feels isolated from any group (e.g. "I don't fit it").

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 (DI), Vulnerability to harm or illness (VH), Enmeshment/Undeveloped Self (EM), and Failure (FA). Dependence/Incompetence is the belief that one is incompetent in functioning independently in everyday life (e.g. "I do not feel capable of getting by on my own in everyday life"). Vulnerability to Harm or Illness is an exaggerated fear that something catastrophic is inevitable and unpreventable (e.g. "I can't seem to escape feeling that something bad is about to happen"). Enmeshment/Undeveloped Self is the belief that one is lacking in individual identity or inner direction (e.g. "I have not been able to separate myself from my parent(s)"). Failure is the belief that one is fundamentally inadequate relative to others in areas of achievement (e.g. "Almost nothing I do at work (or school) is as good as other people can do").

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 (ET) and Insufficient Self-Control/Self-Discipline (IS). Entitlement/Grandiosity is the belief that one is superior to others, entitled to special privileges and not bound by rules that govern normal social interaction (e.g. "I have a lot of trouble accepting 'no' for an answer when I want something from other people"). Insufficient Self-Control/Self-Discipline is the inability to tolerate any frustration in reaching goals and an inability to restrain expression of impulses and feelings (e.g. "I can't seem to discipline myself to complete routine or boring tasks").

The fourth domain is Other-Directedness, which refers to an excessive focus on the needs, feelings, 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 or avoid retaliation. Schemas in this domain include, Subjugation (SB), and Self-Sacrifice (SS). Subjugation refers to a belief that one should suppress one's own needs or emotions, and feeling coerced into surrendering control to others (e.g. "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 is the belief that one should excessively and voluntarily sacrifice one's own needs in order to prevent causing pain to others, avoid guilt from feeling selfish or to maintain a connection with others (e.g. "I'm the one who usually ends up taking care of people I'm close to").

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, Emotional Inhibition (EI) and Unrelenting Standards/Hypercriticalness (US). Emotional Inhibition is characterized by the belief that emotions and impulses must be inhibited in order to avoid disapproval by others, feelings of shame or losing control (e.g. "I am too self-conscious to show positive feelings to others). Unrelenting Standards/Hypercriticalness involves striving to meet very high-internalized standards of behavior and achievement typically to avoid criticism (e.g. "I must be the best; I can't settle for 'good enough'").

Participants respond 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, Joiner, Jr., Young, & Telch, 1995). The short form of the YSQ includes the top 5 item loadings in each schema factor from the long form. Internal consistency estimates for the YSQ (short form) subscales for this sample ranged from .70 to .91 (ED=.87, AB= .92, MA= .89, SI= .92, DS= .89, FA= .90, DI= .89, VH= .71, EM= .83, SB= .83, SS= .86, EI= .85, IS= .83).

The convergent and discriminant validity of the YSQ is apparent based on previous research that supports the relationship between negative self-schemas and the following variables: self-esteem (lower), psychological distress, personality disorder traits, and dysfunctional attitudes; Schmidt et al., 1995). Findings from factor analyses of

the YSQ (Schmidt et al., 1995) closely matched the theoretically derived primary Early Maladaptive Schemas proposed by Young (1990, 1991).

In the current study, a principle components analysis was conducted on the 15 subscales of the YSQ for this sample. Based on an examination of the scree plot (Stevens, 1996), a one-factor solution emerged and accounted for over 44% of the common variance (See Figure 2, Appendix A). YSQ subscale loadings at .40 or higher were identified as significant loadings (Stevens, 1996). This factor, "Negative Self-Schemas", included all of the YSQ subscales except for Unrelenting Standards (US) and Entitlement (ET).

The NEO Five-Factor Inventory (NEO-FFI). Personality was measured using the brief version of the NEO Personality Inventory (NEO-PI-R; Costa & McCrae, 1992). The NEO-FFI is a 60-item self-report measure of the five domains of personality (N,E,O,A,C) with 12 items measuring each domain. It was developed using the five principal components extracted form factor analysis of the 180-item NEO-PI-R. Using the validimax method 12 items having the highest positive or negative loading on the corresponding factor were selected for each of the five domains.

The 60-item self-report inventory yields scores for five broad dimensions of personality, Neuroticism (N), Extroversion (E), Openness (O), Agreeableness (A), and Conscientiousness (C). Neuroticism is described as a tendency to experience anxiety, tension, self-pity, hostility, impulsivity, self-consciousness, irrational thinking, depression, and low self-esteem (McCrae & Costa, 1987). An example of an item is, "I often feel inferior to others". Extraversion refers to a tendency to be positive, assertive, energetic, social, talkative, and warm (McCrae & John, 1992). An example of an item is,

"I like to be where the action is". Openness refers to a tendency to be curious, artistic, insightful, flexible, intellectual, and original (McCrae & Costa, 1987). An example of an item is, "I often try new and foreign foods". Agreeableness refers to the tendency to be forgiving, kind, generous, trusting, sympathetic, compliant, altruistic, and trustworthy (McCrae & John, 1992). An example item is, "I generally try to be thoughtful and considerate". Conscientiousness refers to a tendency to be organized, efficient, reliable, self-disciplined, achievement-oriented, rational, and deliberate (McCrae & John, 1992). An example item is, "I have a clear set of goals and work hard toward them in an orderly fashion".

Participants respond to each of the 60 items of the NEO-FFI using a 5-point scale (SD= Strongly disagree, SA= Strongly agree). Domain scores are computed by summing the responses to the 12 items of each domain on the questionnaire. Domain scores can range from 0 to 48. Scores are interpreted in terms of five levels: very low, low, average, high, and very high. Higher scores indicate a stronger presence of personality domains or traits and low scores indicate a weaker presence of particular traits.

There is evidence of good construct validity of the NEO-PI-R in that subscales on the NEO-PI-R are generally successful in measuring the intended constructs. Content validity is addressed in the NEO-PI-R by selecting non-redundant items to measure each facet of each domain. The NEO-PI-R has good convergent validity as evidenced by correlations between NEO PI-R scales and measures of anxiety and trust. Discriminant validity is seen by contrasting the correlates of different facets within the same domain. (Costa & McCrae, 1992). Scores on the NEO-FFI have been found to be highly correlated with those on the NEO-Personality Inventory (NEO-PI-R). Correlations for N,

E, O, A, and C between these two measures were .93, .90, .94, .88, and .89 respectively. Coefficient alphas for the NEO-FFI subscales (N, E, O, A, and C) are .90, .78, .76, .86, and .90 respectively (Costa & McCrae, 1992). Internal reliability coefficient estimates for this sample were N = .83, E = .81, O = .64, A = .75 and C = .72.

In the current study, the five personality domains were found to be intercorrelated (Pearson correlation coefficients ranged from .24 to .40; see Table 4, Appendix B).

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. Questions regarding parenting status (parent or non-parent) and number and ages of children were also included.

Procedure

Participants were recruited from undergraduate education, psychology, and business courses at a mid-western university. The primary investigator attended the class and introduced the study that was conducted. Those students who were interested in participating read and signed an informed consent and completed a packet of questionnaires. The packet included the NEO-FFI, YSQ, the STAXI-2, and the demographic sheet. These measures were put in a random order in the packets to control for potential order effects. Participants were instructed not to write their names anywhere on the forms or on the packet. The informed consent form was collected separately from

the packet to ensure anonymity and confidentiality of participant responses. Data were kept in a locked file cabinet in the primary investigator's home office.

CHAPTER IV

FINDINGS

The dependent variables in this study were the subscales of anger as measured by the STAXI-2: Trait Anger (T-Ang), Anger Expression-Out (AXO), Anger Expression-In (AXI), Anger Control-Out (ACO), and Anger Control-In (ACI). State Anger was not included in this study. Robinson and Clore (2002) noted limitations with self-reports of state, or transitional emotions. Furthermore, the Trait Anger scale yields information regarding the propensity to experience state anger across a variety of situations. Therefore, state anger was not included in this study. The two independent variables in the study were personality domains and negative self-schemas. The personality domains, as measured by NEO-FFI, were Neuroticism (N), Extraversion (E), Openness (O), Agreeableness (A), and Conscientiousness (C). The negative self-schemas, as measured by the YSQ, were Abandonment/Instability (AB), Mistrust/Abuse (MA), Emotional Deprivation (ED), Defectiveness/Shame (DS), Social Isolation/Alienation (SI), Dependence/Incompetence (SI), Vulnerability to harm or illness (VH), Enmeshment/Undeveloped self (EM), Failure (FA), Entitlement/Grandiosity (ET), Insufficient Self-Control/Self-Discipline ((S), Subjugation (SB), Self-Sacrifice (SS), Overcontrol/Emotional Inhibition (EI), and Unrelenting Standards/Hypercriticalness (US).

Pearson correlational analyses (two-tailed), forward regression analyses and hierarchical regression analyses were conducted to answer the research questions in this study. Given that the five personality domains were found to be intercorrelated (which affects the order in which variables enter the regression equation), the probability of F to enter the equation was set at .99 and for removal was set at 1.0 in order to force each of the five predictor variables into the regression equation each time.

Research Question 1: Which personality factors (as defined by Costa & McCrae, 1992) are significant predictors of trait anger (as defined by Speilberger, 1999)?

1a. Trait Anger: To answer the research question 1a, Pearson correlations and a forward regression analysis were conducted. It was hypothesized that Neuroticism would be a significant predictor of Trait Anger.

The results of the analysis indicated statistically significant relationships between Trait Anger and four of the personality domains (N, E, A, C). The strongest correlation was found between Trait Anger and Agreeableness ($r = -.53$, $p < .01$). Higher scores on Agreeableness were related to lower Trait Anger scores. The other significant relationships between Trait Anger and the following personality domains are noted: Neuroticism ($r = .39$, $p < .01$), Extroversion ($r = -.27$, $p < .01$), Conscientiousness ($r = -.19$, $p < .01$). Higher scores on Neuroticism were associated with higher Trait Anger scores; whereas higher scores on Extroversion and Conscientiousness were associated with lower Trait Anger scores. College students who reported a greater tendency to perceive situations as annoying or frustrating tended to experience more negative affect such as fear, sadness, embarrassment, guilt and disgust than college students who

reported a lower tendency to perceive situations as annoying or frustrating. College students who reported more chronic anger also tended to be less sociable, assertive, active, talkative and optimistic and tended to be less purposeful, less determined and less strong-willedhan college students who reported more chronic anger. Although four of the personality variables were significantly correlated with Trait Anger, only two of them were found to be significant predictors of Trait Anger. The results of the forward regression analysis for Trait Anger (T-Ang) indicated that the personality factors of Agreeableness (A) and Neuroticism (N) were significant predictors of Trait Anger, $F(5, 308) = 30.70$, $p < .01$ (See Table 7). The linear combination of these two variables accounted for 32.9% of the variation in Trait Anger scores. Agreeableness entered the equation first and accounted for 28.5% of the unique variance in Trait Anger scores. Neuroticism entered the equation second and accounted for 4.3% of the unique variance in Trait Anger scores.

Research Question 2: Which personality factors (as defined by Costa & McCrae, 1992) are significant predictors of the expression of anger (as defined by Speilberger, 1999)?

2a. Anger Expression Out: To answer the research question 2a, Pearson correlations and a forward regression analysis were conducted. It was hypothesized that Neuroticism and low Agreeableness would be significant predictors of Anger Expression-Out

The results of the correlational analyses indicated statistically significant relationships between Anger Expression-Out and four of the personality domains (N, E, A, C). The strongest correlation was found between Anger Expression-Out and Agreeableness ($r = -.54$, $p < .01$). College students who reported less anger aggression tended to be more fundamentally altruistic, sympathetic, eager to help and expected help

from others than college students who reported more anger aggression. The other significant relationships between Anger Expression-Out and the following personality domains are noted: Neuroticism ($r = .31$, $p < .01$), Extroversion ($r = -.14$, $p < .01$), Conscientiousness ($r = -.16$, $p < .01$). College students who reported more anger aggression were more likely to experience negative emotions such as fear, sadness, embarrassment, guilt and disgust than college students who reported less anger aggression. In addition, students who reported more anger aggression tended to be less sociable, assertive, talkative and optimistic and less purposeful, strong-willed, and determined than students who reported less anger aggression. The results of the forward regression analysis for Anger Expression Out (AXO) indicated that the personality factors of Agreeableness (A), Neuroticism (N) and Extroversion (E) were significant predictors of AXO, $F (5, 308) = 27.87$, $p < .01$ (See Table 8). The linear combination of these three variables accounted for 31% of the variation in Anger Expression-Out scores. Agreeableness entered the equation first and accounted for 28.8% of the unique variance in AXO scores. Neuroticism entered the equation second and accounted for 1.3% of the unique variance in AXO scores. Extroversion entered the equation third and accounted for 0.9% of the unique variance in AXO scores.

2b. Anger Expression In (AXI): To answer the research question 2b, Pearson correlations and a forward regression analysis were conducted. It was hypothesized that Neuroticism, Agreeableness, Conscientiousness and low Openness would be significant predictors of Anger Expression-In.

The results of the correlational analyses indicated statistically significant relationships between Anger Expression-In and three of the personality domains (N, E,

A). The strongest correlation was found between Anger Expression-In and Neuroticism ($r = .48$, $p < .01$). College students who reported more anger suppression tended to experience negative affect such as fear, sadness, embarrassment, guilt, and disgust than students who reported less anger suppression. The other significant relationships between Anger Expression-In and the following personality domains are noted: Agreeableness ($r = -.34$, $p < .01$), Extroversion ($r = -.27$, $p < .01$). College students who reported more anger suppression tended to be less fundamentally altruistic and sympathetic, were less eager to help others or to expect others to be helpful to them, and were less sociable, assertive, active, talkative, and optimistic than college students who reported less anger suppression. The results of the forward regression analysis for Anger Expression In (AXI) indicated that the personality factors of Neuroticism (N), Agreeableness (A) and Conscientiousness (C) were significant predictors of AXI, $F (5, 308) = 23.90$, $p < .01$ (See Table 9). The linear combination of these three variables accounted for 27.3% of the variation in Anger Expression-In scores. Neuroticism entered the equation first and accounted for 23% of the unique variance in AXI scores. Agreeableness entered the equation second and accounted for 3.1% of the unique variance in AXI scores. Conscientiousness entered the equation third and accounted for 1.2% of the unique variance in AXI scores.

2c. Anger Control Out (ACO): To answer the research question 2c, Pearson correlations and a forward regression analysis were conducted. It was hypothesized that Neuroticism and low Extroversion would be a significant predictor of Anger Control-Out.

There were statistically significant relationships between Anger Control-Out and all five of the personality domains (N, E, O, A, C). The strongest correlation was found

between Anger Control-Out and Agreeableness ($r = .42$, $p < .01$). College students who reported more frequent attempts to control the outward expression of anger tended to be more fundamentally altruistic, sympathetic, eager to help, and expect others to be helpful than students who reported fewer attempts to control their expression of anger. The other significant relationships between Anger Control-Out and the following personality domains are noted: Neuroticism ($r = -.27$, $p < .01$), Extroversion ($r = .22$, $p < .01$), Conscientiousness ($r = .21$, $p < .01$), Openness ($r = .13$, $p < .01$). College students who reported more efforts to control their anger expression were less likely to experience other negative emotions such as fear, sadness, embarrassment, guilt, and disgust than college students who reported fewer attempts to control anger expression. In addition, students who reported more attempts to control their anger expression tended to be more sociable, assertive, active, talkative and optimistic as well as more purposeful, strong-willed and determined, and more attentive to inner feelings than college students who reported less anger control efforts. The results of the forward regression analysis for Anger Control Out (ACO) indicated that the personality factors of Agreeableness (A), Openness (O) and Neuroticism (N) were significant predictors of ACO, $F (5, 308) = 16.67$, $p < .01$ (See Table 10). The linear combination of these three variables accounted for 20.9% of the variation in Anger Control-Out scores. Agreeableness entered the equation first and accounted for 17.6% of the unique variance in ACO scores. Openness entered the equation second and accounted for 1.6% of the unique variance in ACO scores. Neuroticism entered the equation third and accounted for 1.7% of the unique variance in ACO scores.

2d. Anger Control-In (ACI): To answer the research question 2d, Pearson correlations and a forward regression analysis were conducted. It was hypothesized that Neuroticism, Agreeableness, and Conscientiousness would be significant predictors of Anger Control-In.

Statistically significant relationships were found between Anger Control-In and all five of the personality domains (N, E, O, A, C). The strongest correlation was found between Anger Control-In and Agreeableness ($r = .35$, $p < .01$). College students who reported more attempts to control their anger by calming down tended to be more fundamentally altruistic, sympathetic, eager to help, and expect others to be helpful than students who reported fewer attempts to control anger expression by calming down. The other significant relationships between Anger Control-In and the following personality domains are noted: Conscientiousness ($r = .25$, $p < .01$), Extroversion ($r = .23$, $p < .01$), Neuroticism ($r = -.21$, $p < .01$), Openness ($r = .15$, $p < .01$). College students who reported more attempts to control angry feelings by calming down tended to be more purposeful, strong-willed and determined and more sociable, assertive, active, talkative, and optimistic than students who reported fewer attempts to control suppressed angry feelings by calming down. In addition, college students who reported more attempts to control angry feelings by calming down tended to experience less negative emotions such as fear, sadness, embarrassment, guilt and disgust than college students who reported fewer attempts to control suppressed angry feelings by calming down. The results of the forward regression analysis for Anger Control-In (ACI) indicated that the personality factors of Agreeableness (A), Openness (O), and Conscientiousness (C) were significant predictors of ACI, $F (5, 308) = 13.22$, $p < .01$ (See Table 11). The linear

combination of these three variables accounted for 16.9% of the variation in Anger Control-In scores. Agreeableness entered the equation first and accounted for 12.4% of the unique variance in ACI scores. Openness entered the equation second and accounted for 2.2% of the unique variance in ACI scores. Conscientiousness entered the equation third and accounted for 2.2% of the unique variance in ACI scores.

Research Question 3: Which personality factors (as defined by Costa & McCrae, 1992) are significant predictors of negative self schemas (as defined by Young, 1999)?

3a. Negative Self Schemas factor score: To answer the research question 3a, Pearson correlations and a forward regression analysis were conducted. The personality domains (N,E,O,A,C) were the predictor variables and the Negative Self Schema factor score was the criterion variables. It was hypothesized that Neuroticism would be a significant predictor Negative Self-Schemas.

Statistically significant relationships were found between Negative Self Schema factor score and all five personality domains (N E, O, A, C). The strongest correlation was found between Negative Self Schema factor score and Neuroticism ($r = .56$, $p < .01$). The other significant relationships between Negative Self Schema factor score and the following personality domains are noted: Agreeableness ($r = -.32$, $p < .01$), Extroversion ($r = -.27$, $p < .01$), Conscientiousness ($r = -.19$, $p < .01$), Openness ($r = .14$, $p < .01$). College students who endorsed more negative beliefs about themselves tended to experience more negative emotions such as fear, sadness, embarrassment, anger, guilt, and disgust and more attentive to their inner feelings than students who endorsed fewer negative beliefs about themselves. College students who endorsed more negative beliefs about themselves were less likely to be fundamentally altruistic, sympathetic, eager to

help, expect others to be helpful and were less likely to be purposeful, strong-willed, and determined compared to students who endorsed fewer negative beliefs about themselves. The results of the forward regression analysis for the Negative Self Schemas factor score indicated that the personality factors of Neuroticism (N), Openness (O) and Agreeableness (A) were significant predictors, $F(5, 308) = 31.79$, $p < .01$ (See Table 12). The linear combination of these three variables accounted for 34% of the variation in Negative Self Schemas factor scores. Neuroticism entered the equation first and accounted for 30.9% of the unique variance in the Negative Self Schemas factor scores. Openness entered the equation second and accounted for 1.6% of the unique variance in the Negative Self Schemas factor scores. Agreeableness entered the equation third and accounted for 1.5% of the unique variance in the Negative Self Schemas factor scores.

To answer the fourth and fifth research questions, a series of forward simple regression analyses were conducted with the Negative Self Schema factor score as the predictor variable and the anger subscales (T-Ang, AXI, AXO, ACI, ACO) as the criterion variables.

Research Question 4: Are negative self-schemas (as defined by Young, 1999) a significant predictor of the experience of anger (as defined by Speilberger, 1999)?

4a. Trait Anger (T-Ang): To answer the research question 4a, a Pearson correlation and forward simple regression analysis were conducted. The Negative Self Schema factor score was the predictor variable and Trait Anger was the criterion variable. It was hypothesized that Negative Self Schemas would be a significant predictor of Trait Anger.

There was a significant positive relationship between the Negative Self Schema factor score and Trait Anger ($r = .26$, $p < .01$). College students who reported more chronic anger tended to endorse more negative beliefs about themselves than students who reported less chronic anger. The results of the forward regression analysis for Trait Anger (T-Ang) indicated that the Negative Self Schema factor score was a significant predictor of Trait Anger, $F (1, 313) = 23.24$, $p < .01$ and accounted for 6.9% of the variance in Trait Anger (See Table 13).

Research Question 5: Which negative self-schemas (as defined by Young, 1999) are significant predictors of the expression of anger (as defined by Speilberger, 1999)?

5a: Anger Expression-Out (AXO): To answer the research question 5a, a Pearson correlational analysis and a forward regression analysis were conducted. The Negative Self Schema factor score was the predictor variable and Anger Expression-Out was the criterion variable. It was hypothesized that Negative Self Schemas would be a significant predictor of Anger Expression-Out.

There was a significant positive relationship between Negative Self Schema factor score and Anger Expression-Out ($r = .17$, $p < .01$). College students who reported more anger aggression tended to endorse more negative beliefs about themselves than students who reported less anger aggression. The results of the forward regression analysis for Anger Expression-Out (AXO) indicated that the Negative Self Schema factor score was a significant predictor of AXO scores, $F (1, 313) = 9.07$, $p < .01$ and accounted for 2.8% of the unique variance in Anger Expression-Out scores (See Table 14).

5b. Anger Expression-In (AXI): To answer the research question 5b, a Pearson

correlational analysis and a forward regression analysis were conducted. The Negative Self Schema factor score was the predictor variable and Anger Expression-In was the criterion variable. It was hypothesized that Negative Self Schemas would be a significant predictor of Anger Expression-In.

There was a significant positive relationship between Negative Self Schema factor score and Anger Expression-In ($r = .44$, $p < .01$). College students who reported more anger suppression tended to endorse more negative beliefs about themselves than students who reported less anger suppression. The results of the forward regression analysis for Anger Expression-In (AXI) indicated that the Negative Self Schema factor score was a significant predictor of AXI scores, $F(1, 313) = 75.71$, $p < .01$ and accounted for 19.5% of the unique variance in Anger Expression-In scores (See Table 15).

5c. Anger Control-Out (ACO): To answer the research question 5c, a Pearson correlational analysis and a forward regression analysis were conducted. The Negative Self Schema factor score was the predictor variable and Anger Control-Out was the criterion variable. It was hypothesized that Negative Self Schemas would be a significant predictor of Anger Control-Out.

There was a significant negative relationship between **N**egative Self Schema factor score and Anger Control-Out ($r = -.16$, $p < .01$). College students who reported fewer attempts to control their anger expression tended to endorse more negative beliefs about themselves than college students who reported more frequent attempts to control their anger expression. The results of the forward regression analysis for Anger Control-Out (ACO) indicated that the Negative Self Schema factor score was a significant

predictor of ACO scores, F (1, 313) = 8.65, p < .01 and accounted for 2.7% of the unique variance in Anger Control-Out scores (See Table 16).

5d. Anger Control-In (ACI): To answer the research question 5d, a Pearson correlational analysis and a forward regression analysis were conducted. The Negative Self Schema factor score was the predictor variable and Anger Control In was the criterion variable. It was hypothesized that Negative Self-Schemas would be a significant predictor of Anger Control-In.

There was a significant negative relationship between the Negative Self Schema factor score and Anger Control-In (r = -.16, p < .01). College students who reported fewer attempts to calm down when angry tended to endorse more negative beliefs about themselves than students who reported more efforts to calm down when angry. The results of the forward regression analysis for Anger Control-In (ACI) indicated that the Negative Self Schema factor score was a significant predictor of ACI, F (1, 313) = 25.17, p < .01 and accounted for 2.8% of the unique variance in Anger Control-In scores (See Table 17).

To answer the sixth and seventh research questions, a series of hierarchical regression analyses were conducted. Personality domains (N,E,O,A,C) were entered in the first block as predictor variables and Negative Self Schemas (factor score) was entered in the second block as predictor variables. The anger subscales (T-Ang, AXI, AXO, ACO, ACI) were the criterion variables.

6. Do negative self schemas add anything beyond what personality provides in predicting the experience of anger?

6a. Trait Anger (T-Ang): It was hypothesized that Negative Self Schemas

would contribute significantly beyond what Personality Domains explain in understanding Trait Anger. Results of the hierarchical regression analysis for Trait Anger (T-Ang) indicated that the Personality Domains as a block was a significant predictor of T-Ang, but Negative self-schemas were not. (See Table 18). When Personality Domains (NEOAC) were entered into the equation first as a block, they accounted for 33% of the unique variance in T-Ang scores. When Negative Self Schemas (factor score) entered into the equation second as a block, they accounted for 0.4% of the unique variance in T-Ang scores. Negative Self-Schemas did not significantly contribute to the relationship with Trait Anger above and beyond what the Personality factors contributed.

7. Do negative self schemas add anything beyond what personality provides in predicting the expression of anger?

7a. Anger Expression-Out (AXO): It was hypothesized that Negative Self Schemas would contribute significantly, beyond what personality provides, in understanding AXO. Results of the hierarchical regression analysis for AXO indicated that the Personality Domains as a block was a significant predictor of AXO, but Negative self-schemas were not. (See Table 19). When Personality domains (NEOAC) were entered into the equation first as a block, they accounted for 31.2% of the unique variance in AXO scores. When Negative Self Schemas (factor score) were entered the equation second as a block, they accounted for 0.8% of the unique variance in AXO scores. Negative Self-Schemas did not significantly contribute the relationship with anger aggression above and beyond what the Personality Domains contributed.

7b. Anger Expression In (AXI): It was hypothesized that Negative Self

Schemas would contribute significantly, beyond what personality provides, in understanding Anger Expression-In. The results of the hierarchical regression analysis for Anger Expression In (AXI) indicated that Personality Domains and Negative Self-Schemas were each significant predictors of AXI, $F(8, 305) = 17.00$, $p < .01$ (See Table 20). The linear combination of these two sets of variables accounted for 30.8% of the variation in Anger Expression In scores. When Personality domains (NEOAC) were entered into the equation first, they accounted for 37.9% of the unique variance in AXI scores. When Negative Self Schemas (factor score) were entered into the equation as a second block, they accounted for 2.9% of the unique variance in AXI scores. Negative Self Schemas (factor score) did significantly contribute above and beyond what personality provided in the prediction of Anger Expression-In.

7c. Anger Control Out (ACO): It was hypothesized that Negative Self Schemas would contribute significantly, beyond what personality provides, in understanding Anger Control-Out. Results of the hierarchical regression analysis for ACO indicated that the Personality Domains as a block was a significant predictor of ACO, but Negative self-schemas were not. (See Table 21). When Personality Domains (NEOAC) were entered into the equation first as a block, they accounted for 21.3% of the unique variance in ACO scores. When Negative Self Schemas (factor score) were entered into the equation second as a block, they accounted for 0.4% of the unique variance in ACO scores. Negative Self-Schemas did not significantly contribute the relationship with outward anger control efforts above and beyond what the Personality Domains contributed.

7d. Anger Control In (ACI): It was hypothesized that Negative Self-

Schemas would contribute significantly, beyond what personality provides, in understanding Anger Control-In. Results of the hierarchical regression analysis for ACI indicated that the Personality Domains as a block was a significant predictor of ACI, but Negative self-schemas were not. (See Table 22). When Personality Domains (NEOAC) were entered into the equation first as a block, they accounted for 17.7% of the unique variance in ACI scores. When Negative Self Schemas (factor score) were entered into the equation second as a block, they accounted for 0.5% of the unique variance in ACI scores. Negative Self-Schemas did not significantly contribute the relationship with inward anger control efforts above and beyond what the Personality Domains contributed.

CHAPTER V

CONCLUSION

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 propose that the experience and expression of anger is heavily influenced by complex interactions between multiple personal and environmental variables, including neurobiological and endocrine processes as well as temperament. Anger may be elicited by a number of precipitants such as specific circumstances, behaviors of others, memories and images. Anger may also be elicited by internal stimuli including cognitive processes, as well as other emotions such as hurt, rejection, or anxiety (Deffenbacher, 1996). Individual differences exist in the experience of anger and the tendency to perceive situations as annoying, as well as differences in how angry feelings are dealt with and expresses in the individual (Speilberger, 1999).

Jeffrey Young (2003) defined a schema as a "broad organizing principle for making sense of one's life" (p. 7). He theorizes that schemas are formed early in life and are elaborated as they are applied in making sense of later life events and situations, thus serving as a filter or distorter of information. Young (2003) asserts that because schemas are developed in childhood, and form the core of the self-concept, they continue to function within the individual even when they may no longer be applicable. Schemas can be adaptive or maladaptive in nature. Young's concept of Early Maladaptive Schemas,

are stable and enduring structures that are dysfunctional in nature, are activated by events in the environment, and can often produce high levels of affective arousal. He explains that Early Maladaptive Schemas are hypothesized to lead to psychological distress, including depression and panic.

Negative Self-Schemas and Anger

The results of this study indicated significant relationships between negative self-schemas and anger. The principle components analysis of the Young Schema Questionnaire for this sample revealed a one-factor solution which included all of the YSQ subscales except for Entitlement and Unrelenting Standards. This factor, Negative Self-Schemas, was significantly related to all of the anger experience and anger expression subscales.

One possible explanation for these findings is that people who have more negative views of themselves and their relationships will feel angrier than those with more positive views of themselves. Likewise, people who feel angry tend to hold negative views of self compared to people who are less angry. People who live with chronic anger and think negatively about themselves and their relationships probably attempt to hold in their anger because they fear rejection. Over time, the suppressed anger is triggered and leads to uncontrollable expressions of anger; thus confirming their negative beliefs about themselves and others and reinforcing a cycle of negative thinking, anger suppression and anger expression.

Theses results provide support for previous research findings (Hazaleus and Deffenbacher, 1985; Trafrate et al, 2000; Waller et al., 2003) indicating the significant positive relationship between chronic anger and irrational/dysfunctional thoughts or

beliefs. The present study supported the relationship between negative self-schemas and anger which was found in two previous studies (Wood, 2000 & Waller et al., 2003). In addition, the findings of this study support the findings of two previous research studies indicating that irrational beliefs (Hazalens & Deffenbacher, 1985) and negative self-schemas (Wood, 2000) are significant predictors of anger experiences and expression. Wood (2000) found that Vulnerability to Harm and Illness (i.e., belief that one is perpetually awaiting the experience of medical, emotional or external catastrophe) was the most salient negative schema in predicting anger. This negative self-schema was a significant predictor of the experience of chronic anger (state and trait) and suggests that people who harbor beliefs that they are perpetually awaiting harm also tend to be angry more frequently and more intensely that people who do not endorse such beliefs. Further more, this negative self-schema was also found to be a significant predictor of the tendency to express anger in a verbally aggressive manner toward others in the environment and fewer attempts to control the expression of anger. Given that almost all of the negative self-schemas loaded on one factor in this study, separate analyses for each negative self-schema were not conducted. Researchers may want to explore the unique impact of each negative self-schema on the experience and expression of anger.

Personality and Anger

The Five Factor Model of personality as developed by Costa and McCrae (1992) proposes that individuals vary in terms of relatively enduring patterns of thoughts, feelings, and actions, also known as traits. The model consists of core and peripheral components and dynamic processes that indicate how the components are intercorrelated. Basic tendencies are one of the core components that can be described as psychological

potentials, or traits. Traits are endogenous in nature and develop throughout childhood, reaching a mature form in adulthood, after which they remain relatively stable. Traits are organized hierarchically from narrow and specific, to broad and general dispositions and include: Neuroticism, Extroversion, Openness, Agreeableness and Conscientiousness. Traits are thought to influence thoughts, feelings and behaviors (McCrae & Costa, 1996). Characteristic Adaptations are concrete manifestations of traits that are culturally conditioned phenomena such as personal striving and attitudes, and that evolve into patterns of thoughts, feeling and behaviors. These manifestations of traits change over time in response to biological maturation, changes in the environments, or deliberate interventions. Characteristic adaptations serve to help the individual fit into the ever-changing environment while reflecting enduring traits. The Self-Concept is the final core component and is derived from self schemas and belief systems that is developed and maintained in a way that selectively incorporates only that information which is consistent with personality traits, thus providing a sense of coherence to the individual.

The results of this study indicate the five personality factors of the NEO-FFI, that is, Neuroticism, Extroversion, Openness, Agreeableness, and Conscientiousness were significantly related to the experience and expression of anger. Agreeableness and Neuroticism were the most significant predictors of the experience and expression of anger.

Agreeableness. Agreeableness was the most significant predictor (entered the equations first and accounted for the most variance) of all of the anger scales, except anger expression-in. However, Agreeableness was also a significant predictor of anger expression-in (entered the equation second). These results suggest that people who have

a general tendency to be fundamentally altruistic, sympathetic and eager to help others, tend to experience less chronic anger, anger aggression, and anger suppression, and engaged in more anger control efforts than people who were less altruistic, sympathetic, and/or eager to help others. This personality style of sympathizing with others, offering help, and expecting help in return may protect people from a lot of anger. Conversely, if you are angry, you might not feel like giving to others or expecting good returns in relationships with others and you might have a difficult time sympathizing with others. This makes a great deal of sense. Some possible explanations are that people who are less agreeable and more angry may have more difficulty connecting with others. They may assume a more defensive stance in relationships as a way of protecting themselves given their fundamental outlook that others won't treat them well. This belief may reinforce their feelings of anger and lead to a vicious cycle where their beliefs become confirmed in that others may not want to be helpful to them or to connect with them if they are not agreeable people.

Neuroticism. Neuroticism (i.e. tendency to experience negative emotions such as fear, sadness, embarrassment, anger, guilt, and disgust) was the most significant predictor of anger suppression. Thus, people who are more neurotic (i.e., experience a variety of negative emotions) tend to suppress their anger more than people who are less neurotic. Conceptually, this makes a great deal of sense. The reasons for this are still unclear, but there are some possible explanations. If you feel negatively, you may not want others to know that you are angry—that you feel this emotion or another negative emotion. These people may fear rejection from others because they don't feel good about themselves.

Neuroticism was also a significant predictor of trait anger, anger expression-out, and anger control-out. These results suggest that people who are more neurotic (i.e., experience negative emotions such as fear, sadness, embarrassment, anger, guilt and disgust) have more chronic anger, tend to express their anger aggressively, and have more difficulties controlling their anger. Given this bigger picture, people who have negative feelings really feel angry across situations, don't feel in control of their anger (and possibly the other emotions they have), and tend to vacillate between suppressing and then aggressing their anger. These people probably feel out of control with their lives given these negative emotions that they harbor and then feel out of control with their emotions. Often times, people in therapy who are angry often have other negative emotions that they haven't explored because they stay focused on their anger and the injustices of the world. Furthermore, people who seek therapy due to intense negative emotions, have often developed unhealthy ways of coping that create further emotional pain and often the reason for seeking therapy. Examples of maladaptive coping strategies might be substance use, chronic stress, disordered eating, unhealthy relationship choices, among other self destructive behaviors.

Extroversion. Extroversion was not a significant predictor of the anger scales. However, extroversion was related to trait anger, anger aggression, anger suppression, and anger control efforts. People who were more extroverted (i.e., general tendency to be sociable, assertive, talkative and optimistic) experienced less chronic anger, anger aggression and anger suppression and engaged in more anger control efforts than people who were less extroverted. People who are extroverted, by definition, are sociable, assertive, talkative, and optimistic and therefore may be less angry and express their

anger less often because they may feel more connected with others, engage in more conversations and generally think more positively than people who are more introverted.

Openness. Openness was a significant predictor of anger control efforts (out and in). These results suggest that people who exhibit more openness (i.e., have a general tendency to be attentive to inner feelings) are more likely to attempt to control suppressed or expressed angry feelings than people who are less open. People who are more open and attentive to their inner feelings are probably more able to identify when they feel angry. Furthermore, people who are open and attentive may be sensitive to the feelings of others and therefore attempt to control their anger for the preservation of their relationships with others.

Conscientiousness. Conscientiousness (i.e. tendency to be purposeful, strong-willed and determined) was a significant predictor of anger suppression and anger control-in. However, in the bivariate analyses, significant negative relationships were found between Conscientiousness and trait anger, and anger aggression, and significant positive relationships with anger control. These findings suggest that people who are disposed to be purposeful, strong willed and determined tend to be generally less angry. When conscientious individuals do feel angry however, they tend to be more likely to suppress their anger or attempt to control it and are less likely to aggressively express their anger outwardly. People who have a tendency to be purposeful and strong willed may use their energy to direct their anger inwardly. They may hold firm beliefs about the appropriate expression of anger which leads them to suppress rather than outwardly express their anger.

The results of this study support previous findings that have revealed significant and meaningful associations between the Big Five domains of personality and emotions, both positive (i.e. DeNeve and Cooper, 1998; Hayes and Joseph, 2003) and negative (i.e. Penley and Tomaka, 2002). A study by Hayes and Joseph (2003) found an association between the Big Five domains of personality and happiness in a sample of residents from the United Kingdom. In that study, low scores on Neuroticism and high scores on Conscientiousnes were significant predictors of happiness and well -being. In this present study, stronger Agreeable traits were found to be associated with lower levels of anger and anger expression. It is likely that those individuals who tend to be altruistic in nature and less angry, also tend to feel happier and in positive in general. In prior research, personality has been found to account for between 3 and 56% of self-reported positive emotions and experiences (i.e. happiness, well-being). In this study, personality was found to account for around 30% of the unique variance in the experience and expression of anger.

The results of the present study also support Penley's (2002) research findings that found Neuroticism to be significantly related to negative emotions**,** including anger, as well as perceived stress, coping and health issues in a college student sample. In Penley's (2002) study, people who tended to be more neurotic (i.e., experience negative emotions such as fear, sadness, embarrassment, anger, guilt and disgust) reported higher levels of perceived stress and higher levels of negative emotions, including anger. These people also tended to use emotion-focused coping strategies more frequently than students who were less neurotic. Penley's (2002) study also found that Neuroticism was

negatively correlated with the remaining 4 personality dimensions (E, O, A, C), a finding that was also confirmed in the present study.

Personality and Negative Self Schemas

Neuroticism was the most significant predictor of negative self-schemas. Openness and Agreeableness were also significant predictors of negative self-schemas. People who have general tendencies to experience negative emotions (Neuroticism), to feel less altruistic, sympathetic, eager to help others or expect others to be helpful (Agreeableness), and to be attentive to inner feelings, imagination, and intellectual curiosity (Openness) tend to endorse more negative beliefs about themselves and the world compared to people who experience more positive emotions, are more altruistic, sympathetic, and eager to help, expect others to be helpful, and who are less attentive to their feelings, imagination, and intellectual curiosity. Extraversion and Conscientiousness were also related to Negative Self Schemas. People who tend to be sociable, assertive, talkative and optimistic (extraverted) and people who tend to be purposeful, strong-willed, and determined (conscientious) reported fewer negative self-schemas compared to people who tend to be less extraverted and less conscientious.

The findings of the present study also make sense given the similarities of the theoretical constructs being explored (i.e. personality and negative self schemas). As discussed previously according to McCrae & Costa (1996), basic tendencies, or endogenous personality traits are proposed to evolve throughout childhood into adulthood into characteristic adaptations, or concrete patterns of thoughts, feeling and behaviors that aid in the individual's adjustment into their environment. The self-concept is an organized set of self schemas and belief systems that is developed and maintained in a

way that selectively incorporates only that information which is consistent with personality traits, thus providing a sense of coherence to the individual. Likewise, schema according to Young (2003), is a "broad organizing principle for making sense of one's life" (p. 7). Schemas are also formed early in life and are elaborated as they are applied in making sense of later life events and situations, thus also serving as a filter or distorter of information, in way that preserves consistency. Young's (2003) schemas are also thought to form the core of the self-concept and continue to function within the individual even when they may no longer be applicable. Young's concept of Early Maladaptive Schemas, are stable and enduring structures that are dysfunctional in nature, are activated by events in the environment, and can often produce high levels of affective arousal. He explains that Early Maladaptive Schemas are hypothesized to lead to psychological distress, including depression and panic.

So, given the theoretical similarities between negative self schemas and specific components of personality, it makes sense that significant relationships were found to exist between these two variables in the present study. These findings provide support for prior associations that have been found between personality dimensions and cognitive processes such as appraisals (Penley & Tomaka, 2002) and beliefs about self-pity (i.e. Stober, 2003). In Penley et al.'s (2002) study, each of the five personality domains were found to be significantly related to cognitive appraisals. Neuroticism was positively correlated with perceived stress whereas the other domains (Extroversion, Openness, Agreeableness, and Conscientiousness) were positively correlated with coping appraisals. Although Penley et al.'s (2002) study does not address schemas specifically; it does provide support for a significant link between personality and cognitive processes, which

may include beliefs in general. Results of this study also support research findings of Stober (2003) that revealed a strong positive relationship between Neuroticism and self-pity beliefs in a sample ofuniversity students in Germany. These findings along with the findings of the present study suggest a significant link between negative beliefs about oneself and negative emotions (reflective of a personality style).

Personality and Negative Self-Schemas with Anger

Do negative self-schemas contribute significantly to anger, above and beyond what personality explains? The answer to this question, based on the results of this study is no, except in the case of anger suppression. Personality was found to account for between 18% and 33% of the unique variance in predicting the anger scales. Negative Self-Schemas were found to account for between 0.4% and 2.9% of the unique variance in predicting the anger scales.

There have been no known studies that have explored both personality and negative self schemas in relation to the experience and expression of anger. The results of this study do however provide support for a study conducted by Stober (2003) that explored relationships between personality, self-pity beliefs, and anger. Stober (2003) explored self-pity beliefs in relation to personality and found that people who tended to be more Neurotic also tended to feel more self pity. The results of this study also provide support for findings in Penley and Tomaka's (2002) study that revealed evidence of relationships between personality and cognitive processes and personality and emotions. Penley et al (2002) found positive correlations between Neuroticism, perceived stress and negative emotion in a sample of undergraduate university students. Conscientiousness was found to be positively associated with self responsibility and positive emotions. So,

although no specific research has examined whether negative self-schemas contribute significantly to anger, above and beyond what personality explains, there is research that points to associations among the three variables.

One possible explanation for schemas failing to contribute significantly above and beyond what personality provides in explaining anger is the large amount of shared variance between personality and schemas. These two constructs are theoretical similar and it is likely that significant overlap exists in measuring them. This overlap is also evident in the correlational analyses. Neuroticism was found to be moderately correlated ($r = .56$, $p < .01$) with the negative self-schema factor score, providing support that these two constructs significantly correlated. Correlations of the negative self-schema factor with the other domains of personality ranged from .18 to .32. Given that these correlations were found to exist between personality and negative self-schemas in this study, it is uncertain as to whether personality per se, or negative belief components of personality accounted for the majority of the unique variance in predicting the experience and expression of anger.

Therefore, it is possible that negative self-schemas may simply be a reaction or a response to having a neurotic, less agreeable, less conscientious, or more open (attentive to emotions) personality style. Given that self-schemas may be closely related to self-concept as defined by Costa and McCrae (1992), it is possible that self-schemas and personality are very much intertwined. More research is needed to understand the relationship of self-schemas and personality styles.

Another possible explanation for this finding is the restricted range in this study. Scores on measures of anger and negative self-schemas fall within midrange in this

sample. Therefore this sample is average regarding the experience and expression of anger and the endorsement of negative self schemas.

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 relationships among Negative Self Schemas, Personality, and Anger. Knowing more in this area could guide future interventions with clients in therapy, particularly those beliefs/beliefs systems associated with anger expression. This study attempted to explore the relationships among Negative Self Schemas, Personality and the experience and expression of anger. Furthermore this study attempted to explore what Negative Self Schemas add to the understanding of the relationship between personality and anger.

The results of this study revealed that Agreeableness (i.e. tendency to be altruistic, sympathetic, eagerness to help and expect others to be helpful) and Neuroticism (i.e. tendency to experience negative emotions such as fear, sadness, embarrassment, anger, guilt and disgust) are the personality factors that are most related to anger. This suggests that getting clients to work on their relationships, to explore their defenses in connecting to others, to building empathy and sympathy skills are important. Furthermore it is likely that people come to therapy with an array of painful emotions that are masked by anger. Working with clients to go beyond the anger to feelings of hurt, fear, shame and self loathing are important directions toward healing in therapy.

Negative self-schemas did not contribute significantly to the understanding of the experience and expression of anger when personality was controlled, except in the case of anger suppression. There appears to be significant theoretical and statistical overlap between the constructs of self-schemas and personality. As therapists, it would be difficult to tell clients, "just change your personality." Therefore, theoretically, it makes sense to work with clients' belief systems in therapy as a way of attempting to modify personality traits. Schema therapy as developed by Young et al. (2003) may serve as a helpful model for this work. Negative self-schemas can be conceptualized as the door to changing personality. Given that the personality styles of Agreeableness and Neuroticism are defined as encompassing belief systems, it seems as though the potential to alter belief systems and thus modify personality exists. Furthermore, since Agreeableness and Neuroticism were by far the most significant predictors of the experience and expression of anger, and negative self-schemas were found to be significant predictors of anger, it seems plausible to approach therapy by focusing on the negative beliefs typically found in Agreeableness (i.e. mistrust) and Neuroticism (i.e. negativity) when working with clients on anger-related issues. Teaching clients to find ways to be more trustful of others and to be more helpful to others as well as approaching life more positively and not to be so absorbed in their negative affect may help clients cope better with life in general and help them feel less angry in day-to-day situations including their relationships with others.

Limitations of the Study

The participants in this study were all undergraduate students recruited from education, psychology, and business course 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. Only Young's (1991) early maladaptive schemas and Costa & McCrae's (1992) theory of personality were explored in this study and not other models.

Another possible limitation of the study is that it seems unclear what the five factor model is measuring. According to the Costa and McCrae's five factor model of personality, there are three core components of personality (basic tendencies, cultural adaptations and self-concept). It is unclear whether the NEO-FFI measures only the basic tendencies (N,E,O,A,C) or whether it is also a measure of the other components which include beliefs systems.

Another limitation of this study is that while the one-factor solution for Negative Self-Schemas is statistically meaningful, it may not have much practical value. Most therapists will approach schema therapy by identifying and working on specific schemas being activated in client's lives. Each of Young's Negative Self-Schemas provides rich and descriptive information about the client's belief systems which may be lost when the schemas are reduced to a single factor.

Another possible limitation of this study is the restricted range of anger and schema scores for this sample. In general, the students in this sample scored within the average range regarding their experience and expression of anger, as well as the endorsement of negative beliefs. In other words, this sample was in general, not very angry and may not have endorsed significantly elevated levels of negative self-schemas.

Therefore, these findings may be limited to college students with average anger and self-schema experiences and may or may not reflect the experiences of clients with more significant anger and negative self-schema issues.

One other limitation in this study is in the use of self-report measures. Measuring personality and negative self-schemas using self-report is particularly challenging, given the theoretical overlap which is evidenced in the items of these self-report questionnaires. Both of these constructs are measured using questions that assess thoughts, feelings, and behaviors which makes it difficult to tease the two constructs apart. Other research methods, beyond self-report, may be necessary to better understand the impact of personality and self-schemas on one another and how these constructs may impact emotions such as anger.

Areas for Further Research

This study examined the question: Do negative self schemas add anything beyond what personality provides in explaining the experience and expression of anger? It was found that overall Negative Self-Schemas do not contribute much to anger when personality is controlled, except in the prediction of Anger Expression-In. Given the theoretical similarities between the personality domains of the NEO-FFI and the negative self schemas, it is very likely that significant overlap exists in measuring these two theoretical constructs. Since one domain of personality, Neuroticism was found to be moderately correlated with negative self-schema factor score, this seems to provide support that these two constructs are correlated at a theoretical level and at a statistically significant level. Correlations of negative self-schemas with the other domains of personality range from .18 to .32. Given the relationships between personality and

negative self-schemas in this study, it is uncertain as to whether personality per se, or negative belief components of personality accounted for the majority of the unique variance in predicting the experience and expression of anger. Future research is warranted to explore this issue. A potential strategy to further examine this issue would be to conduct further hierarchical regressions in which negative self-schemas are entered in the first block and personality in the second block to determine which of the constructs accounts for most of the unique variance in anger scores.

Further research expanding the sample beyond the college student population and including more ethnically and racially diverse people would be beneficial. In addition, expanding the study to include clinical samples would provide a richer understanding regarding clients' anger issues in counseling.

Although the generalizability of the results in this study is limited, the findings contribute to the understanding of how styles of personality and belief systems influence the experience and expression of anger. Moreover, the results of this study further promote the ongoing exploration of the experience and expression of anger in generating new questions and areas of inquiry.

Summary

In summary, the experience and expression of anger was related to personality domains and negative self-schemas. Negative self-schemas were also significantly related to personality domains. However, negative self-schemas did not add significantly to the understanding of the experience and expression of anger when personality was controlled, except in the case of anger suppression. There appears to be significant theoretical and statistical overlap between the constructs of self-schemas and personality.

Other research methods, beyond self-report, may be necessary to better understand the impact of personality and self-schemas on one another and how these constructs may impact emotions such as anger. The findings of this study guide practitioners to explore aspects of clients' personalities, especially neuroticism and agreeableness, as well as clients' negative self-schemas (particularly in the case of anger suppression) when helping clients cope more effectively with chronic anger and anger expression problems.

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APPENDICES

APPENDIX A

FIGURES

Figure 1: Diagram of Relationships Explored

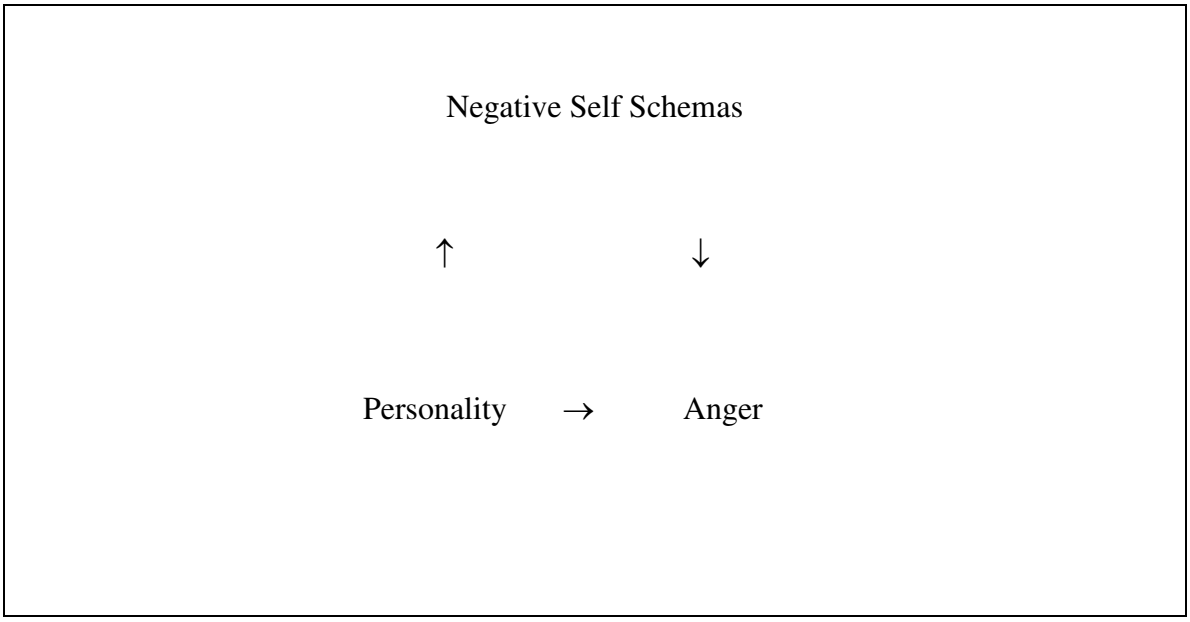
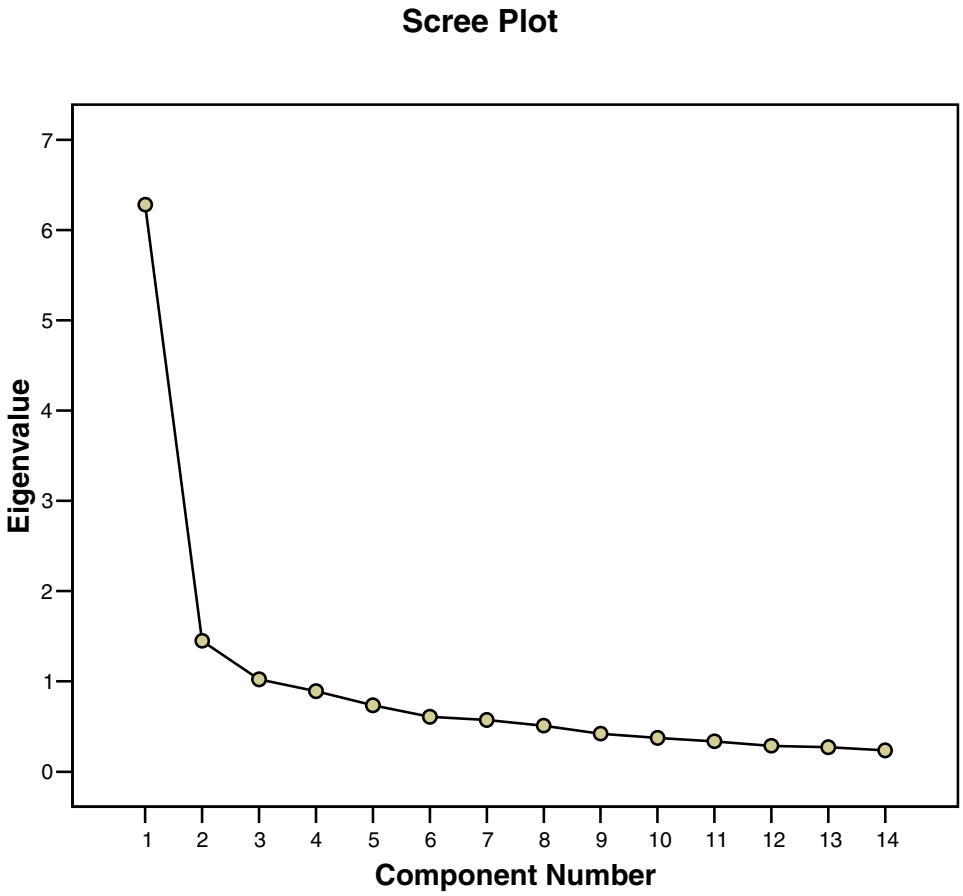


Figure 2: Factor Analysis of Young Schema Questionnaire: Scree Plot



APPENDIX B

TABLES

Table 1

Summary of Means, Standard Deviations, and Ranges of NEO-FFI Subscales

Variable	M	SD	Score Range
Neuroticism	32.32	8.03	14-56
Extroversion	45.00	6.59	21-60
Openness	36.73	6.23	23-55
Agreeableness	43.17	6.30	22-57
Conscientiousness	44.42	5.67	22-56

Table 2

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

Schema	M	SD	Score Range
Emotional Deprivation	8.65	4.95	5-30
Abandonment	9.40	5.52	5-30
Mistrust/Abuse	11.20	5.76	5-30
Social Isolation	8.30	4.50	5-30
Defectiveness/Shame	6.68	3.77	5-30
Failure	7.90	4.11	5-28
Dependence/Incompetence	7.76	3.68	5-26
Vulnerability to Harm	8.12	4.36	5-26
Enmeshment	8.15	4.44	5-27
Subjugation	8.54	4.35	5-26
Self Sacrifice	14.89	6.04	5-30
Emotional Inhibition	9.03	4.86	5-30
Unrelenting Standards	17.67	6.61	5-30
Entitlement	12.17	5.08	5-27
Insufficient Self Control	10.97	5.34	5-30

Schema subscale scores can actually range from 5 to 30.

Table 3

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

Variable	M	SD	Score Range
Trait Anger	18.35	5.84	10-40
Anger Expression-Out	16.44	4.12	8-32
Anger Expression-In	17.42	4.74	8-32
Anger Control-Out	22.82	5.09	11-32
Anger Control-In	21.69	5.08	8-32

Table 4

Correlation Matrix of NEO-FFI subscales

	NEURO	EXTRO	OPEN	AGREE	CONSC
NEURO	1.00	-.402**	.019	-.371**	-.253**
EXTRO	-.402**	1.00	.000	.361**	.287**
OPEN	.019	.000	1.00	-.004	-.058
AGREE	-.371**	.361**	-.004	1.00	.325**
CONSC	-.253**	.287**	-.058**	.325**	1.00

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

Table 5

Component Matrix of YSQ subscales

Subscale	Component
Emotional Deprivation	.621
Abandonment	.715
Mistrust/Abuse	.691
Social Isolation	.755
Defectiveness/Shame	.796
Failure	.739
Dependence/Incompetence	.689
Vulnerability to Harm	.776
Enmeshment	.649
Subjugation	.811
Self Sacrifice	.484
Emotional Inhibition	.687
Unrelenting Standards	.246
Entitlement	.489
Insufficient Self Control	.584

Table 6

Correlation Matrix of Negative Self-Schemas (factor Score), Personality subscales and Anger Subscales

	NEURO	EXTRO	OPEN	AGREE
NEUO	1.00	-.402**	.019	-.371**
EXTRO	-.402**	1.00	.000	.361**
OPEN	.019	.000	1.00	-.004
AGREE	-.371**	.361**	-.004	1.00
CONSC	-.253**	.287**	-.058**	.325**
T-ANG	.394**	-.274**	.057	-.534**
AXO	.301**	-.145**	-.034**	-.536**
AXI	.485**	-.262**	.064	-.341**
ACO	-.274**	.218**	.126*	.419**
ACI	-.214**	.226**	.146**	.352**
FACTOR	.562**	-.266**	.135**	-.320**

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

Table 6

Correlation Matrix of Negative Self-Schemas (factor Score), Personality subscales and Anger Subscales (Continued)

	TANG	AXO	AXI	ACO
NEURO	.394**	.301**	.485**	-.274**
EXTRO	-.274**	-.145**	-.262**	.218**
OPEN	.057	-.034	.064	.126*
AGREE	-.534**	-.536**	-.341**	.419**
CONSC	-.185**	-.161**	-.060	.204**
T-ANG	1.00	.593**	.230**	-.492**
AXO	.593**	1.00	.286**	-.390**
AXI	.230**	.286**	1.00	.031
ACO	-.492**	-.390**	.031	1.00
ACI	-.424**	-.273**	-.014	.750**
FACTOR	.263**	.168**	.441**	-.164**

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

Table 6

Correlation Matrix of Negative Self-Schemas (factor Score), Personality subscales and Anger Subscales (Continued)

	ACI	FACTOR
NEURO	-.214**	.562**
EXTRO	.226**	-.266**
OPEN	.146**	.135
AGREE	.352**	-.320**
CONSC	.241**	-.178**
T-ANG	-.424**	.263**
AXO	-.273**	.168**
AXI	-.014**	.441**
ACO	.750**	-.164**
ACI	1.00	-.167**
FACTOR	-.167**	1.00

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

Table 7

Multiple Regression Model For The Prediction Of Trait Anger (T-Ang) By Personality Factors (N = 315)

Significant Predictors	Mult. R	R-sq	R-sq (ch)	F (eqn)	F (ch)	r
Agreeableness	.534	.285	.285	124.66**	124.66**	-.534
Neuroticism	.573	.329	.043	76.17**	20.05**	.392
Openness	.576	.331	.003	51.21**	1.21	.057
Extroversion	.576	.332	.001	38.39**	.27	-.274
Conscientiousness	.577	.333	.001	30.70**	.30	-.188

* $p < .05$

** $p < .01$

Mult. R. = Multiple correlation coefficient

R-sq = R square

F (eqn) = F value for the regression equation

F (ch) = F change statistic

r = Pearson correlation coefficient

Table 8

Multiple Regression Model For The Prediction Of Anger Expression-Out (AX-O) By Personality Factors (N = 315)

Significant Predictors	Mult. R	R-sq	R-sq (ch)	F (eqn)	F (ch)	r
Agreeableness	.536	.288	.288	125.98**	125.98**	-.536
Neuroticism	.549	.301	.013	66.96**	5.94*	.306
Openness	.557	.310	.009	46.37**	3.93*	-.033
Extroversion	.558	.311	.001	34.90**	.65	-.144
Conscientiousness	.558	.312	.000	27.87**	.14	-.160

* $p < .05$

** $p < .01$

Mult. R. = Multiple correlation coefficient

R-sq = R square

F (eqn) = F value for the regression equation

F (ch) = F change statistic

r = Pearson correlation coefficient

Table 9

Multiple Regression Model For The Prediction Of Anger Expression-In (AX I) By Personality Factors (N = 314)

Significant Predictors	Mult. R	R-sq	R-sq (ch)	F (eqn)	F (ch)	r
Neuroticism	.480	.230	.230	93.335**	93.33**	.480
Agreeableness	.511	.261	.031	54.88**	12.89**	-.341
Conscientiousness	.522	.273	.012	38.80**	5.17*	-.065
Openness	.526	.277	.004	29.56**	1.60	.063
Extroversion	.529	.279	.003	23.90**	1.18	-.264

* $p < .05$

** $p < .01$

Mult. R. = Multiple correlation coefficient

R-sq = R square

F (eqn) = F value for the regression equation

F (ch) = F change statistic

r = Pearson correlation coefficient

Table10

Multiple Regression Model For The Prediction Of Anger Control-Out (AC-O) By Personality Factors (N = 314)

Significant Predictors	Mult. R	R-sq	R-sq (ch)	F (eqn)	F (ch)	r
Agreeableness	.419	.176	.176	66.49**	66.49**	.419
Openness	.438	.192	.016	36.94**	6.28*	.126
Neuroticism	.457	.209	.017	27.25**	6.66*	-.274
Conscientiousness	.461	.212	.004	20.84**	1.47	.205
Extroversion	.462	.213	.001	16.67**	.218	.218

* $p < .05$

** $p < .01$

Mult. R. = Multiple correlation coefficient

R-sq = R square

F (eqn) = F value for the regression equation

F (ch) = F change statistic

r = Pearson correlation coefficient

Table 11

Multiple Regression Model For The Prediction Of Anger Control-In (AC-I) By Personality Factors (N = 314)

Significant Predictors	Mult. R	R-sq	R-sq (ch)	F (eqn)	F (ch)	r
Agreeableness	.352	.124	.124	44.11**	44.12**	.352
Openness	.382	.146	.022	26.64**	8.15**	.148
Conscientiousness	.411	.169	.022	20.98**	8.39**	.247
Extroversion	.419	.175	.006	16.41**	2.43	.228
Neuroticism	.420	.177	.001	13.22**	.53	-.205

* $p < .05$

** $p < .01$

Mult. R. = Multiple correlation coefficient

R-sq = R square

F (eqn) = F value for the regression equation

F (ch) = F change statistic

r = Pearson correlation coefficient

Table 12

Multiple Regression Model For The Prediction Of Negative Self Schemas By Personality Factors (N = 314)

Significant Predictors	Mult. R	R-sq	R-sq (ch)	F (eqn)	F (ch)	r
Neuroticism	.556	.309	.309	139.52**	139.52**	.556
Openness	.570	.325	.016	74.79**	7.26**	.135
Agreeableness	.583	.340	.015	53.19**	7.01**	-.320
Extroversion	.583	.340	.001	39.86**	.24	-.272
Conscientiousness	.583	.340	.00	31.79**	.02	-.191

* $p < .05$

** $p < .01$

Mult. R. = Multiple correlation coefficient

R-sq = R square

F (eqn) = F value for the regression equation

F (ch) = F change statistic

r = Pearson correlation coefficient

Table 13

Simple Regression Model For The Prediction Of Negative Self Schemas By Trait Anger (T-Ang) (N = 314)

Significant Predictors	Mult. R	R-sq	R-sq (ch)	F (eqn)	F (ch)	r
Negative Schemas	.263	.069	.069	23.24**	23.24**	.263

* $p < .05$

** $p < .01$

Mult. R. = Multiple correlation coefficient

R-sq = R square

F (eqn) = F value for the regression equation

F (ch) = F change statistic

r = Pearson correlation coefficient

Table 14

Simple Regression Model For The Prediction Of Negative Self Schemas By Anger Expression-Out (AX-O) (N = 314)

Significant Predictors	Mult. R	R-sq	R-sq (ch)	F (eqn)	F (ch)	r
Negative Schemas	.168	.028	.028	9.06**	9.06**	.168

* $p < .05$

** $p < .01$

Mult. R. = Multiple correlation coefficient

R-sq = R square

F (eqn) = F value for the regression equation

F (ch) = F change statistic

r = Pearson correlation coefficient

Table 15

Simple Regression Model For The Prediction Of Negative Self Schemas By Anger Expression-In (AX-I) (N = 314)

Significant Predictors	Mult. R	R-sq	R-sq (ch)	F (eqn)	F (ch)	r
Negative Schemas	.441	.195	.195	75.71**	75.10**	.441

* $p < .05$

** $p < .01$

Mult. R. = Multiple correlation coefficient

R-sq = R square

F (eqn) = F value for the regression equation

F (ch) = F change statistic

r = Pearson correlation coefficient

Table 16

Simple Regression Model For The Prediction Of Negative Self Schemas By Anger Control-Out (AC-O) (N = 314)

Significant Predictors	Mult. R	R-sq	R-sq (ch)	F (eqn)	F (ch)	r
Negative Schemas	.164	.027	.027	8.65**	8.65**	-.164

* $p < .05$

** $p < .01$

Mult. R. = Multiple correlation coefficient

R-sq = R square

F (eqn) = F value for the regression equation

F (ch) = F change statistic

r = Pearson correlation coefficient

Table 17

Simple Regression Model For The Prediction Of Negative Self Schemas By Anger Control-In (AC-I) (N = 314)

Significant Predictors	Mult. R	R-sq	R-sq (ch)	F (eqn)	F (ch)	r
Negative Schemas	.167	.028	.028	9.00**	9.00**	- .164

* $p < .05$

** $p < .01$

Mult. R. = Multiple correlation coefficient

R-sq = R square

F (eqn) = F value for the regression equation

F (ch) = F change statistic

r = Pearson correlation coefficient

Table 18

Multiple Regression Model For The Prediction Of Trait Anger (T-Ang) By Personality and Negative Self Schemas (N = 314)

Significant Predictors	Mult. R	R-sq	R-sq (ch)	F (eqn)	F (ch)
Personality	.577	.333	.333	30.70**	30.70**
Negative Schemas	.580	.337	.004	19.37**	.66

* $p < .05$

** $p < .01$

Mult. R. = Multiple correlation coefficient

R-sq = R square

F (eqn) = F value for the regression equation

F (ch) = F change statistic

Table 19

Multiple Regression Model For The Prediction Of Anger Expression Out (AXO) By Personality and Negative Self Schemas (N = 314)

Significant Predictors	Mult. R	R-sq	R-sq (ch)	F (eqn)	F (ch)
Personality	.558	.312	.312	27.87**	27.87**
Negative Schemas	.565	.319	.008	17.90**	1.19

* $p < .05$

** $p < .01$

Mult. R. = Multiple correlation coefficient

R-sq = R square

F (eqn) = F value for the regression equation

F (ch) = F change statistic

Table 20

Multiple Regression Model For The Prediction Of Anger Expression In (AXI) By Personality and Negative Self Schemas (N = 314)

Significant Predictors	Mult. R	R-sq	R-sq (ch)	F (eqn)	F (ch)
Personality	.529	.279	.279	23.90**	23.90**
Negative Schemas	.555	.308	.029	17.00**	4.25**

* $p < .05$

** $p < .01$

Mult. R. = Multiple correlation coefficient

R-sq = R square

F (eqn) = F value for the regression equation

F (ch) = F change statistic

Table 21

Multiple Regression Model For The Prediction Of Anger Control-Out (ACO) By Personality and Negative Self Schemas (N = 314)

Significant Predictors	Mult. R	R-sq	R-sq (ch)	F (eqn)	F (ch)
Personality	.462	.213	.213	16.67**	16.67**
Negative Schemas	.466	.217	.004	10.59**	.56

* $p < .05$

** $p < .01$

Mult. R. = Multiple correlation coefficient

R-sq = R square

F (eqn) = F value for the regression equation

F (ch) = F change statistic

Table 22

Multiple Regression Model For The Prediction Of Anger Control-In (ACI) By Personality and Negative Self Schemas (N = 314)

Significant Predictors	Mult. R	R-sq	R-sq (ch)	F (eqn)	F (ch)
Personality	.420	.177	.177	13.22**	13.22**
Self Schemas	.426	.181	.005	8.44**	.57

* $p < .05$

** $p < .01$

Mult. R. = Multiple correlation coefficient

R-sq = R square

F (eqn) = F value for the regression equation

F (ch) = F change statistic

APPENDIX C

INFORMED CONSENT FORM

INFORMED CONSENT

We invite you to participate in a research study exploring the relationships among personality, belief systems and the experience and expression of anger in college students. Participation in this study involves completing a demographic sheet and three questionnaires.

Completing these instruments will typically take no longer than 45 minutes. Possible benefits of participating in this study include increased awareness of your personality characteristics or tendencies, 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 own beliefs, traits and 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 Wood, M.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 Carol Olson, IRB Chair, 415 Whitehurst, Oklahoma State University at (405) 744-1676. 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 and have been given a copy of this consent form to keep.

Signed: _____ Date: _____

APPENDIX D

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) Do you have children? Yes _____ No _____

____ a) How many children?
____ b) How many boys? What are their ages _____
____ c) How many girls? What are their ages _____

6) What year are you in college:

____ a) Freshman
____ b) Sophomore
____ c) Junior
____ d) Senior
____ e) Graduate student

7) What is your current living situation? ___ residence hall ___ sorority or fraternity

___ off-campus housing ___ on-campus apartment

8) 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)

9) 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

10) 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 is acceptable in my family. 1 2 3 4 5 6 7

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

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

APPENDIX E

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. **Circle only one number**. 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. **Circle only one number**. 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. **Circle only one number**. 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 F

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 others 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.

APPENDIX G

NEO-FFI

NEO-FFI

NEO Five- Factor Inventory

Developed by Paul T. Costa, Jr., PhD, and Robert R. McCrae, PhD.

INSTRUCTIONS: Carefully read all of the instructions before beginning. This questionnaire contains 60 statements. Reach each statement carefully. For each statement fill in the circle with the response that best represents your opinion. Make sure that your answer is in the correct box.

RATING SCALE:

SD = Strongly disagree or the statement is definitely false.
D = Disagree or the statement is mostly false.
N = Neutral if you cannot decide, or if the statement is about equally true or false.
A = Agree or the statement is mostly true
SA = Strongly agree or the statement is definitely true

1. I am not a worrier.
2. I like to have a lot of people around me.
3. I don't like to waste my time daydreaming
4. I try to be courteous to everyone I meet.
5. I keep my belongings neat and clean.

6. I often feel inferior to others.
7. I laugh easily.
8. Once I find the right way to do something, I stick to it.
9. I often get into arguments with my family and co-workers.
10. I'm pretty good about pacing myself so as to get things done on time.

11. When I'm under a great deal of stress, sometimes I feel like I'm going to pieces.
12. I don't consider myself especially "Light hearted".
13. I am intrigued by the patterns I find in art and nature.
14. Some people think I'm selfish and egotistical.
15. I am not a very methodical person.

16. I rarely feel lonely or blue.
17. I really enjoy talking to people.
18. I believe letting students hear controversial speakers can only confuse and mislead them.
19. I would rather cooperate with others than compete with them.
20. I try to perform all the tasks assigned to me conscientiously.

21. I often feel tense and jittery.
22. I like to be where the action is.
23. Poetry has little or no effect on me.
24. I tend to be cynical and skeptical of others' intentions.
25. I have a clear set of goals and work toward them in an orderly fashion.

26. Sometimes I feel completely worthless.
27. I usually prefer to do things alone.
28. I often try new and foreign foods.
29. I believe that most people will take advantage of you if you let them.
30. I waste a lot of time before sitting down to work.
31. I rarely feel fearful or anxious.

32. I often feel as if I'm bursting with energy.
33. I seldom notice the moods or feelings that different environments produce.
34. Most people I know like me.
35. I work hard to accomplish my goals.

36. I often get angry at the way people treat me.
37. I am a cheerful, high spirited person.
38. I believe we should look to or religious authorities for decisions on moral issues.
39. Some people think of me as cold and calculating.
40. When I make a commitment, I can always be counted on to follow through.

41. Too often, when things go wrong, I get discouraged and feel like giving up.
42. I am not a cheerful optimist.
43. Sometimes when I am reading poetry or looking at a work of art, I feel a chill or wave of excitement.
44. I'm hard-headed and tough-minded in my attitudes.
45. Sometimes I'm not as dependable or reliable as I should be.

46. I am seldom sad or depressed.
47. My life is fast-paced.
48. I have little interest in speculating the nature of the universe or the human condition.
49. I generally try to be thoughtful and considerate.
50. I am a productive person who always gets the job done.

51. I often feel helpless and want someone else to solve my problems.
52 I am a very active person.
53. I have a lot of intellectual curiosity.
54. If I don't like people, I let them know it.
55. I never seem to be able to get organized.

56. At times I have been so ashamed I just wanted to hide.
57. I would rather go my own way than be a leader of others.
58. I often enjoy playing with theories or abstract ideas.
59. If necessary, I am willing to manipulate people to get what I want.
60. I strive for excellence in everything I do.

APPENDIX H

RESOURCE LIST

To all participants:

We thank you for completing questionnaires for this study exploring the relationship between beliefs, personality 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, M.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.

Counseling Psychology Clinic
408 Willard Hall
Oklahoma State University
Stillwater, OK 74078
(405) 744-6980

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

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

Center for Family Services
103 HES West
Oklahoma State University
Stillwater, OK 74078
(405) 744-5058

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

Stillwater Domestic Violence

115 W. 3rd
Stillwater, OK 74074
(405) 377-2344

APPENDIX I

INSTITUTIONAL REVIEW FOR HUMAN SUBJECTS

Oklahoma State University
Institutional Review Board

Protocol Expires: 3/1/2005

Date: Tuesday, March 02, 2004 IRB Application No ED0485

Proposal Title: The Relationship Between Negative Self-Schemas and Personality with the Experience and Expression of Anger

Principal Investigator(s):

Jennifer Sheader Wood
2816 North Keller Drive
Stillwater, OK 74075

Carrie Winterowd
434 Willard
Stillwater, OK 74078

Reviewed and Processed as: Exempt

Approval Status Recommended by Reviewer(s): Approved

Dear PI :

Your IRB application referenced above has been approved for one calendar year. Please make note of the expiration date indicated above. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact me in 415 Whitehurst (phone: 405-744-5700, colson@okstate.edu).

Sincerely,

Carol Olson

Carol Olson, Chair
Institutional Review Board

VITA

Jennifer Sheader Wood

Candidate for the Degree of

Doctorate of Philosophy

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

Major Field: Educational Psychology

Biographical:

Personal Date: Born in Hartlepool, England, On May 10, 1972, the Daughter of Robin and Nora Sheader. The Wife to Eric Robert Wood, and Mother to Emma Jennifer Wood.

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. Completed the requirements for Doctorate of Philosophy degree in Educational Psychology: Specialization Counseling Psychology in July 2005.

Experience: Experience as a practicum counselor at Oklahoma State University Counseling Services from August 1999 to May 2000; Employed by Stillwater Domestic Violence Services as a practicum counselor, August 2000 to July 2001; Employed by Associated Centers for Therapy as a practicum counselor, August 2001 to July 2002; Employed by Oklahoma State University Counseling Services as an intake counselor, August 2002 to May 2003; Employed by Texas Woman's University Counseling Center as a Psychology Intern, August 2004 to July 2005.

Professional Memberships: American Psychological Association; Association for Women in Psychology.

Name: Jennifer Sheader Wood Date of Degree: July, 2005

Institution: Oklahoma State University Location: Stillwater, Oklahoma

Title of Study: THE RELATIONSHIP OF NEGATIVE SELF-SCHEMAS AND PERSONALITY WITH THE EXPERIENCE AND EXPRESSION OF ANGER

Pages in Study: 148 Candidate for the Degree of Doctor of Philosophy

Major Field: Educational Psychology

Scope and Method of Study: The purpose of the study was to explore the relationship of negative self-schemas and personality with the experience and expression of anger. Participants were 315 undergraduate education, psychology, and business students at a mid western university. Students read and signed an informed consent and completed a packet of questionnaires. The packet included the NEO-FFI, YSQ, the STAXI-2, and the demographic sheet.

Findings and Conclusions: In summary, the experience and expression of anger was related to personality domains and negative self-schemas. Negative self-schemas were also significantly related to personality domains. However, negative self-schemas did not add significantly to the understanding of anger experience and expression when personality was controlled, except in the case of anger suppression. There appears to be significant theoretical and statistical overlap between the constructs of self-schemas and personality. Other research methods, beyond self-report, may be necessary to better understand the impact of personality and self-schemas on one another and how these constructs may impact emotions such as anger. The findings of this study guide practitioners to explore aspects of clients' personalities, especially Neuroticism and Agreeableness, as well as clients' negative self-schemas (particularly in the case of anger suppression) when helping clients cope more effectively with chronic anger and anger expression problems.

ADVISER'S APPROVAL: Carrie Winterowd, Ph.D.