

THE RELATIONSHIPS OF EMOTIONAL INTELLIGENCE,  
DOGMATISM, AND SEX, WITH THE EXPERIENCE AND  
EXPRESSION OF ANGER IN COLLEGE STUDENTS

By

RICHARD WILLIAM PONGRATZ

Bachelor of Science

Wayne State College

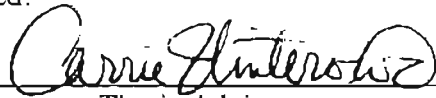
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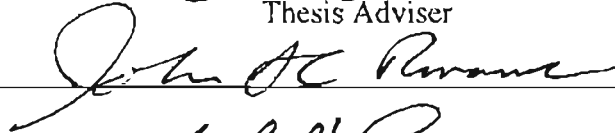
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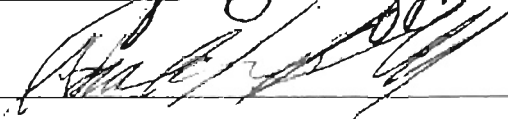
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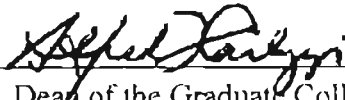


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## CHAPTER ONE

### INTRODUCTION

Cognitions, emotions, and behaviors have been explored in an effort to learn more about ourselves and the people around us for many years. We experience situations, both mentally and emotionally, and we have reactions in those situations. It was proposed that our ability to examine and identify emotions, otherwise known as emotional intelligence, is related to our ability to make decisions and evaluate situations with an open mind (less dogmatic). In fact, the brain can determine the emotional meaning of an event before we are fully aware of what the event entails (LeDoux, 1996). Our emotions play a direct role in forming our reactions to differing stimuli. Therefore the ways in which we think and feel interact. A person's ability to function depends on how cognitive and emotional aspects relate, communicate, and understand each other (Salovey, Bedell, Detweiler, & Mayer, 2000). This study addressed a small portion of this vast area to be explored. It examined how the way people cognitively evaluate information into existing belief systems relates to the ways people identify, experience, and regulate emotions.

Dogmatism has been defined as the relative openness or closeness of an individual's belief and disbelief systems. Less dogmatic individuals possess an ability to assess new information on its own merits without holding bias towards the information by an established, closed belief system, whereas more dogmatic individuals do not possess this ability (Rokeach, 1960). Low levels of dogmatism have been related to more effective, empathic, and facilitative counseling qualities (Carlozzi, Bull, Eells, & Hurlburt, 1995; Carlozzi, Campbell, & Ward, 1982; Carlozzi, Edwards, & Ward, 1978; Foulds, 1971; Mezzano, 1969; Russo, Kelz, & Hudson, 1964; Kemp, 1962), to



friendliness and relaxed (Rhoades, 1982/1988), and to greater sociability and self-control (Plant, Telford, & Thomas, 1965). High levels of dogmatism have been associated with high levels of anxiety and stronger identification with Communist and Catholic ideologies, a high incidence of temper tantrums in childhood (Rokeach, 1960), anxiety (Rokeach & Fruchter, 1956), increased levels of hostility and aggression (Heyman, 1977), as well as paranoia, emotional instability and insensitivity (Ward, Cunningham, & Summerlin, 1978). Dogmatism has been shown to be inversely related to a Universal-Diverse Orientation, which is “an attitude of awareness and acceptance of both the similarities and differences among people” (Miville, et al., 1999, p. 291). Heyman (1977) found that men displayed higher levels of dogmatism than women. However, dogmatism has also been found to be unrelated to variables such as sex, self-disclosure, locus of control, “Machiavellianism”, GRE scores, or counselor trainee performance (Loesch, Crane, & Rucker, 1978).

Emotional intelligence is defined as “the ability to access and generate feelings when they facilitate cognition, the ability to understand affect laden information and make use of emotional knowledge, and the ability to regulate emotions and promote emotional and intellectual growth and well-being” (Salovey, et al., 2000, p. 506). Emotional intelligence has been positively associated with openness to experience (Schutte, et al., 1998) and empathy (Miville, Carlozzi, Kazanecki, & Ueda, 2000), and negatively associated with personal distress (Miville, et al., 2000). Aspects of emotional intelligence have also been linked to success in job interviews (Fox & Spector, 2000).

Anger is defined as an emotional state that varies from annoyance to rage (Spielberger, Jacobs, Russell, & Crane, 1983). Anger is a multidimensional construct

(Siegel, 1986; Spielberger, 1999) that has been related to a variety of personality characteristics and behaviors. Anger may result from personal frustration (Averill, 1982) or blocked goals or a belief that one's rights have been violated (Mascolo & Griffin, 1998). Anger is energizing (Ortony & Turner, 1990) and may be difficult to detect, identify, or control (Lerner, 1985; Lewis, 2000). Anger (experience or expression) has been associated with sex, sex role, gender (Kopper, 1993; Kopper-Roland, 1988/1989; Stock-Ward, 1995/1996), stress (Thomas & Williams, 1991; Felsten, 1996), a tendency to blame (Hazebroek, Howells, & Day, 2001), alexithymia (Linden, Lenz, & Stossel, 1996), anorexia and bipolar personality disorder (Horesh, Zalsman, & Apter, 2000), as well as depression, anxiety, and hostility (Bridewell & Chang, 1997).

There are also cultural and societal effects on the experience and expression of anger for men and women. Lerner (1985) argued that a number of factors make recognizing anger very difficult for women. Some of these include socialization and cultural factors that re-enforce the taboos surrounding women experiencing and expressing anger. Women may not feel as free as men to express/experience anger, given gender role expectations (Lerner, 1985; Kopper, 1993; Stock-Ward, 1995/1996).

Schutte et al. (1998) state that women are expected to score higher than men on some emotional intelligence scales. Men are often restricted in the variability of emotions they are socially allowed to express. Often they are restricted to the expression of anger (Lerner, 1985). Therefore they seldom get the encouragement to or experience of appropriate emotional regulation and identification. Heyman (1977) found that men who were dogmatic were more aggressive and exhibited less over-controlled hostility than men who were less dogmatic. However, these relationships did not exist for females

(Kopper-Roland, 1988/1989; Kopper, 1993; Stock-Ward, 1995/1996; Lerner, 1985; Hess & Kirouac, 2000). We expected differences in anger to appear between men and women

### Emotional intelligence and dogmatism

No researchers to date have specifically explored the relationship of dogmatism and emotional intelligence. However, findings from several studies provide some clues to a possible relationship.

Less dogmatic counselors have been shown to be more effective, empathic, and facilitative in responding than highly dogmatic counselors (Carlozzi, et al., 1995; Carlozzi, et al., 1982; Carlozzi, et al., 1978; Mezzano, 1969). Closed-mindedness may interfere with “the therapeutic conditions of empathic understanding, respect or positive regard, and facilitative genuineness for their clients” (Foulds, 1971, p.112). Mayer and Salovey (1993) emphasize the importance of empathy in relation to emotional intelligence. Empathy is essential to the ability to recognize and respond to the emotions of others, a key component of emotional intelligence.

“The typical cause of emotions is a perceived specific change in our situation” (Ben-Ze’ev, 2000, p. 115). A highly dogmatic individual operates within a closed system and is resistant to changing this system (Rokeach, 1960). A change in the individual’s situation, which doesn’t adhere to this closed system, may cause the development of emotions. This closed system may affect the individual’s cognitive interpretation of emotional experience, or even affect the awareness of emotions. Emotions can be explained away or pigeon holed into the system by accepting the word of others in higher positions within the accepted closed system or the information that doesn’t fit into the

closed system may be dismissed as irrelevant (Rokeach, 1960). Additionally, Mayer and Geher (1996) stated that the emotionally intelligent characteristic of recognizing and labeling emotions in others requires perspective taking. A closed system is one that is resistant to perspectives that differ from their current belief system. Thus, a lack of emotional intelligence may serve to further entrench dogmatic thinking.

### Emotional intelligence and anger

It was proposed that individuals with high emotional intelligence would be better able to identify patterns and sources of anger and thereby take constructive steps to resolve situations in constructive manners (Salovey & Mayer, 1990). Those high in emotional intelligence should be able to have warm interpersonal relationships (Salovey & Mayer, 1990). This has wide implications regarding the experience and expression of anger that was investigated in this study. If Salovey and Mayer's (1990) theory is accurate, then emotionally intelligent individuals would experience less chronic anger, they would be less likely to express anger in negative ways towards other people and themselves, and they would be better able to control their anger inwardly and outwardly compared to individuals who are not emotionally intelligent.

High emotionality and low emotional intelligence have been associated with poorer relationships with others. Eisenberg, Fabes, and Losoya (1997) found that overly aroused individuals were less likely to behave in socially competent ways, especially when negative emotions, such as anger, frustration, or depression, were involved. "Emotional intelligence involves flexibility and comfortable relationships. These are not typical of very intense emotions" (Ben-Ze'ev, 2000, p. 181). Following these lines of

thought, it was expected that having chronic anger would be associated with lower levels of emotional intelligence.

Saarni (1997) found that individuals who were able to keep anger under control were likely to invoke problem solving strategies, seek support, distance themselves from the source of agitation, accept blame for situations, or externalize blame. Those who seemed unable to control their anger were likely to try to distract themselves, redefine the anger as another feeling, try to ignore or avoid the feeling, or deny the feeling. This suggests that dealing with anger effectively requires an ability to step back from a situation and recognize it on its own merits. Having done this, an individual may be better able to effectively deal with the problem. This is a key component of emotional intelligence. This suggested that there might be a negative relationship between emotional intelligence and anger expression-in (suppression) and anger expression-out (aggression), as well as a positive relationship between anger control and emotional intelligence.

Since regulation in the “optimal” manner is important to emotional intelligence (Ben-Ze’ev, 2000), we anticipated a negative relationship between emotional intelligence and anger expression (suppression and aggression). Emotional regulation is a key component of emotional intelligence. Ackerman, Abe, and Izard (1998) described it as the “processes involved in initiating, motivating, and organizing adaptive behavior and in preventing stressful levels of negative emotions [such as anger] and maladaptive behavior” (p. 99). Goleman (1995) elaborated on the effects of emotional intelligence on anger, “particularly mindful of anger as it begins to stir, the ability to regulate it once it has begun and empathy...For frustrating encounters they [people prone to anger] learn

the ability to see things from another's perspective – empathy is a balm for anger" (p.172). This implied that negative relationships between emotional intelligence and the experience of anger (trait) as well as anger expression might exist. On the other hand, it indicated a possible positive relationship between emotional intelligence and anger control.

Ben-Ze'ev (2000) stated that recognizing negative emotions [such as anger or sadness] is often more difficult for people because denial and repression can prevent individuals from identifying their emotions. Additionally, the ability to regulate these emotions is indicative of emotional intelligence and implies better command of negative emotions such as anger. Stock-Ward (1995/1996) argued that lack of acknowledgment of one's own anger could lead to both low trait anger and anger expression scores. Lewis (2000) states that it is possible for individuals to be in an angered state without being aware of this fact. Which would be typical of an individual with low emotional intelligence. Emotional states require some evaluating and interpreting from the individual whether or not they are aware of it. It is these processes that increasing emotional intelligence would likely benefit (Lewis, 2000). The accuracy of the STAXI-2 will be highly related to an individual's ability to identify whether or not the emotional state they experience is anger. Given this it is possible that individuals scoring high in emotional intelligence may have scored higher (because of increased awareness) than individuals of low emotional intelligence on anger scales.

Finally, a few studies have found that women and men differed in regards to emotional intelligence. Findings from these studies indicated that differences in emotional intelligence scores between men and women, with women scoring higher, are

to be expected (Schutte, et al., 1998; Goleman, 1995; Mayer & Geher, 1996). More research is needed to understand the relationship between sex and emotional intelligence.

### Dogmatism and anger

“Emotional episodes that we call anger often involve appraisals that events are unwanted or perceived as blocking one's goals or action; however, they can also involve appraisals that events are illegitimate or otherwise contrary to the way they 'ought' to be” (Mascolo & Griffin, 1998, p. 220). Based on these ideas, it was expected that people with high levels of dogmatism would be more prone to chronic anger across situations. This is because highly dogmatic individuals are less likely to adapt their belief systems and are more likely to reject information that is contrary to their belief systems. Individuals lower in dogmatism would be more likely to adapt and integrate new information into their belief systems (Rokeach, 1960). Thus it was expected that highly dogmatic individuals would be more likely to encounter events perceived as “contrary to the way they 'ought' to be” and therefore react with anger.

Spielberger (1999) states that the intensity of state anger varies as a function of events. Mascolo and Griffin (1998) present two theories on the development and appraisal of anger. One theory is that anger episodes result from obstacles or blocked goals and that moral “oughts” are of secondary concern. Moral oughts then deal with the ways that experienced emotion should be expressed. The second theory asserts that anger appraisals are always connected to shoulds or oughts. Dogmatic individuals are highly rigid in their belief systems. Therefore, they were expected to be more prone to chronic anger given the many “shoulds” and “oughts” that result from the closed system through which they interface with the world.

“As standards of value, worth and moral standing become fundamental aspects of one’s developing identity, anger episodes that result from violations of such standards support the assertion of one’s moral position in the face of challenges from others” (Mascolo & Griffin, 1998, p. 244). This strongly supports the assertion that anger can result from challenges to beliefs of morality. It is the dogmatic individual that will cling tightly to their established belief systems. Rhoades (1982/1988) agrees when he asserts that an individual’s expectations of how things should or should not be (which is related to a closed system) may lead to frustration, which may further lead to anger. Averill (1982) states that frustration often leads to anger. Heyman (1977) reported a positive relationship between hostility and dogmatism. These reports all supported a possible relationship between dogmatism and anger (experience and expression).

Only a handful of studies have explored dogmatism in relation to emotions such as defensiveness (verbal rejections), aggression, and hostility (Davis, Frye, & Joure, 1975; Vacchiano, Strauss, & Schiffman, 1968; Rokeach, 1960; Heyman, 1977). In a study where participants were required to adjust to a new belief system, more dogmatic (or closed individuals) were more likely to make verbal rejections of the problem. Rejections of the problems are likely a defense against a threat to one’s current “closed” belief system (Rokeach, 1960). These observations indicated a possible positive relationship between anger expression out and dogmatism because dogmatic individuals reacted negatively when presented with a system different from their own.

Isen (2000) reports that positive affect is positively related to “flexible thinking and the ability to put ideas together in new ways” (p. 420). The ability to put ideas together in new ways is indicative of a low level of dogmatism whereas positive affect is



uncharacteristic of an individual experiencing anger. This suggested a positive relationship between anger and dogmatism.

### Purpose of the Study

The purpose of the study was to explore the relationships of emotional intelligence, dogmatism, and sex with the experience and expression of anger in college students. The relationship between dogmatism and emotional intelligence was also explored.

### Significance of the Study

It is believed that emotional intelligence can be changed (Goleman, 1995; Salovey & Sluyter, 1997). By knowing the relationships among dogmatism, emotional intelligence, sex, and the experience and expression of anger, mental health professionals will be better able to assist clients in understanding the sources of their emotions, the meaning of their emotions, and ways in which they express their emotions. Knowing the significance and direction of the relationships among these variables may provide some direction to therapists in guiding interventions to improve emotional awareness and more openness in belief systems.

It was expected that an individual's level of dogmatism would be related to the frequency and intensity of anger. If established, mental health professionals can better understand the role anger plays in belief systems. They can then look more closely at anger and its function of energizing motivation for social causes and a reaction or protection of current systems.

This study will also help mental health professionals better understand the manner in which dogmatic individuals experience and express anger. It is also expected that this

study will enable mental health professionals to assist clients in developing a better understanding of the role their belief systems play in their emotional interactions with the world. A greater understanding of the relationship between dogmatism and emotional intelligence will assist therapists in helping clients identify the emotions connected to their opened or closed belief systems.

Knowing the connections between emotional intelligence and the experience and expression of anger, will benefit mental health professionals by alerting them to the fact that improving a client's emotional intelligence can assist them in helping clients to express and control anger in more constructive ways.

Thomas and Williams (1991) reviewed a large number of studies and detailed the wide range of evidence supporting the relationship between anger and various health problems. Donovan, Marlatt, and Salzberg (1983) reported that components of anger and hostility play a substantial role in dangerous driving. In related work, it has been reported that the car has often been used as a means to express anger, aggression and frustration (Marsh & Collett, 1987). In summarizing research, Lowenstein (1997) asserts that causes of aggressive driving include "feeling safe within the car environment to express personal anger and aggression." and "the tendency to express anger outward rather than inward" (p. 268). Sometimes, in the case of anger, an individual may not even know they are angry (Tomkins, 1991). Hopefully the present study will provide background that helps encourage people to gain insight into their emotions and increase their emotional intelligence. Then by doing so, individuals will better be able to express their feelings in ways that are safer for them and the people around them.

Additionally, there is evidence to support the theory that current societal taboos and mores negatively impact the way that men and women experience and express anger. A number of factors make recognizing and expressing anger very difficult for women. Some of these include socialization and cultural factors that re-enforce the taboos surrounding women experiencing and expressing anger. Additionally, men are often expected to refrain from emotional expressions except in the case of anger (Stock-Ward, 1995/1996; Lerner, 1985). Thus it is possible that men and women in our society are being encouraged not to be emotionally intelligent. Having more research to support or refute sex differences in anger and emotional intelligence will help guide mental health professionals in their interventions with male and female clients.

#### Limitations of the Study

Using self-report measures in the study was a limitation. It allowed for the possibility of subjects intentionally or unintentionally giving incorrect responses for the sake of maintaining social desirability. The possibility exists for faking good or bad (Schutte, et al., 1998).

“Socialization pressures may adversely affect the reliability of self-reports by children, adolescents, and adults” (Barrett, 1998, p.115). Social and cultural norms impact the display of emotions and the cognitive evaluation related to and assisting in the experience of emotions (Johnson-Laird & Oatley, 2000). This may have been a limitation in the sense that an individual whose social or cultural system has strong taboos related to anger in general or the expression of emotions may have been less likely to admit to experiencing or expressing emotions on a self-report measure. This speaks to the issues of anger and emotional intelligence. Brody and Hall (2000) warn that self-assessments

measuring emotions may be confusing to some people due to the possible uncertainty as to whether the instrument is measuring emotional experience or expression. Mayer and Salovey (1997) state that while self-assessment has research value, it is not as dependable as other means of measurement. However, they go on to state that such measurement may give important insight into an individual's perceived emotional skill.

Finally, if the prediction that individuals high in levels of anger have lower emotional intelligence, self-report measures may not account for this. It is possible that an individual with a great deal of anger but low in emotional intelligence may not have accurately completed the STAXI-2 because of an inability to accurately identify their emotions. Additionally, those with lower emotional intelligence may have utilized more defense mechanisms and thereby score lower on the self-report STAXI-2.

#### Assumptions

1. It was assumed that participants completed the measures honestly without conscious bias towards socially acceptable responses.
2. It was assumed that the instruments used to collect data, accurately measured emotional intelligence, dogmatism, and the experience and expression of anger.
3. It was assumed that the participants completing the measure were a sample representative of the general college student population.
4. It was assumed that people with lower levels of emotional intelligence might have under-reported their experience and expression of anger compared to people with higher levels of emotional intelligence.

### Research Questions

1. What is the relationship of emotional intelligence, dogmatism, and sex with the experience of anger and anger expression?
  - a.) What is the relationship of emotional intelligence, dogmatism, and sex with trait anger?
  - b.) What is the relationship of emotional intelligence, dogmatism, and sex with anger expression-out?
  - c.) What is the relationship of emotional intelligence, dogmatism, and sex with anger expression-in?
  - d.) What is the relationship of emotional intelligence, dogmatism, and sex with anger control-out?
  - e.) What is the relationship of emotional intelligence, dogmatism, and sex with anger control-in?
2. Is there a relationship between dogmatism and emotional intelligence?

### Research Hypotheses

1. It was predicted that emotional intelligence, dogmatism, and sex would be significant predictors of the dependent variables.
  - a. It was predicted that emotional intelligence and dogmatism would be significant predictors of trait anger.
  - b. It was predicted that emotional intelligence, dogmatism, and sex would be significant predictors of anger expression-out.
  - c. It was predicted that emotional intelligence, dogmatism, and sex would be significant predictors of anger expression-in.

- d. It was predicted that emotional intelligence and dogmatism would be significant predictors of anger control-out
  - e. It was predicted that emotional intelligence and dogmatism would be significant predictors of anger control-in.
2. It was predicted that people's level of emotional intelligence would correlate negatively with their level of dogmatism.

### Definition of Terms

Dogmatism: “(a) a relatively closed cognitive organization of beliefs and disbeliefs about reality, (b) organized around a central set of beliefs about absolute authority which, in turn, (c) provides a framework for patterns of intolerance and qualified tolerance toward others” (Rokeach, 1954, p. 195). For the purposes of this study, dogmatism was measured by the Rokeach Dogmatism scale, form E contained within the Opinion Scale (Kleiber, Veldman, & Menaker, 1973).

Emotional Intelligence: is a measure of the abilities an individual has to recognize, regulate, and utilize emotions and feelings in themselves as well as recognize and appropriately respond to the emotions of others (Mayer & Salovey, 1997). For the purposes of this study, emotional intelligence was measured by the Emotional Intelligence Scale (Schutte, et al., 1998).

Anger: “an emotional state that consists of feelings that vary in intensity, from mild irritation or annoyance to fury and rage” (Spielberger, et al., 1983, p. 162). Anger is a multidimensional construct. Consisting of the following as defined by Spielberger (1999):

Trait Anger: Measures how often angry feelings are experienced over time as well as an individual's overall disposition towards anger.

State Anger: The intensity of angry feelings at a particular time and the extent to which a person feels like expressing anger at a particular time.

Anger Expression-In: This is when angry feelings are experienced but not expressed outwardly (suppressed).

Anger Expression-Out: This is when angry feelings are expressed in a verbal or physical manner.

Anger Control-In: This is when a person attempts to control angry feelings by calming down or cooling off.

Anger Control-Out: This is when a person controls the outward expression of angry feelings.

For the purposes of this study, anger was measured by the State-Trait Anger Expression Inventory-2 (Spielberger, 1999).

## CHAPTER TWO

### REVIEW OF THE LITERATURE

#### Introduction

This review of the literature details the research that has been conducted on the constructs of emotional intelligence, dogmatism, and anger (experience and expression). In doing so it shows a need to further research these areas and the ways in which they are related. First, emotional intelligence is presented. Theoretical foundations are reviewed and recent research in the area is presented. Societal and cultural factors related to emotional intelligence are given attention. Second, the concept of dogmatism is defined and discussed. Closed and open systems of thought and the properties inherent to them are described. Finally, anger is explored. Modes of experiencing and expressing anger, causes, and effects of anger are presented. Areas where sex differences have been found in the literature are noted and the implications for sex differences in this study are explored.

#### Emotional Intelligence

Emotional intelligence first gained recognition from Salovey and Mayer (1990). They proposed that emotional intelligence involves “the ability to monitor one’s own and others’ feelings and emotions, to discriminate among them, and to use this information to guide one’s thinking and actions” (p. 189). Whereas personality traits reflect a person’s preference to behave in certain ways, Mayer and Salovey (1993) argued that emotional intelligence refers to an ability to behave. Mayer and Salovey (1997) later emphasized that the ability to utilize and regulate emotions to assist thought and motivate behavior are important to emotional intelligence. Individuals should be able to use these abilities



to meet specific goals, which may or may not be socially constructive in nature. It is conceivable that emotionally intelligent individuals could use their skills for bad as well as good purposes. However, Saarni (1997) argued that emotional intelligence is not being exercised when emotional skills are used to manipulate others. Goleman (1998) described emotional intelligence as consisting of five elements: “self-awareness, motivation, self-regulation, empathy, and adeptness in relationships” (p. 24). He went on to state that emotional intelligence allows us to learn practical skills in these areas.

There are a variety of opinions about what characteristics emotional intelligence encompasses. Salovey and Mayer (1990) described emotional intelligence as a subset of social intelligence. They stated that it has similar properties to the Personal Intelligences proposed by Howard Gardner in his 1983 book *Frames of Mind: The Theory of Multiple Intelligences*. Gardner (1983) divided his “personal intelligences” into two separate intelligences, Intrapersonal and Interpersonal Intelligence. Intrapersonal intelligence relates to being aware of feelings, being able to label them and understand them and the role they play. Interpersonal intelligence relates to being able to notice, label and understand feelings, emotions, and moods in other people. These two personal intelligences intermingle with each other impacting how each develops and adding perspective (Gardner, 1983). Salovey and Mayer (1990) have refined the personal intelligences and gone further to say that while the skills described by Gardner are indeed separate, they are too closely related to be considered separate intelligences.

People who have developed emotionally intelligent skills have been characterized as having the capacity to process emotional information accurately and efficiently and to regulate and use moods and emotions in constructive ways. Mayer and Salovey (1997)

stated that the ability to reason with our emotions is another vital component of emotional intelligence. Affect and cognition are independent, but they still interact (Tomkins, 1991). So rather than emotions and cognitions being unrelated, separate entities, the emotionally intelligent individual is able to be reasonable and be emotional at the same time.

Ben-Ze'ev (2000) described two domains that are of primary importance to the concept of emotional intelligence. First is the ability to recognize emotions in others and ourselves. Second is the ability to regulate emotions in ourselves and respond appropriately to the emotions of others. Salovey, Hsee, and Mayer (1993), described emotional intelligence as consisting of three primary domains. These include the two mentioned above with the addition of the ability to utilize emotions to plan and motivate. Recognizing our emotions enables us to better regulate them in appropriate and goal directed ways. It also helps us to better communicate what we are feeling to other people. Recognizing emotions in others enables us to better understand them and their situations. It also through more constructive and informed communication allows us to at least affect, if not regulate, the emotions of others.

Recognizing our own emotions is usually easier than recognizing emotions in others. However, a distinction should be made between positive and negative emotions due to the denial and repression of negative emotions such as anger, fear, and sadness, some of which are due to socially imposed taboos that prevent us from accurately assessing our own emotions (Ben-Ze'ev, 2000; Lerner, 1985). "Similarly, the capacity to regulate the emotions of others seems to be more indicative of emotional intelligence since such regulation requires a more complex understanding of circumstances" (Ben-

Ze'ev, 2000, p. 179). Emotional awareness enables us to identify feelings and their source and recognize the relation between feelings over thoughts and actions. People who cannot identify their own emotions cannot accurately sense the feelings of others (Goleman, 1998).

The importance of recognizing our own emotions cannot be overlooked. At its best, the ability to recognize our emotions allows for clarity and awareness of excitable or inclement feelings. This awareness allows us to properly care for others and ourselves. Even if this is not the case, recognizing our emotions at least allows for a stepping-back from a situation and avoiding being consumed by events (Goleman, 1998). In such situations, the capabilities to motivate the self and be persistent become vitally important. Controlling impulses and regulating moods enable the emotionally intelligent person to continue on despite difficult circumstances.

Bates (2000) described emotional regulation as our interface with the world. Emotional intelligence allows for flexibility and a higher level of comfort in interpersonal relationships (Ben-Ze'ev, 2000; Saarni, 1997; Mayer & Salovey, 1993). Goleman (1998) described emotional intelligence as "the capacity for recognizing our own feelings and those of others, for motivating ourselves, and for managing emotions well in ourselves and in our relationships" (p.317). Emotional regulation has been described as "the processes involved in initiating, motivating, and organizing adaptive behavior and in preventing stressful levels of negative emotions and maladaptive behavior" (Ackerman, Abe, & Izard, 1998, p.99). The ability to keep negative emotions such as anger, fear, and sadness in check is key to emotional health (Goleman, 1995).

An important characteristic of emotional intelligence is the ability to empathize (Goleman, 1995). Empathy was defined by Salovey and Mayer (1990) and linked to emotional intelligence as “the ability to comprehend another’s feelings and to re-experience them one’s self” (p. 194). Goleman (1995) also stated that important aspects of emotional intelligence include awareness of feelings in self and others, ability to express feelings appropriately, awareness of varying degrees of feelings, ability to regulate feelings in self and others, being aware of how our expressions of feelings affect others’ feelings, empathy, and sensitivity.

When emphasizing the importance of emotional intelligence Goleman (1995) noted that although intellectual intelligence is important, it offers little support for the various emotional hardships that individuals often must endure. Indeed, life can present trying and difficult circumstances without regard to the intellectual intelligence of the individual (Goleman, 1998). When difficult circumstances occur, individuals must have emotional resources as well as intellectual skills to cope. For as each individual’s personal experiences can attest, for better or worse, “gut” feelings can often have a great impact on the decisions we make. Often intellectual intelligence is of little use when an individual’s emotional intensity commands their attention. While emotional intelligence and traditional IQ are separate constructs, it is unlikely to find an individual very high in one and low in the other (Goleman, 1995). In emphasizing the importance of emotional intelligence, he stated that it is one of the most important contributing factors to success in business. The ability to work with people and be sensitive to their feelings while still being aware of one’s own feelings is of supreme importance in business, especially in higher levels of organizations (Goleman, 1998).

Often in American society, ideas about what emotions are appropriate to experience and the appropriate means of expressing them are based on western society's views of emotional expression (Saarni, 1997). However, the ways emotions are interpreted and expressed is highly related to the cultural background of an individual (Lewis, 2000; Johnson-Laird & Oatley, 2000; Saarni, 2000; Wegner & Erber, 1993). It is important to maintain awareness and respect for the ways that various cultures experience and express emotions. What is seen as adaptive in one culture may not be seen as such in another. In addition, parents play a particularly influential role in the development of emotional norms within their children (Hess & Kirouac, 2000; Brenner & Salovey, 1997; Eisenberg, et al., 1997; Denham & Groot, 1992; Tomkins, 1991). The combination of occupation, gender, family of origin, racial/ethnic group, and communities of origin all affect which emotions an individual is likely to experience and how they will express them (Kemper, 2000). All these factors affect the who's, what's, when's, where's, and how's of emotional experience and expression. Therefore in order to be truly emotionally intelligent, an individual must also become culturally intelligent.

A major motivating factor for studying emotional intelligence comes from the belief that it can be changed (Mayer & Salovey, 1997). "It can be learned to a greater degree than intellectual intelligence. Unlike intellectual intelligence, which hardly changes after our teenage years, emotional intelligence continues to develop" (Goleman, 1998, p. 7). It is this capability of improvement that serves as a motivating factor to find connections between emotional intelligence, dogmatism, and the experience and expression of anger.

Schutte et al. (1998) conducted six studies while developing the Emotional Intelligence Scale. In the first study, 346 participants completed the Toronto Alexithymia Scale, 36 participants completed the The Affective Communications Test, 27 participants completed The Life Orientation Test, 49 participants completed The Trait Meta Mood Scale, 38 participants completed the The Zung Self-Rating Scale, and 56 participants completed the Barratt Impulsivity Scale. Results indicated that individuals scoring higher in emotional intelligence scored lower in alexithymia, higher in attention to feelings, higher in clarity of feelings, higher in mood repair, higher in optimism, lower in pessimism, lower in depression, and lower in impulsivity. The following between group differences were also found. Psychotherapists scored higher in emotional intelligence than a group of female prisoners. The psychotherapists also scored higher on emotional intelligence than participants enrolled in a substance abuse program. In general, women scored higher on emotional intelligence than men.

The second study was conducted with twenty-seven women and five men to assess the internal consistency of the Emotional Intelligence Scale. The Cronbach's alpha of the Emotional Intelligence Scale was 0.87 (Schutte, et al., 1998).

A third study involved twenty-two females and six males and was done in order to assess the test-retest reliability of the Emotional Intelligence Scale. The two-week test-retest reliability was 0.78 (Schutte, et al., 1998).

A fourth study was conducted with thirty-three female and thirty-one male college students to assess the predictive validity of the Emotional Intelligence Scale. Emotional intelligence was found to be a predictor of success in the first year of college (Schutte, et al., 1998).

A fifth study involved 42 first-year college students and was done in order to determine the discriminant validity of The Emotional Intelligence Scale. The students' scores on The Emotional Intelligence Scale were compared with the students' SAT (or SAT equivalent) scores. The results indicated that there was no relationship between emotional intelligence and traditional intelligence (Schutte, et al., 1998).

A sixth study was conducted with twenty-three college students to determine the discriminant validity of the Emotional Intelligence Scale as related to personality traits. Participants completed The Emotional Intelligence Scale and the revised NEO Personality Inventory. Results indicated that The Emotional Intelligence Scale correlated significantly with openness to experience but not to neuroticism, extraversion, agreeableness, and conscientiousness (Schutte, et al., 1998).

Despite the research to support the reliability and validity of the Emotional Intelligence Scale, the scale is not without its critics. Petrides and Furnham (2000) critiqued the Emotional Intelligence Scale developed by Schutte et al. (1998) and argued that the instrument development procedures were flawed and not in line with the original framework for emotional intelligence set forth by Salovey and Mayer (1990). Petrides and Furnham (2000) conducted a study where 260 university students completed the Emotional Intelligence Scale to determine whether the scale was unifactorial. Results indicated that the scale has several problems including multidimensionality and questionable factor analysis procedures. However, Petrides and Furnham also stated that the scale "has face validity as well as some evidence of construct, predictive and discriminant validities" (p. 318).

Mayer and Geher (1996) explored the ability of individuals to assess another's feelings. Three hundred twenty one individuals participated in the study. Eight people (called targets) wrote about the events that were affecting their current mood and completed a mood scale. Participants then attempted to correctly identify the moods and emotions of the targets after reading the targets' description of the events affecting them in their life. Participants completed the Emotional Accuracy Research Scale, the Present Reaction Scale, Epstein-Mehrabian empathy, Davis empathy, Kohn's Authoritarian-Rebellion scale, the Marlowe-Crowne social desirability scale, and a sub sample reported their SAT scores. Assessments were made based on the participant's agreement with the target's appraisal of his/her mood, on the participant's agreement with the group consensus (percentage of other participants agreeing with an individual participant's assessment) of the target's mood, as well as on the participant's agreement with the most socially desirable and pleasant choices concerning the mood of the target. Results indicated that individuals with the ability to correctly identify the feelings of others have high empathy and low defensiveness. Academic ability was also positively correlated with the ability to correctly identify the feelings of others. However, there was not a significant relationship between SAT scores and empathy. Sex differences were evident in this study; more specifically, women were found to be better at perceiving the emotions of others than men.

Sex differences in emotional intelligence were noteworthy in a study by Ciarrochi, Chan, and Caputi (2000). These researchers explored emotional intelligence in relation to traditional IQ, mood management, mood prevention, and personality. One hundred and thirty-four students completed the Multifactor Emotional Intelligence Scale,



with varying numbers of this group taking emotions-based assessments, including Raven's Standard Progressive Matrices, an Empathy scale, shortened forms of the Extroversion, Neuroticism, the openness to feelings and openness to aesthetics tests all of the NEO-PI-R, as well as ratings of life satisfaction, relationship quality, self-esteem, and parental warmth. Results indicated that emotional intelligence is significantly related to empathy, extraversion, openness to feelings, self-esteem, life satisfaction, and relationship quality. The sex differences found in this study imply that women are more emotionally intelligent than men. However, emotional intelligence was not significantly related to intelligence.

Another group of researchers also found that emotional intelligence and intelligence were not significantly related. Newsome, Day, and Catano (2000) studied the relations of emotional intelligence, cognitive ability, and personality factors with academic success. One hundred eighty students completed the Wonderlic Personnel Test, the 16PF, and the EQ-i. They found that emotional intelligence is not a valid predictor of academic achievement. However, it was a significant predictor of extraversion, anxiety, independence, and self-control. Individuals with higher levels of emotional intelligence were more likely to be extraverted, independent, and possess self-control. Individuals with lower levels of emotional intelligence were more likely to be anxious.

In a study that adds to the content validity of emotional intelligence, Parker, Taylor and Bagby (2001) explored the relationship between emotional intelligence and alexithymia. Seven hundred thirty four adults completed the 20-item Toronto Alexithymia Scale and the BarOn Emotional Quotient Inventory. They found that men

scored higher than women in alexithymia, women scored higher than men in emotional intelligence, and that emotional intelligence and alexithymia were inversely correlated. In addition each subscale of the BarOn (intrapersonal, interpersonal, adaptability, stress management) was significantly negatively correlated with each subscale of the Toronto Alexithymia Scale (identify feelings, describe feelings, and externally oriented thinking). Results also indicated that while strongly related, alexithymia and emotional intelligence are independent constructs.

Miville et al. (2000) explored the relation of empathy, Universal-Diverse Orientation and emotional intelligence. In doing so they found evidence of several correlates of emotional intelligence. Two hundred eleven master's and doctoral level counselor trainees completed the Miville-Guzman Universality-Diversity Scale, Interpersonal Reactivity Index, and the Emotional Intelligence Scale. Results implied positive relationships between empathic concern and emotional intelligence; fantasy and emotional intelligence; perspective taking and emotional intelligence; comfort with differences and emotional intelligence; and relativistic appreciation and emotional intelligence. Miville et al. found a negative relationship between personal distress and emotional intelligence, indicating that emotionally intelligent people may be better able to manage and prevent distress.

A couple studies have been done relating children's emotional development to qualities closely related to emotional intelligence. Denham and Grout (1992) explored mothers' emotional expressiveness and their children's social-emotional competence. Fifty-seven preschool age children and their mothers took part in this study. Mothers recorded their emotions in diaries and mother and child attended a 2-hour play session at

a laboratory. Mothers were also questioned about their emotional displays in a semi-structured interview. Children's reactions to the mother's expressions were noted. The children were assessed in their ability to identify facial expressions, knowledge of others' feelings in presented situations, and observations during play time. Each child's teacher completed the Baumrind Preschool Behavior Q-Sort and the Preschool Behavior Questionnaire. Results indicated that a mother's expression of frequent tension or intense sadness was positively related to the child's emotional knowledge. Additionally, mothers who explained their expression of sadness or anger and allowed the child to respond had children who were more emotionally expressive. They found that emotional experiences and expressions in the family of origin impact the ability of children to experience and express emotions. This provides support for the likelihood that cultural and societal influences, particularly family of origin, impact how people learn to experience and express emotions.

In a related study, Izard, Levinson, Ackerman, Kogos, and Blumberg (1999) explored children's emotional memories in terms of Differential Emotions Theory. The study of 187 seven-year-old economically disadvantaged children assessed them using the Differential Emotions Scale, Form V and Coding Emotional Memories by judges. They argued that children's ability to remember the causes of a wide range of emotions is a component of emotional intelligence. These memories can help us to appraise current and future emotional situations.

Evidence for the importance of developing emotional intelligence for career advancement has also been found. Fox and Spector (2000) explored the relations of emotional intelligence, practical intelligence, general intelligence, and trait affectivity to

job interview outcomes. One hundred sixteen undergraduate college students completed the Wonderlic Personnel Test, the Work Problems Survey, the Trait Meta-Mood Scale, the Interpersonal Reactivity Index, and the Positive Affect-Negative Affect Schedule. Emotional intelligence was assessed by using scores attained on the Interpersonal Reactivity Index, the Trait Meta-Mood Scale, and non-verbal behavior as assessed by a research assistant. Interview outcome was assessed by the interviewer. Results indicated that elements of emotional intelligence (perspective taking and low personal distress) are important to success in job interviews.

### Dogmatism

Rokeach (1954) defined dogmatism in three parts “(a) a relatively closed cognitive organization of beliefs and disbeliefs about reality, (b) organized around a central set of beliefs about absolute authority which, in turn, (c) provides a framework for patterns of intolerance and qualified tolerance toward others” (p. 195). Dogmatism is similar to general authoritarianism and is independent from left-right politically ideological dimensions. This means that an individual from the political left can be equally dogmatic as an individual from the political right (Rokeach & Fruchter, 1956). When discussing dogmatism, “what” an individual believes is not as important as the “manner” in which those beliefs are held. For highly dogmatic individuals, the manner in which their beliefs are held allows for or may foster intolerance for individuals with differing beliefs. This intolerance is a result of the perception that differing beliefs may challenge or pose a threat to the highly dogmatic individual’s beliefs. In this respect, dogmatism refers to the extent to which an individual’s belief system is open or closed (Rokeach, 1960).

The degree to which a belief system is open or closed depends on the ability of the person to “receive, evaluate, and act on relevant information received from the outside on its own intrinsic merits, unencumbered by irrelevant factors in the situation arising from within the person or from the outside” (Rokeach, 1960, p. 57). The ability to receive information and evaluate it on its own merits without the influence of an already established belief system is symbolic of low dogmatism. Higher levels of dogmatism reflect a tendency to accept new information only if it is congruent with already established beliefs (Rokeach, 1960).

While dogmatism and rigidity both imply a resistance to change, there is an important difference. Dogmatism refers to the organization of ideas into a system whereas rigidity refers to more specific ideas or tasks (Rokeach, 1954). Rigidity refers more to a belief or a stance on limited number of issues or topics. Dogmatism however refers to an individual’s overall personality pattern of processing information and the degree to which they are open to the possibility of change within their belief system (Rokeach, 1960; Vacchiano et al., 1968).

An individual with a low level of dogmatism is more likely to feel comfortable with new ideas and ways of thinking that are different from their current ways. A highly dogmatic individual is less likely to accept or consider ways of thinking that are different from their own (Rokeach, 1960). When speaking of individuals determined to be “closed-minded” or highly dogmatic, it is important not to state or imply that closed individuals do not change, but rather they change in different ways than the “open-minded” individuals. The changes they make in their lives are more likely to be

consistent with or justifiable by their current views or personality pattern (Rokeach, 1960).

There has been less research on dogmatism in recent years. A large amount of research has been done however. While studying the differences between rigidity and dogmatism, Rokeach, McGovney, and Denny (1955) studied the responses of 109 college students who had taken the Dogmatism Scale and the Gough-Sanford Rigidity Scale. Of those 109 participants, 60 were selected to continue in the study. In the study, individuals had to solve a complex logic problem that forced them to work with a new belief system (the Denny Doodlebug Problem), more dogmatic (or closed) individuals were more likely to make verbal rejections of the problem. Rokeach et al. (1955) argued that rejection of problem was likely a defense against a threat to one's current "closed" belief system. Results also indicated that rigidity and dogmatism are different constructs.

While furthering his exploration of dogmatism, Rokeach and Fruchter (1956) studied the construct of dogmatism as related to other similar constructs such as authoritarianism, ethnocentrism, and rigidity. Two hundred seven college students completed an Anxiety Scale, Paranoia Subscale, Self-Rejection Subscale, Dogmatism Subscale, Authoritarianism (F scale), Rigidity Scale, Ethnocentrism (E scale), Political-Economic Conservatism (PEC Scale), Left Opinionation Scale, and the Right Opinionation Scale. They found that while dogmatism and authoritarianism are similar, the dogmatism scale is relatively independent from a Left-Right political affiliation. Evidence suggested that dogmatism should also be distinguished from rigidity and ethnocentrism. In addition, there was evidence to support a relationship between dogmatism and anxiety.

Factors such as hostility, aggression, ego strength, guilt, and paranoia have all been related to dogmatism. Plant et al. (1965) explored personality differences between groups high and low in dogmatism. The results of tests from 4,506 students intending to enroll as freshmen in college were collected. The participants completed the Rokeach Dogmatism Scale (Form E), the Modified California Psychological Inventory, and the Allport, Vernon, and Lindzey Study of Values. Scholastic aptitude was assessed by the School and College Ability Test (Form A). Those scoring in the top and bottom 10 percent on the Dogmatism Scale were analyzed. Results indicated that highly dogmatic individuals are less sociable, have less self-control, achieve less independently, are less intellectually efficient, are less responsible, and have lower school and college ability than individuals scoring low in dogmatism. These results were consistent when participants were matched on scholastic ability.

Vacchiano et al. (1968) further refined the understanding of dogmatism when they explored the relationship between dogmatism and a collection of personality measures. Eighty-two college students completed the Dogmatism Scale (Form E), the Edwards Personal Preference Schedule, the Sixteen Personality Factor Questionnaire (Form A), the Tennessee Self-Concept Scale, and the Mach V Scale. Results indicated that dogmatism was positively related to dependency on others, conformity, restraint, conservatism, and poor self-concept. Furthermore, dogmatism was negatively related to needs for change. Results indicate that a dogmatic individual would likely exhibit lack of understanding the motives of oneself and others. No significant relationship was found between dogmatism and Machiavellianism.

More relationships to dogmatism were found when Heyman (1977) explored the relationships among dogmatism, hostility, aggression, and gender roles. One hundred and eighty-three undergraduate and graduate students completed the Dogmatism Scale, Buss-Durkee Hostility Inventory, Megargee Overcontrolled Hostility Inventory, Gough-Sanford Rigidity Scale, and the Marlowe-Crowne Social Desirability Scale. Sex differences in dogmatism were supported in that males scored higher than females in dogmatism. Dogmatism was significantly correlated with hostility (for both males and females), guilt (for both males and females), and aggression (for males only). Additionally, more dogmatic males were significantly less likely to over control hostility (Heyman, 1977). While men and women's experience of hostility was related to dogmatism, men and women differ in the way that hostility is dealt with. Men are less likely to inhibit the expression of hostility in the form of aggression than women.

In a study relating dogmatism to group interactions, Davis et al. (1975) explored differences between individuals scoring high in dogmatism and individuals scoring low. Nine hundred sixty-seven students enrolled in freshman courses completed the Rokeach Dogmatism Scale, Form E. Participants scoring more than one standard deviation above or below the mean then were invited to participate in the second phase of the study. In this phase, students were assigned to T-groups and were evaluated by observers and fellow group participants. Results indicated that individuals high in dogmatism were more likely to make rejecting and negative statements of the group. Additionally, low dogmatic individuals were more open about themselves and more present oriented.

Ward et al. (1978) further explored the relationship of dogmatism to personality profiles. Four hundred and thirty-five junior education majors completed the 16



Personality Factor Questionnaire (16PF) and the Opinion Scale (which includes the Dogmatism Scale, Form E). They found that dogmatism was positively correlated with several personality factors including shrewdness, guilt proneness, paranoia, and superego strength. Dogmatism was negatively correlated with ego strength, adventurousness, and sensitivity.

Rhoades (1982/1988) explored the effects of stress inoculation on 21 forensic inpatients. Participants completed the Dogmatism Scale, Novaco Anger Scale, Daily Behavioral Report, and a Daily Diary. Rhoades found no difference between high and low dogmatic subjects when looking at their change in anger after treatment. Additionally, there was no difference in the subjects' daily diary between high and low dogmatic subjects in responsiveness to the treatment in the combined treatment and treatment control groups. Differences between high and low dogmatic groups were found on the daily behavioral report of the subjects. Results did indicate that low dogmatic individuals improved significantly more by becoming more "friendly and easy going" than the highly dogmatic individuals during the treatment. Rhoades also noted that results should be tempered by low interater reliability.

In a more recent study, while introducing the construct of Universal-Diverse Orientation, Miville et al. (1999) studied the relationship of their construct to racial identity, empathy, healthy narcissism, feminism, androgyny, homophobia, and dogmatism. Ninety-three white college students completed the Miville-Guzman Universality-Diversity Scale (a measure of an individual's "awareness and acceptance of the similarities and differences among people"), the White Racial Identity Attitude Scale, the Homophobia Scale, and a 20-item short form of the Dogmatism Scale. Results

indicated that an individual's level of dogmatism is inversely related to their ability to assess and accept similarities and differences in other people. This result lends support for Rokeach's (1960) assessment of the connection between dogmatism and intolerance.

Several studies have researched the role of dogmatism in the training of counselors. In a summary of research on dogmatism and counselor trainees, Russo et al. (1964) reported that open-mindedness is an important quality for counselors to possess.

Kemp (1962) explored the effects of dogmatism on the training of counselors. Fifty graduate counseling students completed the Dogmatism Scale (Form E) and Porter's Test of Counselor Attitudes at the start and finish of the college quarter. Participants of the experimental group then participated in counseling interviews and were evaluated by judges. Results indicated that dogmatic trainees changed in a manner that conformed to the expectations of the instructor. This finding supports Rokeach's (1960) proposal that dogmatism and authoritarianism are closely related. Kemp (1962) also found that counselor trainees scoring higher in dogmatism made fewer understanding and supportive responses towards clients than trainees lower in dogmatism.

Omizo, Ward, and Michael (1979) explored the relationship of, among other things, dogmatism and success in a counselor education master's program. One hundred seven students in the counselor education master's program completed the California Psychological Inventory and the Opinion Scale. Data was then collected on the students' progress in the program. Less dogmatic counselors were more successful in the counseling program in the sense that they received higher course grades and performed better on comprehensive examinations.

Mezzano (1969) further explored the relationship between dogmatism and counselor trainee effectiveness. Thirty graduate students enrolled in a practicum course completed the Rokeach Dogmatism Scale (Form E) at the beginning of each semester. Supervisors evaluated them at the end of each semester. Results indicated that highly dogmatic counselor trainees were less congruent, less accepting, and less understanding of clients than dogmatic counselor trainees with lower levels of dogmatism.

Carlozzi et al. (1995) explored empathy as it relates to creativity, dogmatism, and expressiveness. Fifty-six graduate counseling and educational psychology students completed the Affective Sensitivity Scale (Form E-A-2), Statement of Past Creative Activities, the Opinion Scale (containing Rokeach's Dogmatism Scale, Form E), and the Extended Personal Attributes Questionnaire. They found empathy to be inversely related to dogmatism.

Several researchers have studied dogmatism and ability of facilitative responding in counseling. Carlozzi et al. (1978) also explored the relationship between dogmatism and facilitative communication among counselor trainees. Twenty-three graduate counseling students completed a "helper-response" test and the Opinion Scale (which contains Rokeach's Dogmatism Scale, Form E). Level of facilitative ability was assessed by the use of the Gross Rating of Facilitative Interpersonal Functioning scale. Results indicated that individuals with high levels of dogmatism were less likely to be skilled at facilitative communication than individuals with low levels of dogmatism.

Externality of control was added to the research when Carlozzi et al. (1982) explored dogmatism and externality of control as related to facilitative responding in counselor trainees. Two hundred fifteen master's level students majoring in guidance

and counseling completed the Opinion Scale (which is composed of Rokeach's Dogmatism Scale, Form E and Rotter's Internal-External Locus of Control scale). The Gross Rating of Facilitative Interpersonal Functioning Scale was used to measure ability in facilitative responding. Results indicated that trainees with higher levels of dogmatism were less likely to respond to clients in a facilitative manner than trainees with lower levels of dogmatism. In addition, a positive relationship was found between dogmatism and external locus of control.

Not all researchers have supported a relationship between dogmatism and facilitative responding in counselors. Foulds (1971) explored the relationship between dogmatism and the ability to communicate facilitative conditions during counseling. Thirty graduate counseling students finishing their practicum experience completed the Dogmatism Scale (Form E). Their ability to communicate facilitative conditions (empathic understanding, positive regard, and facilitative genuineness) was assessed by trained judges. Results indicated that dogmatism is not an influencing factor in the development of counselor trainees due to the lack of a statistically significant relationship.

Some other research studies have also found little support for the theory that dogmatism is an important component in the effectiveness of counselor trainees. Milliken and Paterson (1967) explored the relationship of dogmatism and prejudice to counseling effectiveness. Thirty counseling trainees enrolled in practicum completed the Bogardus Ethnic Distance Scale and the Rokeach Dogmatism Scale. Participants were then observed counseling an African American client. After each session, the coached client and the supervisor assessed the effectiveness of the participant. Results indicated

that there was some support for the assertion that good counselors have lower levels of dogmatism than poor counselors (as rated by supervisors), but overall, the results of this study failed to achieve statistical significance. The trend was for “good” counselors to have lower dogmatism and prejudice scores than “poor” counselors.

A lack of effect for dogmatism was again the conclusion as Loesch et al. (1978) explored the relationship among self-disclosure, dogmatism, locus of control, Machiavellianism, academic aptitude, and sex among counselor trainees. Fifty-one counselor trainees enrolled in practicum or internship completed the Jourard Self-Disclosure Scale, Rokeach Dogmatism Scale (Form D), Rotter’s Internal-External Scale, and the Mach V Scale. GRE scores were obtained from participant’s files. Supervisors using the Counselor Evaluation Rating Scale evaluated participants. Results failed to show significant correlations between dogmatism and any other variables, including counselor effectiveness.

#### Anger: Experience and Expression

The concept of anger is much debated and has received a great deal of attention in recent years. Spielberger et al. (1983) defined anger to be “an emotional state that consists of feelings that vary in intensity, from mild irritation or annoyance to fury and rage” (p. 162). There is occasionally confusion in literature and research concerning the relationship of anger, hostility, and aggression. Aggression is a behavior that need not come from anger. Spielberger et al. (1983) defined aggression as “destructive or punitive behavior directed towards other people or objects” (p.162). Hostility is defined by Spielberger et al. (1983) to be a set of “attitudes that motivate aggressive behaviors directed toward destroying objects or injuring other people” (p.162).

Anger is a multidimensional construct. The experience of anger can be divided into state anger and trait anger. Spielberger (1999) defined trait anger as being a general disposition towards anger. State anger is then defined as the intensity of anger that a person feels at a particular time. The expression of anger can be described in terms of “Anger-In” and “Anger-Out” (Siegel, 1986). However, these dimensions can be further divided. Spielberger (1999) also went on to divide Anger-In and Anger-Out based on whether the anger is being controlled or expressed (anger control-in, anger control-out, anger expression-in and anger expression-out). Individuals with high trait anger are likely to experience state anger more often and more intensely (Spielberger et al., 1983).

The emotion of anger can be evoked by a variety of events. “Emotional episodes that we call anger often involve appraisals that events are unwanted or perceived as blocking one’s goals or action; however, they can also involve appraisals that events are illegitimate or otherwise contrary to the way they ‘ought’ to be” (Mascolo & Griffin, 1998, p. 220). Rhoades (1982/1988) argued that the emotion of anger results from expectations that are not met. Expectations not being met or matched by life events lead to disappointment and frustration, which are causes of anger. Anger also results in an effort to protect one’s sense of self and identity. An individual’s rights, values, and moral beliefs are central to one’s sense of self and therefore challenges to them are often met with episodes of anger (Mascolo & Griffin, 1998; Oatley, Jenkins, & Stein, 1998). Anger can be used as a tool for protecting one’s self when ideas are threatened.

Anger can also result from personal failures that are externalized towards others. For instance the failure to attain a goal can invoke anger in an individual. Anger is then directed towards the external object that is perceived to have prevented the individual

from attaining the goal. The energy that accompanies the anger is then directed toward the external object in an effort to resolve the problem or as an act of retribution (Ortony & Turner, 1990). The energy may also be directed inward, commonly referred to as anger suppression.

“The emotion of anger may be seen as having both positive and negative functions. Methods used to increase the utilization of positive functions while decreasing the negative functions in the expression of anger are called anger management” (Rhoades, 1982/1988, p. 1). Lerner (1985) stated, “anger is a tool for change when it challenges us to become more of an expert on the self and less of an expert on others” (p. 102). As a negative function, she argues that anger can be used as a crutch to avoid vulnerability and the fears associated with changes in our lives. Anger is an emotion that energizes a person towards action and the ongoing duration of anger serves to maintain the level of energy (Izard & Ackerman, 2000). This may be done to defend the self or others. However, it is this energy that also makes it difficult to control (Goleman, 1995). In fact, Tomkins (1991) went so far as to say that “the primary function of anger is to make bad matters worse” (p. 115). Often individuals don’t want to control their anger when they are experiencing it because of the energizing feelings that accompany anger. Further complicating the experience and consequently the expression of anger is the fact that some individuals may enter an angry state without being fully aware that they are angry (Lewis, 2000).

The expression and control of anger and the pros and cons of each have been a much-debated topic. According to Lerner (1985), venting anger can re-enforce anger and energize it more, thereby worsening the effects of it. It is important to find means of

expressing anger in constructive manners. "Getting angry gets us no where if we unwittingly perpetuate the old patterns from which our anger springs" (Lerner, 1985, p. 189).

In developing the Multidimensional Anger Inventory, Siegel (1986) studied the relationship of the differing aspects of anger. She studied 198 college students and 288 factory workers. Participants completed a variety of measures and results indicated support for the view that anger is a multidimensional construct.

Sex differences in the experience and expression of anger has been much debated and researched. Lerner (1985) asserted that a common experience for men is that they will store up their repressed anger and allow others to express their emotions for them, becoming "emotional underachievers." Stock-Ward (1995/1996) spoke of the cultural system that seems to permit men to express emotions via violence but by no other means. For women, Lerner (1985) argued that a number of factors make recognizing anger very difficult. Some of these include socialization and cultural factors that re-enforce the taboos surrounding women experience and expression of anger (Hess & Kirouac, 2000). Due to societal stereotypes and views relating to women's expression of anger, "women are afforded limited opportunities to experience and test their feelings and expression of anger...Expressing or even experiencing anger is therefore a frightening prospect for many women" (Stock-Ward, 1995/1996, p. 32).

While differences classified by sex seem to have popular support, a growing amount of support exists for differences to be noted on the basis of sex roles (masculine, feminine, androgynous, undifferentiated) rather than sex. Stock-Ward (1995/1996) and Kopper (1993) found that masculine sex roles were associated with chronic anger and the



aggressive expression of anger. Stock-Ward (1995/1996) also noted that those of feminine sex role showed a lack of acknowledgement of their anger. Additionally, anger control was significantly related to sex role (but not sex) with feminine and androgynous sex-role types scoring higher than individuals with masculine or undifferentiated sex roles.

Anger may also be related to guilt, stress, and a variety of other personality characteristics. Guilt was significantly related to chronic anger, anger suppression, and anger expression. Higher trait anger was associated with lower levels of guilt. Lower trait anger was associated with higher levels of guilt. High and average scorers in anger-in and anger-out scored lowest in guilt where low scorers in anger-in and anger-out scored highest in guilt (Stock-Ward, 1995/1996).

Sex and sex role differences have been topics examined by several researchers. Kopper-Roland (1988/1989) explored the relationships of anger, sex, hostility, depression, and sex-role. Four hundred fifty-six college students completed a demographic questionnaire, the State-Trait Anger Scale, Anger Expression Scale, Beck Depression Inventory, Bem Sex-Role Inventory, Buss-Durkee Hostility Inventory, and the Interpersonal Behavior Survey. Results indicated that individuals with a masculine sex role are more likely to experience anger as a trait and to express anger outwardly towards others than individuals with feminine, undifferentiated, or androgynous sex roles. Both sex and sex role were related to anger suppression with women and individuals with a feminine sex role more likely to suppress anger than men or other sex roles. Individuals with a feminine sex role were also more likely to control the experience and expression of angry feelings. Women were also more likely to express

anger in terms of depressive symptoms. In addition, trait anger and anger suppression were significantly related to depressive symptoms. While many believe that men and women differ in the experience and expression of anger, results of this study suggest that sex role may have more of an impact on those differences than sex alone. Results also suggested that anger suppression is of great concern for women whereas hostile and aggressive behaviors are of great concern for men.

Kopper (1993) studied the relationships among sex, sex role and Type A behavior in anger expression and mental health functioning. Six hundred twenty-nine undergraduate college students completed the Trait Anger Scale, the Anger Expression Scale, the Beck Depression Inventory, the Bem Sex-Role Inventory, the Buss-Durkee Hostility Inventory, the Interpersonal Behavior Survey, and the Jenkins Activity Scale-Type A Scale. Results indicated that while sex did not account for significant differences in the levels of anger experience and expression, sex-role did account for significant differences. Kopper (1993) also found that individuals with a masculine sex role were more likely to experience anger as a trait and to express anger outwardly than feminine types. Individuals with masculine sex roles were also less likely to suppress or control anger than feminine sex role types.

Thomas and Williams (1991) studied the relationships of perceived stress, trait anger, anger expression, and health status of college men and women. Seven hundred twenty volunteers completed the 10-item form of the Trait Anger Scale, the Framingham Anger Scales, the Perceived Stress Scale, and the 9-item Current Health Perceptions Questionnaire. Results indicated that individuals that tended to experience anger as a trait were also likely to perceive themselves as more stressed. Individuals who expressed

anger outwardly were more likely to experience anger as a trait and to perceive themselves as being stressed. In addition, those who expressed anger inwardly were less likely to discuss anger. Sex differences were noted with women who expressed anger inwardly being more likely to perceive their self as stressed.

In a related study, Felsten (1996) studied the relationship between hostility, stress, and depression. Four hundred fifty-three college students completed the Buss-Durkee Hostility Inventory, the Daily Stress Inventory, and the Beck Depression Inventory. Results indicated that individuals with higher levels of neurotic hostility are more likely to be expressively hostile, more likely to experience stress, and more likely to be depressed. In addition, expressive hostility was positively linked to stress and depression. Finally, results indicated that men are more expressively hostile than women which further supports sex differences in the expression of anger.

More personality correlates were found when Bridewell and Chang (1997) explored the relationships between anger, anxiety, depression, and hostility. Two hundred fifteen college students completed the Anger Expression Inventory and the Symptoms Check List-90-R. Results indicated that anger-in and anger-out are both significant predictors of depression, anxiety, and hostility. Anger control was negatively associated with depression, anxiety, and hostility. Anger control was also negatively associated with anger-in and anger-out. Finally, no sex differences were found between internalized or externalized anger. However, men were more likely to control angry feelings than women.

Deffenbacher, Oetting, Lynch, and Morris (1996) studied the consequences of the expression of anger. Two hundred seventy-four college students completed a number of

instruments including the Trait Anger Scale, the Trait Anxiety Inventory, the Beck Depression Inventory, Spielberger's Anger Expression Inventory, the Anger Consequences Questionnaire and 35 new items designed to assess positive forms of anger expression and to distinguish between verbal and physical forms of outward expression. Results indicated that men were more likely than women to express their anger physically and verbally. Men were also more likely to suffer consequences (being involved in physical fights or suffering property damage) due to their behavior. Anger-in was also strongly related to trait anxiety and depression. Trait anger was related to all consequences of anger but most strongly to ones that involved acting out, such as fights, property damage, and lost friendships. Anger-in was strongly related to negative emotions resulting from the expression of anger such as depression and embarrassment due to the expression of anger.

Linden et al. (1996) studied the relationships of alexithymia, defensiveness and cardiovascular reactivity to stress. Eighty first-year college students completed the Toronto Alexithymia Scale, the Balanced Inventory of Desirable Responding, the Beck Depression Inventory, and the Anger-In Scale of the Spielberger Anger-Expression Scale. Participants completed the inventories as then took part in physical exercises and measures of blood pressure were taken. Results indicated that individuals high in alexithymia also are high in anger-in (suppression) whereas individuals low in alexithymia scored low in anger-in. Linden, et al. also concluded that based on their results, alexithymia cannot be equated with defensiveness. Due to the relationship that has been found between emotional intelligence and alexithymia, Linden et al.'s (1996)

study supports the current study's predicted relationship between anger expression-in and emotional intelligence.

Aggressiveness is another concept often related to anger. Granic and Butler (1998) explored the relationship between anger and antisocial beliefs and found differences in aggressive behavior as related to trait anger. Forty-two adolescent offenders completed the State-Trait Anger Expression Inventory and the Criminal Sentiments Scale. They found that anger was positively related to antisocial beliefs. In addition, aggressive offenders scored higher in trait anger than non-aggressive offenders.

Horesh et al. (2000) explored the relationship of internalized anger, self-control, and mastery in adolescents' with severe anorexia. Three groups of participants took part: one group (26 hospitalized people) was diagnosed with anorexia without any other major Axis I or Axis II diagnosis, the second group (24 hospitalized people) were diagnosed with borderline personality disorder without any other major Axis I diagnosis, a third group (29 people) was described as normal. Participants completed the Eating Attitude Test, the Anger Expression Scale, the Internal Versus External Locus of Control Scale, the Mastery Scale, and the Self-Control Schedule. Results indicated that internalized anger (suppression) was more prevalent among individuals with anorexia and borderline personality disorder than with individuals without it.

In a study that sought to identify where differing aspects of anger may originate, Gustavsson, Pedersen, Asberg, and Schalling (1996) explored the individual differences in aggression, hostility, and anger among twins (comparisons of those raised together and those raised apart were done). A total of 70 pairs of twins completed the Karolinska Scales of Personality and the Trait Anger and Anger Expression inventories. Results

indicated support for a genetic connection for both trait anger and aggression.

Additionally, there was support for the assertion that childhood environment is influential in the development of hostility.

Hazebroek et al. (2001) studied cognitive appraisals and trait anger. Eighty-three individuals completed the Trait Anger Scale as well as appraisal components and a short rating of anger intensity. These were completed after individuals watched two short films in which a provocation and negative event were depicted (in one film it was deliberate, in the other it was not). Results indicated that individuals with high levels of trait anger tend to experience greater anger arousal when provoked than individuals with low levels of trait anger. In addition individuals with high levels of trait anger tended to blame other people more for an event perceived as being negative. Individuals high in trait anger were found to have the poorest ability to emotionally cope with these negative events.

### Summary

We have now discussed the definitions, theoretical backgrounds, and research findings related to emotional intelligence, dogmatism, and anger (experience and expression). We have learned that while these three constructs have been widely researched, there has not to date been any study which has specifically looked at the relationships among emotional intelligence, dogmatism, sex, and anger. That is the task that this study undertook. In examining the research, we can see that in all three areas, there is evidence that supports the existence of sex differences. Therefore attention was paid to sex differences so that any relationships appearing in the data could be understood in the light of those differences.

## CHAPTER THREE

### METHOD

#### Participants

The participants in the study included 224 college students at a midwestern university. Of the 224 packets that were collected, 5 were missing significant amounts of data. These packets were omitted from the analysis of the data. Students were recruited from the lower level undergraduate mathematics courses in which students from a variety of academic disciplines are enrolled. Courses included College Algebra (MATH 1513), Functions (MATH 1483), Trigonometry (MATH 1613), and Algebra and Trigonometry (MATH 1715). The mean age of the 219 remaining individuals was 20.8 ( $SD = 4.36$ ) with a range of 18 to 45 years of age. Approximately 49% of the participants were female ( $n = 107$ ) and 51% were male ( $n = 112$ ). Most participants identified themselves as Caucasian (79.0%,  $n=173$ ), 4.6% ( $n=10$ ) identified as Native American/American Indian, 4.6% ( $n=10$ ) identified as Asian/Asian American, 3.7% ( $n=8$ ) identified as African American, 0.9% ( $n=2$ ) identified as Hispanic/Latino/Latina, 6.4% ( $n=14$ ) identified as Multiracial, and 0.9% ( $n=2$ ) identified as Other.

In terms of relationship status, 84.0% ( $n=184$ ) identified themselves as Single, 5.5% ( $n=12$ ) as Partnered/Living with Partner, 8.7% ( $n=19$ ) as Married, and 1.8% ( $n=4$ ) as Divorced. The majority of the participants were freshmen (60.7%,  $n=133$ ), 23.7% ( $n=52$ ) were sophomores, 10.0% ( $n=22$ ) juniors, 5.0% ( $n=11$ ) seniors, and 0.5% ( $n=1$ ) was a graduate student. The mean number of months in college was 17.90 ( $SD = 14.30$ ) with a range spanning from 3 to 84 months. Most students were not affiliated with a

fraternity or sorority (76.3%, n=167), 21.0% (n=46) were affiliated with a fraternity or sorority, and 2.7% (n=6) did not respond to this question.

Other background information was also collected. Most students (42.0%, n=92) reported being raised in Rural areas (town of less than 50,000 and not next to an urban area), 29.2% (n=64) reported being raised in Urban areas (city of more than 50,000), 26.0% (n=57) reported being raised in Suburban areas (town or area next to a city of more than 50,000), and 2.7% (n=6) reported being raised in multiple areas of differing sizes. The approximate annual income for participants' families was between \$40,000 and \$50,000/year. However, the income bracket including the highest number (n = 74) of participants was the \$70,001/year or more category, it accounted for 34.3% of the responses.

In terms of religious affiliation, the vast majority of the participants (87.7%, n=192) identified themselves as Christian, 2.3% (n=5) as Agnostic, 2.3% (n=5) as Atheists, 0.9% (n=2) as Buddhist, 0.9% (n=2) as Hindu, 0.5% (n=1) as Islamic, 2.7% (n=6) as Other, and 2.7% (n=6) responded by writing in responses such as "undecided," "not for sure," "don't know," "N/A," or "None." Persons writing answers "Catholic" or "Latter Day Saint (Mormon)" were classified as Christians.

Political affiliations were also reported with 48.4% (n=106) identifying themselves as Republican, 34.2% (n=75) identifying themselves as Democratic, 10.5% (n=23) as Independent, 0.9% (n=2) as Reform, 1.4% (n=3) as Other, and 4.6% (n=10) responding with answers such as "N/A", "undecided", "NONE", or "Depends on Candidate."



## Measures

Instruments used in this study included an informed consent form, a demographic form, The Opinion Scale (Kleiber, et al., 1973), The Emotional Intelligence Scale (Schutte, et al., 1998), and the STAXI-2 (Spielberger, 1999).

The Opinion Scale The Opinion Scale is actually a combination of two separate scales, Rotter's (1966) Internal-External Locus of Control Scale and Rokeach's (1960) Dogmatism Scale, Form E. "The item pairs from Rotter's I-E Scale were separated into 23 internal and 23 external items and were presented with Likert-type scales that ranged from 'Strongly agree' to 'Strongly disagree' with 4 points in between. The 46 items were randomized while a uniform format was maintained" (p. 411). These items were then interspersed with the 40 items from the Dogmatism Scale, Form E (Kleiber, et al., 1973). This was done to disguise the I-E items but it also serves the purpose of disguising the Dogmatism items. The part of the scale that is of particular interest in this study is the Dogmatism Scale. The items in the original Opinion scale are written in gender specific language. Gender specific questions were changed to be gender neutral. This procedure has been done in a more recent study exploring dogmatism (Dunaway, 1984).

Individuals respond to each item by circling one number on a 6 point Likert scale. A response of "-3" means they disagree strongly with an item, a response of "3" means they agree strongly with an item. A response of "0" is not allowed in order to force an agreement or disagreement. The responses are then converted to a 1-to-7 scale by adding a constant of 4 to each item. The values are then summed to get the total score with higher scores indicating higher levels of dogmatism (Rokeach, 1960). The Opinion scale may be found in appendix C. Item numbers that are from the Dogmatism Scale include

items: 1, 2, 5, 6, 9, 10, 13, 16, 19, 20, 23, 24, 27, 30, 31, 34, 35, 38, 39, 42, 45, 50, 51, 54, 55, 59, 60, 63, 64, 67, 68, 71, 74, 75, 78, 79, 81, 82, 84, and 85. This allows for a maximum score of 280 and a minimum score of 40.

The Dogmatism Scale is meant to measure how open- or closed-minded an individual is. It is not designed to measure a degree to which an individual identifies with any particular political or ideological extreme. The scale purports to measure general authoritarianism and intolerance (Rokeach, 1960).

Reliabilities of Form E of the Dogmatism Scale ranged from 0.68 to 0.93. These are odd-even reliabilities, corrected by the Spearman-Brown formula (Rokeach, 1960; Zagana & Zurcher, 1962).

Several studies have provided evidence that the Dogmatism Scale measures are independent of ideological or political persuasion. The Dogmatism scale measures something similar to authoritarianism that was also different from strict rigidity and ethnocentrism (Rokeach & Fruchter, 1956; Rokeach, 1960). Rokeach (1960) supported the content validity for his Dogmatism Scale by conducting studies among various groups and variables including geographical region, age, and education. In an effort to determine whether or not the Dogmatism Scale did indeed measure dogmatism, Rokeach (1960) found that when students selected peers who they viewed as being high or low in dogmatism, the dogmatism scale accurately assessed them as such.

Emotional Intelligence Scale The original model of emotional intelligence by Salovey and Mayer (1990) was used as a basis for the development of the Emotional Intelligence Scale (Schutte, et al., 1998). Emotional intelligence is measured using a 33-item self-report questionnaire which utilizes a 5 point scale where "1" represents strongly

disagree and “5” represents strongly agree. Item numbers 5, 28, and 33 are to be reverse scored. Higher scores on The Emotional Intelligence Scale indicate higher levels of emotional intelligence. The 33 items are representative of the different categories of the model was roughly proportional to the model of Salovey and Mayer (1990). The items represent each of the following categories: appraisal and expression of emotion in the self and others, regulation of emotion in the self and others and utilization of emotions in solving problems. It was also measured to be at a reading level of grade 5.68 (Schutte, et al., 1998). The maximum score on the Emotional Intelligence Scale is 165 and the minimum score is 33.

The internal consistency reliability (Cronbach's alpha) of the Emotional Intelligence Scale was .90. Two-week test-retest reliability (estimates for 22 women and 6 men) was 0.78. Discriminate validity was evidenced by the fact that the correlation between the Emotional Intelligence Scale and the SAT was  $-0.06$  (Schutte, et al., 1998).

Studies between various groups were used to support the content validity of the Emotional Intelligence Scale. For example, therapists scored significantly higher in emotional intelligence than prisoners and substance abuse clients in a substance abuse treatment program. In addition, women scored significantly higher than men (Schutte, et al., 1998). These findings are expected if the Emotional Intelligence scale measures what it is purported to measure. In addition, Schutte et al. (1998) reported correlations among theoretically related constructs. Emotional Intelligence was negatively correlated with alexithymia, pessimism, depression, and impulsivity. It was positively correlated with greater attention to feelings, clarity of feelings, more mood repair, optimism. However,

emotional intelligence was not significantly correlated with nonverbal expression of emotion (Schutte, et al., 1998).

State-Trait Anger Expression Inventory-2 The STAXI-2 measures the experience and expression of anger. Individuals respond to statements by indicating how much the particular statement describes them on 4-point Likert scale. The instrument takes about 12 to 15 minutes to take and is written at a 6<sup>th</sup> grade reading level.

The STAXI-2 has 6 scales, 5 subscales, and the Anger Expression Index. State anger is a measure of the intensity of anger at a particular time. It consists of the first 15 items and contains 3 subscales, the Feeling Angry scale (intensity), the Feel like Expressing Anger Verbally scale, and the Feel like Expressing Anger Physically scale. Higher scores indicate higher levels of state anger, anger intensity, and feelings of expressing anger verbally or physically, respectively. Trait Anger is a measure of an individual's general disposition towards becoming angry. It consists of 10 items and 2 subscales, the Angry Temperament (without provocation) and Angry Reaction (anger caused by frustration and/or negative evaluation). Higher scores indicate higher levels of trait anger, temperament, and reaction, respectively. Anger Expression-In is a measure of anger suppression. A higher score indicates a higher level of anger suppression. Anger Expression-Out is a measure of how anger is verbally or physically expressed towards another object or person. A higher score indicates a higher level of anger expression outward towards people or objects in the environment. Anger Control-In is a measure of how individuals try to deal with anger by calming themselves down. A higher score indicates a greater likelihood that an individual is able to calm down. Anger Control-Out is a measure of how an individual controls the outward verbal or physical expression of

anger. A higher score indicates that an individual is more likely to control the outward expression of their anger. The Anger Expression Index is a measure of general anger with a higher score being indicative of greater general anger (Spielberger, 1999).

The internal consistency reliability of the STAXI-2 (Cronbach alpha) scales and subscales were .84 or higher, with an average of .88 for all scales and subscales except one. Cronbach alphas for the Trait Anger Temperament were .76 for females and .73 for males respectively (Spielberger, 1999).

In studies testing for validity, college students and Navy recruits were administered the STAXI and various measures of hostility. The Trait Anger scale was positively related to hostility (Spielberger, 1988, 1996). For both male and female college students, State Anger scale was positively related to Neuroticism and Psychoticism as measured by the Eysenck Personality Questionnaire and with State and Trait Anxiety as measured by the State-Trait Personality Inventory. For both male and female college students, Trait Anger was positively related to Neuroticism and Psychoticism as measured by the Eysenck Personality Questionnaire and with State and Trait Anxiety as measured by the State-Trait Personality Inventory. Trait anger was negatively related to the Lie scale of the Eysenck Personality Questionnaire for both men and women (Spielberger, 1999).

Convergent validity was supported by comparing the Anger Expression-In and Anger Expression-Out scales with Harburg, Blakelock, and Roeper's Teacher and Movie vignettes. "Positive and negative biserial correlations of the STAXI scales with these dichotomous classifications" (p.34) provided the support. Divergent validity was supported by the lack of relationships between Anger Expression-Out or Anger

Expression-In and the State or Trait Curiosity subscales of the State-Trait Personality Inventory (Spielberger, 1999).

Males were found to score higher on anger expression-out, anger expression index, and lower on anger control-in, whereas females scored lower on state anger and all subscales of state anger. There were no sex differences found for trait anger (Spielberger, 1999).

### Procedure

The principal investigator met with the head of the mathematics department at Oklahoma State University as well as instructors of general education level courses in the mathematics department to assess their interest in this project. If they agreed to participate in this study, students were recruited during the meeting times of the courses in which the principal investigator had gotten permission. The principal investigator read a brief script to the students in class in order to explain the study to them. An informed consent form was then handed out and discussed with the students.

Those students who agreed to participate and signed the informed consent forms were the participants in this study. The principal investigator collected the signed informed consent forms and distributed a packet containing the demographic sheet and the questionnaires to the participants in the study. In an effort to maintain confidentiality and privacy, students were asked not to write their names or any identifying information on any forms other than the Informed Consent, which was collected separately from the questionnaires. Students who did not want to participate were not penalized in any way for their decision not to participate.

Participants completed a packet that included a demographic sheet, the Emotional Intelligence Scale, the Opinion Scale, and the State-Trait Anger Expression Inventory-2 during a regularly scheduled class meeting. The organization of the packets was done to counterbalance the measures. The completion of the packet took approximately 40 minutes to complete. A resource list of counseling services available at OSU was provided to all participants in the event that they decide they would like to seek counseling. A summary of the results of this study will be provided to those participants interested in having this information.

## CHAPTER FOUR

### RESULTS

The purpose of the study was to explore 1) the relationships of emotional intelligence, dogmatism, and sex with the experience and expression of anger in college students. 2) The relationship between dogmatism and emotional intelligence was also explored. This chapter will detail the results of these explorations. Principal components analyses were conducted on the Dogmatism and the Emotional Intelligence Scales. A series of forward regression analyses were conducted with emotional intelligence (factor scores), dogmatism (factor scores), and sex as the independent variables and the anger subscales of the STAXI-2 (trait anger, anger expression-out, anger expression-in, anger control-out, and anger control-in) as the dependent variables. The relationship between dogmatism and emotional intelligence was analyzed using a Pearson moment correlational analysis.

Research Question One: *What is the relationship of emotional intelligence, dogmatism, and sex with the experience of anger and anger expression?*

Prior to conducting forward regression analyses to answer this research question, principle component analyses were conducted on the Dogmatism and Emotional Intelligence Scales. A principal component analysis with oblimin rotation was conducted on the 40 items of the Dogmatism Scale. The oblimin rotation was selected because it was assumed that if multiple factors existed within the Dogmatism Scale, they would be related. Based on the Kaiser rule (retain factors with eigenvalues greater than one) and an examination of a scree plot (Stevens, 1996), three factors emerged. These three factors accounted for 25.64% of the total variance in dogmatism scores and each



represented a theoretically important construct. Items loadings at or above .40 were used to interpret the factors. See Table 1 for the structure matrix of the Dogmatism Scale. See Table 2 for the significant item loadings for each of the three components separately. Seventeen of the 40 items did not load significantly on any of the three components. See Table 3 for a listing of the dogmatism items that did not load significantly on the three components along with their loadings. A review of the correlation matrix of the components indicated that the components were related. See Table 4 for a listing of the correlations among the factors.

Factor 1 (“Pessimism/Closed-mindedness”) accounted for 14.13% of the total variance. Ten items loaded on this factor at or above .40. These items related to a general pessimism toward others, the world, and the viewpoints or ideas of others in general. These items presented a decidedly negative outlook on life.

Factor 2 (“Intolerance of Differences”) accounted for 6.09% of the total variance. Seven items loaded on this factor at or above .40. These items depicted a general intolerance to differences among beliefs. The items also indicated absolutistic (i.e. true or false, correct vs. incorrect) thinking across a variety of situations and circumstances.

Factor 3 (“Need for Status and Power”) accounted for 5.42% of the total variance. Eight items loaded on this factor at or above .40. These items related to ideals of status and power that the individuals greatly valued. Items also depicted a dedication to beliefs that seemed to be of an extreme nature and likely provided respondents with prestige.

A principal component analysis with an oblimin rotation was conducted on the 33 items of the Emotional Intelligence Scale. The oblimin rotation was selected because it was assumed that if multiple factors existed within the Emotional Intelligence Scale, they

would be related. Based on the Kaiser rule (retain factors with eigenvalues greater than one) and an examination of a scree plot (Stevens, 1996), three factors emerged. These three factors accounted for 36.77% of the total variance in emotional intelligence scores and each represented a theoretically important construct. Items loadings at or above .40 were used to interpret the factors. See Table 5 for the structure matrix of the Emotional Intelligence Scale. See Table 6 for the significant item loadings for each of the three components separately. Four of the 40 items did not load significantly on any of the three components. See Table 7 for a listing of the emotional intelligence items that did not load significantly on the three components along with their loadings. A review of the correlation matrix of the components indicated that the components were related. See Table 8 for a listing of the correlations between the factors.

Factor 1 (“Optimism and Self-Confidence”) accounted for 23.65% of the variance. Sixteen items loaded on this factor at or above .40. These items related to a general optimism and confidence indicating a sense of hope and belief that one would be able to overcome obstacles and utilize “positive emotions” to accomplish goals.

Factor 2 (“Self-Awareness and Empathy”) accounted for 7.38% of the variance. Thirteen items loaded on this factor at or above .40. These items related to a strong sense of awareness of one’s own emotions. In addition, these items indicate an understanding of the emotions others are experiencing. In doing so they indicate an attention towards the non-verbal communication of self and others.

Factor 3 (“Resourceful yet Ignorant to Non-Verbal Cues”) accounted for 5.73% of the variance. Three items loaded on this factor at or above .40. One item referred to the ability to solve problems or see new possibilities when emotions change. However, the

other two items indicated inattentiveness to and lack of understanding of the non-verbal communication of others.

A series of forward regression analyses were conducted. The independent (or predictor) variables in each of these analyses were the dogmatism factor scores (i.e. Pessimism/Closed-mindedness, Intolerance of Differences, Need for Status and Power), the emotional intelligence factor scores (i.e. Optimism and Self-Confidence, Self-Awareness and Empathy, Resourceful yet Ignorant to Non-Verbal Cues), and sex (i.e. male vs. female). The dependent (or criterion) variables were most of the anger subscales of the STAXI-2, including trait anger, anger expression-out, anger expression-in, anger control-out, and anger control-in.

1a) *What is the relationship of emotional intelligence, dogmatism, and sex with trait anger?*

In the first forward regression analysis, trait anger was the dependent, or criterion variable. Results indicated that Pessimism/Closed-mindedness (Dogmatism Component 1) and Need for Power and Status (Dogmatism Component 3) were the two variables that entered significantly into the equation,  $F(2, 216) = 39.60, p = .00$ , accounting for a total of 26.8% of variance in trait anger scores. Pessimism/Closed-mindedness entered the equation first and uniquely accounted for 23.7% of the variance in the trait anger scores. Need for Status and Power accounted for an additional 3.1% of the variance in trait anger scores. See Table 9 for a summary of the forward regression statistics. It was hypothesized that emotional intelligence and dogmatism would be significant predictors of trait anger. This hypothesis was partially supported in that Dogmatism Component 1

and Dogmatism Component 3 were significant contributors to trait anger. However, none of the Emotional Intelligence components were significant predictors of trait anger.

1b) *What is the relationship of emotional intelligence, dogmatism, and sex with anger expression-out?*

In the second forward regression analysis, anger expression-out was the dependent, or criterion variable. Results indicated that Pessimism/Closed-mindedness (Dogmatism Component 1) and Need for Power and Status (Dogmatism Component 3) were the two variables that entered significantly into the equation,  $F(2, 216) = 15.64$ ,  $p = .00$ , accounting for a total of 12.7% of variance in anger expression-out scores.

Pessimism/Closed-mindedness entered the equation first and uniquely accounted for 9.2% of the variance in the anger expression-out scores. Need for Status and Power accounted for an additional 3.4% of the variance in anger expression-out scores. See Table 10 for a summary of the forward regression statistics. It was hypothesized that emotional intelligence, dogmatism, and sex would be significant predictors of anger expression-out. This hypothesis was partially supported in that Dogmatism Component 1 and Dogmatism Component 3 were significant contributors to anger expression-out. However, neither the Emotional Intelligence components nor sex were significant predictors of anger expression-out.

1c) *What is the relationship of emotional intelligence, dogmatism, and sex with anger expression-in?*

In the third forward regression analysis, anger expression-in was the dependent, or criterion variable. Results indicated that Pessimism/Closed-mindedness (Dogmatism Component 1), Self-Awareness and Empathy (Emotional Intelligence Component 2), and

Resourceful yet Ignorant to Non-Verbal Cues (Emotional Intelligence Component 3) were the three variables that entered significantly into the equation,  $F(3, 215) = 17.78$ ,  $p = .00$ , accounting for a total of 19.9% of variance in anger expression-in scores.

Pessimism/Closed-mindedness entered the equation first and uniquely accounted for 15.0% of the variance in the anger expression-in scores. Self-Awareness and Empathy entered the equation next and accounted for an additional 2.7% of the variance in anger expression-in scores. Resourceful yet Ignorant to Non-Verbal Cues entered the equation last and accounted for an additional 2.2% of the variance in anger expression-in scores. See Table 11 for a summary of the forward regression statistics. It was hypothesized that emotional intelligence, dogmatism, and sex would be significant predictors of anger expression-in. This hypothesis was partially supported in that Dogmatism Component 1, Emotional Intelligence Component 2, and Emotional Intelligence Component 3 were significant contributors to anger expression-in. However, sex was not a significant predictor of anger expression-in.

1d) *What is the relationship of emotional intelligence, dogmatism, and sex with anger control-out?*

In the fourth forward regression analysis, anger control-out was the dependent, or criterion variable. Results indicated that Pessimism/Closed-mindedness (Dogmatism Component 1) and Self-Awareness and Empathy (Emotional Intelligence Component 2) were the two variables that entered significantly into the equation,  $F(2, 216) = 10.61$ ,  $p = .00$ , accounting for a total of 8.9% of variance in anger control-out scores.

Pessimism/Closed-mindedness entered the equation first and uniquely accounted for 6.7% of the variance in the anger control-out scores. Self-Awareness and Empathy

accounted for an additional 2.3% of the variance in anger control-out scores. See Table 12 for a summary of the forward regression statistics. It was hypothesized that emotional intelligence and dogmatism would be significant predictors of anger control-out. This hypothesis was partially supported in that Dogmatism Component 1 and Emotional Intelligence Component 2 were significant contributors to anger control-out.

1e) *What is the relationship of emotional intelligence, dogmatism, and sex with anger control-in?*

In the fifth forward regression analysis, anger control-in was the dependent, or criterion variable. Results indicated that Optimism and Self-Confidence (Emotional Intelligence Component 1), Pessimism/Closed-mindedness (Dogmatism Component 1), and Resourceful yet Ignorant to Non-Verbal Cues (Emotional Intelligence Component 3) were the three variables that entered significantly into the equation,  $F(3, 215) = 13.53, p = .00$ , accounting for a total of 15.9% of the variance in anger control-in scores.

Optimism and Self-Confidence entered the equation first and uniquely accounted for 9.7% of the variance in anger control-in scores. Pessimism/Closed-mindedness entered the equation second and uniquely accounted for 4.4% of the variance in the anger control-in scores. Resourceful yet Ignorant to Non-Verbal Cues entered the equation last and accounted for an additional 1.8% of the variance in anger control-in scores. See Table 13 for a summary of the forward regression statistics. It was hypothesized that emotional intelligence and dogmatism would be significant predictors of anger control-in. This hypothesis was partially supported in that Emotional Intelligence Component 1, Dogmatism Component 1, and Emotional Intelligence Component 3 were significant contributors to anger control-in.

Research Question 2: *Is there a relationship between dogmatism and emotional intelligence?*

Pearson correlational analyses were conducted on the components derived from the Emotional Intelligence Scale and the Dogmatism Scale. It was hypothesized that dogmatism and emotional intelligence would be negatively correlated. This hypothesis was partially confirmed. See Table 14 for the Pearson moment correlation matrix of the Emotional Intelligence and Dogmatism factor scores.

Pessimism/Closed-Mindedness (Dogmatism Component 1) was significantly correlated with all three components of the Emotional Intelligence Scale: Optimism and Self-Confidence ( $r = -.27, p < .001$ ), Self-Awareness and Empathy ( $r = -.18, p = .01$ ), and Resourceful yet Ignorant to Non-Verbal Cues ( $r = .14, p = .04$ ). Optimism and Self-Confidence (Emotional Intelligence 2) was also significantly correlated with Need For Status and Power (Dogmatism 3),  $r = .21, p = .002$ .

#### Post-hoc Analyses

##### Sex differences in anger subscales, Dogmatism components, and Emotional Intelligence components.

A series of t-tests were conducted to explore sex differences on the anger subscales, the Emotional Intelligence Scale components, and the Dogmatism Scale components. Significant sex differences were noted for the following anger subscales: state anger,  $t(217) = -2.09, p = .01$ , trait anger,  $t(217) = -1.78, p = .02$ , and anger expression-out,  $t(217) = -1.28, p = .02$ . See Table 15 for the means and standard deviations of the anger subscale scores by sex. Men in this sample reported significantly

higher levels of state anger, trait anger, and anger expression-out compared to the women in this sample.

Significant sex differences were noted for one Dogmatism factor, Pessimism/Closed-mindedness,  $t(217) = -.36, p = .01$  and two Emotional Intelligence factors, Optimism and Self-confidence,  $t(217) = .32, p = .02$ , and Self-Awareness and Empathy,  $t(217) = .38, p = .01$ . See Table 16 for means and standard deviations of the Dogmatism factor scores by sex. See Table 17 for means and standard deviations of the Emotional Intelligence factor scores by sex. Men in this sample reported significantly higher levels of Pessimism/Closed-mindedness, and significantly lower levels of Optimism/Self-Confidence and Self-Awareness and Empathy compared to women in this sample.

#### The Relationship of Dogmatism, Emotional Intelligence, and Sex with State Anger and the Anger Expression Index

Another series of post-hoc analyses were conducted to explore the relationship of dogmatism, emotional intelligence, and sex with State Anger and the Anger Expression Index. Two forward regression analyses were conducted on the two anger subscales not included in the earlier analyses: state anger and anger expression index. The independent (or predictor) variables in each of these analyses were the Dogmatism factor scores (i.e. Pessimism/Closed-mindedness, Intolerance of Differences, Need for Status and Power), the Emotional Intelligence factor scores (i.e. Optimism and Self-Confidence, Self-Awareness and Empathy, Resourceful yet Ignorant to Non-Verbal Cues), and Sex (i.e. male vs. female). The dependent (or criterion) variables were the state anger and the anger expression index subscale of the STAXI-2.



In the first forward regression analysis, state anger was the dependent, or criterion variable. Results indicated that Pessimism/Closed-mindedness (Dogmatism Component 1) and Optimism and Self-Confidence (Emotional Intelligence Component 1) were the two variables that entered significantly into the equation,  $F(2, 216) = 23.65, p = .00$ , accounting for a total of 18.0% of the variance in state anger scores. Pessimism/Closed-mindedness entered the equation first and uniquely accounted for 13.6% of the variance in the state anger scores. Optimism and Self-Confidence accounted for an additional 4.4% of the variance in state anger scores. See Table 18 for a summary of the forward regression statistics.

In the second forward regression analysis, the anger expression index was the dependent, or criterion variable. Results indicated that Pessimism/Closed-mindedness (Dogmatism Component 1), Optimism and Self-Confidence (Emotional Intelligence Component 1), Resourceful yet Ignorant to Non-Verbal Cues (Emotional Intelligence Component 3), and Need for Power and Status (Dogmatism Component 3) were the four variables that entered significantly into the equation,  $F(4, 214) = 20.51, p = .00$ , accounting for a total of 27.7% of variance in anger expression index scores. Pessimism/Closed-mindedness entered the equation first and uniquely accounted for 19.1% of the variance in the anger expression index scores. Optimism and Self-Confidence entered the equation second and accounted for an additional 3.2% of the variance in anger expression index scores. Resourceful yet Ignorant to Non-Verbal Cues entered the equation third and accounted for an additional 3.2% of the variance in anger expression index scores. Need for Status and Power entered the equation last and

accounted for an additional 2.3% of the variance in anger expression index scores. See Table 19 for a summary of the forward regression statistics.

#### Correlations Among the Emotional Intelligence, Dogmatism, and STAXI-2 Scores

Pearson correlational analyses were performed on the factors derived from the Emotional Intelligence Scale, the Dogmatism Scale, and the subscales of the STAXI-2. See Table 20 for the correlation matrix of the STAXI-2 subscales. See Table 21 for the correlation matrix of the STAXI-2 subscales with the Dogmatism components. See Table 22 for the correlation matrix of the STAXI-2 subscales with the Emotional Intelligence components.

State anger was found to be significantly correlated with six of the STAXI-2 subscales, one of the factors from the Dogmatism Scale, and two of the factors from the Emotional Intelligence Scale. State anger was correlated with Trait Anger ( $r = .50, p < .001$ ), Anger Expression-out ( $r = .30, p < .001$ ), Anger Expression-in ( $r = .33, p < .001$ ), Anger Control-out ( $r = -.18, p < .01$ ), Anger Control-in ( $r = -.21, p < .001$ ), Anger Index ( $r = .36, p < .001$ ), Pessimism/Closed-mindedness ( $r = .37, p < .001$ ), Optimism and Self-Confidence ( $r = -.30, p < .001$ ), and Self-Awareness and Empathy ( $r = -.14, p < .05$ ).

Trait anger was found to be significantly correlated with an additional five of the STAXI-2 subscales, with two of the factors from the Dogmatism Scale, and one of the factors from the Emotional Intelligence Scale. Trait anger was correlated with Anger Expression-out ( $r = .67, p < .001$ ), Anger Expression-in ( $r = .32, p < .001$ ), Anger Control-out ( $r = -.43, p < .001$ ), Anger Control-in ( $r = -.37, p < .001$ ), Anger Index ( $r = .62, p < .001$ ), Pessimism/Closed-mindedness ( $r = .49, p < .001$ ), Need for Status and Power ( $r = .27, p < .001$ ), and Optimism and Self-Confidence ( $r = -.17, p < .01$ ).

Anger Expression-out was significantly correlated with an additional four of the STAXI-2 subscales, with two of the factors from the Dogmatism Scale, and one of the factors from the Emotional Intelligence Scale. Anger Expression-out was correlated with Anger Expression-in ( $r = .22, p = .001$ ), Anger Control-out ( $r = -.48, p < .001$ ), Anger Control-in ( $r = -.38, p < .001$ ), Anger Index ( $r = .71, p < .001$ ), Pessimism/Closed-mindedness ( $r = .30, p < .001$ ), Need for Status and Power ( $r = .24, p < .001$ ), and Resourceful yet Ignorant to Non-Verbal Cues ( $r = .15, p < .05$ ).

Anger Expression-in was significantly correlated with an additional subscale of the STAXI-2, with two factors from the Dogmatism Scale, and three factors from the Emotional Intelligence Scale. Anger Expression-in was correlated with Anger Index ( $r = .47, p < .001$ ), Pessimism/Closed-mindedness ( $r = .39, p < .001$ ), Need for Status and Power ( $r = .14, p < .05$ ), Optimism and Self-Confidence ( $r = -.21, p < .01$ ), Self-Awareness and Empathy ( $r = -.23, p < .001$ ), and Resourceful yet Ignorant to Non-Verbal Cues ( $r = .21, p < .05$ ).

Anger Control-out was significantly correlated with two additional subscales of the STAXI-2, with two factors from the Dogmatism Scale, and with two factors from the Emotional Intelligence Scale. Anger Control-out was correlated with Anger Control-in ( $r = .74, p < .001$ ), Anger Index ( $r = -.82, p < .001$ ), Pessimism/Closed-mindedness ( $r = -.26, p < .001$ ), Need for Status and Power ( $r = -.13, p < .05$ ), Optimism and Self-Confidence ( $r = .21, p < .01$ ), and Self-Awareness and Empathy ( $r = .19, p < .01$ ).

Anger Control-in was significantly correlated with one additional subscale of the STAXI-2, with one factor from the Dogmatism Scale, and with three factors from the Emotional Intelligence Scale. Anger Control-in was correlated with Anger Index ( $r = -$

.81,  $p < .001$ ), Pessimism/Closed-mindedness ( $r = -.29$ ,  $p < .001$ ), Optimism and Self-Confidence ( $r = .31$ ,  $p < .001$ ), Self-Awareness and Empathy ( $r = .24$ ,  $p < .001$ ), and Resourceful yet Ignorant to Non-Verbal Cues ( $r = -.17$ ,  $p < .05$ ).

Anger Index was significantly correlated with two factors from the Dogmatism Scale and with three factors from the Emotional Intelligence Scale. Anger Index was correlated with Pessimism/Closed-mindedness ( $r = .44$ ,  $p < .001$ ), Need for Status and Power ( $r = .19$ ,  $p < .01$ ), Optimism and Self-Confidence ( $r = -.29$ ,  $p = .001$ ), Self-Awareness and Empathy ( $r = -.25$ ,  $p < .001$ ), and Resourceful yet Ignorant to Non-Verbal Cues ( $r = .23$ ,  $p < .001$ ).

## CHAPTER FIVE

### DISCUSSION

In this chapter, the findings of this study will be discussed. The implications of these findings, the limitations of this study, and suggestions for further research will also be highlighted.

This study was designed to explore the relationships of emotional intelligence, dogmatism, and sex with the experience and expression of anger. Initially, principle components analyses of the Emotional Intelligence Scale and the Dogmatism Scale were performed to determine the factor structure of these instruments. Up to this point, no researchers have explored the factor structure of the Dogmatism Scale. One previous study by Petrides and Furnham (2000) conducted principle component analyses and extracted four factors of the Emotional Intelligence Scale. Results of the present study indicated that both the Dogmatism Scale and the Emotional Intelligence Scale contain multiple factors.

#### Dogmatism Scale Factors

The Dogmatism Scale was found to consist of three factors, accounting for 25.64% of the total variance in dogmatism scores. The “Pessimism/Closed-mindedness” Factor relates to a general pessimism towards others and the viewpoints of others. In addition the items present a decidedly negative outlook on life. The “Intolerance of Differences” Factor relates to a general intolerance to differences among beliefs. The items also indicated absolutistic (i.e. true or false, correct vs. incorrect) thinking across a variety of situations and circumstances. The “Need for Status and Power” Factor relates to ideals of status and power that the individuals greatly valued. Items also depict a

dedication to beliefs that seem to be of an extreme nature and likely to provide the respondent with prestige or respect within their group.

Theoretical support for these factors of dogmatism can be found in the research literature. Rokeach (1954) defined dogmatism in three parts: “(a) a relatively closed cognitive organization of beliefs and disbeliefs about reality, (b) organized around a central set of beliefs about absolute authority which, in turn, (c) provides a framework for patterns of intolerance and qualified tolerance toward others” (p. 195). The items of the Pessimism/Closed-mindedness Factor (e.g. items “Most of the ideas that get printed nowadays aren’t worth the paper they are printed on.”) seem to reflect the first part of Rokeach’s (1960) definition of dogmatism (a). Dogmatism refers to an individual’s overall personality pattern of processing information and the degree to which they are open to the possibility of change within their belief system, in other words the extent to which an individual’s belief system is open or closed (Rokeach, 1960). Rokeach, McGovney, and Denny (1955) found that highly dogmatic individuals were more likely to make verbal rejections of complex problems while trying to solve them. In a study relating dogmatism to group interactions, Davis et al. (1975) found that individuals high in dogmatism were more likely to make rejecting and negative statements of the group. The findings of those two studies are indicative of the type of thinking and behavior that an individual scoring highly on the Pessimism/Closed-Mindedness Factor would possess due to the negative, closed-minded nature of the items in this factor.

The Intolerance of Differences Factor relates to what is considered an important component in the definition of dogmatism (part (c) of Rokeach’s (1960) definition). For highly dogmatic individuals, the manner in which their beliefs are held allows for or may

foster intolerance for individuals with differing beliefs. This intolerance is a result of the perception that differing beliefs may challenge or pose a threat to the highly dogmatic individual's beliefs (Rokeach, 1960). Miville et al. (1999) found that an individual's level of dogmatism is inversely related to their ability to assess and accept similarities and differences in other people. This result is indicative of the intolerance that individuals scoring highly on this factor may display. The items representing this factor typify this intolerance (e.g. "A group which tolerates too much difference of opinion among its own members cannot exist for long.").

The Need for Status and Power Factor is valuable in understanding the construct of dogmatism. This factor relates to a preoccupation with greatness. Rokeach (1960) asserts that the more closed a person's belief system is, the more likely they are to view the world as a friendless place and view themselves as inadequate to deal with it. That being the case, these individuals are more likely to overcome this world-view by a "self-aggrandizing and self-righteous identification with a cause, a concern with power and status, and by a compulsive self-proselytization about the justness of such a cause" (Rokeach, 1960, p. 75). Individuals scoring highly on this component may be unaware of possible feelings of inadequacy. The compensation for feelings of inadequacy may result in a desire for control and power that, gone unfulfilled, may be related to frustration or contempt towards others whose ideologies differ from their own. The idealization of leaders typified by these items is consistent with a respect for authority. (e.g. items "It is only when people devote themselves to ideals or causes that life becomes meaningful.") The Need for Status and power appears to reflect authoritarianism that Rokeach refers to in part (b) of his definition of dogmatism.

### Emotional Intelligence Scale Factors

The Emotional Intelligence Scale was found to consist of three factors accounting for 36.77% of the total variance in emotional intelligence scores. The “Optimism and Self-Confidence” Factor relates to a general optimism and self-confidence in emotional situations that coincides with a sense of hope and belief that one would be able to overcome obstacles. The “Self-Awareness and Empathy” Factor relates to a strong awareness of emotions. These individuals seem to be in tune with the emotions they are experiencing as well as the emotions other people are feeling. This component portrays an individual adept at recognizing and understanding non-verbal means of communication in self and others. The “Resourceful Yet Ignorant to Non-Verbal Cues” Factor relates to an ability of the individual to use their emotional transitions to see possibilities and opportunities to change. However, individuals scoring highly on this factor seemed less likely to recognize or understand non-verbal means of communication. While awareness of one’s changes in emotions can enable the individual to see new possibilities, in this case it seems related to an obliviousness towards sensing the nonverbal communications of others.

Petrides and Furnham (2000) conducted a principle components analysis utilizing both varimax and oblique rotations on the Emotional Intelligence Scale and extracted four factors from the varimax rotation: “optimism/mood regulation,” “appraisal of emotions,” “social skills,” and “utilization of emotions.” They also conducted an oblique rotation and reported that it produced results that were “highly similar” (p. 317) to the results from the varimax rotation. When comparing the scale items present on the factors of the present study with those of the Petrides and Furnham (2000) study, several



similarities are noted. Please see Table 23 for a comparison of items and factors.

Petrides and Furnham (2000) determined that 13 items loaded significantly on their first factor, Optimism/mood regulation. Eleven of these 13 items also loaded significantly on the Optimism and Self-Confidence Factor (Component 1) of the present study. Five additional items loaded significantly on Component 1 that did not load on Petrides and Furnham's first factor. These items were decidedly other-focused. Individuals scoring high on these items display confidence in their ability to help others feel better and in their ability to communicate well with others.

Petrides and Furnham (2000) found that 9 items loaded significantly on their second factor, Appraisal of emotions. Eight of these 9 items also loaded significantly on the Self-Awareness and Empathy Factor (Component 2) in the present study. Five additional items loaded significantly on Component 2. These items addressed the abilities of individuals to be aware of their emotions and then utilize or regulate them.

Factor 3, Resourceful Yet Ignorant to Non-Verbal Cues, in the present study has little similarity with either of the two remaining factors ("social skills" and "utilization of emotions") from Petrides and Furnham's (2000) study. Of the three items loading significantly on the Resourceful Yet Ignorant to Non-Verbal Cues factor, none are contained in Petrides and Furnham's (2000) factor three ("social skills") and only one item loaded in Petrides and Furnham's (2000) factor four ("utilization of emotions"). This particular item related to the resourcefulness of an individual to see new possibilities after they experience a change in their emotions. The two other items that loaded in the third component of the present study also loaded significantly on Petrides and Furnham's (2000) second factor. These items related to a lack of attentiveness to nonverbal cues.

Therefore, while the first two of the Emotional Intelligence Factors from the present study have some similarity to the first two Emotional Intelligence Factors previously derived by Petrides and Furnham (2000), the present principle component analysis has produced three unique components.

Theoretical support for these factors of emotional intelligence is found throughout the research literature. Emotional intelligence is a measure of the abilities an individual has to recognize, regulate, and utilize emotions and feelings in themselves as well as recognize and appropriately respond to the emotions of others (Mayer & Salovey, 1997). Mayer and Salovey further defined emotional intelligence by developing a four-branched model of the construct, detailing different skills and the levels of development related to each skill. The top branch of the model details the regulation of emotions leading to emotional and intellectual growth. The second branch details the importance of understanding emotions and using them to achieve goals. The third branch down details the abilities to utilize emotions to generate ideas or direct attention towards issues important to the individual. The bottom branch relates to individuals' abilities to correctly identify and express emotions.

The Optimism and Self-Confidence Factor (Component 1) has a strong similarity to the third branch down (Emotional Facilitation of Thinking) of Mayer and Salovey's (1997) model. Self-confidence items of Component 1 relate to the participant's belief in their ability to utilize emotions and their ability to proactively relate to people in a positive manner. Ideas represented by this factor are alluded to by Goleman (1998) when he describes emotionally intelligent people as having an "adeptness in relationships" (p. 24). Individuals scoring highly on this component (Optimism and Self-Confidence)

certainly seem to have a strong belief in their adeptness in relationships. Ackerman, Abe, and Izard (1998) explain that emotional regulation is a key component of emotional intelligence and is responsible for “preventing stressful levels of negative emotions and maladaptive behavior” (p. 99). Ciarrochi, Chan, and Caputi (2000) found that emotional intelligence was significantly related to self-esteem and life satisfaction. Therefore, it makes sense that feeling optimistic (e.g. “I expect that I will do well on most things I try.”) was connected to self-confidence in using emotions and relating to others.

The Self-Awareness and Empathy Factor has a great deal of support from the research literature. This factor consists of a definite alertness towards emotions in oneself as well as in other people. Attention to the emotions others experience is a key component of emotional intelligence (Salovey & Mayer, 1990). This factor is representative of skills detailed in the second and fourth branches down of Mayer and Salovey’s (1997) model (Understanding and Analyzing Emotions; Employing Emotional Knowledge and Perception, Appraisal, and Expression of Emotion). More precisely the ability to identify and understand emotions, particularly the emotions of others, typifies the skills of these two areas and of this factor. Individuals scoring high on this factor displayed an ability to recognize and understand their emotions (e.g. “I am aware of my emotions as I experience them.”) as well as the emotions of others (e.g. “I know what other people are feeling just by looking at them.”).

Several researchers including Salovey and Mayer (1990), Goleman (1995), and Mayer and Geher (1996) describe empathy as an important component of emotional intelligence which involves the ability to monitor and understand the emotions of other people, “the ability to comprehend another’s feelings and to re-experience them one’s

self' (Salovey & Mayer, 1990, p. 194). Goleman (1995) describes empathy as being one of the major components of emotional intelligence. Mayer and Geher (1996) found that the people who most accurately predicted the feelings of other people were also highest in empathy and lowest in defensiveness as compared with people less able to accurately predict the feelings of others. Emotional intelligence was significantly related to empathy (Ciarrochi, Chan, & Caputi, 2000) and empathic concern (Miville et al., 2000).

The Resourceful Yet Ignorant to Non-Verbal Cues factor is theoretically related to emotional intelligence, but more difficult to explain. This factor relates to aspects of the third branch down (Emotional Facilitation of Thinking) of Mayer and Salovey's (1997) model. More precisely, the connection between emotions and the generation of new ideas is representative of part of this factor. Several researchers have discussed the resourcefulness of emotionally intelligent people in using their emotions to plan, motivate, and accomplish goals (Salovey & Mayer, 1990; Salovey, Hsee, & Mayer, 1993). In this factor, individuals could see new possibilities when their mood changed.

It is somewhat surprising that this factor related to non-verbal communication. Schutte et. al. (1998) reported that nonverbal expressiveness of emotion was not significantly related to scores on the Emotional Intelligence Scale. However, nonverbal communication skills are also important for an emotionally intelligent person to possess. The ability "to identify emotions in other people...through language, sound, appearance, and behavior" is important to the perception and appraisal of emotions (Mayer & Salovey, 1997). The apparent lack of such skills in individuals scoring high on this factor would seem to indicate a lower level of emotional intelligence. The combination of the two characteristics of this factor, resourceful yet unaware of nonverbal communication

(one indicative of emotional intelligence, the other not) may portray individuals who are relatively self-centered or self-focused on their goals and may be impatient, apathetic, or unaware when other people communicate in a non-verbal fashion.

While Mayer and Salovey (1997) emphasized that the ability to utilize emotions to see possibilities is important to emotional intelligence, there is no requirement that individuals use these abilities for the benefit of other people. It is conceivable that a person with this emotionally intelligent skill could use their abilities for themselves while neglecting others. Saarni (1997) did argue that emotionally intelligent skills are not being exercised in an emotionally intelligent manner when used to manipulate others. However, Saarni's assertion does not preclude the possibility that an individual with some emotionally intelligent skills may be apathetic towards or unaware of communications. While this factor is decidedly more complex, it is valuable in that it presents us with evidence that possession of some emotionally intelligent skills (the ability to use emotional changes to see new possibilities) does not imply an adeptness in all branches of emotional intelligence. Resourcefulness in this case may indicate that these individuals are self-absorbed and this then can limit their interest or attention to the nonverbal communication of others. Whether it is intentional or not, this level of "myopia," on personal possibilities can affect one's relationships with others by fostering an apathy for recognizing more subtle forms of communication.

In summary, three components emerged from the Dogmatism and Emotional Intelligence Scales that were theoretically meaningful and significant. These components were used in the multiple regression analyses conducted to answer research question one and in the Pearson correlation analyses used to answer research question two.

## The Relationship Among Emotional Intelligence Scale and Dogmatism Scale Factors and Sex with the Experience and Expression of Anger

The forward multiple regression findings indicated some significant relationships between the factors of emotional intelligence and dogmatism and aspects of the experience and expression of anger. However, sex was not a significant predictor of any of the anger subscales.

Pessimism/Closed-mindedness and Need for Power and Status accounted for significant levels of the variance in trait anger scores. These results suggest that chronic anger was associated with a negative outlook towards the world, closed-mindedness, and the need for power and status. Episodes of anger often result from an individual experiencing events that are contrary to the way things 'ought' to be (Mascolo & Griffin, 1998). A pessimistic and closed-minded individual is more likely to be negative towards people and events, believing that events are not as they should be and experience anger as a result. To a lesser degree, but still significant, results indicate that individuals who portray a need for power and status are also more likely to be chronically angry. The need for power and status that dogmatic individuals experience may be a compensatory strategy for dealing with a belief that the world is a lonesome place and that they are unable to cope with this (Rokeach, 1960). This being the case, it is possible that chronic anger may be a trait that accompanies fearful and guarded feelings towards a 'friendless world' as perceived by the dogmatic individual. Given the apparent relation of the Need for Power and Status factor to authoritarianism, results indicate that these individuals may be more prone to anger when encountering events seen as incongruent with their idea of authority and power.

In the second analysis, Pessimism/Closed-mindedness and Need for Power and Status accounted for significant levels of the variance in anger expression-out scores. These results suggest that pessimistic and closed-minded individuals are more likely to outwardly express their anger in a verbal or physical manner compared to optimistic and open-minded individuals. In addition, individuals that display a need for power and status also are more likely to outwardly express their anger than individuals who do not display a need or value of power and status. Another characteristic of dogmatic individuals accompanying a need for power and status is "a compulsive self-proselytization about the justness of such a cause" (Rokeach, 1960, p. 75). It is possible that individuals who overtly share their beliefs to which they are dedicated and who seek power and control are also likely to outwardly express anger when the opinions of others conflict with their closed-minded belief system.

Thirdly, Pessimism/Closed-mindedness, Self-Awareness and Empathy, and Resourceful Yet Ignorant to Non-Verbal Cues accounted for significant levels of the variance in anger expression-in scores. When looking at the correlational findings, we see that higher scores in Pessimism/Closed-mindedness and Resourceful Yet Ignorant to Non-Verbal Cues correspond to higher levels of anger suppression (anger expression-in). Conversely, higher scores on Self-Awareness and Empathy correspond to lower scores in anger suppression. These results suggest that pessimistic and closed-minded individuals are more likely to suppress the anger they experience compared to optimistic and open-minded individuals. These individuals are also more likely to express anger outwardly. The combination of these two findings along with the finding that these individuals are more likely to experience chronic anger portrays individuals who indeed experience a

great deal of anger, vacillating between suppression and aggression of angry feelings. In addition, people who are more resourceful yet ignorant of nonverbal cues were more likely to suppress anger than those who are less resourceful yet in tune with the nonverbal cues of others. It is possible that the inability to recognize/understand nonverbal cues is indicative of a discomfort with acknowledging emotional messages that accompany nonverbal cues. This discomfort may be responsible for increased levels of anger suppression. Furthermore, it is possible that anger suppression and inattentiveness to nonverbal signals may be coping strategies for dealing with emotional situations.

Individuals who were able to recognize the emotions of others were less likely to suppress the anger they experienced. Emotionally intelligent individuals are better able to identify patterns and sources of anger and deal with them in constructive ways (Salovey & Mayer, 1990). These individuals may have been able to identify the emotional signals that other people send out and then may have been less guarded with their anger expression. Understanding others' nonverbal signals may provide these individuals with a perspective from which they can appropriately express their anger.

Fourthly, Pessimism/Closed-mindedness and Self-Awareness and Empathy accounted for significant levels of the variance in anger control-out scores. When looking at the correlational findings, higher scores on Pessimism/Closed-mindedness corresponded to lower levels of anger control-out. Conversely, higher scores on Self-Awareness and Empathy correspond to higher scores in anger control-out. These results suggest that pessimistic and closed-minded individuals are less likely to control the outward expression of the anger they experience compared to more optimistic and open-minded individuals. This finding provides additional information for the relationship of



pessimism and closed-mindedness with anger. Pessimistic, closed-minded individuals experience anger across situation, vacillating between anger suppression and aggression, with less effort directed toward controlling the outward expression of their anger. These individuals portray little ability to control the manner in which they deal with the outward expression of their anger.

However, individuals displaying high levels of self-awareness and empathy were more likely to control the outward expression of anger than individuals with less self-awareness and empathy. The ability of emotionally intelligent individuals to understand patterns and sources of anger and effectively deal with them in constructive ways speaks directly to anger-control. It is likely that the ability to understand and care for the emotions of another person is closely linked with skills related to controlling anger so as to express it in appropriate ways and at appropriate times. Self-awareness is key to controlling anger. The ability of these people to be aware of the emotions they are experiencing enables them to more fully understand the reactions they are having to events. The addition of empathy then allows these individuals to express their anger in a controlled manner more of their choosing. It is likely that the ability to be in tune with the emotions of other people allows the empathic individual to control their anger in a manner that is least harmful to interpersonal relationships.

Finally, Optimism and Self-Confidence, Pessimism/Closed-mindedness, and Resourceful Yet Ignorant to Non-Verbal Cues, accounted for significant levels of the variance in anger control-in scores. Individuals displaying high levels of Optimism and Self-Confidence were more likely to control anger through inward means (i.e. calming down and cooling off). These individuals expressed a belief that obstacles could be

overcome and an expectation that events will work out for the best. (e.g. "I expect good things to happen.") It is likely that these people are able to calm down and inwardly deal with anger by assuring themselves that they will overcome or effectively deal with the events/people that are the source for their anger.

Individuals high in pessimism/closed-mindedness were less likely to control anger by inward means such as cooling off or calming down. This result further supports the assertion that these individuals are unable to effectively control the expression of anger. They are less likely to invoke control strategies that allow them to calm down.

Individuals scoring high in Resourceful Yet Ignorant to Non-Verbal Cues were also less likely to control anger via inward means. This may be due to self-absorption or their lack of perceived need to calm down or cool off given that they do not seem to be in tune with the nonverbal cues of others. This being the case, they may therefore be less in tune with conflict and less likely to invoke inward strategies to deal with anger.

Theories and research into sex and sex-role differences in anger have claimed that women (and individuals with feminine sex-roles) are more likely to suppress anger than men (and individuals with masculine sex-roles) and men (and individuals with masculine sex-roles) are more likely to be aggressive in expressing anger than women (and individuals with feminine sex-roles) (Lerner, 1985; Stock-Ward, 1995/1996; Hess & Kirouac, 2000; Kopper, 1993; Kopper-Roland, 1988/1989). It is important to note that while research has been conducted with regard to sex differences in anger, the differences did not uniquely account for a significant amount of the variance of the anger subscales of the STAXI-2 in this study. Some sex differences in anger were discovered in the post hoc analyses. These findings will be discussed shortly.

### The Relationship Between Emotional Intelligence and Dogmatism

Previous theory and research led to the hypothesis that emotional intelligence and dogmatism would be negatively correlated. The Optimism/Self-confidence factor of the Emotional Intelligence Scale was negatively correlated with the Pessimism/Closed-mindedness factor of the Dogmatism Scale. Optimistic individuals who were confident in their relations to others were less likely to be pessimistic and closed off from the ideas of other people compared to less optimistic individuals. The Optimism/Self-confidence factor of the Emotional Intelligence Scale was also positively related to the Need for Power and Status factor of the Dogmatism Scale. This result indicated that optimistic, confident individuals may be more likely to see greatness or a position of power as a viable option for succeeding and doing well compared to less optimistic and confident individuals. Results also indicate that pessimistic/closed-minded individuals may lack confidence or self-esteem given the nature of the Optimism and Self-Confidence factor

The Self-Awareness and Empathy factor of the Emotional Intelligence Scale was negatively correlated with the Pessimism/Closed-mindedness factor of the Dogmatism Scale. These findings are expected given research that has been done relating dogmatism to empathy. Vacchiano et al. (1968) reported that a dogmatic individual would likely exhibit "an intolerance for understanding the feelings and motives of others" (p.84). Less dogmatic counselors have been shown to be more empathic than highly dogmatic counselors (Carlozzi, et al., 1995; Carlozzi, et al., 1982; Carlozzi, et al., 1978; Mezzano, 1969). Closed-mindedness may interfere with "the therapeutic conditions of empathic understanding" (Foulds, 1971, p.112). It is likely that pessimism and closed-mindedness prevent the openness required to understand the emotions of other people. In addition,

they may prevent the attentiveness needed to communicate on multiple levels (verbally and non-verbally), especially towards individuals with differing belief systems. The Self-Awareness and Empathy factor indicates an orientation towards relationships with others. Mayer and Geher (1996) stated that the emotionally intelligent characteristics require perspective taking. A closed-minded person's belief system is one that is resistant to perspectives that differ from their current belief system.

The Resourceful Yet Ignorant to Non-Verbal Cues was significantly positively related to the Pessimism/Closed-mindedness factor. Individuals' ignorance of nonverbal communication may be indicative of a lack of interest in the feelings of others due to a pessimistic view of the worth of their ideas. These people may be out of touch with their nonverbal communication to the point that they use their lack of understanding as a reinforcement of their pessimistic and closed-minded belief systems. Rokeach (1960) asserts that the degree of opened or closed-mindedness depends on the ability of the person to "receive, evaluate, and act on relevant information received from the outside on its own intrinsic merits..." (p. 57). It is possible that the inability of the closed-minded individual to evaluate information on its own merits may be related to a lack of attention to others' nonverbal communications.

It was expected that the Self-Awareness and Empathy factor of the Emotional Intelligence Scale would be negatively correlated with the Intolerance of Differences factor of the Dogmatism Scale. While the relationship between the two was negative, it did not reach significance.

### Post-hoc Findings

#### Sex Differences in Anger, Dogmatism, and Emotional Intelligence

Sex differences in anger were expected given the support that can be found in the literature (Kopper-Roland, 1988/1989; Hess & Kirouac, 2000; Thomas & Williams, 1991). Lerner (1985) asserts that men are often disallowed from expressing emotions other than anger while women often suppress anger. Stock-Ward (1995/1996) and Kopper (1993) found that masculine sex roles were associated with chronic anger (trait anger) and the aggressive expression of anger (anger expression-out). Stock-Ward (1995/1996) also noted that those of feminine sex role showed a lack of acknowledgement of their anger (anger suppression). Additionally, anger control was significantly related to sex role (but not sex) with feminine and androgynous sex-role types scoring higher than individuals with masculine or undifferentiated sex roles. The findings from the present study provide partial support for sex differences in the manner in which men and women experience and express anger. Men reported significantly higher levels of state anger, trait anger, and anger expression-out than women. These results indicate that men were more likely to be experiencing anger at the time of the study, they were more likely to experience chronic anger, and they were more likely to verbally or physically express that anger than women.

Previous research has found sex differences in dogmatism. Heyman (1977) found that men scored higher than women in dogmatism. Partially consistent with these findings, the present study found that women scored significantly lower than men on the Pessimism/Closed-mindedness factor of the Dogmatism Scale. This result suggests that

men are more pessimistic and closed-minded than women. However, they did not differ on Need for Power and Status or Intolerance of Differences.

Much of the literature on emotional intelligence has suggested that women may score higher than men on measures of emotional intelligence (Ciarrochi, Chan, & Caputi, 2000; Mayer & Geher, 1996; Schutte, et al., 1998). In the present study, women were found to score significantly higher than men on two of the three factors of the Emotional Intelligence Scale: Optimism and Self-confidence and Self-Awareness and Empathy. This indicates that women were more likely to be optimistic and confident in their abilities to relate to other people compared to men. Women also reported a greater sense of awareness of their emotional states, were more empathic with others, and were more in tune with nonverbal messages from self and others compared to men.

#### Emotional Intelligence, Dogmatism, and Sex with State Anger and Anger Expression Index

Pessimism/Closed-mindedness and Optimism and Self-Confidence accounted for significant levels of the variance in State Anger scores. Individuals who are more pessimistic or closed-minded were more likely to be angry at the time of this assessment. Conversely, optimistic, confident individuals were less likely to be angry at the time of the assessment.

Pessimism/Closed-mindedness, Optimism and Self-Confidence, Resourceful Yet Ignorant to Non-Verbal Cues, and Need for Power and Status accounted for significant levels of the variance in the anger expression index scores. Individuals who were pessimistic and closed-minded were more likely to report feeling angry more frequently than individuals who were less pessimistic and closed-minded. These results further

support the assertion that these individuals are more prone to experience anger and to express it in maladaptive ways compared to less pessimistic, more open individuals.

More optimistic and self-confident individuals were less likely to score high on the anger expression index. These individuals indicated an expectation that events will work out for the best. It is possible that these people effectively deal with anger by utilizing an optimistic attitude and a confidence in their abilities to deal with their situations.

Individuals who were resourceful yet ignorant of nonverbal cues indicated that they were likely to feel anger more frequently compared to individuals aware of nonverbal cues. The inability to be in tune with the nonverbal cues of other people may be indicative of a discomfort with nonverbal emotional messages. This may disallow these individuals from understanding their anger and the anger of others, therefore making it difficult to express anger appropriately. A lack of attunement to non-verbal cues may reflect a more general tendency to not be in tune with other phenomena, including anger awareness. It seems that while the ability to see new possibilities when moods change may benefit them, it does not affect the intensity or frequency of their experiences with anger. However, the resourcefulness of these individuals may be mood dependent, with levels of resourcefulness dependent upon the moods experienced.

Finally, individuals displaying a need for power and status tended to feel angry more frequently compared to individuals who didn't display this need. Rigid ideas about power and status may exacerbate how often one feels angry especially when their beliefs or status are not congruent with or appreciated by others.

## Implications

Mental health professions will be aided in their work by this study of emotional intelligence and dogmatism in relation to anger. The findings of this study will assist them in their work with clients by providing a basis for the exploration of the underlying belief systems and emotional skills associated with the experience and expression of anger.

The relationship of Pessimism/Closed-mindedness and the Need for Power and Status factors' relationships with the experience and expression of anger (trait anger, anger expression-out, anger expression-in, anger control-out, anger expression index ) will provide mental health professionals with a conceptual framework from which to help clients to explore and understand the source of their anger. The previous work of Rokeach (1960) provides a theoretical understanding for the relationship of these factors to anger while the present study verifies the existence of these relationships. Mental health professionals may use this basis to assist clients in exploring the role of rigid belief systems and emotional awareness in their lives. In understanding that closed-mindedness may provide protection from ideas seen as threatening, clients may be able to identify and acknowledge the source and cause of their feelings of anger. The present study found that individuals scoring highly on Pessimism/Closed-mindedness and Need for Power and Status tended to experience a great deal of anger, the expression of which vacillated between suppression and outward expression. By identifying the nature of the belief systems of these individuals, mental health professionals can now work with these clients to provide them with greater understanding of how their anger can be "fueled" by negative and rigid belief systems. By introducing the need for status and power that these



individuals experience, mental health professionals can work with clients to identify issues of fear and anger related to challenges or threats to their authority or status. They can also assist clients in further exploring how these beliefs further exacerbate their experience of anger.

Results of this study indicate that aspects of emotional intelligence are key to addressing issues related to dogmatism and anger. It is believed that emotional intelligence can be changed (Goleman, 1995; Salovey & Sluyter, 1997). Results of this study provide mental health professionals with a better understanding of the major factors contributing to an individual's perceived emotional ability. The factors Optimism and Self-Confidence, and Self-Awareness and Empathy are key to this understanding because of their significant relationships to the expression of anger. Important to mental health professionals is the knowledge that optimistic and confident individuals were more likely to employ inward means to deal with anger than other individuals. Therefore working to improve clients' outlook and confidence in relation to their situation may better equip them to effectively deal with their anger. By working to improve self-awareness and empathy, mental health professionals can assist clients in recognizing their anger and avoiding anger suppression, while still enabling them to control the ways in which they outwardly express their anger.

Working with clients to further develop their optimism and confidence may assist them in feeling secure and confident enough to allow them to challenge rigid belief systems. Furthermore, by fostering the development of empathy, mental health professionals can assist clients in combating closed-mindedness that prevents the understanding of others' differing beliefs and circumstances.

The identification of the Resourcefulness Yet Ignorant of Non-Verbal Cues factor is of importance to mental health professionals because it makes evident that individuals may possess certain emotionally intelligent skills without being skilled in all areas of emotional intelligence. For individuals possessing the characteristics of this factor, mental health professionals can help them guard against becoming self-absorbed to the point of missing out on others' nonverbal communications. Suppression of communications can be related to suppression of emotions, including anger. Mental health professionals can assist clients by identifying and working with suppressive defenses in therapy. By improving their nonverbal communication skills (and therefore increasing understanding of others' perspectives) clients can be assisted in combating closed-minded belief systems by improving individuals' abilities to evaluate information on its own merits rather than basing evaluations on the existing closed system.

It is believed that this study will provide mental health professionals with a better understanding of the factors related to the experience and expression of anger. This knowledge will better assist them in helping clients understand their anger and deal with it effectively. Results of this study indicate that emotional intelligence and dogmatism play a role in the experience and expression of anger. Mental health professionals can use this information to aide their clients' explorations of anger.

### Limitations

The factor structures of the Emotional Intelligence and Dogmatism Scales each leave a relatively large portion of the variance unexplained in each measure. The three factors that emerged from the Dogmatism Scale accounted for 25.64% of the variance in the scores, leaving 74.36% unaccounted for. The three factors that emerged from the

Emotional Intelligence Scale accounted for 36.77% of the variance in the scores, leaving 63.23% unaccounted for.

Although participants were recruited from courses that were typically taken by students from a variety of majors, the trade-off was that most of the students in this study were young (freshmen and sophomores). The age of the participants must be considered when making generalizations to the college student population and to the general public at large. Another limitation presented by the demographics of this population is that the vast majority of participants identified themselves as Caucasian. Therefore generalization to ethnically diverse populations is not advised.

Another limitation was that the instruments took longer for the students to complete than was expected. This may have resulted in some students becoming tired or frustrated while completing the measures. The measures were counter-balanced to help prepare for this possibility. Regardless, in the future, care should be taken to ensure the most efficient use of the students' time.

Using self-report measures in this study is a limitation. Mayer and Salovey (1997) emphasize that the ability to utilize and regulate emotions to assist thought and motivate behavior are important to emotional intelligence. The Emotional Intelligence Scale is a self-report measure, meaning that individuals' report on their perceived ability in emotional situations. Therefore, emotionally confident individuals, not necessarily emotionally competent ones, may be more likely to score highly on the Emotional Intelligence Scale compared to less confident individuals. Using self-report measures allows for the possibility of participants intentionally or unintentionally giving incorrect responses for the sake of maintaining social desirability (Schutte, et al., 1998). In

addition, Brody and Hall (2000) warn that self-assessments measuring emotions may be confusing to some people due to the possible uncertainty as to whether the instrument is measuring emotional experience or expression.

### Future Research

While the factors identified in this study provide a framework for continued exploration of emotional intelligence, dogmatism, and the experience and expression of anger, further research is recommended to support or refute the findings of this study, in particular, the factor structure of the Emotional Intelligence Scale and the Dogmatism Scale. In addition, it is suggested that similar research be conducted on community samples to examine any differences that may exist between students and community members on the variables of interest. Further research is also suggested to explore the effects of emotional intelligence and dogmatism on the experience and expression of anger in diverse populations. The relation of emotional intelligence to the experience and expression of anger is promising. Further research into this relationship is suggested. The assessment measure used in this study depended on the individual's perceived emotional skills. Other measurements of emotional intelligence are recommended, including observation as well as self-report and other-report instruments.

It was hypothesized that sex would be a significant predictor of anger expression-out and anger expression-in. Despite previous research identifying sex differences in anger expression (Kopper-Roland, 1988/1989; Thomas & Williams, 1991), this hypothesis was not supported. Other research has found significant relationships between gender-role and anger (Stock-Ward, 1995/1996; Kopper, 1993; Kopper-Roland, 1988/1989). Future research is suggested to more fully understand the relationships of

emotional intelligence, dogmatism, and gender role with the experience and expression of anger.

Finally, it is suggested that further research be conducted exploring the relationships of other specific emotions to the construct of emotional intelligence. Such studies should pay attention to diverse ethnic and cultural backgrounds of the participants so as to learn more about social and cultural norms of acknowledging and expressing anger and other emotions.

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## APPENDICES

## APPENDIX A: Tables

Table 1

Structure Matrix of the Item Loadings on the Dogmatism Scale Factors

<u>Items</u>	<u>Factors</u>		
	<u>1</u>	<u>2</u>	<u>3</u>
1. The United States and Russia have just about nothing in common.	.034	.465	-.044
2. The highest form of government is a democracy and the highest form of democracy is a government run by those who are most intelligent.	.041	.335	.117
3. Even though freedom of speech for all groups is a worthwhile goal, it is unfortunately necessary to restrict the freedom of certain political groups.	.195	.228	.304
4. It is only natural that people would have a much better acquaintance with ideas they believe in than with ideas they oppose.	-.093	.075	.178
5. People on their own are helpless and miserable creatures.	.296	.269	.140
6. Fundamentally, the world we live in is a pretty lonesome place.	.561	-.005	.130
7. Most people just don't give a "damn" for others.	.554	.069	.243
8. I'd like it if I could find someone who would tell me how to solve my personal problems.	.226	.174	.243

Table 1 (continued)

Structure Matrix of the Item Loadings on the Dogmatism Scale Factors

<u>Items</u>	<u>Factors</u>		
	<u>1</u>	<u>2</u>	<u>3</u>
9. It is only natural for a person to be rather fearful of the future.	.228	-.098	.386
10. There is so much to be done and so little time to do it in.	.339	.036	<b>.419</b>
11. Once I get wound up in a heated discussion I just can't stop.	.388	.033	.300
12. In a discussion, I often find it necessary to repeat myself several times to make sure I am being understood.	.370	.052	.326
13. In a heated discussion, I generally become so absorbed in what I am going to say that I forget to listen to what the others are saying.	.355	.057	.093
14. It is better to be a dead hero than a live coward.	.101	.228	<b>.468</b>
15. While I don't like to admit this even to myself, my secret ambition is to become a great person, like Einstein or Beethoven or Shakespeare.	.151	-.206	<b>.419</b>
16. The main thing in life is for a person to want to do something important.	.170	.181	<b>.506</b>
17. If given a chance, I would do something of great benefit to the world.	-.155	-.123	<b>.482</b>

Table 1 (continued)

Structure Matrix of the Item Loadings on the Dogmatism Scale Factors

<u>Items</u>	<u>Factors</u>		
	<u>1</u>	<u>2</u>	<u>3</u>
18. In all of history there have probably been just a handful of great thinkers.	<b>.569</b>	-.026	-.095
19. There are a number of people I have come to hate because of the things they stand for.	<b>.549</b>	-.063	.059
20. A person who does not believe in some great cause has not really lived.	.173	.181	<b>.562</b>
21. It is only when people devote themselves to ideals or causes that life becomes meaningful.	.144	.258	<b>.671</b>
22. Of all the different philosophies which exist in the world there is probably only one with is correct.	.113	<b>.704</b>	.034
23. A person who gets enthusiastic about too many causes is likely to be a pretty "wishy washy" sort of person.	.333	.254	-.033
24. To compromise with our political opponents is dangerous because it usually leads to the betrayal of our own side.	<b>.578</b>	.335	.122
25. When it comes to differences of opinion in religion we must be careful not to compromise with those who believe differently from the way we do.	-.058	<b>.564</b>	.166

Table 1 (continued)

Structure Matrix of the Item Loadings on the Dogmatism Scale Factors

<u>Items</u>	<u>Factors</u>		
	<u>1</u>	<u>2</u>	<u>3</u>
26. In times like these, people must be pretty selfish if they consider primarily their own happiness.	.222	.305	.369
27. The worst crime a person could commit is to attack publicly the people who believe in the same thing they do.	.200	.444	.165
28. In times like these it is often necessary to be more on guard against ideas put out by people or groups in one's own camp than by those in the opposing camp.	.410	.267	.230
29. A group which tolerates too much difference of opinion among its own members cannot exist for long.	.086	.504	.308
30. There are two kinds of people in this world: those who are for the truth and those who are against the truth.	.232	.603	.356
31. My blood boils whenever people stubbornly refuse to admit they are wrong.	.308	.144	.456
32. People who think primarily of their own happiness are beneath contempt.	.256	.273	.357
33. Most of the ideas that get printed nowadays aren't worth the paper they are printed on.	.460	.328	.128

Table 1 (continued)

Structure Matrix of the Item Loadings on the Dogmatism Scale Factors

<u>Items</u>	<u>Factors</u>		
	<u>1</u>	<u>2</u>	<u>3</u>
34. In this complicated world of ours the only way we can know what's going on is to rely on leaders and experts who can be trusted.	.191	.338	.172
35. It is often desirable to reserve judgment about what's going on until one has had a chance to hear the opinions of those one respects.	-.163	.078	.307
36. In the long run the best way to live is to pick friends and associates whose tastes and beliefs are the same as one's own.	.086	.536	.043
37. The present is all too full of unhappiness. It is only the future that counts.	.514	.128	.063
38. If people are to accomplish their mission in life, it is sometimes necessary to gamble "all or nothing at all."	.152	.180	.344
39. Unfortunately, a good many people with whom I have discussed important social and moral problems don't really understand what's going on.	.459	.145	.225

Table 1 (continued)

Structure Matrix of the Item Loadings on the Dogmatism Scale Factors

<u>Items</u>	<u>Factors</u>		
	<u>1</u>	<u>2</u>	<u>3</u>
40. Most people just don't know what's good for them.	<b>.633</b>	.338	.273

Significant loadings of .40 or higher are in bold print.

Factor 1 = Pessimism/Closed-mindedness

Factor 2 = Intolerance of Differences

Factor 3 = Need for Status and Power



Table 2

Significant Item Loadings on Each Dogmatism Factor

<u>Factors and Items</u>	<u>Item Loadings</u>
<u>Factor 1 – “Pessimism/Closed-mindedness”</u>	
6. Fundamentally, the world we live in is a pretty lonesome place.	.561
7. Most people just don’t give a “damn” for others.	.554
18. In all of history there have probably been just a handful of great thinkers.	.569
19. There are a number of people I have come to hate because of the things they stand for.	.549
24. To compromise with our political opponents is dangerous because it usually leads to the betrayal of our own side.	.578
28. In times like these it is often necessary to be more on guard against ideas put out by people or groups in one’s own camp than by those in the opposing camp.	.410
33. Most of the ideas that get printed nowadays aren’t worth the paper they are printed on.	.460
37. The present is all too full of unhappiness. It is only the future that counts.	.514

Table 2 (continued)

Significant Item Loadings on Each Dogmatism Factor

<u>Factors and Items</u>	<u>Item Loadings</u>
39. Unfortunately, a good many people with whom I have discussed important social and moral problems don't really understand what's going on.	.459
40. Most people just don't know what's good for them.	.633
<u>Factor 2 – "Intolerance of Differences"</u>	
1. The United States and Russia have just about nothing in common.	.465
22. Of all the different philosophies which exist in the world there is probably only one with is correct.	.704
25. When it comes to differences of opinion in religion we must be careful not to compromise with those who believe differently from the way we do.	.564
27. The worst crime a person could commit is to attack publicly the people who believe in the same thing they do.	.444
29. A group which tolerates too much difference of opinion among its own members cannot exist for long.	.504
30. There are two kinds of people in this world: those who are for the truth and those who are against the truth.	.603

Table 2 (continued)

Significant Item Loadings on Each Dogmatism Factor

<u>Factors and Items</u>	<u>Item Loadings</u>
36. In the long run the best way to live is to pick friends and associates whose tastes and beliefs are the same as one's own.	.536
<u>Factor 3 – "Need for Status and Power"</u>	
10. There is so much to be done and so little time to do it in.	.419
14. It is better to be a dead hero than a live coward.	.468
15. While I don't like to admit this even to myself, my secret ambition is to become a great person, like Einstein or Beethoven or Shakespeare.	.419
16. The main thing in life is for a person to want to do something important.	.506
17. If given a chance, I would do something of great benefit to the world.	.482
20. A person who does not believe in some great cause has not really lived.	.562
21. It is only when people devote themselves to ideals or causes that life becomes meaningful.	.671
31. My blood boils whenever people stubbornly refuse to admit they are wrong.	.456

Table 3

Dogmatism Items That Did Not Load Significantly on Any of the Three Components

<u>Items</u>	<u>Factor Loadings</u>		
	<u>1</u>	<u>2</u>	<u>3</u>
2. The highest form of government is a democracy and the highest form of democracy is a government run by those who are most intelligent.	.041	.335	.117
3. Even though freedom of speech for all groups is a worthwhile goal, it is unfortunately necessary to restrict the freedom of certain political groups.	.195	.228	.304
4. It is only natural that people would have a much better acquaintance with ideas they believe in than with ideas they oppose.	-.093	.075	.178
5. People on their own are helpless and miserable creatures.	.296	.269	.140
8. I'd like it if I could find someone who would tell me how to solve my personal problems.	.226	.174	.243
9. It is only natural for a person to be rather fearful of the future.	.228	-.098	.386
11. Once I get wound up in a heated discussion I just can't stop.	.388	.033	.300
12. In a discussion, I often find it necessary to repeat myself several times to make sure I am being understood.	.370	.052	.326

Table 3 (continued)

Dogmatism Items That Did Not Load Significantly on Any of the Three Components

<u>Items</u>	<u>Factor Loadings</u>		
	<u>1</u>	<u>2</u>	<u>3</u>
13. In a heated discussion, I generally become so absorbed in what I am going to say that I forget to listen to what the others are saying.	.355	.057	.093
23. A person who gets enthusiastic about too many causes is likely to be a pretty "wishy washy" sort of person.	.333	.254	-.033
26. In times like these, people must be pretty selfish if they consider primarily their own happiness.	.222	.305	.369
32. People who think primarily of their own happiness are beneath contempt.	.256	.273	.357
34. In this complicated world of ours the only way we can know what's going on is to rely on leaders and experts who can be trusted.	.191	.338	.172
35. It is often desirable to reserve judgment about what's going on until one has had a chance to hear the opinions of those one respects.	-.163	.078	.307
38. If people are to accomplish their mission in life, it is sometimes necessary to gamble "all or nothing at all."	.152	.180	.344
Factor 1 = Pessimism/Closed-mindedness			
Factor 2 = Intolerance of Differences			
Factor 3 = Need for Status and Power			

Table 4

Correlational matrix of the Dogmatism Components

Component	1	2	3
1	1.00	.169	.203
2	.169	1.00	.187
3	.203	.187	1.00

Dogmatism 1 = Pessimism/Closed-mindedness

Dogmatism 2 = Intolerance of Differences

Dogmatism 3 = Need for Status and Power

Table 5

Structure Matrix of the Item Loadings on the Emotional Intelligence Factors

<u>Items</u>	<u>Factors</u>		
	<u>1</u>	<u>2</u>	<u>3</u>
1. I know when to speak about my personal problems to others.	<b>.450</b>	.362	-.212
2. When I am faced with obstacles, I remember times I faced similar obstacles and overcame them.	<b>.598</b>	.219	.259
3. I expect that I will do well on most things I try.	<b>.650</b>	.232	-.020
4. Other people find it easy to confide in me.	<b>.536</b>	.201	-.311
5. I find it hard to understand the non-verbal messages of other people.*	.214	.309	<b>-.546</b>
6. Some of the major events of my life have led me to re-evaluate what is important and not important.	.294	.085	.274
7. When my mood changes, I see new possibilities	.200	.353	<b>.569</b>
8. Emotions are one of the things that make my life worth living.	.337	.376	.153
9. I am aware of my emotions as I experience them.	.333	<b>.566</b>	.149
10. I expect good things to happen.	<b>.577</b>	.295	.031

Table 5 (continued)

Structure Matrix of the Item Loadings on the Emotional Intelligence Factors

<u>Items</u>	<u>Factors</u>		
	<u>1</u>	<u>2</u>	<u>3</u>
11. I like to share my emotions with others.	.287	.367	.053
12. When I experience a positive emotion, I know how to make it last.	<b>.494</b>	<b>.594</b>	-.142
13. I arrange events others enjoy.	<b>.462</b>	.328	-.347
14. I seek out activities that make me happy.	<b>.565</b>	.225	.012
15. I am aware of the non-verbal messages I send to others.	.304	<b>.540</b>	-.381
16. I present myself in a way that makes a good impression on others.	<b>.668</b>	.294	-.063
17. When I am in a positive mood, solving problems is easy for me.	<b>.602</b>	.186	.135
18. By looking at their facial expressions, I recognize the emotions people are experiencing.	.305	<b>.675</b>	-.212
19. I know why my emotions change.	.120	<b>.621</b>	.102
20. When I am in a positive mood, I am able to come up with new ideas.	<b>.595</b>	.235	.119
21. I have control over my emotions.	.338	<b>.475</b>	-.176
22. I easily recognize my emotions as I experience them.	.214	<b>.527</b>	-.097



Table 5 (continued)

Structure Matrix of the Item Loadings on the Emotional Intelligence Factors

<u>Items</u>	<u>Factors</u>		
	<u>1</u>	<u>2</u>	<u>3</u>
23. I motivate myself by imagining a good outcome to tasks I take on.	<b>.666</b>	.327	-.010
24. I compliment others when they have done something well.	<b>.655</b>	.221	-.174
25. I am aware of the non-verbal messages other people send.	.310	<b>.681</b>	<b>-.408</b>
26. When another person tells me about an important event in his or her life, I almost feel as though I have experienced this event myself.	.308	<b>.503</b>	.077
27. When I feel a change in emotions, I tend to come up with new ideas.	.252	<b>.561</b>	.365
28. When I am faced with a challenge, I give up because I believe I will fail.*	<b>.501</b>	.161	-.049
29. I know what other people are feeling just by looking at them.	.015	<b>.519</b>	-.147
30. I help other people feel better when they are down.	<b>.589</b>	.320	-.273
31. I use good moods to help myself keep trying in the face of obstacles.	<b>.547</b>	<b>.526</b>	.232
32. I can tell how people are feeling by listening to the tone of their voice.	.257	<b>.620</b>	-.197

Table 5 (continued)

Structure Matrix of the Item Loadings on the Emotional Intelligence Factors

<u>Items</u>	<u>Factors</u>		
	<u>1</u>	<u>2</u>	<u>3</u>
33. It is difficult for me to understand why people feel the way they do.*	.111	.213	-.319

\* Indicates that that item was reverse scored.

Significant loadings above .40 are bolded.

Factor 1 = Optimism and Self-Confidence

Factor 2 = Self-Awareness and Empathy

Factor 3 = Resourceful yet Ignorant to Non-Verbal Cues

Table 6

Significant Item Loadings on Each Emotional Intelligence Factor

<u>Factors and Items</u>	<u>Item Loadings</u>
<u>Factor 1 - "Optimism and Self-Confidence"</u>	
1. I know when to speak about my personal problems to others.	.450
2. When I am faced with obstacles, I remember times I faced similar obstacles and overcame them.	.598
3. I expect that I will do well on most things I try.	.650
4. Other people find it easy to confide in me.	.536
10. I expect good things to happen.	.577
12. When I experience a positive emotion, I know how to make it last.	.494
13. I arrange events others enjoy.	.462
14. I seek out activities that make me happy.	.565
16. I present myself in a way that makes a good impression on others.	.668
17. When I am in a positive mood, solving problems is easy for me.	.602

Table 6 (continued)

Significant Item Loadings on Each Emotional Intelligence Factor

<u>Factors and Items</u>	<u>Item Loadings</u>
20. When I am in a positive mood, I am able to come up with new ideas.	.595
23. I motivate myself by imagining a good outcome to tasks I take on.	.666
24. I compliment others when they have done something well.	.655
28. When I am faced with a challenge, I give up because I believe I will fail.*	.501
30. I help other people feel better when they are down.	.589
31. I use good moods to help myself keep trying in the face of obstacles.	.547
<u>Factor 2 – “Self-Awareness and Empathy”</u>	
9. I am aware of my emotions as I experience them.	.566
12. When I experience a positive emotion, I know how to make it last.	.594
15. I am aware of the non-verbal messages I send to others.	.540
18. By looking at their facial expressions, I recognize the emotions people are experiencing.	.675

Table 6 (continued)

Significant Item Loadings on Each Emotional Intelligence Factor

<u>Factors and Items</u>	<u>Item Loadings</u>
19. I know why my emotions change.	.621
21. I have control over my emotions.	.475
22. I easily recognize my emotions as I experience them.	.527
25. I am aware of the non-verbal messages other people send.	.681
26. When another person tells me about an important event in his or her life, I almost feel as though I have experienced this event myself.	.503
27. When I feel a change in emotions, I tend to come up with new ideas.	.561
29. I know what other people are feeling just by looking at them.	.519
31. I use good moods to help myself keep trying in the face of obstacles.	.526
32. I can tell how people are feeling by listening to the tone of their voice.	.620
<u>Factor 3 - "Resourceful yet Ignorant to Non-Verbal Cues"</u>	
5. I find it hard to understand the non-verbal messages of other people.*	-.546

Table 6 (continued)

Significant Item Loadings on Each Emotional Intelligence Factor

<u>Factors and Items</u>	<u>Item Loadings</u>
7. When my mood changes, I see new possibilities	.569
25. I am aware of the non-verbal messages other people send.	-.408

\* Indicates that that item was reverse scored.

Table 7

Emotional Intelligence Items That Did Not Load Significantly on any of the Three Components

<u>Items</u>	<u>Factor Loadings</u>		
	<u>1</u>	<u>2</u>	<u>3</u>
6. Some of the major events of my life have led me to re-evaluate what is important and not important.	.294	.085	.274
8. Emotions are one of the things that make my life worth living.	.337	.376	.153
11. I like to share my emotions with others.	.287	.367	.053
33. It is difficult for me to understand why people feel the way they do.*	.111	.213	-.319

\* Indicates that that item was reverse scored.

Factor 1 = Optimism and Self-Confidence

Factor 2 = Self-Awareness and Empathy

Factor 3 = Resourceful yet Ignorant to Non-Verbal Cues

Table 8

Correlational matrix of the Emotional Intelligence Scale Components

Component	1	2	3
1	1.00	.393	-.014
2	.393	1.00	-.076
3	-.014	-.076	1.00

Emotional Intelligence 1 = Optimism and Self-Confidence

Emotional Intelligence 2 = Self-Awareness and Empathy

Emotional Intelligence 3 = Resourceful yet Ignorant to Non-Verbal Cues



Table 9

Multiple Regression of Dogmatism Factors, Emotional Intelligence Factors, and Sex on Trait Anger

Predictors	R	Rsq	F(eqn)	Rsqch	F(ch)	r
Pessimism/ Closed-mindedness (D1)	.49	.24	67.57***	.24	67.57***	.49***
Need for Power and Status (D3)	.52	.27	39.60***	.03	9.10**	.27***

\*p < .05 \*\*p < .01 \*\*\*p < .001

r = Correlation of predictor variables with the criterion variable trait anger.

Table 10

Multiple Regression of Dogmatism Factors, Emotional Intelligence Factors, and Sex on Anger Expression-out

Predictors	R	Rsqr	F(eqn)	Rsqrch	F(ch)	r
Pessimism/ Closed-mindedness (D1)	.30	.09	22.11***	.09	22.11***	.30***
Need for Power and Status (D3)	.36	.13	15.64***	.03	8.42**	.24***

\*p < .05 \*\*p < .01 \*\*\*p < .001

r = Correlation of predictor variables with the criterion variable anger expression-out.

Table 11

Multiple Regression of Dogmatism Factors, Emotional Intelligence Factors, and Sex on Anger Expression-in

Predictors	R	Rsqr	F(eqn)	Rsqrch	F(ch)	r
Pessimism/ Closed-mindedness (D1)	.39	.15	38.16***	.15	38.16***	.39***
Self-Awareness and Empathy (EI2)	.42	.18	23.22***	.03	7.19**	-.23***
Resourceful yet Ignorant to Non-Verbal Cues (EI3)	.45	.20	17.78***	.02	5.85*	.21**

\*p < .05 \*\*p < .01 \*\*\*p < .001

r = Correlation of predictor variables with the criterion variable anger expression-in.

Table 12

Multiple Regression of Dogmatism Factors, Emotional Intelligence Factors, and Sex on Anger Control-out

Predictors	R	Rsq	F(eqn)	Rsqch	F(ch)	r
Pessimism/ Closed-mindedness (D1)	.26	.07	15.57***	.07	15.57***	-.26***
Self-Awareness and Empathy (EI2)	.30	.09	10.61***	.02	5.34*	.19**

\*p < .05 \*\*p < .01 \*\*\*p < .001

r = Correlation of predictor variables with the criterion variable anger control-out.

Table 13

Multiple Regression of Dogmatism Factors, Emotional Intelligence Factors, and Sex on Anger Control-in

Predictors	R	Rsqr	F(eqn)	Rsqrch	F(ch)	r
Optimism and Self-Confidence (EI1)	.31	.10	23.43***	.10	23.43***	.31***
Pessimism/ Closed-mindedness (DI)	.38	.14	17.77***	.04	11.03***	-.29***
Resourceful yet Ignorant to Non-Verbal Cues (EI3)	.40	.16	13.53***	.02	4.48*	-.17*

\*p < .05 \*\*p < .01 \*\*\*p < .001

r = Correlation of predictor variables with the criterion variable anger control-in.

Table 14

Pearson Moment Correlation Matrix of the Emotional Intelligence and Dogmatism Factor Scores

	Dogmatism 1	Dogmatism 2	Dogmatism 3
Emotional Intelligence 1	$r = -.27^{***}$	$r = .03$	$r = .21^{**}$
Emotional Intelligence 2	$r = -.18^{**}$	$r = -.07$	$r = -.003$
Emotional Intelligence 3	$r = .14^*$	$r = .13$	$r = .10$

\*  $p < .05$  \*\*  $p < 0.01$  \*\*\*  $p < 0.001$

Dogmatism 1 = Pessimism/Closed-mindedness

Dogmatism 2 = Intolerance of Differences

Dogmatism 3 = Need for Status and Power

Emotional Intelligence 1 = Optimism and Self-Confidence

Emotional Intelligence 2 = Self-Awareness and Empathy

Emotional Intelligence 3 = Resourceful yet Ignorant to Non-Verbal Cues

Table 15

Means and Standard Deviations of STAXI-2 Scale Scores by Sex

STAXI-2 Scales	Women (n = 107)	Men (n = 112)
State Anger	M = 16.51 SD = 3.11	M = 18.61 SD = 6.95
Trait Anger	M = 17.08 SD = 4.53	M = 18.86 SD = 6.47
Anger Expression-out	M = 15.39 SD = 4.06	M = 16.67 SD = 4.28
Anger Expression-in	M = 16.82 SD = 4.95	M = 17.65 SD = 4.78
Anger Control-out	M = 23.70 SD = 5.42	M = 23.51 SD = 4.63
Anger Control-in	M = 22.72 SD = 5.80	M = 21.82 SD = 5.14
Anger Index	M = 33.79 SD = 14.19	M = 36.99 SD = 13.30

Table 16

Means and Standard Deviations of Dogmatism Factor Scores by Sex

Dogmatism Factors	Women (n = 107)	Men (n = 112)
Pessimism/Closed-mindedness	M = -.18 SD = .94	M = .17 SD = 1.03
Intolerance of Differences	M = -.07 SD = .96	M = .07 SD = 1.03
Need for Status and Power	M = .05 SD = .99	M = -.05 SD = 1.02



Table 17

Means and Standard Deviations of Emotional Intelligence Factor Scores by Sex

Emotional Intelligence Factors	Women (n = 107)	Men (n = 112)
Optimism and Self-Confidence	M = .16 SD = .88	M = -.15 SD = 1.08
Self-Awareness and Empathy	M = .19 SD = .93	M = -.18 SD = 1.03
Resourceful yet Ignorant to Non-Verbal Cues	M = -.12 SD = 1.08	M = .11 SD = .91

Table 18

Multiple Regression of Dogmatism Factors, Emotional Intelligence Factors, and Sex on State Anger

Predictors	R	Rsqr	F(eqn)	Rsqrch	F(ch)	r
Pessimism/ Closed-mindedness (D1)	.37	.14	34.07***	.14	34.07***	.37***
Optimism and Self-Confidence (EI1)	.42	.18	23.65***	.04	11.57***	-.30***

\*p < .05 \*\*p < .01 \*\*\*p < .001

r = Correlation of predictor variables with the criterion variable state anger.

Table 19

Multiple Regression of Dogmatism Factors, Emotional Intelligence Factors, and Sex on Anger Expression Index

Predictors	R	Rsqr	F(eqn)	Rsqrch	F(ch)	r
Pessimism/ Closed-mindedness (D1)	.44	.19	51.09***	.19	51.09***	.44***
Optimism and Self-Confidence (EI1)	.47	.22	30.95***	.03	8.95**	-.29***
Resourceful yet Ignorant to Non-Verbal Cues (EI3)	.50	.25	24.45***	.03	9.11**	.23***
Need for Power and Status (D3)	.53	.28	20.51***	.02	6.74**	.19**

\*p < .05 \*\*p < .01 \*\*\*p < .001

r = Correlation of predictor variables with the criterion variable anger expression index.

Table 20

Correlation Matrix of STAXI-2 Subscales

	SANG	TANG	AXO	AXI	ACO	ACI	AXIND
SANG	1.00						
TANG	.50***	1.00					
AXO	.30***	.67***	1.00				
AXI	.33***	.32***	.22***	1.00			
ACO	-.18**	-.43***	-.48***	-.03	1.00		
ACI	-.21***	-.37***	-.38***	-.08	.74***	1.00	
AXIND	.36***	.62***	.71***	.47***	-.82***	-.81***	1.00

\*  $p < .05$  \*\*  $p < 0.01$  \*\*\*  $p < 0.001$

SANG = State Anger

TANG = Trait Anger

AXO = Anger Expression-out

AXI = Anger Expression-in

ACO = Anger Control-out

ACI = Anger Control-in

AXIND = Anger Expression Index

Table 21

Correlation Matrix of STAXI-2 Subscales with Dogmatism Components

<u>STAXI-2 Scales</u>	<u>Components</u>		
	Dogmatism 1	Dogmatism 2	Dogmatism 3
State Anger	.37***	.04	.06
Trait Anger	.49***	.06	.27***
Anger Expression-out	.30***	.07	.24***
Anger Expression-in	.39***	.07	.14*
Anger Control-out	-.26***	-.05	-.13*
Anger Control-in	-.29***	-.13	-.06
Anger Expression Index	.44***	.12	.19**

\*  $p < .05$  \*\*  $p < 0.01$  \*\*\*  $p < 0.001$

Dogmatism 1 = Pessimism/Closed-mindedness

Dogmatism 2 = Intolerance of Differences

Dogmatism 3 = Need for Status and Power

Table 22

Correlation Matrix of STAXI-2 Subscales with Emotional Intelligence Components

	<u>Component</u>		
	EI 1	EI 2	EI 3
<u>STAXI-2 Scales</u>			
State Anger	-.30***	-.14*	-.01
Trait Anger	-.17**	-.12	.13
Anger Expression-out	-.05	-.01	.15*
Anger Expression-in	-.21**	-.23***	.21**
Anger Control-out	.21**	.19**	-.13
Anger Control-in	.31***	.24***	-.17*
Anger Expression Index	-.29***	-.25***	.23***

\*  $p < .05$  \*\*  $p < 0.01$  \*\*\*  $p < 0.001$

EI 1 = Optimism and Self-Confidence

EI 2 = Self-Awareness and Empathy

EI 3 = Resourceful yet Ignorant to Non-Verbal Cues

Table 23

Visual Representation of Differences in Emotional Intelligence Factors Between the  
Petrides and Furnham (2000) Study and this Study

Factors	
Petrides and Furnham (2000)	Pongratz (2001)
(F1) Optimism/mood regulation items: 2, 3, 10, 12, 14, 16, 17, 20, 21, 23, 28, 31, 22	(F1) Optimism/Self-Confidence items: 1, 2, 3, 4, 10, 12, 13, 14, 16, 17, 20, 23, 24, 28, 30, 31
(F2) Appraisal of emotions items: 5, 9, 15, 18, 19, 22, 25, 29, 32	(F2) Self-Awareness and Empathy items: 9, 12, 15, 18, 19, 21, 22, 25, 26, 27, 29, 31, 32
(F3) Social skills items: 1, 4, 6, 8, 11, 12, 13, 16, 24, 26, 30, 31, 33	(F3) Resourceful Yet Ignorant to Non-Verbal Cues items: 5, 7, 25
(F4) Utilization of emotions items: 6, 7, 17, 20, 27, 31	

## APPENDIX B: 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. Sex: Female \_\_\_\_ Male \_\_\_\_
3. Race: (check all that apply)  

<input type="checkbox"/> a.) African American	<input type="checkbox"/> d.) Caucasian/White
<input type="checkbox"/> b.) American Indian/Native American	<input type="checkbox"/> e.) Hispanic/Latino/Latina
<input type="checkbox"/> c.) Asian/Asian American	<input type="checkbox"/> f.) Other: _____
4. Relationship status:  

<input type="checkbox"/> a.) Single	<input type="checkbox"/> d.) Separated
<input type="checkbox"/> b.) Partnered (living with partner)	<input type="checkbox"/> e.) Divorced
<input type="checkbox"/> c.) Married	<input type="checkbox"/> f.) Widowed
5. Total time in college: \_\_\_\_ years \_\_\_\_ months
6. Year in college:  

<input type="checkbox"/> a.) Freshman	<input type="checkbox"/> c.) Junior	<input type="checkbox"/> e.) Graduate Student
<input type="checkbox"/> b.) Sophomore	<input type="checkbox"/> d.) Senior	
7. Are you a member of a sorority or fraternity? \_\_\_\_ Yes \_\_\_\_ No
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 less than 50,000 and not next to an urban area)
9. What is your approximate annual family income (parents' income combined)?  

a.) ____ Less than \$10,000/year	g.) ____ \$40,001 – 50,000/year
b.) ____ \$10,001 – 20,000/year	h.) ____ \$50,001 – 60,000/year
c.) ____ \$20,001 – 30,000/year	i.) ____ \$60,001 – 70,000/year
d.) ____ \$30,001 – 40,000/year	j.) ____ \$70,001/year or more
10. What is your religious affiliation?  

a.) ____ Agnostic	e.) ____ Hinduism
b.) ____ Atheist	f.) ____ Islam
c.) ____ Buddhism	g.) ____ Judaism
d.) ____ Christianity	h.) ____ Other: _____
11. What is your political affiliation?  

a.) ____ Democrat	d.) ____ Republican
b.) ____ Independent	e.) ____ Other: _____
c.) ____ Reform	

## APPENDIX C: Opinion Scale

## OPINION SCALE

### Directions

The following is a study of what the general public thinks and feels about a number of important social and personal questions. The best answer to each statement below is your personal opinion. We have tried to cover many different and opposing points of view; you may find yourself agreeing strongly with some of the statements, disagreeing just as strongly with others and perhaps uncertain about others; whether you agree or disagree with any statement you can be sure that many people feel the same as you do.

Mark each statement in the left margin according to how much you agree or disagree with it. Please mark every one.

Write +1, +2, +3, or -1, -2, -3, depending on how you feel in each case.

+1: I AGREE A LITTLE

-1: I DISAGREE A LITTLE

+2: I AGREE ON THE WHOLE

-2: I DISAGREE ON THE WHOLE

+3: I AGREE VERY MUCH

-3: I DISAGREE VERY MUCH

1. The United States and Russia have just about nothing in common.	-3 -2 -1 +1 +2 +3
2. The highest form of government is a democracy and the highest form of democracy is a government run by those who are most intelligent.	-3 -2 -1 +1 +2 +3
3. With enough effort we can wipe out political corruption.	-3 -2 -1 +1 +2 +3
4. Many of the unhappy things in people's lives are partly due to bad luck.	-3 -2 -1 +1 +2 +3
5. Even though freedom of speech for all groups is a worthwhile goal, it is unfortunately necessary to restrict the freedom of certain political groups.	-3 -2 -1 +1 +2 +3
6. It is only natural that people would have a much better acquaintance with ideas they believe in than with ideas they oppose.	-3 -2 -1 +1 +2 +3
7. There is a direct connection between how hard I study and the grades I get	-3 -2 -1 +1 +2 +3
8. There will always be wars, no matter how hard people try to prevent them.	-3 -2 -1 +1 +2 +3
9. People on their own are helpless and miserable creatures.	-3 -2 -1 +1 +2 +3
10. Fundamentally, the world we live in is a pretty lonesome place.	-3 -2 -1 +1 +2 +3
11. It is impossible for me to believe that chance or luck plays an important role in my life.	-3 -2 -1 +1 +2 +3
12. Unfortunately, an individual's worth often passes unrecognized no matter how hard they try.	-3 -2 -1 +1 +2 +3
13. Most people just don't give a "damn" for others.	-3 -2 -1 +1 +2 +3
14. People are lonely because they don't try to be friendly.	-3 -2 -1 +1 +2 +3
15. Most students don't realize the extent to which their grades	-3 -2 -1 +1 +2 +3

are influenced by accidental happenings.	
16. I'd like it if I could find someone who would tell me how to solve my personal problems.	-3 -2 -1 +1 +2 +3
17. What happens to me is my own doing.	-3 -2 -1 +1 +2 +3
18. Without the right breaks one cannot be an effective leader.	-3 -2 -1 +1 +2 +3
19. It is only natural for a person to be rather fearful of the future.	-3 -2 -1 +1 +2 +3
20. There is so much to be done and so little time to do it in.	-3 -2 -1 +1 +2 +3
21. In the long run the people are responsible for bad government on a national as well as on a local level.	-3 -2 -1 +1 +2 +3
22. No matter how hard you try some people just don't like you.	-3 -2 -1 +1 +2 +3
23. Once I get wound up in a heated discussion I just can't stop.	-3 -2 -1 +1 +2 +3
24. In a discussion, I often find it necessary to repeat myself several times to make sure I am being understood.	-3 -2 -1 +1 +2 +3
25. The average citizen can have an influence in government decisions.	-3 -2 -1 +1 +2 +3
26. I have often found that what is going to happen will happen.	-3 -2 -1 +1 +2 +3
27. In a heated discussion, I generally become so absorbed in what I am going to say that I forget to listen to what the others are saying.	-3 -2 -1 +1 +2 +3
28. When I make plans, I am almost certain that I can make them work.	-3 -2 -1 +1 +2 +3
29. Many times exam questions tend to be so unrelated to course work that studying is really useless.	-3 -2 -1 +1 +2 +3
30. It is better to be a dead hero than a live coward.	-3 -2 -1 +1 +2 +3
31. While I don't like to admit this even to myself, my secret ambition is to become a great person, like Einstein or Beethoven or Shakespeare.	-3 -2 -1 +1 +2 +3
32. In my case getting what I want has little or nothing to do with luck.	-3 -2 -1 +1 +2 +3
33. Getting a good job depends mainly on being in the right place at the right time.	-3 -2 -1 +1 +2 +3
34. The main thing in life is for a person to want to do something important.	-3 -2 -1 +1 +2 +3
35. If given a chance, I would do something of great benefit to the world.	-3 -2 -1 +1 +2 +3
36. Getting people to do the right thing depends upon ability; luck has little or nothing to do with it.	-3 -2 -1 +1 +2 +3
37. This world is run by the few people in power, and there is not much the little guy can do about it.	-3 -2 -1 +1 +2 +3
38. In all of history there have probably been just a handful of great thinkers.	-3 -2 -1 +1 +2 +3
39. There are a number of people I have come to hate because of the things they stand for.	-3 -2 -1 +1 +2 +3
40. By taking an active part in political and social affairs the people can control world events.	-3 -2 -1 +1 +2 +3

41. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.	-3 -2 -1 +1 +2 +3
42. A person who does not believe in some great cause has not really lived.	-3 -2 -1 +1 +2 +3
43. There really is no such thing as "luck."	-3 -2 -1 +1 +2 +3
44. Many times we might just as well decide what to do by flipping a coin.	-3 -2 -1 +1 +2 +3
45. It is only when people devote themselves to ideals or causes that life becomes meaningful.	-3 -2 -1 +1 +2 +3
46. How many friends you have depends upon how nice a person you are.	-3 -2 -1 +1 +2 +3
47. There's not much use in trying too hard to please people, if they like you, they like you.	-3 -2 -1 +1 +2 +3
48. Most misfortunes are the result of lack of ability, ignorance, laziness, or all three.	-3 -2 -1 +1 +2 +3
49. Who gets to be the boss often depends on who was lucky enough to be in the right place first.	-3 -2 -1 +1 +2 +3
50. Of all the different philosophies which exist in the world there is probably only one which is correct.	-3 -2 -1 +1 +2 +3
51. A person who gets enthusiastic about too many causes is likely to be a pretty "wishy washy" sort of person.	-3 -2 -1 +1 +2 +3
52. People's misfortunes result from the mistakes they make.	-3 -2 -1 +1 +2 +3
53. As far as world affairs are concerned, most of us are the victims of forces we can neither understand, nor control.	-3 -2 -1 +1 +2 +3
54. To compromise with our political opponents is dangerous because it usually leads to the betrayal of our own side.	-3 -2 -1 +1 +2 +3
55. When it comes to differences of opinion in religion we must be careful not to compromise with those who believe differently from the way we do.	-3 -2 -1 +1 +2 +3
56. One of the major reasons why we have wars is because people don't take enough interest in politics.	-3 -2 -1 +1 +2 +3
57. Most people don't realize the extent to which their lives are controlled by accidental happenings.	-3 -2 -1 +1 +2 +3
58. In the long run people get the respect they deserve in this world.	-3 -2 -1 +1 +2 +3
59. In times like these, people must be pretty selfish if they consider primarily their own happiness.	-3 -2 -1 +1 +2 +3
60. The worst crime a person could commit is to attack publicly the people who believe in the same thing they do.	-3 -2 -1 +1 +2 +3
61. The idea that teachers are unfair to students is nonsense.	-3 -2 -1 +1 +2 +3
62. It is hard to know whether or not a person really likes you.	-3 -2 -1 +1 +2 +3
63. In times like these it is often necessary to be more on guard against ideas put out by people or groups in one's own camp than by those in the opposing camp.	-3 -2 -1 +1 +2 +3
64. A group which tolerates too much difference of opinion among its own members cannot exist for long.	-3 -2 -1 +1 +2 +3

65. Capable people who fail to become leaders have not taken advantage of their opportunities.	-3 -2 -1 +1 +2 +3
66. In the long run the bad things that happen to us are balanced by the good ones.	-3 -2 -1 +1 +2 +3
67. There are two kinds of people in this world: those who are for the truth and those who are against the truth.	-3 -2 -1 +1 +2 +3
68. My blood boils whenever people stubbornly refuse to admit they are wrong.	-3 -2 -1 +1 +2 +3
69. People who can't get others to like them don't understand how to get along with others.	-3 -2 -1 +1 +2 +3
70. It is difficult for people to have much control over the things politicians do in office.	-3 -2 -1 +1 +2 +3
71. People who think primarily of their own happiness are beneath contempt.	-3 -2 -1 +1 +2 +3
72. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.	-3 -2 -1 +1 +2 +3
73. Sometimes I can't understand how teachers arrive at the grades they give.	-3 -2 -1 +1 +2 +3
74. Most of the ideas that get printed nowadays aren't worth the paper they are printed on.	-3 -2 -1 +1 +2 +3
75. In this complicated world of ours the only way we can know what's going on is to rely on leaders and experts who can be trusted.	-3 -2 -1 +1 +2 +3
76. In the case of the well-prepared student there is rarely if ever such a thing as an unfair test.	-3 -2 -1 +1 +2 +3
77. Many times I feel that I have little influence over the things that happen to me.	-3 -2 -1 +1 +2 +3
78. It is often desirable to reserve judgment about what's going on until one has had a chance to hear the opinions of those one respects.	-3 -2 -1 +1 +2 +3
79. In the long run the best way to live is to pick friends and associates whose tastes and beliefs are the same as one's own.	-3 -2 -1 +1 +2 +3
80. Becoming a success is a matter of hard work; luck has little or nothing to do with it.	-3 -2 -1 +1 +2 +3
81. The present is all too full of unhappiness. It is only the future that counts.	-3 -2 -1 +1 +2 +3
82. If people are to accomplish their mission in life, it is sometimes necessary to gamble "all or nothing at all."	-3 -2 -1 +1 +2 +3
83. Sometimes I feel that I don't have enough control over the direction my life is taking.	-3 -2 -1 +1 +2 +3
84. Unfortunately, a good many people with whom I have discussed important social and moral problems don't really understand what's going on.	-3 -2 -1 +1 +2 +3
85. Most people just don't know what's good for them.	-3 -2 -1 +1 +2 +3
86. Most of the time I can't understand why politicians behave the way they do.	-3 -2 -1 +1 +2 +3

## APPENDIX D: Emotional Intelligence Scale

## EMOTIONS SCALE

Please rate the extent to which you agree or disagree with each of the following statements. Please circle the number to indicate your agreement (or disagreement) to the statement.

- 1 – Strongly disagree
- 2 – Somewhat disagree
- 3 – Neither agree nor disagree
- 4 – Somewhat agree
- 5 – Strongly agree

1. I know when to speak about my personal problems to others.	1	2	3	4	5
2. When I am faced with obstacles, I remember times I faced similar obstacles and overcame them.	1	2	3	4	5
3. I expect that I will do well on most things I try.	1	2	3	4	5
4. Other people find it easy to confide in me.	1	2	3	4	5
5. I find it hard to understand the non-verbal messages of other people.	1	2	3	4	5
6. Some of the major events of my life have led me to re-evaluate what is important and not important.	1	2	3	4	5
7. When my mood changes, I see new possibilities	1	2	3	4	5
8. Emotions are one of the things that make my life worth living.	1	2	3	4	5
9. I am aware of my emotions as I experience them.	1	2	3	4	5
10. I expect good things to happen.	1	2	3	4	5
11. I like to share my emotions with others.	1	2	3	4	5
12. When I experience a positive emotion, I know how to make it last.	1	2	3	4	5
13. I arrange events others enjoy.	1	2	3	4	5
14. I seek out activities that make me happy.	1	2	3	4	5
15. I am aware of the non-verbal messages I send to others.	1	2	3	4	5
16. I present myself in a way that makes a good impression on others.	1	2	3	4	5
17. When I am in a positive mood, solving problems is easy for me.	1	2	3	4	5
18. By looking at their facial expressions, I recognize the emotions people are experiencing.	1	2	3	4	5
19. I know why my emotions change.	1	2	3	4	5
20. When I am in a positive mood, I am able to come up with new ideas.	1	2	3	4	5
21. I have control over my emotions.	1	2	3	4	5
22. I easily recognize my emotions as I experience them.	1	2	3	4	5
23. I motivate myself by imagining a good outcome to tasks I take on.	1	2	3	4	5
24. I compliment others when they have done something well.	1	2	3	4	5
25. I am aware of the non-verbal messages other people send.	1	2	3	4	5
26. When another person tells me about an important event in his or her life, I almost feel as though I have experienced this event myself.	1	2	3	4	5
27. When I feel a change in emotions, I tend to come up with new ideas.	1	2	3	4	5



28. When I am faced with a challenge, I give up because I believe I will fail.	1	2	3	4	5
29. I know what other people are feeling just by looking at them.	1	2	3	4	5
30. I help other people feel better when they are down.	1	2	3	4	5
31. I use good moods to help myself keep trying in the face of obstacles.	1	2	3	4	5
32. I can tell how people are feeling by listening to the tone of their voice.	1	2	3	4	5
33. It is difficult for me to understand why people feel the way they do.	1	2	3	4	5

## APPENDIX E: STAXI-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 1 Directions

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

1 = Not at all		2 = Somewhat		3 = Moderately so		4 = Very much so	
How I Feel Right Now							
1.	I am furious.	1	2	3	4		
2.	I feel irritated.	1	2	3	4		
3.	I feel angry.	1	2	3	4		
4.	I feel like yelling at somebody.	1	2	3	4		
5.	I feel like breaking things.	1	2	3	4		
6.	I am mad.	1	2	3	4		
7.	I feel like banging on the table.	1	2	3	4		
8.	I feel like hitting someone.	1	2	3	4		
9.	I feel like swearing.	1	2	3	4		
10.	I feel annoyed.	1	2	3	4		
11.	I feel like kicking somebody.	1	2	3	4		
12.	I feel like cursing out loud.	1	2	3	4		
13.	I feel like screaming.	1	2	3	4		
14.	I feel like pounding somebody.	1	2	3	4		
15.	I feel like shouting out loud.	1	2	3	4		

### Part 2 Directions

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

1 = Almost never		2 = Sometimes		3 = Often		4 = Almost always	
How I Generally Feel							
16.	I am quick tempered.	1	2	3	4		
17.	I have a fiery temper.	1	2	3	4		
18.	I am a hotheaded person.	1	2	3	4		
19.	I get angry when I'm slowed down by others' mistakes.	1	2	3	4		
20.	I feel annoyed when I am not given recognition for doing good work.	1	2	3	4		
21.	I fly off the handle.	1	2	3	4		
22.	When I get mad, I say nasty things.	1	2	3	4		
23.	It makes me furious when I am criticized in front of others.	1	2	3	4		
24.	When I get frustrated, I feel like hitting someone.	1	2	3	4		
25.	I feel infuriated when I do a good job and get a poor evaluation.	1	2	3	4		

### Part 3 Directions

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

1 = Almost never

2 = Sometimes

3 = Often

4 = Almost always

#### When Angry or Furious...

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

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## APPENDIX F: Informed Consent

## INFORMED CONSENT

I, \_\_\_\_\_, hereby authorize or direct Rick Pongratz, or associates or assistants of his choosing, to perform the following treatment or procedure.

You are invited to participate in a study designed to explore the relationships between beliefs and emotions in college students. Participation in this study will involve the completion of an information sheet as well as three questionnaires.

Completing these instruments will typically take no longer than 30 minutes. Possible benefits to be received from completing the questionnaire include an improved understanding of your beliefs as well as an increased understanding of the way you experience and express emotions, particularly anger. It is possible that you may feel uncomfortable after examining your beliefs and emotions. We hope that by participating in this study you will help us better understand belief systems, emotions, and their relationships.

All information provided will be held strictly confidential. Your completed Informed Consent form will be collected separately from the instruments to ensure the confidentiality of your responses. You will not write your name or other personally identifying information on any of the questionnaires so there will be no way to connect your responses to your identity.

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

I understand that participation is voluntary and that I will not be penalized if I choose not to participate. I also understand that I am free to withdraw my consent and end my participation in this project at any time without penalty after I notify the project director (Rick Pongratz).

I have read and fully understand the consent form. I sign it freely and voluntarily.

---

Signature

Date

## APPENDIX G: Script

## Script

“My name is Rick Pongratz. I am a graduate student in the Counseling program here at OSU. I am currently conducting a study exploring the relationships between beliefs and emotions. I am in your class today to see if you would be interested in participating in this study. Participation would involve completing three questionnaires and a demographic sheet, which should take no more than 30 minutes of your time. Your responses are confidential and you will NOT write your name on any of the questionnaires, except for the consent form, which will be collected separately from the questionnaires. Your participation in this study is voluntary and there are no penalties for choosing not to participate. Your instructor has provided time in class to participate if you are interested. If you are interested in participating, I will hand the questionnaires to you now. For those of you who are not interested, you may leave the classroom now.”



## APPENDIX H: Resource List

To all participants:

Thank you for participating in our study exploring the relationship of emotional intelligence, dogmatism, and sex, with the experience and expression of anger in college students and for completing the questionnaires. It is possible that you may feel uncomfortable after examining your beliefs and emotions. You may wish to discuss your concerns with others, including counseling professionals. Provided below is a list of resources that you may find helpful should you become interested in seeking assistance with your thoughts, feelings, or behaviors. If you have any questions regarding this study, please feel free to contact Rick Pongratz, B.S. or Carrie Winterowd, Ph.D. in the School of Applied Health and Educational Psychology, 434 Willard Hall, Oklahoma State University, (405) 744-6040. You may also contact Sharon Bacher, IRB Executive Secretary, 202 Whitehurst Oklahoma State University at (405) 744-5700. Thank you for your interest and participation.

### **Resource List**

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

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

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

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

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

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

## APPENDIX I: Institutional Review for Human Subjects

**Oklahoma State University  
Institutional Review Board**

Protocol Expires: 3/29/02

Date: Friday, March 30, 2001

IRB Application No. E00189

Proposal Title: THE RELATIONSHIPS OF EMOTIONAL INTELLIGENCE, DOGMATISM, AND SEX  
WITH THE EXPERIENCE AND EXPRESSION OF ANGER IN COLLEGE STUDENTS

Principal  
Investigator(s)

Rick Pongratz  
428 M6  
Stillwater, OK 74076


Carrie Winterrowd  
434 Willard  
Stillwater, OK 74076

Reviewed and  
Processed as: Expedited

Approval Status Recommended by Reviewer(s): Approved

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Signature



Carol Olson, Director of University Research Compliance

Friday, March 30, 2001

Date

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

VITA

Richard W. Pongratz

Candidate for the Degree of

Master of Science

Thesis: THE RELATIONSHIPS OF EMOTIONAL INTELLIGENCE, DOGMATISM,  
AND SEX, WITH THE EXPERIENCE AND EXPRESSION OF ANGER IN  
COLLEGE STUDENTS

Major Field: Counseling and Student Personnel

Biographical:

Education: Graduated from O'Neill St. Mary's High School, O'Neill, Nebraska in May 1993; received Bachelor of Science degree in Mathematics and Computer Science from Wayne State College, Wayne, Nebraska in May 1997; received Master of Science in Mathematics from Oklahoma State University in May 2001. Completed the requirements for the Master of Science degree with a major in Counseling and Student Personnel at Oklahoma State University in August, 2001.

Experience: Raised on a farm near O'Neill, Nebraska; employed as a farm laborer during summers; employed by Wayne State College, Learning Center as an undergraduate; employed by First National Bank of Omaha as a programmer analyst; employed by Oklahoma State University, Department of Mathematics as a graduate teaching and research assistant; employed by Oklahoma State University, Extension Office of College of Education as a member of the faculty technical support team, 2000 to present.

Professional Memberships: American Counseling Association, American Mathematical Society