

10-13-2005

## Examining Emotional Intelligence and Leadership

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Examining Emotional Intelligence and Leadership

by

Shannon Webb

A dissertation submitted in partial fulfillment  
of the requirements for the degree of  
Doctor of Philosophy  
Department of Psychology  
College of Arts and Sciences  
University of South Florida

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Date of Approval:  
October 13, 2005

Keywords: self awareness, self confidence, empathy, supervisor, transformational, LMX

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## Dedication

Throughout the process of completing my Doctorate degree, many people have helped to inspire me, guide me, and motivate me to succeed. I would like to thank some of those people, without whose help and support I would not have reached this point. To begin, my thanks goes to my advisor, Dr. Paul Spector, whose advice and guidance have led me down fascinating avenues of research. I'd also like to thank my committee members, who have challenged me, and who have helped to make my dissertation into a better study.

On a personal note, I'd like to thank my parents, Marabeth Bacon and Robert Webb, who, beyond providing me with a path for my education and career, have also provided unconditional support, encouragement, and generosity. Finally, my thanks and my love go to my fiancée, Adam Bonner, who has stood beside me with advice, help, and love through all the phases of this process. Without the support of these three people, I would never have made it this far.

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## Examining Emotional Intelligence and Leadership

Shannon Elizabeth Webb

### ABSTRACT

Varying theories have been presented about the relationship of emotional intelligence to transformational leadership. The present study examines the extent to which a self report measure of emotional intelligence, based upon an ability model, can predict each of the four components of transformational leadership. This study further considers the extent to which the quality of a leader-follower dyad's Leader-Member Exchange relationship can moderate the relationship between emotional intelligence and transformational leadership. Study results demonstrate that emotional intelligence is related to several components of transformational leadership, and that both the quality of the Leader-Member Exchange relationship and the tenure of the follower can moderate the relationship between emotional intelligence and some of the components of transformational leadership.

## Chapter 1 – Introduction

Emotional intelligence (EI) is a term that refers to a field of theories relating to the understanding and use of emotions. Debate continues to rage about what, exactly, emotional intelligence is. There are three widely recognized schools of thought at present. One views emotional intelligence as a precisely defined form of intelligence, encompassing only emotion related abilities. The recognized model based upon this view is referred to as an ability model.

The second school of thought takes a broader view of emotional intelligence, conceptualizing it as expressed via a wider range of skills and traits related to emotions. Models of emotional intelligence created from this viewpoint are often referred to as mixed models. Alternately they have been labeled personality models or trait models, due to their significant relationships with personality traits.

The final school of thought believes that emotional intelligence is no more than a conglomeration of previously defined constructs. Members of this school (e.g., Landy, 2005) express the opinion that there is little further utility in studying emotional intelligence. While their criticisms may be valid, the evidence published to date in support of the construct of emotional intelligence (e.g, Mayer, Salovey, Caruso & Sitarenios, 2001, 2003) is convincing. To ignore the construct at this point simply because of the current negative reactions could be to do a great disservice to psychology. Because of this, this final school of thought is not presented any further in this paper, but the strengths and weaknesses of the ability and mixed models of emotional intelligence are discussed.



Leadership is a construct often discussed in conjunction with emotional intelligence (Ashkanasy & Tse, 2000). There are multiple models of leadership, and these models focus on different levels of leadership. At the individual, or leader level, a key model is that of transformational leadership (Avolio & Bass, 1988). Transformational leadership, while not representative of all forms of leadership, provides a model with clear theoretical relationships to emotional intelligence. This makes it an excellent model of leadership to consider in the present context. At the relationship, or dyadic level, Leader-Member Exchange (LMX) theory (Graen & Uhl-Bien, 1995) provides another explanation of leadership with links to emotional intelligence. What follows is a review of the existing literature relevant to both emotional intelligence and to the two leadership constructs mentioned above.

*Emotional Intelligence: Ability models*

Of the two schools of thought that accept the construct of emotional intelligence, the position with the greatest construct clarity is that which focuses on EI as an ability. This school of thought views emotional intelligence as a set of abilities directly related to emotions. These abilities are a natural part of every individual's daily functioning. However, as is the case with other cognitive abilities, individuals with greater ability in the area of emotional intelligence should have enhanced functioning compared to those with lesser ability. The model encompassing this school of thought, generally referred to as an ability model, is most often conceptualized as having four subcomponents. The component labels used by Mayer, Caruso and Salovey (2000) to describe these subcomponents are: Emotional perception, emotional facilitation of thought, emotional understanding and emotional management.

The first component, emotional perception, involves the ability to recognize emotion in the self and in external targets. Examples of external targets include other people, visual art and music. The second component, emotional facilitation of thought, encompasses the abilities to link emotions to other objects and to use emotions to enhance reasoning and problem solving. An example of this would be an individual who, upon perceiving anger in himself, is capable of analyzing the cause of that anger and thereby addressing that cause and resolving the anger. The ability to understand how emotions relate to each other and what emotions mean is subsumed under the third component, emotional understanding. The fourth and final component, emotional management, refers to an ability to understand and manipulate emotions in the self and in others. An example of this would be an individual who is able to invoke a positive mood in himself when he is depressed, and thereby is able to function and interact with other people in a positive manner.

Mayer, Salovey, Caruso and Sitarenios (2001) further clarify these four components. They explain that the four components act as a four branch hierarchy, with perception of emotions acting as the most basic or bottom branch and emotional management as the most complex, or top branch. That is, perception of emotions is a necessary precursor to the next three branches. If an individual lacks the ability to process emotional input on the lowest level of the model, perception of emotion, they would also lack the ability to manage emotions at a higher level of the model. Research on the construct of alexithymia has supported this hierarchy. Alexithymia is a constellation of symptoms characterized by difficulty recognizing one's own emotions. The research has shown that alexithymics also have difficulty recognizing emotions in others, using

emotions to enhance reasoning, and managing their own emotions (Parker, Taylor & Bagby, 2001). This supports the premise that those who lack the ability to perceive emotions, the lowest branch of the model, also lack the ability to function at higher branches of the model.

Once perception has occurred, then emotions can be utilized to facilitate thought, whether this process is conscious or not. Research done by Levine and Burgess (1997) has demonstrated that different emotions, such as anger, sadness or joy, are related to different problem solving strategies. She argues that the strategies related to each emotion are those which are most adaptive for the cause of the emotion. For example, sadness, which is evoked when a goal or desire is permanently blocked, leads to emotion-focused coping strategies. Due to the permanent nature of the blockage, emotion-focused coping is the most appropriate strategy, according to Levine and Burgess. If the goal is permanently blocked, then problem focused coping strategies designed to reach the goal would be ineffective. Thus specific emotions can lead an individual to appropriate cognitive responses. This finding supports the idea that emotions, once perceived, can be used to enhance thought.

More complex still is the ability to understand what emotions mean. This involves cognitive processing to recognize how multiple emotions can combine and to anticipate how one emotion leads to another. Finally, the highest and most complex branch is managing emotions, which involves a great deal of cognitive processing in order to translate emotional knowledge to behavior. For example, to manage the emotion of sadness in another person an individual must determine what words to say and what physical behaviors to enact. Several studies have found significant correlations between

emotional intelligence and verbal intelligence (Mayer, Caruso & Salovey, 1999). It is possible that these correlations are significant in part because verbal skills are necessary to manage emotions in others. This adds to the complexity of the fourth branch, and helps to explain its position in the hierarchy.

Recent research provides support for the idea that this definition of emotional intelligence meets the criteria of an intelligence (Mayer, Caruso & Salovey, 1999; Ciarrochi, Chan & Caputi, 2000; Roberts, Zeidner & Matthews, 2001). Because the construct validity of emotional intelligence has been so greatly debated in the literature, a review of the evidence for construct validity is merited here. One of the earliest articles focusing on the construct validity of the four branch ability model was written by Mayer, Caruso and Salovey (1999). The authors began by conceptualizing emotional intelligence as a new form of intelligence, one that falls under the umbrella of “general mental abilities”. They then argued that in order for emotional intelligence to be a new and valid type of intelligence, it must meet three criteria that apply to the validation of all types of intelligence. The first criterion was referred to as a conceptual one, and stated that intelligence “must reflect mental performance rather than simply preferred ways of behaving” (pp. 268). Thus with this model, emotional intelligence should only include cognitive information processing and the direct behavioral results thereof, and not personality factors such as self-esteem. Inclusion of personality traits would reflect preferred ways of behaving and would thereby invalidate the ability model.

This is not to suggest that behavior is unrelated to the ability model of emotional intelligence. As noted earlier, behaviors are undoubtedly a part of regulating emotions in the self and in others, and could well help to identify emotions. However, behaviors that

are the result of cognitive information processing are included in this model, while behaviors that are the result of personality traits are not. That is, the behaviors that typify certain personality traits are not considered to be the same as the behaviors that arise from individual's emotional intelligence. The cognitive processes associated with emotional intelligence might well result in an individual behaving in ways not expected based on his or her personality traits. While this is a simplistic view of the personality-behavior link, and one that ignores the trait-situation controversy in the field of personality (Pervin, 1985), it is the basic foundation of Mayer and colleagues' conceptual criteria.

The second criterion given by Mayer and his co-authors was what they referred to as a correlational criterion. Based upon this criterion, any intelligence, "should describe a set of closely related abilities that are similar to, but distinct from, mental abilities described by already established intelligences" (pp 268). The expectation that arises from this criterion is that emotional intelligence should correlate with established intelligences to such an extent that a relationship is demonstrated, but not so much that emotional intelligence cannot be distinguished from those established intelligences. The final criterion listed was called a developmental criterion. It stated that all intelligences are expected to increase with age and experience. Thus an individual's emotional intelligence should increase as that individual gains experience.

Having articulated these three criteria, Mayer, Caruso and Salovey (1999) attempted to demonstrate that their ability model of EI, as measured by the MEIS (Mayer, Caruso & Salovey, 1999) or the MSCEIT (Mayer, Salovey, Caruso & Sitarenios, 2001), met all three. In order to meet the first, the conceptual criterion, the authors pointed out

that they had operationalized emotional intelligence as an ability. Further, the method used to measure emotional intelligence, the MEIS, was designed to be an ability measure, with objectively correct and incorrect answers. Based upon this operationalization, the authors concluded that emotional intelligence had successfully met the first criterion of an intelligence.

The authors then administered the MEIS, measures of verbal IQ and measures of personality traits to a large (N=503) subject pool. The personality trait measures used fell into two groupings. The first grouping was composed of personality factors related to empathy. It included measures of positive sharing, avoidance and feeling for others. The second grouping was composed of personality factors that the authors labeled “life space criteria”. These included life satisfaction, self-improvement, and parental warmth. After measures had been administered, scores on the MEIS were factor analyzed. A three factor solution was consistently found. The three factors obtained represented perception of emotions, understanding and utilizing emotions, and managing emotions. Thus the two middle branches of the four branch hierarchy appear to be joined. It is interesting to note that the original model of emotional intelligence, authored by Salovey and Mayer (1990) did combine these branches. A hierarchical factor analysis that was subsequently completed demonstrated that all the subscales of the MEIS loaded onto a single, general emotional intelligence factor.

Following the factor analysis of the MEIS analysis, the authors then looked for evidence that emotional intelligence, as measured by the MEIS, met the correlational criterion discussed above. They discovered a correlation of  $r=.36$  between overall scores on the MEIS and verbal intelligence. The authors felt that this correlation was of a

magnitude sufficient to indicate that emotional intelligence was indeed related to other intelligences, but was also significantly different from those others. Correlations between the MEIS and the empathy measures were then examined. All were significant, however all had lower correlations than the one found between verbal IQ and EI. Finally, the authors tested the correlations between emotional intelligence and the life space criteria, after partialing out both verbal IQ and empathy from EI. Of the three correlations between EI and life space factors that had been significant prior to partialing out verbal IQ and empathy, two remained significant. The authors tentatively concluded that the MEIS does measure more than just personality or IQ factors, and in fact is capable of capturing the EI construct. Several subsequent studies that used different but theoretically sound personality measures such as the NEO-PI-R (Ciarrochi, Chan & Caputi, 2000; Mayer, Salovey, Caruso & Sitarenios, 2003) supported this conclusion.

Finally, Mayer, Caruso and Salovey (1999) tested samples of both adolescents and adults in order to demonstrate that emotional intelligence met the developmental criterion mentioned above. They found significant differences between the adolescent and adult samples, such that adults did appear to outperform the adolescents. Thus the authors felt that the third criterion for an intelligence had been met. Based on this research, the authors concluded that the emotional intelligence construct was indeed valid. They noted the need for further research, however, especially on the relationship of EI to personality.

This need was subsequently addressed by Ciarrochi, Chan and Caputi (2000). These authors evaluated the emotional intelligence construct using the MEIS, Raven's Standard Matrices (an intelligence test), measures of empathy, self esteem and four

personality measures taken from the NEO-PI-R. Those four measures captured extraversion, neuroticism, openness to feelings and openness to expression. Three criteria measures were also obtained, representing life satisfaction, relationship quality and parental warmth. These authors found that EI was not significantly related to the measure of intelligence used. However, they pointed out that the IQ measure they used is related more closely to performance IQ than to verbal IQ, and therefore perhaps emotional intelligence is also related more closely to verbal intelligence. This result raises the concern that the MEIS and MSCEIT measure verbal ability, and not necessarily EI. It could be the case that some of the subscales assess verbal ability, while others such as regulating emotions assess personality. The understanding emotions subscale is quite vulnerable to such concerns. The following question from that subscale on the MSCEIT demonstrates why such concern is warranted: “Optimism most closely combines which two emotions? (a) pleasure and anticipation; (b) acceptance and joy; (c) surprise and joy; (d) pleasure and joy.” (Mayer, Caruso & Salovey, 1999). It could be argued that this question and others like it that comprise this subscale require more of a knowledge of word meaning than of emotional understanding. If questions like this, which make up several subscales, do measure verbal ability, they could explain the moderate correlation of EI with verbal intelligence, and the lack of correlation with performance IQ. This could also explain the moderate correlations to personality traits such as empathy, which are discussed below.

An alternate explanation of the moderate relationship between EI and verbal intelligence is that verbal intelligence is a necessary component of emotional intelligence that has not been formally included in the construct. Because verbal ability is related to a



person's ability to express himself or herself, and therefore to regulate emotions in others, it could be necessary to have a certain level of verbal ability in order to have a certain level of emotional intelligence. This would justify the use of some subscales that appear to measure verbal ability. No matter what the true relationship between EI and verbal and performance IQ is, results of the studies presented above provide support that emotional intelligence, as measured by the MEIS or MSCEIT, meets the correlational criterion of an intelligence. However, as with any developing construct, emotional intelligence should be examined with a critical eye.

Ciarrochi and his colleagues (2000) proceeded to examine the relationship of EI to the personality measures. They found significant relations between EI and empathy, extraversion and openness to feelings. Significant correlations were also found between EI and relationship quality and life satisfaction, two of the three criterion measures. As was found in the Mayer study, Ciarrochi, Chan and Caputi (2000) also found that significant correlations to these criteria remained, even after IQ, empathy and the other personality measures had been partialled out of the relationship. Thus this study provides evidence that the emotional intelligence construct correlates with theoretically related constructs such as empathy, but also has incremental validity beyond those constructs.

When considering the incremental validity associated with emotional intelligence, caution should be taken not to assume that EI can become a replacement for personality measures. While emotional intelligence was found to have incremental validity beyond the performance IQ and personality measures, the incremental validity of personality beyond EI was never addressed in the Ciarrochi, Chan and Caputi study (2000), nor in any of the other studies mentioned. Also, considering the concerns raised earlier

regarding verbal intelligence, the incremental value of EI in the case of Ciarrochi and colleagues' study does remain in question. If verbal IQ had also been partialled out, findings would be more supportive of the incremental validity of EI. Thus Ciarrochi, Chan and Caputi's (2000) work provides tentative support of the construct validity of emotional intelligence, as captured by ability measures.

*Emotional Intelligence: Mixed models*

The second school of thought on emotional intelligence is considerably broader than the pure ability school. It includes measures that attempt to capture components of the ability model of EI through self reports of typical behavior. It also encompasses models and associated measures that include not just emotional abilities, but also abilities that emotions and management of emotions can facilitate. An example of this would be leadership skills, which can be facilitated through skilled understanding and use of emotions.

The facets composing mixed models and the measures used to capture them vary greatly by theorist, but the work of Bar-On has been particularly influential in the field, and much research has been done on the utility and validity of his model. Bar-On himself describes his model as an extension of an ability model by Salovey and Mayer (Bar-On, Brown, Kirkcaldy & Thome, 2000). Moreover, his model typifies the mixed or personality approach to EI. Bar-On's emotional and social intelligence framework encompasses the following five factors: Intrapersonal capacity, interpersonal skills, adaptability, stress management, and motivation and general mood factors (Bar-On et al., 2000). The first factor, intrapersonal capacity, involves the ability to understand the self and emotions in the self, and to coherently express one's emotions and ideas.

Interpersonal skill, which is the second factor, refers to an ability to recognize other's emotions and to maintain mutually satisfying relationships with those others. The third factor, adaptability, encompasses the ability to use emotions in the self, as well as external cues, in various ways. Those ways include interpreting a situation, altering cognitions and emotions as situations change and solving problems. The ability to cope with strong emotions and with stress is the fourth factor of stress management. Finally, the fifth factor, motivation and general mood, refers to an ability to manifest positive moods, enjoy those positive moods and to experience and express positive emotions.

As can be seen here, the factors or components that make up ability models are significantly different from those that form Bar-On's model and others like it, such as Goleman's (1995) Emotional Quotient model. However, emotions are involved in both ability and mixed models. In the ability model, emotions are directly related to the abilities being considered. In the second set of models, mixed models, emotions can either be directly related to abilities, or they may instead assist abilities. For example, within the motivation and general mood factor, an individual with no ability to perceive emotions could still motivate himself to act for external reward. On the other hand, an individual able to motivate himself by recognizing the positive rewards and also the positive mood that will arise from action may well experience greater success in life due to multiple sources of motivation.

It is important to note that mixed models are highly correlated with personality constructs such as empathy and self-esteem (Dawda & Hart, 2000; Petrides & Furnham, 2001; Newsome, Day, & Catano, 2000). Dawda and Hart (2000) reported correlations between the EQ-i (Emotional Quotient Inventory) (Bar-On, 2000) and four of the five

NEO-PI-R scales to be between  $r=.33$  and  $r=.72$ , with the majority of the correlations falling above  $r=.51$ . Newsome, Day and Catano (2000) found that all but one of the factors obtained from the 16PF, a personality measure, were significantly correlated with both the EQ-i total score and the EQ-i composite scores ( $r$ 's=.18 to -.77). Taking a slightly different approach, Petrides and Furnham used factor analysis to examine the relationship of trait emotional intelligence, as measured by the EQ-i, to both the 'Big Five' personality construct, and Eysenck's P-E-N personality model. These authors interpreted the results of their study to indicate that EI could be viewed as a "lower order composite construct" that would fit into either model. In their view, EI was a part of personality, albeit a part somewhat different from existing personality structures. Based on this stream of research, many researchers argue that mixed model "Emotional Intelligence" scales measure little more than personality, and add insignificant incremental validity to predictions of anything beyond what is given by existing personality scales (Petrides & Furnham, 2001; Caruso, Mayer & Salovey, 2002; Charbonneau & Nicol, 2002).

However, those researchers who advocate mixed models of emotional intelligence point to the importance of personality factors, especially empathy and self-esteem, in their models (Goleman, 1995; Bar-On, 2000). They note that their models of emotional intelligence subsume the components of ability models and cover related traits (Bar-On, 2000). For example, the four branches of the ability model are contained in various components of Bar-On's (2000) emotional and social intelligence model. The first and second branches of the ability model, perception of emotions in the self and others and understanding emotions, fall under Bar-On's domains of intrapersonal and interpersonal

capacity. The third branch of using emotions to facilitate thought is subsumed within the component of adaptability. The final branch, managing emotions in the self and others, relates to both the factor of interpersonal capacity and the factor of motivation and general mood. Thus, these theorists argue, mixed models do encompass ability models.

But these mixed models include far more than just the components of ability models. Goleman (1995) speculates that an individual high on emotional intelligence should also be high on empathy, self awareness, openness to experience and related traits. In fact, if the individual was lacking in emotional intelligence, he or she would also be lacking in empathy, self awareness and other traits. With mixed models, emotional intelligence is the key trait that leads to other traits. Because of this, the relationship between emotional intelligence and these personality traits becomes part of the overall mixed model of emotional intelligence. As a corollary of the inclusion of personality traits in the model, personality traits become part of the measures used to capture mixed models of emotional intelligence.

Due to the use of personality in mixed models and their associated measures, it can be difficult to make a strong case for the discriminant validity of mixed measures of emotional intelligence beyond that of existing personality measures. Despite this, mixed model theorists argue that there is evidence that a single mixed measure of emotional intelligence can predict certain criteria as well as a personality measure. Examples of this do exist in the literature. Mixed models have been used to predict different types of success, such as academic success or success in relationships (Schutte et al., 2001; Van der Zee, Thijs & Schakel, 2002).

It is also necessary to point out that not all mixed models attempt to measure so wide a range of personality traits as does Bar-On's model. Wong and Law (2002) created a short, self report measure of emotional intelligence called the Wong and Law Emotional Intelligence Scale (WLEIS). Their inventory measures typical behavior, like the EQ-i, and thus can not be classified with the ability models and measures. However, it is based upon Salovey and Mayer's (1990) early three factor ability model of EI. Therefore it attempts to measure perception of emotions, regulation of emotions and utilization of emotions. Bar-On's model and its associated measure include components such as maintaining mutually satisfying relationships and enjoying positive moods. These are both factors that could be direct expressions of personality, and seem to be only distantly related to EI. The WLEIS, on the other hand, measures a smaller range of typical behavior that is arguably more closely related to EI. This could explain why the WLEIS successfully predicts a number of outcome variables, such as task and contextual performance, after controlling for personality (Law, Wong & Song, 2004). Thus, when considering the value of mixed measures of EI, it is necessary to carefully examine the makeup of each specific measure.

Having examined the current research on mixed models of emotional intelligence, it appears that such models and their associated measures hold promise. It is likely that some measures, such as the WLEIS or the SSRI (Schutte, et. al., 1998), another self report test based on Salovey and Mayer's (1990) three factor model, attempt to capture more than just personality traits, and are useful in predicting various outcomes. More research is clearly needed to determine when mixed models and measures should be used.

In terms of predicting practical outcomes, such as leadership skills, mixed measures have one key advantage over ability measures. Proponents of ability measures can not conclusively state that those measures do capture the “pure” ability of EI. Current research fails to support such a claim. Further, even if they do assess an individual’s ability, they will assess maximum ability. That is, a true ability measure will capture what an individual is capable of. On the other hand, personality measures are more likely to capture typical performance. Measures like the WLEIS ask individuals how they normally think and behave. When predicting everyday behavior, it is arguably better to have a measure of typical performance, such as the WLEIS, than a measure of maximum possible performance, such as the MSCEIT.

In what follows, a series of hypotheses are presented to test the idea that emotional intelligence, as measured via a self report instrument such as the WELIS, is capable of predicting useful information. Further, these hypotheses test the extent to which emotional intelligence is a unique construct, one that can demonstrate incremental validity beyond theoretically related constructs such as empathy, self awareness and self confidence. Specifically, the utility of emotional intelligence in predicting leadership is considered. Because of this, discussion of two relevant leadership theories begins below. Study hypotheses are included in the discussion to facilitate clarity. A summary of all hypotheses can be found at the end of this chapter.

#### *Leadership: Transformational*

When considering the components of any model of EI, it is easy to see a clear influence of emotional intelligence on everyday life. Day to day interactions and cognitions are influenced by how well we deal with our own and others’ emotions. One

way EI is likely to have a large impact on people is through social interactions.

Emotional intelligence will have a pervasive impact on leadership, which is one type of social interaction. If leaders are not sensitive to the emotional information they receive from their followers, conflict may well occur. If the leaders are aware and are capable of managing emotions in others, this should allow interpersonal interactions to proceed smoothly.

Managing emotions in the self and in others is a critical component of leadership. According to Yukl (1994), as cited in Ashkanasy and Tse (2000), all leadership involves “mobilizing human resources toward the attainment of organizational goals” (2000). Many researchers have stressed the importance of the proper use of emotions to successful leadership (e.g., Ashkanasy & Tse, 2000; Pescosolido, 2002; Sosik & Megerian, 1999; Barling, Slater & Kelloway, 2000). These authors note that leaders use emotional tone to secure cooperation within groups, to motivate followers and to enhance communication. Furthermore, as Caruso, Mayer and Salovey (2000) point out, leaders must be aware of their followers’ emotional reactions. Without such awareness, the leader will have difficulty knowing when, or if, his orders are followed.

One specific field of leadership study that appears to hold great promise for relationships with emotional intelligence is that of transformational or charismatic leadership. Yukl (1999) writes that theories of transformational or charismatic leadership focus on the importance of emotions, unlike other leadership theories. Numerous definitions of both types of leadership exist, and for each definition there is a different view on how one type relates to the other. Yukl (1999) notes that the number of definitions make it difficult to compare the two terms. However, Yukl states that recent



research has resulted in transformational and charismatic leadership theories becoming conceptually similar. Conger's (1999) analyses of the relevant literature indicate that many researchers feel either that charismatic and transformational leadership refer to the same leadership construct, or that charismatic leadership is subsumed within the construct of transformational leadership (Ashkanasy & Tse, 2000; Conger, 1999; Hunt & Conger, 1999). Furthermore, the majority of empirical research completed to date has used complimentary models of transformational or charismatic leadership, rather than models that strictly differentiate the two. With this research in mind, a model of transformational leadership that encompasses charisma is presented here.

Several models of transformational or charismatic leadership exist, however three main models have become recognized in the leadership field. As Conger (1999) notes, only one of those models, the transformational leadership model created by Avolio and Bass (1988), focuses on transformational leadership rather than charisma. The other two models focus on charisma and the leadership qualities associated with it. While those leadership qualities bear striking similarity to the leadership behaviors included in the transformational model, differences remain between the models. According to Conger, due to the value connotations associated with the term 'charisma', Avolio and Bass's transformational model has become more often used. As a result, their four component transformational leadership model is well supported in the literature, and thus it is presented here.

The first component, or factor, of the transformational leadership model is idealized influence. Most taxonomies of transformational leadership place charisma into this factor. In fact, Bass (2000) specifically labels this factor 'Charismatic Leadership'.

Whichever label is used, the factor refers to the extent to which followers trust and emotionally identify with the leader as a result of the leader's behavior (Pillai, Schriesheim & Williams, 1999; Sosik & Megerian, 1999). The second factor is inspirational motivation, and it refers to the extent to which the leader provides followers with emotional or tangible resources that will lead to achievement of the leader's goals. Intellectual stimulation is the third component of transformational leadership. It refers to the extent to which the leader encourages followers to question their current knowledge, beliefs and modes of action. Finally, the last component is individualized consideration. This refers to the leader's tendency to provide followers with tasks and feedback appropriate for their needs and skills.

Lending support to the notion that charismatic leadership is a key component of transformational leadership, a study by Bass (1988) found that charisma accounted for 66 percent of the response variance in the transformational leadership model. Other research has come to similar conclusions about the relationship between charisma and transformational leadership (Ashkanasy & Tse, 2000). This finding is likely due in part to the fact that one of the expected results of transformational leadership behavior is identical to one of the main components of nearly all charismatic leadership models. A product of transformational leadership behavior is that the leader's values and standards are transferred to the followers, thus resulting in changes in the followers' values and associated cognitions and behaviors (MacKenzie, Podsakoff, & Rich, 2001). Likewise, a product of charismatic leadership behavior is the transference of the leader's vision and associated behaviors to the followers (Conger, 1988; Wasielewski, 1985; Yukl, 1981). Thus charisma is a core part of transformational leadership.

Because of the relationship of charismatic leadership to transformational leadership, charismatic leadership becomes a good starting point for examining the relationship of transformational leadership to emotional intelligence. Before beginning on such an examination, however, it is necessary to define the construct of charisma. Max Weber was the first to discuss charismatic leadership, and other theories on the subject have grown from his writings (Conger, 1988). Weber discussed an ideal and extraordinary leader who had authority over others based upon the followers' trust in the leader's character. Yukl (1981) listed a number of outcomes that arise from a charismatic leader. These outcomes include: (1) followers trust in the leader's beliefs, (2) followers assimilate or internalize the leader's beliefs, (3) followers feel positive emotion regarding the leader, (4) followers become emotionally involved in the goals of the leader, (5) followers believe they can aid in the success of the leader's goals. Thus, a charismatic leader is one with the ability to instill in his followers his own beliefs, trust in himself and a sense of efficacy for accomplishing those beliefs.

Emotional intelligence should be an integral part of charismatic leadership. In fact, Wasielewski (1985) argues that emotions are the basis of charisma. She postulates that at the lowest level, a charismatic leader cannot instill values in his or her followers unless he or she is able to "sincerely convey his own belief." In order to convey such sincerity, a leader must first understand the emotions felt by his or her followers. He or she must then speak to those emotions in such a way that the followers become conscious of them. Finally, the leader must present his or her own ideas in terms of new emotions that the followers must adopt. Wasielewski cites the example of Martin Luther King, Jr. In his famous "I have a dream" speech, he began by evoking the crowd's own feelings of

anger at social inequality. Immediately following that, however, he evoked pride and pity in the crowd: pride toward themselves for enduring challenges, and pity toward those who live in anger and use violence. Thus King spoke to his followers' emotions first, thereby demonstrating his understanding of them. He followed that by proposing a different set of emotions, and a vision for behaviors (nonviolence) to be associated with those emotions.

The ability to transform followers' emotions in such a manner is clearly related to emotional intelligence. First, perception of emotions in the self and in others is necessary for a leader to recognize both the emotions associated with his own vision, and the emotions associated with his followers' initial values and beliefs. Next, understanding of emotions and how they relate to each other, and to external sources, is key. The leader must understand how the emotions his beliefs entail relate to the emotions his followers' beliefs entail. Through this relationship, the leader can draw a logical connection between the two. Also, and of extreme importance, a charismatic leader must understand how emotions relate to physical gestures, speech patterns and other cultural information he shares with his followers. For example, King understood the pride and hope associated with the spiritual "Let Freedom Ring" and therefore he was able to use those words in his speech to maximum effect. Finally, managing emotions in the self and others is necessary so that the leader can transfer his values to his followers. Thus the basic components of emotional intelligence are all directly related to charismatic leadership.

Beyond this, emotional intelligence has even more ability to influence charisma. As Yukl (1981) mentions, followers of charismatic leaders will feel positive emotion toward the leader, and also toward the leader's goals. Kelly and Barsade (2001) discussed

the role of emotional contagion in creating strong emotional states within a group. In the context of groups, emotional contagion refers to a spread of emotion from one member of the group, often the leader, to the rest of the group. This spread is unconscious and mostly automatic. That is, those individuals who ‘receive’ emotional contagion are not aware of it. Emotional contagion occurs when receivers mimic the physical emotional behaviors of an individual, such as facial expressions, language and gestures. Research has demonstrated that this unconscious physical mimicry results in the receiving individuals reporting the same emotions that the ‘sender’ reports (Doherty, 1998; Kelly & Barsade, 2001).

Emotional intelligence should play a role in emotional contagion. A leader who is able to manage emotions in the self and in others will be better able to propagate emotional contagion within the group. As was mentioned previously, managing emotions in others includes understanding and using relevant gestures, language and facial expressions. Assuming that the leader selects and displays positive emotions regarding his or her goals, or toward himself or herself, such contagion will be a part of charismatic leadership. A leader who is unable to manage emotions in the self or others will likewise find it difficult to spread such positive emotions about goals and himself or herself. All of this information suggests that emotional intelligence should be strongly related to charisma. Given all of this information, there appears to be a convincing case for the relationship of emotional intelligence to charisma. Thus, the first of the study hypotheses is presented below, and additional study hypotheses are included where relevant in the continued discussion of leadership that follows.

*Hypothesis 1a: Emotional intelligence is related to charisma.*

Many scholars have suggested that emotional intelligence is nothing more than a conglomeration of personality traits, such as empathy and self awareness. In the case of charisma, it is expected that empathy would be a predictor, given the importance of recognizing emotions and responding to emotions in others. Likewise, self awareness should predict charisma, because such awareness can be expected to facilitate a leader's ability to recognize emotions. Further, self confidence relates to a leader's ability to actively manipulate the emotions and ideas of others to his or her own mindset. Those lacking self confidence should be less capable of such manipulation for a variety of reasons. If emotional intelligence were only comprised of empathy, self confidence and self awareness, then it should have no incremental validity beyond these three variables when predicting charisma. However, emotional intelligence, as conceptualized here, includes a component that specifically addresses manipulation of emotions, and a component that includes understanding emotions, both of which are at the crux of charisma. Those components are different from empathy, self confidence and self awareness. Thus, the following hypothesis is presented:

*Hypothesis 1b: Emotional intelligence will demonstrate incremental validity beyond empathy, self awareness and self confidence when predicting charisma.*

Having considered the relationship of idealized influence, or charisma, to emotional intelligence, the second factor of the transformational leadership model, inspirational motivation, will be considered. Several researchers have demonstrated that two key factors in determining a leader's success in inspirational motivation are his or her self confidence and self awareness (Yukl, 1999; Sosik & Megerian, 1999). Individuals who are able to perceive and understand their own emotions and the emotions of others

should have greater self awareness. They should be better able to understand emotional feedback they receive regarding their performance. Thus emotional intelligence should be related to self awareness. Work by Sosik and Megerian (1999) supports this.

Following the hierarchical nature of the ability model of emotional intelligence, self awareness should be related to the model at the most basic and fundamental level, perceiving emotions. Thus, emotional intelligence and self awareness should be strongly and directly related. Emotional intelligence, as measured by the WLEIS, should not directly measure self confidence. While some mixed measures such as Goleman's (1995) directly and intentionally assess self confidence, the WLEIS does not. Rather it attempts to measure an individual's typical expression of perceiving emotions, managing emotions and utilizing emotions. None of these components bear a direct relationship to self confidence. It is likely, however, that those with higher levels of emotional intelligence have greater success in certain aspects of life, due to the abilities associated with EI. These successes should lead to greater self confidence. For example, the ability to successfully manage one's own emotions could lead to a feeling of mastery over the self, and thereby to self confidence. Also, individuals who are aware and who thus correctly receive and interpret feedback they receive from others regarding their performance may feel a heightened sense of confidence because their interpretations of others are often correct. In these ways, it is possible that emotional intelligence relates self awareness and self confidence. Based on this, the following hypotheses are proposed:

*Hypothesis 2a: Emotional intelligence will predict self awareness.*

*Hypothesis 2b: Emotional intelligence will predict self confidence*

*Hypothesis 2c: Emotional intelligence will have a stronger relationship to self awareness than to self confidence.*

Beyond the role that emotional intelligence plays in explaining self awareness and self confidence, two factors necessary for inspirational motivation, emotional intelligence should also play a direct role in inspirational motivation. The ability to manage emotions in the self and in others, a component included in all EI models and measured by the WLEIS, should allow leaders to provide emotional motivation to their followers. A leader who is aware of his or her followers' emotions and who alters them in such a way as to direct them toward a feeling of empowerment uses his or her ability to manage emotions to motivate. Conger and Kanungo (1988) specifically posit that a transformational leader uses his or her own strong emotions to arouse similar emotions in followers. Thus:

*Hypothesis 3a: Emotional intelligence will significantly predict inspirational motivation.*

The previous four hypotheses raise the possibility that the relationship of emotional intelligence to inspirational motivation could be due in part to self awareness and self confidence. This is especially likely, given that self confidence is needed in order to give others a sense of empowerment, a task critical to inspirational motivation. It is also possible that a leader's awareness of other's emotions could be a result of the leader's empathy. However, because EI includes skills unique from empathy, self awareness and self confidence, it is unlikely that these variables account for the entire relationship. Therefore, the following hypothesis is also postulated:

*Hypothesis 3b: Emotional intelligence will show incremental validity beyond empathy, self awareness, and self confidence when predicting inspirational motivation.*



The third factor of transformational leadership is intellectual stimulation.

Emotional intelligence can be expected to have an influence on this aspect of leadership through several routes. First, as Bass (2000) notes, an emotionally intelligent leader will avoid using harsh or condescending criticism of his followers. Thus when followers behave in less than ideal ways, or make questionable decisions, an emotionally intelligent leader will provide feedback with empathy and understanding. An emotionally intelligent leader will recognize, because of understanding of emotions, that harsh criticism could likely create a negative emotional tone. Thus the emotionally intelligent leader would use his or her ability to manage emotions to present feedback in a more positive light. A result of such feedback is likely to be that followers are more willing to try new things, since they do not have to fear the repercussions of harsh criticism.

Caruso, Mayer and Salovey (2000) suggest a second way that emotional intelligence will enhance intellectual stimulation. They believe that another component of emotional intelligence, using emotions to facilitate thought, will be directly related to intellectual stimulation. Leaders who are able to use emotions to facilitate thought will be able to invoke in themselves and in their followers moods that lead to innovation. Specifically, these authors expect that an emotionally intelligent leader will, “for instance, use a happy mood to assist in generating creative, new ideas” (pp. 58). Research by Vosburg (1998) has demonstrated that individuals in positive moods performed better on divergent thinking tasks. As divergent thinking is one way of measuring creativity, this research supports the idea that positive moods such as happiness will enhance creativity. Thus a leader who causes a positive mood in his or her followers will help to intellectually stimulate them. Based on this the following hypothesis is proposed:

*Hypothesis 4a: Emotional intelligence will predict intellectual stimulation.*

In order to examine the extent to which emotional intelligence is a unique construct, its relationship with intellectual stimulation will be examined when accounting for empathy, self awareness, and self confidence. A recent meta analysis examining the relationship of personality to leadership reported a significant correlation between several personality variables and intellectual stimulation (Bono & Judge, 2004). While the correlations were significant, the credibility intervals included zero for all measured personality facets other than extraversion. Based on these results, there should be no relationship between intellectual stimulation and empathy, self awareness, or self confidence. Thus, the following hypothesis is proposed:

*Hypothesis 4b: Emotional intelligence will show incremental validity beyond empathy, self awareness, and self confidence when predicting intellectual stimulation.*

Finally, the last factor of transformational leadership is individualized consideration. Leaders skilled at individualized consideration are capable of assessing individual follower's needs and assigning tasks appropriate to those needs. In order to do this, the leader must truly understand the follower's needs, both emotional and developmental. This would require emotional perception on the part of the leader, and thus would be related to emotional intelligence. While no studies have previously addressed the relationship of emotional intelligence to individualized consideration, several have addressed a related topic: empathy. A leader who can understand and sympathize with a follower's emotional needs is experiencing empathy for that follower (Kellett, Humphrey & Sleeth, 2002). When that leader then works with the follower to meet those emotional needs, his or her actions should signal his or her empathy to the

follower. Thus when a leader engages in individualized consideration, he or she also engages in empathy.

Furthermore, empathy is considered to be a key characteristic of transformational leaders (Behling & McFillen, 1996). As was discussed earlier, emotional intelligence is a necessary precursor to empathy. Perceiving emotions in others, understanding emotions and managing emotions in others are all components of empathy. Hence emotional intelligence is related to empathy, while empathy is related to both individualized consideration and overall transformational leadership. A concern voiced in the literature regarding use of a mixed measure of EI such as the WLEIS is that empathy is what is being measured, rather than emotional intelligence. Because the WLEIS uses self reports of typical behaviors like empathic behavior, this is a particularly large concern in the present study. To address the issue, empathy will be measured separately from EI and the incremental contribution of EI to the prediction of individualized consideration will be calculated after empathy is accounted for. To further address the complaint that EI is nothing more than empathy, self confidence and self efficacy, emotional intelligence's contribution to prediction of individualized consideration beyond each of these variables will be considered. Based on this, the following hypotheses are postulated:

*Hypothesis 5a: Emotional intelligence will be significantly related to empathy.*

*Hypothesis 5b: Emotional intelligence will be significantly related to individualized consideration.*

*Hypothesis 5c: Emotional intelligence will have incremental validity beyond empathy, self confidence and self awareness when predicting individualized consideration.*

Given the potential impact that emotional intelligence can have on a leader's behaviors, it is possible that a leader's emotional intelligence could impact the follower's experience of job related variables. One such variable is job satisfaction. Several studies have demonstrated that transformational leadership predicts job satisfaction (Sparks, Schenk, 2001; Pillai, Schriesheim, & Williams, 1999). It is possible, then, that emotional intelligence can influence a follower's job satisfaction through its effect on a leader's transformational leadership. At present there is no clear evidence to support or refute the idea that emotional intelligence is related to job satisfaction (e.g., Carmeli, 2003; Srivastava & Bharamanaikar, 2004). With this information in mind, the following exploratory hypotheses are proposed:

*Exploratory Hypothesis A-1: Emotional intelligence of supervisors will predict job satisfaction of subordinates.*

*Exploratory Hypothesis A-2: Transformational leadership will mediate the relationship between emotional intelligence and job satisfaction.*

#### *Leadership: Leader-Member Exchange*

A second model of leadership has clear implications for both EI and transformational leadership. Unlike transformational leadership, which focuses on the leader's characteristics and thus operates at the level of the leader, Leader-Member Exchange theory (LMX) (Graen & Uhl-Bien, 1995; Gerstner & Day, 1997) considers leadership at the level of the relationship between the leader and an individual follower. LMX examines the quality of the relationship between one leader and each of his subordinates. Thus for one leader with two subordinates, two relationships are possible.

LMX developed out of early research on Vertical Dyad Linkage (VDL), which demonstrated that leaders use different leadership styles with different subordinates (Graen & Uhl-Bien, 1995). To the surprise of researchers at the time, VDL demonstrated that leaders do not use a single, average leadership style with all subordinates. Instead, leaders' styles change from follower to follower. This change means that one leader can have very different interactions, and thus different relationships, with different followers.

LMX theory hypothesizes that dyadic leader-follower relationships marked by a high degree of respect and trust, where both parties share mutual goals and obligations, are high quality relationships. These high quality relationships are also called partnerships. Characteristics of high quality LMX relationships include emotional exchange, support and mutual influence (Howell & Hall-Merenda, 1999). Conversely, relationships with a low degree of respect and trust, where mutual obligations are lacking, are low quality relationships. Characteristics of these low quality relationships include formally defined roles, unidirectional downward influence and economic exchange as the primary motivation.

In LMX theory, the extent to which a relationship between a leader and a follower is of high versus low quality depends on characteristics of both the leader and the follower. Because of this perspective, under Leader-Member Exchange theory, it is possible for a leader to have a high quality relationship with one subordinate and a low quality relationship with another. Further, studies have shown that LMX quality can have positive effects on a number of work related outcomes, such as performance, and organizational commitment (Gerstner & Day, 1997).

Several authors have considered the relationship of LMX to transformational leadership. Graen and Uhl-Bien (1995), in their review of 25 years of leadership research, suggested that low quality LMX relationships are, by their nature, not transformational. High quality LMX relationships are transformational, however. The mutual goals which characterize a high quality LMX relationship become salient when leaders are able to encourage followers to adopt the leaders' goals. As noted in the review of transformational leadership above, it is characterized by followers' internalizing leaders' goals. With LMX, followers' adoption of leaders' goals occurs through the trust and emotional sharing associated with a partnership relationship (Howell & Hall-Merenda, 1999). Thus, in order to establish a high quality LMX relationship, leaders must behave in a transformational manner. They must succeed in getting their followers to internalize their goals, and to feel positive emotion, in the form of respect, toward them.

Taken from the level of leader based theories, it would be expected that all followers would behave in the same manner as a result of the leader's transformational style. However, LMX considers the entire relationship, and not just the leader's qualities and behaviors. Because of this, LMX recognizes the fact that not all followers will respond the same way to a leader's behaviors. As noted by Dasborough and Ashkanasy (2002), followers' perceptions and attributions will impact the extent to which each follower views the leader as transformational.

When followers fail to respond to this transformational behavior as a result of their perceptions or attributions, a lower quality LMX relationship is produced. Because followers in high quality LMX relationships are responding to the transformational behaviors of the leader (i.e., internalizing goals and feeling positive emotions), it can be

expected that these individuals would view their leaders as transformational (Ashkanasy & Tse, 2000). For followers with low quality LMX relationships, the leader's transformational behaviors, if any, are not being perceived or internalized by the subordinate. Based on this, the following hypothesis is proposed:

*Hypothesis 6: LMX quality will predict transformational leadership.*

Not only should LMX quality relate to transformational leadership behaviors, but emotional intelligence should also serve an important function in predicting LMX quality. A leader who is more emotionally intelligent, through his or her understanding and management of emotions, should be better able to create a high quality LMX relationship with his or her follower. Specifically, Graen and Uhl-Bien (1995), originators of LMX theory, noted that high quality LMX relationships are marked by positive emotional exchanges. A leader who is capable of recognizing, understanding and utilizing emotions should be better able to engage in such positive emotional exchanges. Thus, a leader who is highly emotionally intelligent should be better able to build a partnership through his or her use of emotional exchanges.

Further, as noted by George (2000), follower trust is one expected outcome of leader emotional intelligence. Because trust is one of the three key components of a high quality LMX relationship, it follows that leaders who are emotionally intelligent should be better able to build trust, and thus high quality relationships. Thus emotionally intelligent leaders should be overall more likely to have high quality relationships.

Because LMX considers the relationship, it is not expected that every leader with high EI should have high quality LMX relationships with all of his or her subordinates. In cases where the follower does not attribute the leader's emotional exchanges as genuine,

the quality of the LMX relationship will likely be low (Dasborough & Ashkanasy, 2002). Also, because a high quality LMX relationship takes time to develop, and may in fact develop at different speeds with different followers (Graen & Uhl-Bien, 1995), a perfect correspondence of emotional intelligence to LMX relationship quality is not expected. Rather, a small but significant correlation between the two is expected. Leader emotional intelligence can be considered an important, but not sufficient, part of high quality LMX relationships. Based on this, the following hypothesis is proposed:

*Hypothesis 7a: Emotional intelligence will predict LMX quality.*

Many researchers have called for the use of multiple levels of analysis to provide better explanatory powers when considering leadership (Graen & Uhl-Bien, 1995; Howell & Hall-Merenda, 1999). In the present situation, it is expected that the inclusion of data from the relationship level (LMX) will help to provide a better explanation of the relationship between EI and transformational leadership. In my master's thesis, I (Webb, 2004) failed to find a significant relationship between leader emotional intelligence and transformational leadership behaviors after accounting for variables such as empathy and self confidence. That study only considered one level of analysis, however: the leader. Because each follower may perceive and respond to the leader's behaviors differently, the use of a rating of transformational leadership averaged across all the followers of one leader could well have obscured information. Including information about the quality of each leader-member relationship should clarify the relation of emotional intelligence to transformational leadership.

As noted previously, individuals in low quality LMX relationships have lower quality interactions with each other. There is less positive emotional exchange. These low



quality relationships are characterized by unidirectional downward influence (Graen & Uhl-Bien, 1995) and fixed roles. It is likely that followers in low quality LMX relationships will not see their leaders as transformational, no matter what the leader's emotional intelligence. This is because the interactions in low quality relationships are stilted and guided by formal role prescriptions. These relationships leave little room for a leader to display positive emotional behaviors. Furthermore, the lack of mutual liking and respect is likely to result in shorter interactions where the individuals pay less attention to each other.

On the other hand, followers in high quality LMX relationships will have closer relationships with their supervisors. These dyads will engage in more positive emotional exchanges. There will be more opportunities for these followers to observe their leader's behaviors. Thus, it is expected that LMX quality will moderate the relationship between a leader's emotional intelligence, and a follower's perception of the leader's transformational behaviors. When LMX quality is low, there should be no relationship between EI and transformational leadership. However, when LMX quality is high, EI should predict transformational leadership. Based on this, the following hypothesis is proposed:

*Hypothesis 7b: LMX quality will moderate each previously hypothesized relationship between emotional intelligence and transformational leadership. (Hypotheses 1, 3a, 4, and 5b).*

Confusion may arise when examining hypotheses 7a and 7b. At first glance, it appears that if emotional intelligence predicts LMX quality, then only highly emotionally intelligent leaders should have high LMX quality, and consequently should be perceived

as transformational. In this sense, it appears that LMX mediates the EI-transformational leadership relationship. This is not entirely the case, however. While it is expected that leader emotional intelligence will predict LMX quality, as was noted above, LMX considers more factors than the characteristics of the leader. Thus it is completely possible that leaders with high emotional intelligence will have low quality LMX, and leaders with low emotional intelligence can be perceived as having high quality LMX. The LMX relationship is dependent upon more than just the leader. For this reason, it is possible for LMX quality to moderate the relationship between a leader's EI and his or her followers' perceptions of the leader's transformational leadership.

**Table 1: Hypotheses Testing Summary**

<b>Number</b>	<b>Hypothesis</b>
1a	Emotional intelligence will predict charisma.
1b	Emotional intelligence will have incremental validity in predicting charisma, beyond empathy, awareness, and self confidence.
2a	Emotional intelligence will predict self awareness.
2b	Emotional intelligence will predict self confidence.
2c	Emotional intelligence will have a stronger relationship to self awareness than to self confidence.
3a	Emotional intelligence will predict inspirational motivation.
3b	Emotional intelligence will have incremental validity in predicting inspirational motivation, beyond empathy, awareness, and self confidence.
4a	Emotional intelligence will predict intellectual stimulation.
4b	Emotional intelligence will have incremental validity in predicting intellectual stimulation, beyond empathy, awareness, and self confidence.
5a	Emotional intelligence will be significantly related to empathy.
5b	Emotional intelligence will be significantly related to individualized consideration.
5c	Emotional intelligence will have incremental validity in predicting individualized consideration, beyond empathy, awareness, and self confidence.
6	LMX quality will predict transformational leadership.
7a	Emotional intelligence will predict LMX quality.
7b	LMX quality will moderate hypotheses 1a, 3a, 4a, and 5b.
A-1	Leaders' emotional intelligence will predict followers' job

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satisfaction

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A-2 The relationship between emotional intelligence and job satisfaction will be mediated by transformational leadership.

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*The present study*

As can be discerned from the hypotheses presented above, the present study seeks to examine some of the theoretical ties between the models of emotional intelligence and leadership. One of the main places that leadership is studied is in the workplace. Managers and supervisors who are responsible for guiding the work of subordinates under them have many opportunities to demonstrate leadership skills. Understanding what characteristics are associated with leadership has long been a goal of researchers in Industrial/Organizational psychology. The present study attempts to further that understanding. At the same time, by examining a newer measure of emotional intelligence, this study seeks to add to the literature on that construct, which, while increasingly prolific, is still in its infancy.

In order to examine the leadership behaviors demonstrated by managers and supervisors, and in answer to George's (2000) call for more research on EI in organizations, both emotional intelligence and leadership will be measured in an organizational setting. Such a setting should also help to improve the generalizability of the results. In order to reduce the possibility of common source bias, and to accurately test the exploratory hypotheses, leaders will provide self-report emotional intelligence and personality trait data, while followers will provide information on LMX quality, their perceptions of their leaders' transformational style and their own job satisfaction. This information will then be used to test the hypotheses described above.

Because the present study is interested in predicting everyday leadership behaviors seen in workplace settings, it is advantageous to select a measure of typical

performance. Two self-report measures of emotional intelligence exist that are based directly upon Salovey and Mayer's (1990) conceptualization of EI. These measures are the Wong and Law Emotional Intelligence Scale (WLEIS) (Wong & Law 2002) and the Schutte Self-Report Inventory (SSRI) (Schutte et al, 1998). In a recent study by Law, Wong and Song (2004), the WLEIS demonstrated convergent, discriminant and construct validity through the MTMM methodology. Further, the WLEIS demonstrated incremental validity beyond personality factors when predicting work related outcomes. Findings for the SSRI are more mixed. Petrides and Furnham (2000) issued a strong criticism of the scale, based upon their research findings. Subsequently, both Petrides and Furnham (2001) and Saklofske, Austin, and Minski (2003) noted that the SSRI did not produce the expected factor pattern. Further, Webb (2004) found that the SSRI lacked incremental validity beyond personality measures such as empathy and self confidence. Given this evidence, the WLEIS appears to be the more promising of the self report scales based on the Salovey and Mayer (1990) model.

In order to combine the best of both the ability and the mixed models of emotional intelligence, while avoiding the concerns associated with the SSRI, the WLEIS is used in the present study as the measure of emotional intelligence. Given the criticisms of the SSRI and the potential of the WLEIS to more accurately capture emotional intelligence, the present study will address many of the same issues considered in Webb (2004). For example, in order to address concerns that mixed measures capture little more than personality, the personality traits of empathy, self confidence and self awareness are included in study hypotheses and measured so that they can be statistically controlled for,

allowing for an assessment of the unique contribution of emotional intelligence to predicting leadership

The present study further improves upon Webb (2004) by including multiple levels of leadership. Consideration of the exchange relationship in addition to the leader's characteristics should improve understanding of the relationship of emotional intelligence to leadership. It will also answer recent calls for additional empirical research on the relationship between Leader-Member Exchange and transformational leadership.

## Chapter 2 – Method

### *Participants*

One hundred and fifty two English speaking supervisors from organizations across the globe participated in this study. A total of 216 employees who reported to those supervisors provided leadership ratings for 116 of the supervisors, resulting in a sample of 216 dyads used for hypothesis testing. No effort was made to restrict participation by nation of origin, although participants were required to read English.

Participants were recruited via an e-mail message with a description of the study and a link to the on-line data collection site. Following the recommended practices cited by Kaplowitz, Hadlock and Levine (2004), each invitation was personalized with a greeting including the recipient's first name, invitations were phrased as a request for assistance, and a personalized reminder was sent approximately one week later. Potential participants were identified through several mailing lists, and included individuals working in real estate brokerage, insurance sales, management of non-profit organizations, engineering, and I/O psychology. E-mail requests for participation were sent to 1,938 individuals. Of these, 198 of the e-mail messages were returned as undeliverable, seven were returned by spam blocking software, 47 individuals responded to report they were solo practitioners, and thus had no supervisor or employees, and 10 responded that they were retired, and thus had no supervisor or employees. As such, the potential sample size was 1,676 total individuals, which represents a response rate of 7%. This response rate is comparable to the to the 8% cited in Smith (1997) and the 6% cited in Tse (1998).

There are several reasons why such a low response rate is to be expected. First, it is likely that more than 47 of the potential participants were solo practitioners. If so, then the actual potential sample size was smaller than 1,676. In their article, Schaefer and Dillman (1998) alluded to a second reason why the low response rate should be unsurprising: The increasing presence of unsolicited e-mail. As noted above, seven messages were returned with a notice stating that they were considered spam and would not be delivered. It is very likely, given the prevalence of automatic spam filters on many computers, that many more messages were automatically filtered or deleted before they could be viewed by potential participants. In fact, several months after the initial invitation to participate was sent, one potential participant contacted the study's author to note that she had just found the message in a spam folder. Thus, it is highly likely that many of the messages, despite the personalized introductory line, were filtered out of potential participants' in boxes before they could be viewed, reducing the potential sample size even further.

A third reason for the low response rate is noted by Cho and LaRose (1999), who pointed out that Internet data collection can raise privacy concerns that bar potential subjects from participating. In the present study, followers were asked to report on their leaders' behaviors. Given concerns over the actual anonymity of the data, many direct reports may have chosen not to provide data for their leaders, rather than risk their responses becoming known by their supervisors. Based on these factors, the current 7% response rate is not surprising.



### *Procedure*

Participants were provided with all testing materials electronically. Participants initially received an e-mail invitation requesting participation that contained a link to the electronic, on-line survey. This survey contained the measures of emotional intelligence, empathy, self awareness, and self confidence. In addition, the first questions in the electronic survey asked each participant to list the e-mail addresses of employees that he or she supervised.

Once the participant completed the survey, the computer code automatically generated an e-mail message to those individuals, asking them to complete an on-line questionnaire that would provide information about the participant. That on-line questionnaire measured the participant's transformational leadership behaviors, the Leader-Member Exchange relationship between the participant and the employee, and the employee's job satisfaction level. In addition, demographic information was gathered from both the participant and the reporting subordinates.

### *Materials*

*Emotional intelligence.* All participants completed the 16 item Wong and Law Emotional Intelligence Scale (WLEIS) (Wong & Law, 2002). This inventory measures overall emotional intelligence, and the components of appraisal of emotions, utilization of emotions and regulation of emotions. The WLEIS uses a seven point Likert response scale. Two studies have reported Cronbach's alpha to be at least .79 for each component of the scale, and .89 for the overall measure. Test-retest reliability has not been reported. While this inventory is a self-report measure, it has been found to have a factor structure matching the EI model created by Mayer and Salovey (Wong & Law, 2002). Furthermore

according to Law et. al. (2004), it demonstrated reasonable convergent and discriminant validity when examined with personality and life space variables. It has also been found to significantly predict outcome variables such as task performance and job dedication. See Appendix A for a copy of this measure.

*Self awareness.* Participants completed 10 items comprising the Private Self-Consciousness subscale of the Self Consciousness Scale (SCS) (Fenigstein, Scheier & Buss, 1975). Fenigstein and colleagues note that self consciousness is the tendency of individuals to focus attention on themselves. Self awareness is one portion of this focus. The Private Self-Consciousness subscale of the SCS measures the extent of an individual's inward focus, or self awareness. Factor analysis of the SCS has confirmed that all 10 items fall into the Private Self-Consciousness factor. The Private-Self Consciousness subscale utilizes a five point Likert-style response format. Internal reliability for this subscale is  $\alpha=.73$ , while test-retest reliability is reported to be 0.84. See Appendix A for a copy of this measure.

*Self confidence.* While the use of the terms “self efficacy” versus “self confidence” appear to imply different constructs, the uses and operational definitions of each found in the literature appear to be the same. Further, multiple studies have used these terms interchangeably (e.g., Rohrbaugh, et. al., 2004; Richards, et. al., 2004; Rottinghaus, Betz & Borgen, 2003). The measure selected for the present research was the New General Self-Efficacy Scale (Chen, Gully & Eden, 2001).

As the measure's authors explain, general self efficacy “captures differences among individuals in their tendency to view themselves as capable of meeting task demands in a broad array of contexts” (pp. 63). Based on this definition, the NGSE scale

captures self confidence. Validation studies have indicated that the NGSE measures a construct that is related to, but distinct from both self-esteem and situational self efficacy. The NGSE is a self report measure. It uses Likert style four point scoring for each item. Points are anchored with 'not at all true,' 'hardly true', 'moderately true', and 'exactly true'. Internal consistency reliability (coefficient alpha) has been found to be between .85 and .88, based on the sample. Test-retest reliability over a sixteen week period, during which subjects experienced events likely to affirm or damage their self confidence, was .67. See Appendix A for a copy of this measure.

*Empathy.* Participants completed the Davis Empathy Scale, a 7 item measure of empathy (Davis, 1994). This scale has five point Likert style response options. Split-half reliability for the scale was reported to be .76 in a large, national sample. See Appendix A for a copy of this measure.

*Transformational leadership.* All members of the follower group completed the Multifactor Leadership Questionnaire (MLQ) (Bass, 1988). The MLQ 5X-short measures transformational leadership. In the present study, followers responded to questions about their supervisors' behaviors. Each of the components of transformational leadership is assessed with four questions, and all questions use Likert-style five point responses. Validation studies on the scale have reported Cronbach's alpha to be as follows for each of the subscales: idealized influence ( $\alpha = 0.75$ ), inspirational motivation ( $\alpha = 0.72$ ), intellectual stimulation ( $\alpha = 0.72$ ) and individualized consideration ( $\alpha = 0.64$ ).

*Leader-Member Exchange.* All members of the follower group completed LMX7, which is the measure of LMX recommended by Graen and Uhl-Bien (1995). This measure consists of 7 items, with a 5 point response scale that differs for each item. A

meta-analysis by Gerstner and Day (1997) reported an internal consistency of .89 for the LMX7. A copy of the LMX-7 can be found in Appendix A.

*Job satisfaction.* All members of the follower group completed the three item job satisfaction subscale from the Michigan Organizational Assessment Questionnaire by Cammann, Fichman, Jenkins and Klesh (1979). This measure captured each follower's own job satisfaction. This brief measure has a reported internal consistency of .77, and has been found to be correlated to theoretically related variables, providing evidence of validity. A copy can be found in Appendix A.

## Chapter 3 – Results

### *Descriptive Statistics*

Data analysis began with a review of the demographic data for the sample of 117 supervisors. Participants responded to a total of five demographic questions. With regard to job tenure, the majority of respondents (52.14%) reported working in their current position for at least 36 months. All but two of the subjects worked full time, and the remaining two reported working between 30 and 39 hours per week. The majority of respondents (60.34%) reported having five or fewer direct reports, although an additional 21.55% reported having six to ten direct reports. Over half of the respondents (60.68%) were male, and they were most likely (70.08%) to be between the ages of 31 and 50. See Appendix B for tables containing all demographic information.

A review of the correlations between demographic variables found only two significant correlations. The first was between tenure on the job and number of direct reports ( $r=.22$ ,  $p<.01$ ). The second was between gender and age ( $r=-.15$ ,  $p<.05$ ), such that male respondents were more likely to be older than female respondents.

Data analysis continued with the computation of scores on each of the personality measures for each participant. Missing responses on each scale were replaced with the mean response for the remainder of the scale. Subjects who had failed to answer at least two thirds of the items on a particular scale did not receive a score for that scale. Of the 117 participants, no scale scores were deleted for this reason. Leadership data for each participant-subordinate dyad were calculated via the same method. Each subordinate's responses to each of the leadership measures were summed, and missing responses were

replaced with the mean response for the other items on the measure. Because four of the leadership scales had four responses each, a score for the measure was not calculated if the subordinate answered less than two items for that scale. As a result of this, responses from one subordinate were discarded, and thus one dyad was removed from the sample.

In total, 117 participants were rated by 216 subordinates. An average of 1.8 subordinates rated each participant. Sixty seven participants were rated by one subordinate, 21 were rated by two subordinates, 16 were rated by three subordinates, seven were rated by four subordinates, five were rated by five subordinates, and one was rated by six subordinates.

Means and standard deviations for each of the measures are displayed in Table 2. Examination of descriptive statistics, skewness values and kurtosis values indicated that the four personality measures were largely normally distributed. The leadership measures, on the other hand, showed considerably greater negative skew. See Table 3 for a listing of skew and kurtosis values.

**Table 2: Descriptive Statistics by Scale Type**

Scale	N	Mean	SD	Score Range		Possible Score Range	
				Low	Hi	Low	Hi
Emotional Intelligence	117	63.11	5.74	45	77	16	80
Empathy	117	25.74	3.90	16	34	7	35
Self Awareness	117	34.42	4.94	20	48	10	50
Self Efficacy	117	27.92	2.89	22	32	8	32
Individualized Consideration	215	15.76	3.45	5	20	4	20
Idealized Influence	215	14.84	3.35	4	20	4	20
Inspirational Motivation	215	15.87	3.21	5	20	4	20
Intellectual Stimulation	215	15.41	3.06	6	20	4	20
Job Satisfaction	216	17.75	3.56	3	24	3	24
Leader Member Exchange	215	28.48	4.78	13	35	7	35

**Table 3: Skewness and Kurtosis Values by Scale**

Measure	Skewness	Kurtosis
Emotional Intelligence	-.25	.18
Empathy	-.45	-.42
Self Efficacy	-.26	-1.08
Self Awareness	.01	.37
Individualized Consideration	-.79	.11
Idealized Influence	-.53	-.15
Inspirational Motivation	-.71	.07
Intellectual Stimulation	-.66	.15
Leader Member Exchange	-.86	.42
Job Satisfaction	-1.62	2.99

Of concern is the measure of job satisfaction, with a skewness value of -1.62. This is nearly double the next greatest value, which was -.86 for Leader-Member Exchange. This indicates that the job satisfaction ratings provided by participants' employees tended to cluster at the top of the scales, with a few outlying responses pulling the mean values

down. Similar clustering of scores were seen with three of the leadership measures, specifically individualized consideration, inspirational motivation, and intellectual stimulation. For each of these measures, multiple respondents provided the maximum possible score. This is of some concern to the present study as it represents a restriction of range in the outcome measure. A result of this could be a reduction due to attenuation in the correlations calculated to test the study hypotheses. However, the current skew values are all smaller than the suggested maximum skewness value of plus or minus 2.0 (Tabachnick & Fidell, 2000). Further, the use of a logarithmic transformation on the individualized consideration data fails to produce a normal distribution. Because of these factors, all subsequent analyses utilize the original, skewed data.

The data were also examined for the presence of extreme outliers. The two highest and two lowest scores from each scale were transformed into z scores in order to look for outliers. See Table 4 for a listing of these results. The job satisfaction scale had a total of six observations with z scores with values less than -3.0. Because of the negative skew on this scale due to the ceiling effect, this is expected. Therefore, analyses involving this scale were run both with and without the two lowest observations, and no significant differences in results were obtained. Of the other measures, only the intellectual stimulation scale had two observations with z-scores less than -3.0.



**Table 4: Scale Outliers**

<b>Variable</b>	<b>Low score</b>	<b>z-score</b>	<b>High score</b>	<b>z-score</b>
Emotional Intelligence	45	-3.16	77	2.42
	49	-2.46	74	1.88
Empathy	16	-2.50	34	2.12
	18	-1.98	32	1.61
Self Confidence	22	-2.05	32	1.41
	22	-2.05	32	1.41
Self Awareness	20	-2.92	48	2.75
	22	-2.51	44	1.94
Individualized Consideration	5	-3.12	20	1.23
	6	-2.83	20	1.23
Idealized Influence	4	-3.24	20	1.54
	5.33	-2.84	20	1.54
Inspirational Motivation	5	-3.39	20	1.29
	7	-2.76	20	1.29
Intellectual Stimulation	6	-3.08	20	1.50
	6	-3.08	20	1.50
Job Satisfaction	3	-4.14	21	.93
	5	-3.58	21	.93
LMX	13	-3.24	35	1.36
	15	-2.82	35	1.36

*Scale Reliability*

After scores on each of the measures had been calculated, and outliers had been examined, coefficient alpha was computed for each of the four personality scales, the five leadership scales, and the job satisfaction measure. See Table 5 for a listing of the alpha level for each measure. Overall, each of the scales demonstrated acceptable reliability in

the present context. The lowest reliability ( $\alpha=.70$ ) was associated with the measure of self awareness. The highest reliability ( $\alpha=.96$ ) was associated with the job satisfaction measure. Compared to previously published research, seven of the 10 scales displayed higher alpha levels during the present study, while three displayed lower alpha levels. The scales with lower alpha reliability levels differed by no more than .02.

**Table 5: Scale Alpha Level**

<b>Measure</b>	<b>N</b>	<b>Alpha level</b>
Emotional Intelligence	113	.79
Empathy	113	.77
Self Awareness	112	.70
Self Confidence	116	.84
Individualized Consideration	213	.83
Idealized Influence	210	.75
Inspirational Motivation	213	.83
Intellectual Stimulation	208	.79
Leader-Member Exchange (LMX)	209	.89
Job Satisfaction	212	.95

*Interrater Reliability*

In order to evaluate the extent to which subordinate’s views of participant’s leadership style and Leader-Member Exchange relationship differed, interrater reliability was computed using the method recommended by Shrout and Fleiss (1979). Specifically, these authors describe the computation of an intraclass correlation coefficient when each target is rated by a different set of judges. This method utilizes a one way ANOVA on the

ratings to obtain a between targets mean square (BMS) and a within targets mean square (WMS). The ICC is then obtained through the following formula, where  $k$  equals the mean number of raters.

$$ICC(1,1) = \frac{BMS - WMS}{BMS + (k - 1)WMS}$$

Because the number of raters was not constant across targets, the average number of raters per target (1.8) was substituted for  $k$ . Table 6 depicts the reliability of subordinate's ratings on each scale. The highest interrater reliability is that associated with ratings of inspirational motivation ( $ICC_{(1,k)}=.58$ ).

**Table 6: Interrater Reliability for Leadership Measures**

<b>Measure</b>	<b>ICC 1,k value</b>
Job Satisfaction	.51
Leader-Member Exchange	.38
Idealized Influence	.47
Inspirational Motivation	.58
Individualized Consideration	.28
Intellectual Stimulation	.51

While these interrater reliability values are higher than those found in a similar study by Webb (2004), they are not sufficiently high to preclude the possibility of significant results for hypothesis 7b. That hypothesis predicted that levels of Leader-Member Exchange would moderate the relationship between emotional intelligence and transformational leadership. Given these ICC values, analysis of hypothesis 7b is possible.

### *Relationships Among Study Variables*

Prior to conducting hypothesis testing, zero order correlations among all of the study variables were computed. See Table 7 for the correlation matrix. As was expected, correlations between emotional intelligence and each of the personality measures were significant. These correlations range from .16 with empathy to .56 with self confidence. Similarly, correlations between each of the leadership measures were significant, ranging from a low of .55 to a high of .79.

**Table 7: Correlations Among All Variables Used in Study**

Variable	1	2	3	4	5	6	7	8	9
1. EI	-								
2. Empathy	.16*	-							
3. Self Conf.	.56**	.07	-						
4. Self Aware	.26**	.18*	.12	-					
5. IC	.02	-.04	.12	.11	-				
6. II	.19**	.03	.13*	.08	.60**	-			
7. IM	.27**	-.01	.15*	.09	.60**	.71**	-		
8. IS	.09	-.05	.10	.04	.72**	.59**	.61**	-	
9. LMX	-.03	.01	.01	.07	.79**	.57**	.55**	.61**	-
10. Job Satisfaction	.03	-.04	-.03	.10	.42**	.36**	.44**	.41**	.50**

\* p<.05; \*\*p<.01

EI = Emotional Intelligence  
 Self Conf = Self Confidence  
 Self Aware = Self Awareness  
 IC = Individualized Consideration  
 II = Idealized Influence/Charisma  
 IM = Inspirational Motivation  
 IS = Intellectual Stimulation

### *Hypothesis Testing*

Hypothesis 1a predicted that the relationship between emotional intelligence and idealized influence, or charisma, would be significant. To test hypothesis 1a, the zero order correlation between overall emotional intelligence and idealized influence was calculated and examined. This correlation was significant ( $r=.19$ ,  $p<.01$ ), supporting hypothesis 1a.

Hypothesis 1b predicted that emotional intelligence would demonstrate incremental validity beyond empathy, self awareness, and self confidence when predicting charisma<sup>1</sup>. Therefore, charisma was regressed on emotional intelligence, empathy, self awareness and self confidence. At this point, the significance of the beta weight for emotional intelligence dropped ( $\beta =.16$ ,  $p=.07$ ), while the beta weights for empathy ( $\beta =.001$ ,  $p=.99$ ), self awareness ( $\beta =.04$ ,  $p=.61$ ) and self confidence ( $\beta =-.04$ ,  $p=.62$ ) all remained nonsignificant. Given that EI remained significant at the more liberal  $p<.10$  level, partial support for hypothesis 1b was found.

Hypothesis 2a predicted that emotional intelligence would relate to self awareness, and was supported through a significant zero order correlation ( $r=.26$ ,  $p<.01$ ). Similarly, hypothesis 2b, which predicted that emotional intelligence would relate to self confidence, was also supported by a significant zero order correlation ( $r=.56$ ,  $p<.01$ ).

Hypothesis 2c stated that the correlation between emotional intelligence and self awareness should be significantly greater than the correlation between EI and self confidence. The zero order correlations between these variables suggest that the opposite is true: the relationship between EI and self confidence is stronger than that between EI

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<sup>1</sup> See Table 8 for a summary of the results of the regression of personality variables and EI on each leadership measure

and self awareness. A Hotelling-Williams test of dependent correlations was run to determine if this difference was significant. The results showed that the two correlations did differ significantly ( $t_{(.05, 213)}=3.88, p<.01$ ). Based on this, hypothesis 2c was not supported.

Hypothesis 3a predicted a significant relationship between emotional intelligence and inspirational motivation. This hypothesis was supported by a significant zero order correlation between these variables ( $r=.27, p<.01$ ). Hypothesis 3b, which predicted that emotional intelligence would demonstrate incremental validity beyond empathy, self awareness and self confidence, when predicting inspirational motivation, was tested through regression. Inspirational motivation was regressed on empathy, self efficacy, self awareness, and emotional intelligence. Only the beta weight for emotional intelligence remained significant ( $\beta =.26, p<.01$ ), while the beta weights for empathy ( $\beta =-.05, p=.44$ ), self efficacy ( $\beta =.01, p=.91$ ), and self awareness ( $\beta =.03, p=.71$ ) were not significant. Thus, emotional intelligence retained incremental validity and hypothesis 3b was supported.

Hypothesis 4a, which predicted a significant relationship between emotional intelligence and intellectual stimulation was not supported, based upon the zero order correlation ( $r=.09, p>.05$ ). Hypothesis 4b predicted that emotional intelligence would retain incremental validity beyond empathy, self awareness, or self efficacy when predicting intellectual stimulation. As there was not a significant correlation between the dependent and independent variables, the hypothesis was not supported.

Hypothesis 5a predicted that emotional intelligence would be related to empathy. Zero order correlations were examined to test this relationship, and support was found

through a significant correlation ( $r=.16$ ,  $p<.05$ ). Hypothesis 5b predicted that emotional intelligence and individualized consideration would be significantly related. This hypothesis was not supported ( $r=.02$ ,  $p=.80$ ). Hypothesis 5c, which predicted that emotional intelligence would demonstrate incremental validity in predicting individualized consideration, was not tested due to the lack of such a relationship. As such, hypothesis 5c was not supported.



**Table 8: Results of Regression of Personality Variables and EI on Leadership Scale**

Leadership dimension		R	R <sup>2</sup>	β
IM	EI only	.26	.07	
	EI			.27**
	Personality variables only	.17	.03	
	empathy			-.03
	self awareness			.07
	self confidence			.14*
	Personality and EI	.26	.07	
	empathy			-.05
	self awareness			.03
self confidence			.01	
EI			.26**	
II	EI only	.20	.04	
	EI			.19**
	Personality variables only	.14	.02	
	empathy			.06
	self awareness			.06
	self confidence			.12
	Personality and EI	.20	.04	
	empathy			.001
	self awareness			.04
self confidence			.04	
EI			.16 <sup>a</sup>	

<sup>a</sup> p<.10; \* p<.05; \*\* p<.01

IM: Inspirational Motivation, II: Idealized Influence, IC: Individualized Consideration, IS: Intellectual Stimulation  
(table continued on next page)

Table 8, continued

Leadership dimension	R	R <sup>2</sup>	β
IC			
EI only	.05	.003	
EI			.02
Personality variables only	.17	.03	
empathy			-.06
self awareness			.11
self confidence			.11
Personality and EI	.17	.03	
empathy			-.05
self awareness			.13
self confidence			.16*
EI			-.10
IS			
EI only	.1	.01	
EI			.09
Personality variables only	.14	.02	
empathy			-.07
self awareness			.03
self confidence			.10
Personality and EI	.14	.02	
empathy			-.07
self awareness			.03
self confidence			.08
EI			.05

<sup>a</sup> p<.10; \* p<.05; \*\* p<.01

IM: Inspirational Motivation, II: Idealized Influence, IC: Individualized Consideration, IS: Intellectual Stimulation

Moving to Leader-Member Exchange, hypothesis 6 predicted significant relationships between LMX and each dimension of transformational leadership. This hypothesis was supported. The zero order correlations between LMX and idealized influence  $r=.57$  ( $p<.01$ ), inspirational motivation  $r=.55$  ( $p<.01$ ), intellectual stimulation  $r=.61$  ( $p<.01$ ), and individualized consideration ( $r=.79$ ,  $p<.01$ ) were all significant.

Hypothesis 7a predicted a relationship between emotional intelligence and LMX. Zero order correlations did not support this hypothesis ( $r=-.03$ ,  $p=.66$ ). Hypothesis 7b predicted that LMX quality would moderate the relationship between emotional intelligence and each of the four transformational leadership variables. Specifically, it was predicted that there would be a relationship between emotional intelligence and each component of transformational leadership when LMX quality was high, but no significant relationship when LMX quality was low. This hypothesis was tested via moderated regression, using the procedure described by Villa, Howell, Dorfman and Daniel (2003). With this procedure, for each of the transformational leadership variables, a regression equation was calculated, regressing one transformational leadership variable on emotional intelligence, LMX, and an interaction term consisting of the product of the two. Based on the recommendations of Villa and colleagues, the EI and LMX variables were entered prior to the interaction term. The beta weights associated with each element of the regression equation were examined for significance to test the hypothesis. The results of these analyses can be found in Table 9, below. Only in the case of idealized influence, or charisma, was the beta weight representing the interaction term significant. This represents partial support for hypothesis 7b.

**Table 9: Tests for Moderation by LMX**

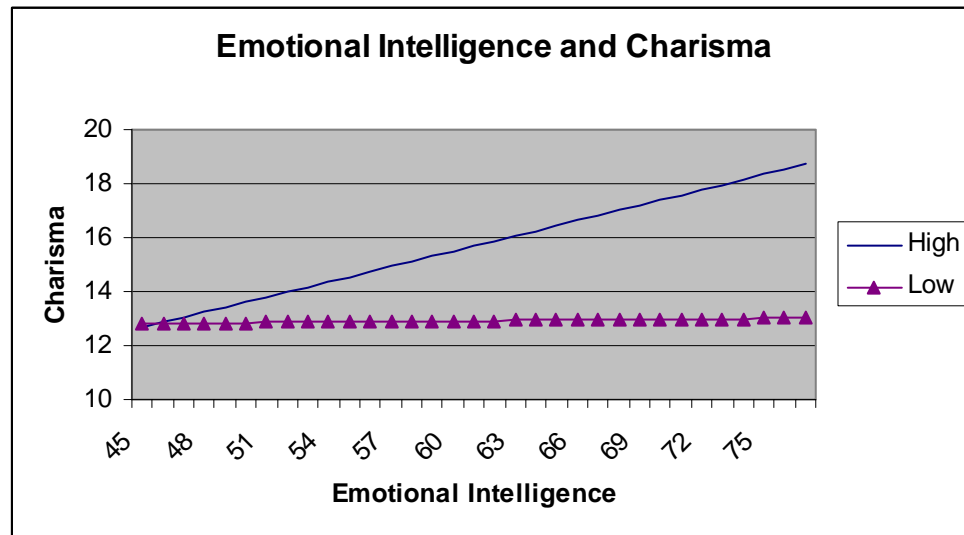
<b>Leadership dimension</b>		<b>R</b>	<b>R<sup>2</sup></b>	<b>β</b>
IM	Without Interaction	.62	.38	
	EI			.28**
	LMX			.56**
	With Interaction	.62	.39	
	EI			-.06
	LMX			-.08
II	EI*LMX			.72
	Without Interaction	.60	.36	
	EI			.20**
	LMX			.57**
	With Interaction	.62	.38	
	EI			-.373
IC	LMX			-.50
	EI*LMX			1.21*
	Without Interaction	.79	.62	
	EI			.04
	LMX			.79**
	With Interaction	.79	.63	
IS	EI			-.29
	LMX			.18
	EI*LMX			.68
	Without Interaction	.62	.38	
	EI			.11*
	LMX			.61**
IS	With Interaction	.62	.38	
	EI			.28
	LMX			.95 <sup>a</sup>
	EI*LMX			-.37

<sup>a</sup> p<.10; \* p<.05; \*\* p<.01

IM: Inspirational Motivation, II: Idealized Influence, IC: Individualized Consideration, IS: Intellectual Stimulation, LMX: Leader Member Exchange

Given this, the single significant interaction was graphed to determine the direction of the moderation as advised by Stone and Hollenbeck (1989). The plot suggested that at high levels of LMX, the relationship between EI and charisma was positive, while there was a minimal relationship at low levels. See Figure 1, below.

**Figure 1: Interaction of EI and LMX**



As was expected, for each of the regression equations used to test hypothesis 7b, the collinearity of the predictors was extremely low prior to the inclusion of the interaction term (tolerance = .99), but became extremely high after the interaction term was included (tolerance .03, .01, and .01 for EI, LMX, and the interaction, respectively). Given the nature of moderated regression, high collinearity between the product term and its components is expected.

Finally, exploratory hypothesis A-1 predicted that a leader's emotional intelligence would predict his or her follower's job satisfaction. This hypothesis was examined via the zero order correlations, which showed no relationship between EI and job satisfaction ( $r=.03$ ,  $p=.68$ ). Thus, hypothesis A-1 was not supported. Because no relationship existed between emotional intelligence and job satisfaction, hypothesis A-2,

which predicted that the relationship would be mediated by transformational leadership, was also not supported.

## Chapter 4 – Discussion

The construct of emotional intelligence (EI) appears to hold much promise in terms of its ability to predict various skills and behaviors. While there are two competing schools of thought regarding the basic construct that is called emotional intelligence, both sides feel that emotional intelligence should be capable of predicting certain things. Researchers who argue for a pure ability model of emotional intelligence suggest that EI should be capable of predicting various types of success, social skills and other factors (Caruso, Mayer & Salovey, 2000; Mayer, Salovey, Caruso, & Sitarenios, 2001). Those individuals who champion mixed models of emotional intelligence, which combine emotional skills and personality traits, also agree that emotional intelligence should be related to a diverse range of constructs. They have suggested variables ranging from academic success to success in romantic relationships (Goleman, 1995).

Many researchers, including Bass (2000), and Caruso, Mayer and Salovey (2000), have suggested that emotional intelligence should be related to leadership. In particular, the transformational model of leadership, with its branches of charisma or idealized influence, inspirational motivation, individualized consideration and intellectual stimulation holds the potential for significant relationships with emotional intelligence. The present study empirically examines those relationships.

Several authors have hypothesized that emotions are a key component of the first factor of transformational leadership: Charisma (Wasielewski, 1985; Bass 2000). It is likely that individuals who are capable of recognizing emotions in themselves and in others and who can successfully manipulate those emotions are capable of the type of behaviors characteristic of a charismatic leader. In fact, Wasielewski argues that

recognition and manipulation of emotions are behaviors at the heart of charismatic leadership. Likewise, key components of emotional intelligence are the recognition and manipulation of emotion. Thus a significant relationship between EI and charisma was posited in hypothesis 1a. The present study found support for this hypothesis, with a significant correlation ( $r=.19, p<.01$ ) between emotional intelligence and charisma.

In predicting charisma, it is important to look not just for ability to act in a certain way, but also propensity to act. That is, many people may have the ability to recognize and manipulate emotions, but only those who do so on a regular basis are likely to be seen as charismatic. The measure used in the present study asked participants to describe their typical behavior. This measure, the Wong and Law Emotional Intelligence Scale (WLEIS) (2002), is considered to be a “mixed” measure, although it is based upon an ability model of EI. The present findings lend support to the argument that mixed measures of emotional intelligence, like the one used here, do have practical applications. This is in contention with the arguments of those who favor a pure ability measure, such as Mayer, Caruso and Salovey (1999). It suggests that while the self report format of the present measure may introduce inaccuracies not seen in an “objective” ability measure, this format can predict typical behavior, and may in fact do as good or even better in that regard. Since more objective measures are likely to capture only maximum performance, they may have less utility in situations like the present one.

Providing further support for the utility of the present self report measure of emotional intelligence is the finding that emotional intelligence retains incremental validity in predicting charisma and inspirational motivation when three theoretically related personality measures (empathy, self awareness, and self confidence) are



accounted for. This contradicts the expectations of several authors (Petrides and Furnham, 2001) that self report measures of emotional intelligence will have no incremental validity beyond existing personality measures.

Moving past charisma, it has also been suggested by numerous authors that emotional intelligence should be related to various personality constructs (Goleman, 1995; Bar-On, 2000). Specifically, several authors have argued that emotional intelligence should predict self awareness and self confidence (Goleman, 1995; Sosik & Megerian, 1999). The extent of the relationship between EI and any personality variable will likely be a function of the type of model of EI used, and the related measure used to capture that model. The present study utilized the WLEIS. While this measure relies on self report data, it is based on an ability model of EI. Therefore, hypotheses 2a and 2b predicted a relationship between EI and self awareness and between EI and self confidence, respectively. Both of these hypotheses were supported, with correlations of .26 and .56, respectively.

This finding has several interesting implications. First, it supports the contention of Goleman and others that individuals high on EI must necessarily be high on self awareness and self confidence. Goleman (1995) believes that, individuals who are high on EI are those who are aware of their own emotions and the emotions of others. They are also those who can utilize and manipulate these emotions. The simple awareness of emotions should be related to self awareness, as emotions are a key part of the self. The present study supports this conclusion. Goleman (1995) also argues that those who can successfully recognize and manipulate emotions are apt to be more successful at many endeavors than are those who can not. This success should lead to greater self confidence,

over a lifetime of experiences. While the present study does not examine the reasons for the relationships between EI and self confidence and EI and self awareness, it does provide tentative support for the existing theories mentioned here. Thus the first implication of the present findings is support for these theories.

The second major implication of the findings presented above speaks to the argument that EI measures nothing more than personality. As was mentioned above, many critics of emotional intelligence, especially those who criticize mixed models of emotional intelligence, claim that EI captures nothing more than personality. The correlations presented above suggest that those claims are not completely valid. While the correlations between EI and self awareness and self confidence are strong and significant, they do not account for 100% of the variance in EI. This mirrors the findings of numerous other researchers, who have reported that a substantial portion of the variance in EI is explained by personality, but not 100% of it (e.g., Caruso, Mayer & Salovey, 2002; van der Zee, Thijs & Schakel, 2002). Based on this, the present study provides evidence that EI is not composed solely of personality traits.

While the present study does support some previous theories, it calls others into question. The ability model presented by Mayer et. al. (2001) is hypothesized to be a hierarchical model. Specifically, perception of emotions in the self and others represents the most fundamental level, from which other components of EI stem. Thus, while emotional intelligence should be related to both self awareness and self confidence, the theoretical ties between EI and self awareness are stronger than are the ties between EI and self confidence. That is, perception of one's emotions and awareness of how to utilize emotions to obtain specific outcomes should be directly related to self awareness.

On the other hand, self confidence requires successful awareness of emotions, successful utilization of those emotions, and then perception of a pattern of successes. In this sense, it is not a fundamental component of EI, but a result of a fundamental component and other higher level components. Based on this, it was posited in hypothesis 2c that emotional intelligence would be more strongly related to self awareness than to self confidence. This hypothesis was not supported, however. In fact, a Hotelling-Williams dependent t-test found that the relationship between self confidence and EI was significantly greater than the relationship between self awareness and EI. There are several possible explanations for this finding.

An initial explanation for the present finding may come from the measure of emotional intelligence used in the present study. The WLEIS included several questions that were highly similar to questions on the measure of self confidence. For instance, an item on the WLEIS read: "I always set goals for myself and then try my best to achieve them." This statement seems conceptually similar to the following item from the self confidence scale: "I believe I can succeed at most any endeavor to which I set my mind." Thus the strength of the relationship between EI and self confidence could be a function of the way EI is operationalized in the present study.

A second explanation for the finding that self confidence was related to EI more strongly than was self awareness could come from the sample used here. The strength of the EI-self confidence relationship could be a function of the current participants. All of the participants were in supervisory positions. This suggests that all had managed to attain a reasonable level of responsibility in their jobs. Thus a feedback loop might exist for these individuals, whereby EI leads to a position of higher responsibility, which leads

to greater self confidence. This would appear to strengthen the EI-self confidence relationship. On the other hand, there is no reason to expect that individuals who supervise others would have greater self awareness than individuals who do not. So while the EI-self confidence relationship could become stronger because of the participant's position, the EI-self awareness relationship could not. Thus job level could result in a stronger than expected EI-self confidence relationship.

A conclusion stemming from either of the possible explanations suggested above is that more research is needed on the relationships between emotional intelligence, self confidence and self awareness. Beyond this, the hierarchical nature of the ability model should be considered. The present results suggest that awareness is not the most critical, fundamental component of emotional intelligence, as Mayer et. al., (1999) theorize. Mayer and colleagues referred to a correlational criteria when validating their model. Specifically, they expected theoretically related constructs to correlate at different levels with their model, with the strength of the correlation varying based upon the degree of relation. Future research could apply this correlational criterion to the ability model as a way to probe the hierarchical nature of the model. If perception of emotions is truly the lowest level, without which an individual can not have significant scores on the other levels of EI, then a pattern of correlations with variables measuring emotional recognition should be strongest with this level, or component of EI. As the ability to accurately measure emotional intelligence increases, the ability to test this should also improve. Also, even using the current model, it would be valuable to note if the relationship between EI and self confidence remains as high as it is in the present study if non self-report measures of EI are utilized.

While self confidence and self awareness have been repeatedly cited as constructs that should be related to emotional intelligence, they have also been cited as key to the expression of a second component of transformational leadership: Inspirational motivation (Yukl, 1999; Sosik & Megerian, 1999). Likewise, emotional intelligence itself has also been suggested as a predictor of inspirational motivation. Conger and Kanungo (1988) among others, have suggested that individuals who can recognize and manipulate emotions should be able to use those emotions to motivate others. As motivation through the use of emotions is a key component of inspirational motivation, hypothesis 3a in the present study stated that emotional intelligence should predict inspirational motivation. Further, despite the importance of empathy, self awareness and self confidence to the expression of inspirational motivation, hypothesis 3b stated that EI would retain incremental validity even after the addition of these variables when predicting inspirational motivation.

As was expected, a significant relationship between emotional intelligence and inspirational motivation was found ( $r=.27, p<.01$ ). This supports the arguments mentioned previously. However, empathy, self confidence, and self awareness were not found to decrease the relationship between emotional intelligence and inspirational motivation. While EI is clearly related to empathy, self confidence, and self awareness, it is able to provide predictive power beyond these constructs, when it is related to inspirational motivation. This supports the results found by Ciarrochi, Chan and Caputi (2000) as well as Mayer, Caruso, Salovey and Sitarenios (2003). The three personality measures, on their own, account for 3% of the variance in inspirational motivation, while the three personality measures and emotional intelligence account for 7%. This appears to

refute the claims by Petrides and Furnham (2001) that EI does not provide any predictive power beyond that found with personality measures.

The third component of transformational leadership, intellectual stimulation, was also hypothesized to be related to emotional intelligence (hypothesis 4a). This relationship was not supported, however. The definition of emotional intelligence suggests that individuals high on the construct are better able to use emotions to facilitate thought than are individuals low on emotional intelligence. However, the present study suggests that either this definition is flawed, or that an individual's level of emotional intelligence does not relate to his or her propensity to facilitate thought in others. Specifically, it's possible that individuals high on emotional intelligence are more likely to look for new ways of thinking and solving problems for themselves, but are not more likely to encourage others to do so as well. It is also possible that the ability to generate new ways of thinking and problem solving is related solely to cognitive processes, and not emotional ones. Thus emotions and emotional intelligence play no role in innovating thinking or acting.

Another possible explanation for this finding may stem from the nature of many employment situations. As noted by Caldwell and O'Reilly (2003) and O'Reilly and Chatman (1996), the strong norms associated with many workplaces may result in the quashing of innovative behaviors. Specifically, it's likely that many organizations have very strong normative ideas about behaviors and processes. If these norms are pervasive, then managers who encouraged their employees to try new behaviors or new solutions would be acting against them. According to O'Reilly and Chatman (1996), such norms would prevent managers from encouraging employees to try new behaviors or solutions,

or from trying them themselves. Thus the lack of a relationship between emotional intelligence and intellectual stimulation might result from the presence of organizational norms seen in many workplaces, and thus included in the present sample.

The final component of transformational leadership that is included in the present study is individualized consideration. Hypothesis 5b stated that emotional intelligence should be significantly related to individualized consideration. It was expected that an individual capable of recognizing other's emotions should be capable of speaking and acting to those emotions, and thus engaging in individualized consideration. It has been repeatedly noted that empathy is a good predictor of individualized consideration (Behling & McFillen, 1996). Further, empathy is theoretically related to emotional intelligence, and it has been suggested previously that measures of EI capture little more than empathy. Thus it was also hypothesized that empathy and EI would be related (hypothesis 5a), and that empathy would decrease the EI-individualized consideration relationship (hypothesis 5c).

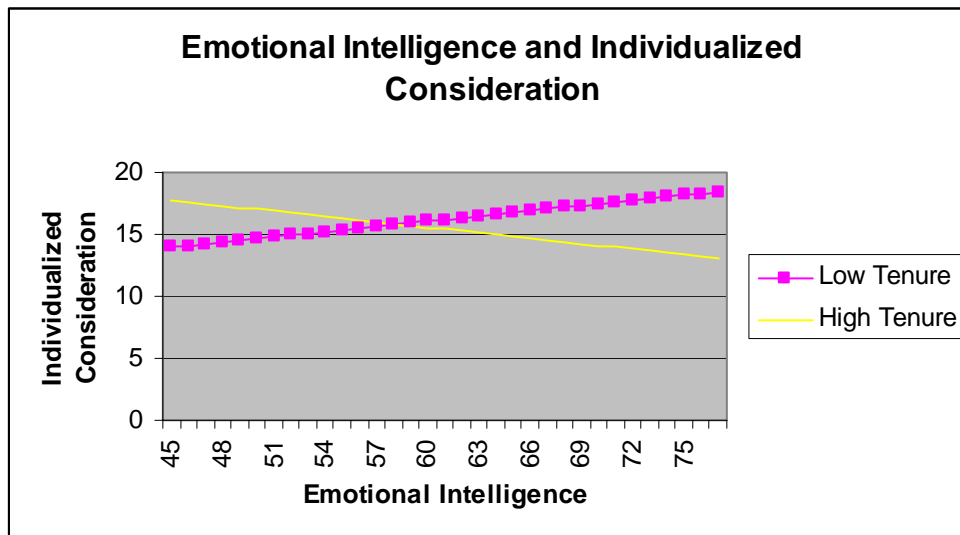
The contention that emotional intelligence would be related to empathy was supported in the present study ( $r=.15$ ,  $p<.05$ ). However, the size of the correlation is smaller than might be expected from past research, and suggests that the WLEIS does not capture empathy to the extent that other measures, such as the SSRI or EQ-I, do. The next hypothesis, that emotional intelligence would be related to individualized consideration, was not supported ( $r=.02$ , n.s.). In contrast to previous findings, there was also no significant relationship between empathy and individualized consideration in the current study ( $r=-.04$ , ns). This finding was unexpected, but could be explained in several ways.

An initial explanation for the lack of relationship between emotional intelligence and individualized consideration was the amount of exposure employees had to the supervisors they were reporting on. Approximately 37% of the employees who reported on their supervisor's leadership style had worked with those supervisors less than a year. Because demonstration of individualized consideration requires that a leader know a follower's strengths, weaknesses, and needs, it was possible that leaders who had not interacted enough with followers weren't sufficiently aware of followers' needs to treat them on an individualized basis. In this case, a stronger relationship between emotional intelligence and individualized consideration would be predicted for those leader-follower dyads that had interacted enough that the leader could learn the follower's characteristics and needs. In order to test this, a moderated regression was run, the results of which negated this explanation.

For this regression, individualized consideration was regressed on emotional intelligence, tenure of the employee providing data on the leaders' individualized consideration, and an interaction term comprised of the product of the two. All terms were significant at the  $p < .05$  level, with the following beta weights; emotional intelligence  $\beta = .702$ , tenure  $\beta = 1.85$ , interaction  $\beta = -1.99$ . Approximately 4% of the variance in individualized consideration was explained by these factors. A graph of the interaction (Figure 2) shows that those with longer tenure reported a negative relationship between emotional intelligence and individualized consideration. Those with shorter tenure reported a positive relationship. This negates the hypothesis that only those with longer tenure can accurately report a relationship between EI and individualized consideration.



Figure 2: Moderation of EI and Individualized Consideration by Tenure



This result was counter to expectations. A possible explanation might be that leaders high on emotional intelligence make extra efforts to help new employees feel appreciated. On the other hand, leaders lower in emotional intelligence, who are less able to initially perceive the individual needs of new employees, do not respond with individualized consideration. This would create a positive relationship between EI and individualized consideration for those with low tenure. However, as employees spend more time in the organization, emotionally intelligent leaders direct their limited emotional resources elsewhere (perhaps on new employees), and thus decreased their individualized consideration. On the other hand, leaders with low emotional intelligence would learn more about the needs of employees as more time passed, and thus these leaders would be more capable of providing individualized consideration to employees as their tenure increased. This would in turn create the appearance of a more negative relationship between emotional intelligence and individualized consideration at high

tenure. Before speculating further on this topic, however, results should be replicated in another sample, as this finding is unexpected.

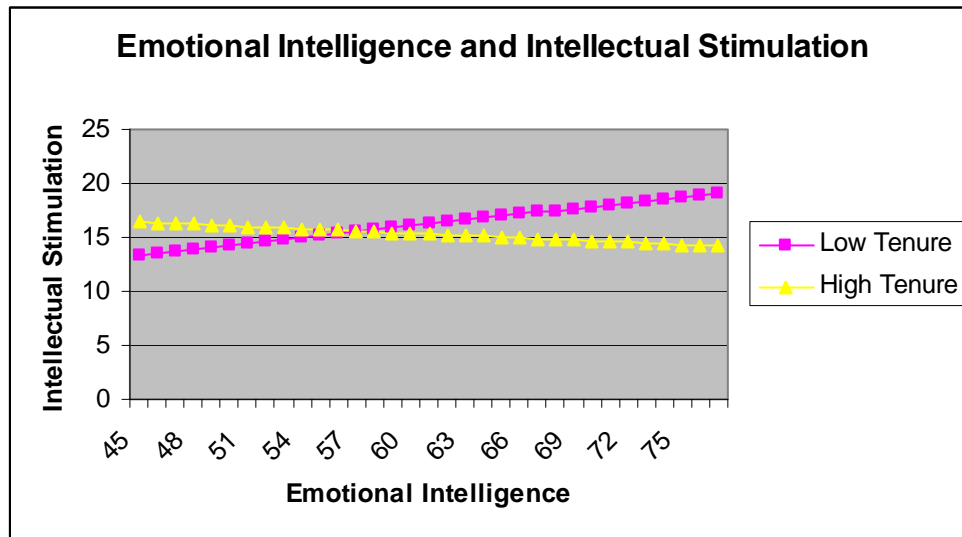
As a result of this finding, consideration was given to the other transformational leadership variables in light of their relationship to employee tenure. Intellectual stimulation involves the leader discovering the follower's typical ways of thinking and behaving, and encouraging the follower to think and act in different ways. As such, intellectual stimulation, like individualized consideration, may require a leader to understand a follower's typical ways of thinking and behaving, so alternate options can be suggested. Thus, it would be likely that the relationship between emotional intelligence and intellectual stimulation would also be moderated by employee tenure.

Conversely, idealized influence, or charisma, should not be dependent on knowledge of an employee. A charismatic leader is one who is able to sincerely convey his or her own beliefs (Wasielewski, 1985). While an understanding of follower's viewpoints should help a leader to transfer his or her own viewpoints, charismatic behaviors, such as evoking and manipulating emotions, should not be entirely dependent on a leader's knowledge of a follower. Thus tenure should not moderate the relationship between emotional intelligence and charisma. That same should be true for inspirational motivation, which, like charisma, requires that a leader provide followers with emotional or tangible resources to reach a goal. In order to motivate a follower in this way, a leader may make the follower excited and confident about the success of reaching a goal. Once again, this shouldn't require as much knowledge of the follower's characteristics as would individualized consideration or intellectual stimulation. Thus, no moderation

should be seen in the relationship between EI and inspirational motivation, when tenure is included.

A review of the data supported these conjectures. Of the four transformational leadership variables, tenure of the employee significantly moderated the relationship between EI and the variable only for individualized consideration and intellectual stimulation. For inspirational motivation, all beta weights were nonsignificant, and for charisma, only emotional intelligence emerged as a significant predictor ( $\beta=.67, p<.05$ ). In the case of intellectual stimulation, all of the terms entered into the regression to test this theory were significant at the  $p<.01$  level. Specifically, the beta weights were: emotional intelligence,  $\beta=1.03$ ; tenure  $\beta=2.60$ ; interaction  $\beta=-2.70$ . Approximately 6% of the variance in intellectual stimulation was explained by these predictors. The relationship has been graphed in Figure 3, below.

**Figure 3: Moderation of EI and Intellectual Stimulation by Tenure**



These findings, in combination with the earlier significant, unmoderated relationships between emotional intelligence and charisma, and emotional intelligence

and inspirational motivation suggest that leaders high on emotional intelligence do lead in different ways than leaders low on emotional intelligence. Leaders high on emotional intelligence appear to act in a more transformational fashion towards new employees when that transformational leadership requires a knowledge of the employee's characteristics. Leaders low on emotional intelligence appear to act in a more transformational manner only as they have increasing experience with new employees, and thus can learn the employee's characteristics. While the direction of this relationship was unexpected, it merits further study.

A secondary goal of the present study was to determine if the relationship between emotional intelligence and each of the transformational leadership facets could be moderated by the Leader-Member Exchange relationship. Previous work (Webb, 2004) had shown extremely low interrater reliability in leadership ratings, suggesting that multiple subordinates may view the same leader quite differently. LMX was proposed as an explanation for that lack of reliability. Further, it was expected that when LMX levels were high, emotional intelligence would predict charisma, inspirational motivation, intellectual stimulation, and individualized consideration, but when LMX levels were low, these relationships would not be significant.

This prediction was only supported for one of the four leadership facets in the present study. Specifically, the moderated regression suggested that the nature of the relationship between emotional intelligence and charisma changed with the degree of the Leader-Member Exchange relationship. As depicted in Figure 1, there was a positive relationship between emotional intelligence and charisma at higher levels of LMX. When LMX levels dropped, this relationship became less apparent. This was not the case for

inspirational motivation, intellectual stimulation, or individualized consideration, however. One possibility is that moderated regression analyses typically have low power, which would make it difficult to find expected moderators. An alternate explanation stems from the extremely high correlation between Leader-Member Exchange and each of the transformational leadership variables. Given the strength of these relationships, which displayed zero order correlations between .55 and .79, there was less room left than expected for emotional intelligence, or an interaction between emotional intelligence and LMX, to predict additional variance in transformational leadership. In fact, this correlation suggests the need to re-examine the relationship of transformational leadership to Leader-Member Exchange.

Given that the correlation between LMX and each of the transformational leadership subscales was as high, or higher, than many of the correlations between the transformational leadership subscales themselves, perhaps the current conceptualization of Leader-Member Exchange and transformational leadership as separate constructs is inaccurate. While surface content of the items on the LMX-7 scale are substantially different from the items on three of the MLQ-5X subscales, the correlations suggest that both may be tapping at least a portion of the same underlying construct. Also, items on the LMX-7 scale are similar to items on the MLQ-5X subscale that measures individualized consideration. For example, the LMX-7 asks, “How well does your leader understand your job problems and needs?” while the MLQ-5X subscale for individualized consideration asks a follower to rate the extent to which his or her leader, “Considers me as having different needs, abilities, and aspirations from others.”

While it is logical to view the quality of the leadership relationship separately from the quality of the leader's behavior, it may be the case that this separation does not exist. The quality of the leader's behavior may indeed be so strongly related to the quality of the relationship that the two factors can't be discerned. The strength of this relationship would preclude the possibility of leadership quality serving as a moderating variable. Future research examining this relationship in greater depth appears warranted.

Additionally, through exploratory hypothesis A-1, this study adds further fuel to the fire to suggest that emotional intelligence and job satisfaction are not related. Previous research has come to conflicting conclusions on this subject. The present study, while providing additional data, does little to clarify the disagreement. However, the accumulated job satisfaction research of the past 30 years seems to have reached the conclusion that job satisfaction has a broad range of determinants and moderators. Thus, it is possible that emotional intelligence might predict specific facets of job satisfaction, such as satisfaction with supervisor, but not the overall satisfaction that was measured here. Further research into this topic could provide additional understanding.

In conclusion, the present study provides empirical support for direct relationships between emotional intelligence and two of the branches of transformational leadership. At a basic level, these findings help to validate many researchers' theories regarding EI and transformational leadership. They also suggest that it is possible to develop a self report measure of emotional intelligence that is not so correlated with other personality characteristic measures as to lack utility. The study as a whole provides evidence that significant relationships do exist between emotional intelligence and charisma, and emotional intelligence and inspirational motivation. It further suggests that a leader's

emotional intelligence will predict some of his or her transformational behaviors in different ways for employees with different amounts of tenure. The present study also tentatively supports the contention that emotional intelligence is composed of more than just personality characteristics, as each of those constructs are currently operationalized. When emotional intelligence was regressed on the three personality variables, they accounted for 35% of the variance. As is the case with other findings in this study, this result suggests that while EI and personality are strongly related, not all of the variance in EI is accounted for by the personality facets measured in this study.

These findings suggest a number of directions for future research. As noted above, the present research suggests a linkage between transformational leadership and Leader-Member Exchange that has not been explored sufficiently. Further exploration of that relationship seems warranted. Beyond this, additional research could address several flaws in the present study. An initial change would be to verify that each follower reporting on a leader's leadership style had interacted enough with the leader to make such ratings. Because many jobs differ in the extent to which a supervisor and subordinate interact, simply limiting the sample to only those who had worked together for a certain number of months would not succeed in this goal. However, asking subordinates about the extent to which they felt they had seen the behaviors relevant to the ratings they were to make could allow future researchers to remove data from subordinates who had only seen a few, or none, of the relevant behaviors.

Future studies should also seek a more diverse sample. The generalizability of the findings in the present study is called into question due to the sample. Based on the stages during which data was collected, the author estimates that approximately 60 to 75% of

respondents were I/O psychologists, who were likely well versed in the nuances of leadership. This could have biased their ability to complete the relevant measures objectively as they might have recognized the scales. It also limits the generalizability to alternate populations. It would be worthwhile to study how well the present findings replicate in other samples of supervisors and subordinates who worked in areas outside of I/O psychology. Likewise, the vast majority of the present sample was composed of white collar workers. Thus, replication in a population of blue collar workers might produce significantly different results.

Another aim of this replication should also be to increase the range of responses and also the response rate. While the low response rate in the present study is likely a function of the data collection method used, it calls into question the generalizability of the present findings, especially given the skew of several of the response scales. Future research should seek ways to encourage supervisors with a wide range of leadership skills to participate, as well as ways to encourage direct reports to provide accurate data.

If privacy concerns were an issue in the present study, as they most likely were, then it can be expected that subordinates who had more negative views of their leaders would be less likely to respond, thus potentially biasing the sample. Any methodology that could better guarantee anonymity, and thus improve the amount of data provided by subordinates would likely improve the validity and generalizability of this study.

The field of emotional intelligence would also benefit from more in-depth study of the different measures used to capture EI. The measure used in the present study seems to avoid some of the criticisms associated with other self report measures, in that it shows incremental validity beyond related personality constructs. However, given that the



debate between supporters of pure ability measures and models and supporters of mixed models and measures, further research on this topic is warranted. Specifically, while the current measure shows a great deal of promise, its authors (Wong and Law, 2002) do not recommend using it to reflect each of the four components of emotional intelligence. Rather, according to Wong and Law, it should only be used as an overall measure of emotional intelligence. If the ability model of emotional intelligence is accurate, then it should be possible to accurately measure each of the four components of that model. Thus, research to develop a scale that will allow such measurement is warranted.

A final suggestion would be to begin to examine the direction of causality in the leadership-emotional intelligence relationship. Several studies have now found a relationship between emotional intelligence and leadership (e.g., Webb, 2004; Srivastava and Bharamanaikar, 2004; Mandell and Pherwani, 2003). If one accepts that the relationship does exist, is it possible that training leaders on emotional intelligence could lead to an increase in their transformational behaviors? Given that transformational leadership behaviors in supervisors are highly correlated with job satisfaction in followers, anything that could be done to increase a leader's transformational behaviors would likely have a tangible benefit for his or her followers. Thus, determining if the qualities associated with emotional intelligence could be taught could lead to other positive changes.

There are countless other research possibilities suggested by the present work. As the topic of emotional intelligence gains attention and study (and increases in controversy) the utility of studies such as this increases. As it is, the present study serves

as fuel to two separate fires: It adds to the raging debate surrounding emotional intelligence and it suggests new directions for research in leadership.

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## Appendices

*Appendix A: Study Measures*

*Wong and Law Emotional Intelligence Scale (Wong & Law, 2002)*

Below are a number of statements that concern your beliefs about yourself. Please read each statement and circle the number that corresponds with how well the statement describes you.

Item #		Strongly disagree	Disagree	Unsure	Agree	Strongly Agree
1	I have a good sense of why I have certain feelings most of the time.	0	1	2	3	4
2	I have a good understanding of my own emotions.	0	1	2	3	4
3	I really understand what I feel.	0	1	2	3	4
4	I always know whether or not I am happy.	0	1	2	3	4
5	I always know my friends' emotions from their behavior.	0	1	2	3	4
6	I am a good observer of others' emotions.	0	1	2	3	4
7	I am sensitive to the feelings and emotions of others.	0	1	2	3	4
8	I have good understanding of the emotions of people around me.	0	1	2	3	4
9	I always set goals for myself and then try my best to achieve them.	0	1	2	3	4
10	I always tell myself I am a competent person.	0	1	2	3	4
11	I am a self-motivated person.	0	1	2	3	4
12	I would always encourage myself to try my best.	0	1	2	3	4
13	I am able to control my anger and handle difficulties rationally.	0	1	2	3	4
14	I am quite capable of controlling my own emotions.	0	1	2	3	4
15	I can always calm down quickly when I am very angry.	0	1	2	3	4
16	I have good control of my own emotions.	0	1	2	3	4

*New General Self-Efficacy Scale (NGSE) (Chen, Gully & Eden, 2001)*

Below are a number of statements that concern your beliefs about yourself. Please read each statement and circle the number that corresponds with how well the statement describes you

Item		Not true at all	Hardly true	Moderately true	Exactly true
1.	I will be able to achieve most of the goals I have set for myself.	0	1	2	3
2.	When facing difficult tasks, I am certain I will achieve them.	0	1	2	3
3.	In general, I think I can obtain outcomes that are important to me.	0	1	2	3
4.	I believe I can succeed at most any endeavor to which I set my mind.	0	1	2	3
5.	I will be able to successfully overcome many challenges.	0	1	2	3
6.	I am confident I can perform effectively on many tasks.	0	1	2	3
7.	Compared to other people, I can do most tasks very well.	0	1	2	3
8.	Even when things are tough, I can perform quite well.	0	1	2	3

*Private Self-Consciousness subscale of the Self-Consciousness Scale (Fenigstein, Scheier & Buss, 1975)*

Below are a number of statements that concern your beliefs about yourself. Please read each statement and circle the number that corresponds with how well the statement describes you.

Item		Extremely uncharacteristic of me	Somewhat uncharacteristic of me	Neither characteristic or uncharacteristic of me	Somewhat characteristic of me	Extremely characteristic of me
1	I'm always trying to figure myself out.	0	1	2	3	4
2	Generally, I'm not very aware of myself.	0	1	2	3	4
3	I'm often the subject of my own fantasies.	0	1	2	3	4
4	I never scrutinize myself.	0	1	2	3	4
5	I'm generally attentive to my inner feelings.	0	1	2	3	4
6	I sometimes have the feeling that I'm off somewhere watching myself.	0	1	2	3	4
7	I'm alert to changes in my mood.	0	1	2	3	4
8	I'm aware of the way my mind works when I work through a problem.	0	1	2	3	4
9	I reflect about myself a lot.	0	1	2	3	4
10	I'm constantly examining my motives.	0	1	2	3	4

*Davis Empathy Scale (Davis, 1994)*

Below are a number of statements that concern your beliefs about yourself. Please read each statement and circle the number that corresponds with how well the statement describes you.

Item		Not true at all	Hardly true	Neither true nor untrue	Moderately true	Exactly true
1.	I often have tender, concerned feelings for people less fortunate than me.	0	1	2	3	4
2.	Sometimes I don't feel very sorry for other people when they are having problems.	0	1	2	3	4
3.	When I see someone being taken advantage of, I feel kind of protective toward them.	0	1	2	3	4
4.	Other people's misfortunes do not usually disturb me a great deal.	0	1	2	3	4
5.	When I see someone treated unfairly, I sometimes don't feel very much pity for them.	0	1	2	3	4
6.	I am often quite touched by things that I see happen.	0	1	2	3	4
7.	I would describe myself as a pretty soft hearted person.	0	1	2	3	4

*LMX 7 (Graen & Uhl-Bien, 1995)*

For each of the items listed below, please circle the response option that best describes your beliefs.

1. Do you know where you stand with your leader. . . do you usually know how satisfied your leader is with what you do?				
Rarely	Occasionally	Sometimes	Fairly Often	Very Often
2. How well does your leader understand your job problems and needs?				
Not a Bit	A Little	A Fair Amount	Quite a Bit	A Great Deal
3. How well does your leader recognize your potential?				
Not At All	A Little	Moderately	Mostly	Fully
4. Regardless of how much formal authority he/she has built into his/her position, what are the chances that your leader would use his/her power to help you solve problems in your work?				
None	Small	Moderate	High	Very High
5. Again, regardless of the amount of formal authority your leader has, what are the chances that he/she would "bail you out" at his or her expense?				
None	Small	Moderate	High	Very High
6. I have enough confidence in my leader that I would defend and justify his/her decision if he/she were not present to do so.				
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
7. How would you characterize your working relationship with your leader?				
Extremely Ineffective	Worse Than Average	Average	Better Than Average	Extremely Effective

*Job Satisfaction Subscale of the Michigan Organizational Assessment Questionnaire  
(Cammann, C., Fichman, M., Jenkins, D. & Klesh, J., 1979)*

Please circle the response that best describes how you feel.

All in all I am satisfied with my job.						
Strongly disagree	Disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Agree	Strongly agree
In general, I don't like my job.						
Strongly disagree	Disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Agree	Strongly agree
In general, I like working here.						
Strongly disagree	Disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Agree	Strongly agree



*Appendix B: Respondent Demographics*  
Survey Respondent Demographic Information

**Table 10: Tenure in Current Position**

Tenure in Job	Number of Respondents	Percent
Less than 6 months	7	5.98%
6 to 11 months	10	8.55%
Between 12 and 35 months	39	33.33%
More than 36 months	61	52.14%

**Table 11: Hours Worked per Week**

Hours Worked	Number of Respondents	Percent
0 to 9	0	-
10 to 19	0	-
20 to 29	0	-
30 to 39	2	1.71%
40 or more	115	98.29%

**Table 12: Number of Direct Report Employees**

Number of Direct Reports	Number of Respondents	Percent
One	15	12.93%
2 to 5	55	47.41%
6 to 10	25	21.55%
11 to 20	14	12.07%
More than 20	7	6.03%

**Table 13: Respondent Gender**

Hours Worked	Number of Respondents	Percent
Male	71	60.68%
Female	46	39.32%

**Table 14: Respondent Age**

Age	Number of Respondents	Percent
16 to 20	0	-
21 to 30	6	5.13%
31 to 40	41	35.04%
41 to 50	41	35.04%
51 to 60	23	22.22%
61 or above	3	2.56%

### About the Author

Shannon Webb graduated magna cum laude in 2001 with Bachelor's Degrees from the University of California, Irvine in Psychology and Anthropology. In 2004, she received a Master's Degree in Industrial/Organizational Psychology from the University of South Florida. Her research interests have focused on emotions, leadership, and testing. She has published research in the Journal of Applied Social Psychology and in Applied HRM Research. In addition, Ms. Webb taught variety of courses while at the University of South Florida, and is presently working in an applied setting developing licensure examinations.