EMOTIONAL INTELLIGENCE AND LEADERSHIP EFFECTIVENESS: THE VERBAL AND NONVERBAL COMMUNICATION BEHAVIORS OF EMOTIONALLY INTELLIGENT LEADERS

by

JURAN YOON

A dissertation submitted to the Graduate Faculty in Psychology in partial fulfillment of the requirements for the degree of Doctor of Philosophy,

The City University of New York

2008

INFORMATION TO USERS

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleed-through, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

ProQuest LLC
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106-1346

This manuscript has been read and accepted for the
Graduate Faculty in Psychology in satisfaction of the
dissertation requirement for the degree of Doctor of Philosophy.

May 5, 2008	Kristin Sommer
Date	Chair of Examining Committee
May 5, 2008	Joe Glick
Date	Executive Officer

Harold Goldstein

Jessica Lakin

Loren Naidoo

Jai Park

Supervision Committee

THE CITY UNIVERSITY OF NEW YORK

Abstract

Leadership Effectiveness: The Verbal and Nonverbal Communication Behaviors of Emotionally Intelligent Leaders

by

Juran Yoon

Advisor: Professor Kristin Sommer

One-hundred and two pairs of undergraduate students completed a laboratory study in which each participant was randomly assigned to the role of leader or follower. Pairs were randomly assigned to either an "interpersonal task" (leader gives feedback to follower after his or her performance) or a "structural task" (leader gives specific instructions to follower while he or she is completing an assignment). All interactions were videotaped. Content analyses using a computerized program were conducted on leaders' speech, and nonverbal behaviors were coded by trained coders. Findings revealed that for the interpersonal task, leaders higher in emotional intelligence (EI) received higher scores for two measures of leadership effectiveness (followers' evaluations of the leader and expert ratings). No relationships between EI and effectiveness were obtained for the structural task. Mediational analyses suggested that emotionally intelligent individuals achieved effectiveness by using verbal language that suggested positive emotions and comradery. Exploratory analyses revealed that emotionally intelligent leaders tended to use more words in general and fewer meaningless fillers that disrupt their speech. Results did not reveal any significant relationships between EI and nonverbal behaviors. In summary, the present findings strongly suggest that 1) high emotional intelligence may facilitate the communication

skills needed for leadership effectiveness, and that 2) EI may be more essential for interpersonal opposed to non-interpersonal tasks.

Acknowledgements

With God, all things are possible.

This work is dedicated to my family: my parents for their unconditional love and support; my sister for leading the way and her forever friendship; and to Alex, Anna, and Mia, for always being able to lift my spirits. Thank you for always being there for me every step of the way.

This project could not have been completed without the countless contributions of so many others: My research assistants and coders – Jessica Anderson, John Capman, Corinne Donovan, Josh Fyman, Mary Ignani, Jeremy Offenstein, Dianne Bachan, Paola Duarte, Jason Evans, Rocio Luyo, and Sadaf Shaikh for their conscientiousness, energy, and tireless efforts in collecting and coding mounds of data; to my fellow members of Kristin Sommer's lab for their helpful suggestions and insight; to Andy Passen for his generous contribution towards helping to fund this work; and to Frank Bernieri for lending his invaluable expertise in nonverbal behavior and communication.

I want to thank each of my dissertation committee members for their time, dedication, guidance, and their level of excellence in their areas of expertise: Harold Goldstein; Jessica Lakin; Loren Naidoo; and Jai Park.

Finally, to my advisor Kristin Sommer – I cannot thank you enough for all of your tremendous efforts in seeing me through this program. Your dedication to your work and your students, your endless energy in teaching and challenging me, and your willingness to lend your expertise and experience towards shaping my path has been a constant throughout my journey. I am extremely grateful.

Table of Contents

List of Tables

List of Appendices

Introduction

Leaders impact nearly every building block crucial to an organization's success. For example, leaders' responsibilities include planning and organizing, delegating, problem solving, team-building, consulting, goal-setting, and informing and rewarding subordinates (Bass, 1990; Hollander & Offermann, 1990; Yukl, Wall, and Lepsinger, 1990). Research on leadership effectiveness has spanned over two hundred years and continues to be a heavily investigated area of study for both academics and practitioners. Initial approaches to the study of leadership were heavily leader-centric. That is, experts assumed that leadership effectiveness could be largely determined by whether the leader reflected a number of qualities conducive to leadership, such as intellect and assertiveness (Carlyle, 1907; Galton, 1869). As experts developed a greater understanding of leadership processes, however, they recognized that the possession of certain individual traits was not sufficient for a leader to be effective, and a notable shift took place. Rather than viewing leadership as a one-way transaction from leader to follower, researchers shifted to considering leadership as a dynamic relationship between leader and follower, placing a greater emphasis on a leader's interpersonal and social skills. With this deeper insight, experts began to explore leaders' interpersonal qualities, such as an their capacity to incorporate and manage emotions in their interactions with others, to identify successful leadership behaviors (Bass, 1990; Kirpatrick & Locke, 1991; Lewis, 2000; Yukl, 1998; Yukl & Van Fleet, 1992). As research advanced, the link was made between leadership effectiveness and a new type of intelligence that underlie the adeptness with which people interacted with others, namely, emotional intelligence (EI).

Mayer and Salovey (1997) describe EI as the capacity to enhance thinking by reasoning about emotions in order to promote "emotional and intellectual growth" (p. 14). Those high in EI are skillful in using emotions and comfortable in social situations, whereas those low in EI are likely to be impaired in emotional functioning and in their social relationships with others (Mayer, Salovey, & Caruso, 2004; Mayer, DiPaolo, & Salovey, 1990; Salovey & Grewal, 2005). Salovey and Mayer's model of EI (Mayer & Salovey, 1995, 1997; Salovey & Mayer, 1990) consists of a specific set of abilities comprising four areas of skills, or what the authors refer to as "branches": 1) perceiving and expressing emotion, 2) using emotions to facilitate thought, 3) understanding emotions, and 4) managing emotions in a way that enhances personal growth and social relations. Given the relevance of these emotional skills to building and strengthening relationships with others, the role of EI in leadership effectiveness has become a burgeoning field of research.

Some key works, both theoretical and empirical, have provided firm support for why those higher compared to lower in EI excel when it comes to leadership. Caruso, Mayer, and Salovey (2001) and George (2000) present convincing theoretical arguments for the vital role of EI in leadership effectiveness by providing a more detailed explanation of how each of the four EI abilities specifically contributes to leadership processes and behaviors. For example, Caruso et al. (2001) explain the value of managing emotions for leaders. Suppressing inappropriate negative emotions while expressing positive ones enables leaders to motivate others to focus on goal accomplishment, especially during times of uncertainty and stress. Additionally, some empirical research has provided evidence of the relationship between higher EI and greater leadership

effectiveness. Specifically, Barbuto and Burbach (2006) reported significant relationships between EI and transformational leadership behaviors, and Wong and Law (2002) showed that leaders higher in EI are more likely than those with lower EI to have subordinates who perform more organizational citizenship behaviors.

Despite mounting research that links EI to leadership effectiveness (Barbuto & Burbach, 2006; Brown & Moshavi, 2005; Caruso, Mayer, & Salovey, 2001; Caruso & Salovey, 2004; George, 2000; Morand, 2001; Sosik & Megerian, 1999; Wong & Law, 2002), little is known about the details surrounding this relationship. Specifically, little research has examined the specific communication behaviors demonstrated by emotionally intelligent versus emotionally unintelligent leaders. Furthermore, though some research has suggested that emotional intelligence may not always be essential for leadership effectiveness (Caruso et al., 2001), no studies have explored the extent to which task demands or characteristics may moderate the link between EI and effectiveness. The present work is devoted to examining the verbal and nonverbal communication behaviors of emotionally intelligent leaders across two different work tasks.

This dissertation is organized as follows: First, I provide a review of the literature on the development and measurement of EI to provide a thorough understanding of the construct. I then present the history of leadership studies, beginning with early trait approaches, and trace their progression to current research that depicts EI as a key predictor of leadership effectiveness. Next, I review and critique the current theoretical and empirical research on EI and leadership effectiveness and discuss the importance of studying leaders' communication behaviors in order to gain greater insight into how EI

augments effectiveness. I follow by describing a laboratory study in which I examine the verbal and nonverbal communication behaviors of emotionally intelligent leaders and their impact on leadership effectiveness. Finally, I conclude with the study's findings and a discussion of their contributions to the literature.

Chapter One: Background and Literature Review

The History of Emotional Intelligence

General intelligence is defined as an individual's ability to acquire basic knowledge and apply it to novel situations (Guilford, 1967; Salovey & Mayer, 1990; Sternberg, 1985; Weischler, 1958). However, many theorists argued that intelligence manifests in a variety of ways and therefore can be subdivided into more specific forms of intelligence (Cantor & Kihlstrom, 1989; Gardner, 1983; Guilford, 1967; Salovey & Mayer, 1990; Sternberg, 1985; Thorndike, 1920; Wechsler, 1958). Perhaps theorists were most fascinated with the idea that some form of intelligence may underlie the adeptness with which people interacted with others. This idea quickly became known as social intelligence.

As early as 1920, researchers began exploring the existence of social intelligence. Most notably, Thorndike (1920) broadly defined social intelligence as the ability to perceive the internal states of the self and others, and to act in ways that use this information effectively. However, efforts to assess social intelligence became wrought with pessimism. For example, Thorndike and Stein (1937) were skeptical that a verbal scale could properly reflect one's social acuity, casting doubt on the possibility of validating social intelligence. Forty years of failed attempts to measure the construct drove Cronbach (1960) to conclude that the concept of social intelligence was too broad. He abandoned the idea that social intelligence could be inarguably defined and measured.

However, over twenty years later, work exploring "multiple intelligences" was introduced by Gardner (1983) and interest in social intelligence resurfaced. Gardner proposed that general intelligence could be broken down into eight intelligences

(including social intelligence), and that social intelligence could be further divided into two subcomponents: interpersonal and intrapersonal intelligence. He defined interpersonal intelligence as the ability to understand other people and know what they are feeling. Intrapersonal intelligence was defined as involving access to one's own feelings.

Gardner's (1983) attention to feelings, or emotions, appeased some theorists who were highly skeptical of traditional views of social intelligence (Walker & Foley, 1973; Weinstein, 1969). They argued that some definitions of the concept suggested that a socially intelligent individual had the underlying motivation to manipulate others in order to achieve a personal desire. Gardner's view seemed to provide a reasonable response to the manipulative undertones of social intelligence by considering the role of emotions in guiding individuals' actions in a less self-serving and more prosocial manner (Dienstbier, 1984; Hoffman, 1984; Salovey & Mayer, 1990). This new approach, coupled with the progress that experts had made in operationalizing and measuring social intelligence (Cantor & Kihlstrom, 1985), eventually led researchers to probe deeper into learning more about the emotional processes underlying social intelligence. Results of this exploration led to the introduction of yet another form of intelligence: emotional intelligence (Salovey & Mayer, 1990; Mayer Dipaolo, & Salovey, 1990).

Emotional Intelligence Defined

Emotional intelligence (EI) was originally defined by Salovey and Mayer (1990) as the "subset of social intelligence that involves the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions" (p. 189). While the authors recognized some overlap

with Gardner's (1983) conception of social intelligence, or what is more commonly known as Gardner's "personal intelligences" (interpersonal and intrapersonal intelligence), EI focused specifically on the "recognition and use of one's own and others' emotional states to solve problems and regulate behavior" (p. 189). The EI perspective is that those who possess the abilities related to EI can be viewed as well-adjusted and skillful in using emotions, whereas those who do not are likely to be impaired in emotional functioning and in their social interaction with others (Mayer, Salovey, & Caruso, 2004; Mayer, et al. 1990; Salovey & Grewal, 2005).

Salovey and Mayer's model of EI views the construct as a system of emotion-related abilities comprising four areas of skills or what the authors refer to as "branches" (Mayer & Salovey, 1995, 1997; Salovey & Mayer, 1990): 1) perceiving and expressing emotion, 2) using emotions to facilitate thought, 3) understanding emotions and 4) managing emotions in a way that enhances personal growth and social relations. According to Salovey and Mayer (1990), the first step in using EI is to process the emotional information as it enters the perceptual system. Therefore, "perceiving emotion" refers to detecting and identifying emotions in faces, extracting emotions from ambiguous stimuli, such as pictures and music, or identifying one's own emotional responses to events. Perceiving also includes the appraisal of emotions (i.e. being able to judge whether emotional expression is authentic or phony) (Mayer & Geher, 1996; Mayer et al., 1990; Salovey & Mayer, 1990).

The first branch of EI also encompasses the accurate expression of feelings, either verbally or non-verbally. Verbal communication requires the proper use of language to describe feelings and the ability to speak clearly about them. Non-verbal communication

involves facial expression (Eckman, Friesen & Ellsworth, 1972) and other silent means of sending messages (i.e. hand gestures, amount of eye contact). According to Mayer and Salovey (1990), expressing feelings necessitates that an individual first identifies and appraises them. This process illustrates the partnership between perceiving and expressing emotions under the first branch of EI.

Salovey and Mayer (1990) claim that the accurate perception of emotions enables emotionally intelligent individuals to create a quicker and more appropriate response to their own emotions, which in turn, helps them to better communicate those emotions to others. In addition, perceiving and appraising emotions appear to be related to empathy, "the ability to comprehend another's feelings and to re-experience them oneself" (Salovey & Mayer, 1990, p. 194). Empathy allows emotionally intelligent individuals to accurately gauge the emotional reactions of others and choose a socially-acceptable and appropriate response. It is these skills that make emotionally intelligent individuals appear sincere and warm to others rather than oblivious and harsh (Mayer et al., 2004; Salovey & Mayer, 1990).

The second area of skills, "using emotions to facilitate thought" involves the use of emotional information to direct one's thoughts. The idea that emotions have an impact on thought processes may not be surprising. People may easily recall a time when a personally emotional experience may have caused them to forget about an appointment or the needs of someone else. Rather than let emotions infiltrate or interrupt thoughts, this EI skill assists individuals in using their emotions productively, therefore enhancing their cognitive processes (Mayer & Salovey, 1997; Mayer, Salovey, Caruso, & Sitarenios, 2003; Salovey & Grewal, 2005; Salovey & Mayer, 1990). For example, a college student

may experience worry over an upcoming exam while socializing with friends. If emotionally intelligent, the student may make the decision to leave his or her friends early in order to study instead of allowing feelings of anxiety to dampen one's own enjoyment or the enjoyment of others. One way, then, that emotionally intelligent individuals may be at an advantage over those low in EI is in adaptive problem solving (Caruso, et al., 2001; Mayer & Salovey, 1997; Salovey & Mayer, 1990). As the example attempts to illustrate, those high in EI may be better equipped to use emotions (i.e anxiety) to proactively redirect their attention to important events (i.e. performing well on the exam). According to several experts, other ways that high EI individuals use emotions to enhance thought are through considering alternate perspectives, flexible planning, and creative problem solving (Caruso, et al., 2001; Salovey & Grewal, 2005; Salovey & Mayer, 1990).

The original model of EI (Mayer & Salovey, 1995; Salovey & Mayer, 1990) did not include the third branch, understanding emotions. A further evaluation of EI led the authors to recognize the importance of expanding one's knowledge about emotions, resulting in a revision of the model with the addition of this skill area (Mayer & Salovey, 1997). Understanding emotions involves the ability to understand complex emotions in the self and others, how different emotions are related to one another, and how they affect relationships among people (Caruso et al., 2001; Mayer et al., 2001). EI experts agree that this area of skills is that which relies the most heavily on cognitive processing and abstract reasoning (Mayer et al., 2001; Salovey & Grewal, 2005). Roberts, Zeidner, and Matthews (2001) provided evidence for this claim by showing that the third branch, "understanding emotions" correlates most highly with IQ.

The last skill area, "managing emotions," can be construed as emotion regulation. Caruso et al. (2001), describe this branch as encompassing "the ability to stay aware of one's emotions, even those that are unpleasant, the ability to determine whether an emotion is clear or typical, and the ability to solve emotion-laden problems without necessarily suppressing negative emotions" (p. 59). Emotionally intelligent behavior may include controlling feelings of anger during an argument by expressing them calmly rather than lashing out at the other party. Emotionally intelligent individuals rely on a logically-built model of emotion control and regulate their emotions accordingly (Mayer & Salovey, 1995).

According to Salovey and Mayer (1990), there are two components of emotion regulation: regulation in the self and regulation in others. Moods are considered to be a salient example of a person's emotional experience. Consequentially, the ability to control moods remains an essential part of emotionally intelligent behavior (Mayer & Salovey, 1997; Mayer, Salovey, Gomberg-Kaufman & Blainey, 1991; Salovey & Mayer, 1990). An individual who seeks situations or people who induce good moods, or avoids those factors that bring about bad ones, demonstrate emotionally intelligent "self-mood" regulation. Additional findings suggest that intelligent emotion regulation may be at the center of higher quality relationships with others. Researchers revealed that individuals who achieved higher scores for the fourth EI branch, "managing emotions" also received higher approval ratings by peers for such interpersonal components as perceived quality of daily social interactions, quality of interactions with members of the opposite sex, peer nomination, sensitivity, and prosocial tendencies (Lopes et al., 2004; Lopes, Salovey, Cote, & Beers, 2005).

Regulating emotions in others refers to the ability to influence or change people's affective experiences (Mayer et al., 1991; Salovey & Mayer, 1990). Examples offered by Salovey and Mayer (1990) include an emotionally intelligent speaker who can draw strong reactions from an audience and an emotionally intelligent job candidate who uses appropriate dress and promptness to create a favorable impression from the interviewers. In other words, emotionally intelligent individuals are likely to be aware of another's emotional state and have the finesse to alter the other's emotional experience (Mayer & Salovey, 1997; Mayer et al., 1991).

Mayer and Salovey and colleagues repeatedly assert that it is the marrying of all four abilities (emotional perception, using emotions, understanding emotions, and emotion regulation) that designate a person as emotionally intelligent (Mayer et al., 1991; Salovey & Mayer, 1990; Mayer et al., 2004; Caruso, et al. 2001; Salovey & Grewal, 2005; Salovey & Mayer, 1990). Before any extensive empirical work had been conducted on the construct, Salovey and Mayer (1990) stated that it was not necessary that all of the proposed skills intercorrelate. They reasoned that it was not of utter importance whether the underlying components represented a single factor. Rather, it was more important that regardless of their empirical interdependence, the components were conceptually related. The authors further argued that all of the emotional skills belong within the EI framework because they involve emotional processing and together are needed for a minimum level of competency regarding emotional functioning.

As work on EI developed, more attempts were made to explain how the four skills integrate with one another. Mayer, Caruso, and Salovey (1999) constructed a set of 12 ability tests drawn from each of the four EI branches. For example, for the first branch

(identifying emotions), four tests measured emotional perception in faces, music, designs, and stories. They confirmed that the four branches of the EI model, though separable, were moderately intercorrelated (*r*s from .35 to .54) and related to a single construct. Mayer et al. (2001) view the four-ability model of EI as forming a hierarchy, with the simplest ability, emotional perception, at the bottom and the most complicated, regulating emotions, at the top. According to Mayer and Salovey (1995), it makes sense that the most demanding skill, emotion regulation, would build upon "lower skills," such as identifying and understanding emotions. Mayer et al. (2003) conducted a four factor confirmatory factor analyses on the Mayer, Salovey, Caruso Emotional Intelligence Test (MSCEIT) and verified that there are four branches: identifying emotions, using emotions, understanding emotions, and managing emotions. These results provide support for the original model, which maintains that EI consists of four distinct but conceptually related abilities.

Comparison of Emotional Intelligence Models

Though it was the founding work by Salovey and Mayer and colleagues (Mayer et al., 1991; Salovey & Mayer, 1990) that was primarily responsible for introducing EI to the academic world, it was Goleman's (1995) book, Emotional Intelligence, that brought the concept to the forefront of popular culture. Goleman's book came on the heels of several significant works such as those by Herrnstein and Murray (1994), Ree and Earles, (1993), and Schmidt and Hunter (1993), which claimed that the single most powerful predictor of success was general intelligence, commonly know as an individual's IQ. Goleman disagreed, claiming that other factors, such as self control and emotional awareness (components of EI), account for people's potential for success more than rote

intelligence. The debate that ensued invited other researchers to further explore the psychological underpinnings of EI.

With the popularity of EI on the rise since Goleman's (1995) book, efforts to refine the definition of EI have resulted in the emergence of two main approaches: an "ability approach" or a "mixed approach." According to Caruso et al. (2001), the ability approach considers EI to be an integrated set of cognitive or mental abilities. The focus of this model is on an individual's aptitude for processing affective information. The most prominent example of the abilities approach is that used by Salovey and Mayer (1990). Mixed approaches propose that though EI includes some abilities, it also includes personality traits. For example, Goleman (1998) updated his original model of EI (Goleman, 1995) to include 25 competencies grouped under five general categories: self-awareness, self-regulation, motivation, empathy, and social skills. Another notable example of the mixed approach is that used by Bar-On (1997a, 1997b). He defines the construct as "an array of non-cognitive abilities, competencies and skills that influence one's ability to succeed in coping with environmental demands and pressures" (Bar-On, 1997b, p. 14). Bar-On's framework revolves around five factors: intrapersonal skills, interpersonal skills, adaptability, stress management, and general mood, all of which can be measured by a single factor, the Emotional Quotient (EQ).

The mixed models (e.g. Bar-On, 1997a; Goleman, 1995) are credited for encompassing a multitude of personality characteristics (i.e. self-awareness, adaptability, and self-motivation), thus addressing a wide scope of capacities involved in interpersonal behavior. In addition, the traits that they have incorporated in their conception of EI seem to have face validity. That is, they appear to be relevant to the mechanisms involved in

emotional processing (Caruso et al., 2001). The majority of the criticisms directed toward mixed-models pertain to whether these models of EI capture more than what is already intended by some models of personality (Brackett, Rivers, Shiffman, Lerner, & Salovey, 2006; Caruso et al., 2001; Davies, Stankov, & Roberts, 1998; Mayer et al., 2004; Salovey & Grewal, 2005). Additionally, measurement of mixed-models of EI is dependent upon self-evaluation, which is thought to be inadequate. For example, an item from the BarOn EQ-i (1997a) asks test-takers to evaluate themselves on the following statement "I have good relations with others," on a rating scale ranging from "not true of me" to "very true of me." According to several researchers, description of one's own behavior is not the most accurate account of whether an individual actually possesses emotionally intelligent skills (Brackett et al., 2006; Caruso et al., 2001; Davies et al., 1998; Salovey & Grewal, 2005; Mayer et al., 2004; Mayer, et al., 1999; Mayer & Salovey, 1993, 1997).

Work by Brackett et al. (2006) lends support for the superiority of performance-based measures of EI over self-report measures. Brackett et al. (2006) revealed that scores from a performance measure of EI (the MSCEIT) and a self-report measure of EI (participants' estimates of their performance on the MSCEIT relative to other participants) were not strongly correlated. Moreover, only the performance measure was found to be significantly related to scores of social competence (using measures which assess participants' self-reported responses to friends' positive and negative events). Brackett et al. (2006) argue that the lack of self-awareness about one's own emotional skills may due to the lack of explicit feedback and training that is devoted to emotional skills. Unlike other arenas, such as mental abilities, or musical talents, it is rare that an

individual attends an institution or continually engages in specific corrective feedback that would improve the accuracy of an individuals' emotional awareness.

Proponents of the ability model argue that its strongest attribute is that it clearly meets the standards of an intelligence. Mayer and Salovey (1993) assert that the definition that they have prescribed for EI --"a series of mental abilities"-- is enough to qualify it as a form of intelligence. The abilities model proposes that an individual's thinking and planning grows towards a level of proficiency that is similar to what is espoused by traditional principles of intelligence (Caruso et al., 2001; Salovey & Grewal, 2005; Mayer & Salovey, 1993, 1997; Mayer et al., 2004; Mayer et al., 2001; Wechsler, 1958). Another promising and related strength of the abilities model is that, unlike most of the mixed-models, it is reliant upon a skill-based measure (Brackett et al., 2006; Caruso et al., 2001; Davies et al., 1998; Mayer & Salovey, 1993, 1997; Mayer et al., 2001; Salovey & Grewal, 2005). For example, an item used in the MSCEIT (Mayer, Salovey, Caruso EI Test) asks test-takers to look at the face in a picture and then indicate how the person is feeling regarding three emotions (sad, angry, happy) on a rating scale ranging from "not at all" to "very." The abilities framework allows the construct to be measured using concrete, objective measures, rather than subjective ones. Self-evaluation techniques run the risk of being distorted due to people's desire to make a favorable impression (Barrick & Mount, 1996). Weaknesses of the abilities model are less theoretical in nature but more concerned with the statistical properties of EI tests.

In general, more support exists from researchers in the academic arena for the abilities model rather than mixed models of EI. This is primarily because the former defines EI in terms of identifiable skills and measurable behaviors (Brackett et al., 2006;

Caruso et al., 2001; Mayer et al., 2004; Davies et al. 1998; Newsome, Day, & Catano, 2000; Roberts et al., 2001; Salovey & Grewal, 2005). Even some skeptics of the measurement techniques of EI prefer the abilities model as well. These authors admit that the abilities model presents EI as a form of intelligence versus a group of dispositional elements (Davies, et al. 1998; Roberts et al., 2001).

Though the media and general public have favored the mixed models of EI, such popularity has been considered problematic. For example, Roberts et al. (2001) report that because of its public appeal, EI, as depicted by the mixed models, can be presented in a "faddish way," often overlooking the core psychological processes and implications for emotionally intelligent behavior as intended by the original researchers. Moreover, the existence of varying definitions and models of EI causes the construct to being loosely defined often in some works, causing confusion among researchers. However, rather than construe alternate approaches as detracting from the ability model of EI, Salovey and colleagues credit the work of Bar-On (1997a) and Goleman (1995) for presenting the construct in a way that is more easily accessible to the general public, and for generating more interest and exploratory work on a relatively new phenomenon (Caruso et al., 2001; Mayer et al., 1999).

Current Research: Emotional Intelligence as a Predictor of Success

Research on EI has expanded well beyond efforts to define the construct to discovering how EI impacts individuals' behaviors and the environments in which they manifest. In particular, researchers have questioned the relationship between individuals' EI and their potential for success or achievement. Brackett, Mayer, and Warner (2004) explored this by examining the relationship between EI and one's "Life Space." Life

space scales assess self-reported behaviors by asking about objective events and behaviors making up an individual's environment. Items ask about the frequency with which an individual attends parties, or how many cigarettes an individual typically smokes within a week (Mayer, Carlsmith, & Chabot, 1998). Findings revealed that at least in males, lower levels of EI (measured by the MSCEIT) were associated with lower quality peer relations and more involvement in use of illegal drugs, excessive drinking of alcohol, and deviant behavior. These results suggest that EI may aid individuals in exercising self-control needed to maintain meaningful social interactions or engage in less potentially harmful behavior. Additionally, Martinez-Pons (1997) found that EI was positively related to individuals' self-reported goal achievement life satisfaction. Further, path analysis revealed that, through the aforementioned factors, EI was negatively related to developing symptoms of depression (depression symptomatology). These findings suggest that EI may equip individuals with coping skills and/or some form of optimism, which in turn allow them to adapt to life's challenges.

Experts agree that EI improves people's ability to relate to those around them (Mayer et al., 1990; Salovey & Mayer, 1990). Work by Carrothers, Gregory, and Stanford (2000) indicates that individuals with high levels of EI may have a greater chance of being accepted to medical school. The authors suggest that EI enhances the skills needed for doctor-patient relationships in the field of medicine. Additionally, a theoretical piece by Silver (1999) argues that the interpersonal skills and psychological demands of being a good lawyer make EI an essential factor in succeeding in the profession. Though the research by Carrothers et al. (2000) and Silver (1999) supports the general notion that EI may help individuals interact with and relate to others, work by

Lopes et al. (2004) and Schutte et al. (2001) may be more helpful in revealing how EI specifically aids individuals in several aspects of interpersonal relations.

Lopes et al. (2004) argue that processing emotional information and intelligently managing the dynamics among people, both hallmark traits of EI, are essential for navigating the social world. The authors focus mainly on the fourth branch of EI, managing emotions, as the strongest predictor of an individual's ability to engage in high quality social interactions. Emotion regulation enables an individual to control the "emotional valence" of a conversation, or how positive or negative the direction of an interaction undertakes. Moreover, the ability to regulate one's own emotions enables an individual to focus one's attention on the person or conversation at hand, allowing for smoother communication and social interaction. While the authors agree that the other EI abilities of identifying emotions, and using and understanding them still largely influence social interactions, their impact is likely to be more indirect compared to emotion regulation. The research revealed that compared to scores on the three other EI branches, higher scores for managing emotions, as measured by the MSCEIT subscale, were associated with higher self and peer-ratings of quality of friendships, as assessed by a relationship inventory Moreover, Lopes et al. (2004) also found that self-perceived ratings of recorded daily social interactions was positively correlated with managing emotions and overall EI scores. The authors conclude that EI enables individuals to engage in warm, positive interactions with others mostly due to the enhancement of highly developed emotional regulatory skills.

Similar to Lopes et al. (2004), Schutte et al. (2001) view EI as largely a relational concept. Schutte et al. (2001) were first interested in the association between EI and

individuals' capacities for self-monitoring, empathic perspective taking, and effective social skills. According to Snyder (1974), self-monitors attend to social cues to determine what is appropriate and adjust their behavior accordingly. Empathic perspective taking is one dimension of empathy that refers to people's ability to adopt another's viewpoint when making a decision or evaluating a situation. Some social skills that were assessed using Riggio's (1989) Social Skills Inventory included social control, social sensitivity, and emotional expressivity. Using a trait measure of EI, the authors found that participants' EI scores were positively correlated with scores on pencil and paper-based tests for empathic perspective taking, self-monitoring, and social skills.

Schutte et al. (2001) also found that participants with high EI scores demonstrated a greater willingness to make a decision that would benefit their partner in a laboratory task designed to assess cooperation. The remaining studies showed that higher scores of EI were associated with higher scores on survey measures of close relationships, martial satisfaction, and preference for relationships with other highly emotionally intelligent individuals. Though the work of Schutte et al. (2001) does not provide causal explanations for the associations found in their studies, their findings nevertheless offer some insight into the ways in which emotionally intelligent compared to emotionally unintelligent individuals may function at a higher level in social relationships.

Emotional Intelligence and Job Performance

As cited above, researchers have shown some interest in learning more about how EI influences individuals' potential for success and their interpersonal relationships. However, perhaps the greatest interest has been focused on the impact of EI on people's success and relationships at work. Emotions are an inseparable aspect of working in an

organization (Ashforth & Humphrey, 1995; Fisher & Ashkanasy, 2000; Grandey, 2000; Humphrey, 2002; Rafaeli & Sutton, 1987). For example, individuals' good moods positively influence workers' productivity and creativity (George & Brief, 1992; Isen, Daubman, & Nowicki, 1987; Kelly & Barsade, 2001). Knowing how to express the appropriate emotion at the right time (an example of emotion regulation) is often considered to be an implicit aspect of successful job performance (Grandey 2000; Hoschild, 1983; Humphrey, 2002; Rafaeli & Sutton, 1987). Research on emotions in the organizational context strongly implicates the workplace as a natural environment in which to study EI.

Lam and Kirby (2002) examined whether EI accounts for increases in cognitive-based performance (on workplace tasks) over and above general intelligence. The authors used a shortened version of the Multifactor EI Scale (MEIS, Mayer, Salovey, & Caruso, 1999), which, because of psychometric difficulties at the time, did not assess the second EI component, "using emotions to facilitate thought." The authors found that individuals' overall scores of EI did indeed contribute to their cognitive based performance (assessed by their performance on 8 items from a logical reasoning test which adapted to reflect relevancy to work) beyond the level attributable by their scores of general intelligence (R^2 *change* = .03, $p < .001$) as did scores for perceiving emotions and regulating emotions (R^2 *change* = .07, $p<.001$; R^2 *change* = .02, $p < .001$, respectively). Lam and Kirby's (2002) work showed that in addition to general intelligence, EI is an important contributor to successful cognitive performance. Their results lend support to the prevailing perspective of leading EI experts stating that skills such as controlling emotions to focus one's attention may be a powerful aid in excelling at tasks that are assumed to rely solely on

rational thought processes (Mayer & Salovey, 1990; Mayer et al., 2004; Salovey & Grewal, 1995).

Cote and Miners (2006) argue that the predictive power of EI for job performance may be accentuated if researchers adopt a non-linear approach. According to their perspective, the relationship between EI and job performance should increase as cognitive intelligence decreases. Individuals with lower levels of cognitive intelligence have a lower capacity for applying knowledge, facts, and procedures for successful job performance and thus may compensate by using EI to enhance other aspects relevant to task performance. For example, greater EI may accentuate individuals' ability to generate more work-appropriate positive emotions, create more genuine and friendly interactions with customers, and display greater concern for their co-workers, thus affording these individuals with the opportunity to capitalize on the interpersonal aspects of job performance (Ashforth & Humphrey, 1995; Cote & Miners, 2006; Grandey, 2000; Humphrey, 2002). Moreover, emotionally intelligent individuals may be able to use their emotion enhancing skills to increase their motivation and make better decisions if they cannot depend heavily on their cognitive capacities.

Cote and Miners (2006) found support for their hypotheses. Among a sample of university employees, cognitive intelligence (using a 50-item test assessing different perceptual tasks) moderated the relationship between EI (measured by the MSCEIT) and task performance. Task performance was assessed by asking supervisors to rate employees on different aspects of their performance, such as their job knowledge, verbal and written communication, and quickness in learning. The association between EI and task performance grew more positive as cognitive intelligence decreased ($\beta = .26$, $p < .01$

at one *SD* below the mean for cognitive intelligence; β = .01, *p* = .93 at one *SD* above the mean for cognitive intelligence). The findings provided by Cote and Miner's (2006) study provide further support for the link between EI and task performance and also suggests the relevance of EI in successful job performance among people low in cognitive abilities.

Research on EI in the workplace suggests that organizations workers' EI may contribute to successful job performance and thus, organizational success. However, it is doubtful that this proposition can be entirely convincing without applying EI to perhaps the most crucial component of organizational success - leadership. The current trends in research appear to concur with this reasoning. Research on the role of EI in leadership has been mounting, signifying the movement towards recognizing EI as a key predictor of leadership effectiveness.

Leadership Effectiveness

Vroom and Jago (2007) define leadership as "a process of motivating people to work together collaboratively to accomplish great things" (p. 18). The responsibilities of leaders include a wide variety of tasks including planning and organizing, delegating, problem solving, team-building, consulting, goal-setting, and informing and rewarding subordinates (Bass, 1990; Hollander & Offermann, 1990; Yukl, Wall, and Lepsinger, 1990). Leadership has been cited as one of the most influential variables affecting work-related issues, such as the overall success of an organization and employees' job satisfaction (Avolio, 2007; Chemers, 2000; Hogan, Curphy & Hogan, 1994; Hollander & Offermann, 1990; Meindl, 1995; Yukl & Van Fleet, 1992; Vroom & Jago, 2007).

However, perhaps the most heavily researched areas of organizational leadership, and the underlying theme of virtually all leadership research, is leadership effectiveness.

Leadership effectiveness refers to how well a leader influences and guides the activities of others towards goal accomplishment (Bass, 1990; Hogan et al., 1994; Judge, Bono, Ilies, & Gerhardt, 2002; Stogdil, 1948; Vroom & Jago, 2007). In other words, effectiveness focuses on a designated leader's performance. In order to gain a full understanding of leadership effectiveness, it is important to begin with a brief history of effectiveness research and trace its progress toward current research, which indicates that EI is a crucial factor in leadership effectiveness.

Early on, studies of leadership attempted to determine what distinguishes leaders from non-leaders. As early as the mid 1800s, the "great man approach" held that successful leaders could be characterized by specific, genetically acquired qualities or traits that set them apart from "ordinary" individuals (Carlyle, 1907; Galton, 1869). The great man theory then evolved into trait theory in the early 1900s. Trait theorists were less intent on whether traits were genetic and focused more on identifying the traits that marked individuals as leaders.

Trait theory has had a long and somewhat controversial history in the leadership literature. Traits were loosely defined as characteristics, capacities, or patterns of behavior and for the most part, generalized to personality variables. Trait theorists persisted to search for leadership traits, but two influential works introduced by Stogdill (1948) and Mann (1959) greatly impeded efforts to convincingly identify leader-specific traits. These authors conducted in depth reviews of leadership studies but found little consistency between personality traits and some measures of leadership across studies.

The only consistent positive relationship was between intelligence and leadership. Stodgill (1948) and Mann (1959) concluded that no universal traits guarantee effective leadership across all situations.

With the introduction of other prominent leadership theories, such as contingency models, behavioral theory, and Graen and Cashman's (1975) Leader-Member-Exchange (LMX) model, interest in trait theories began to wane. However, since the late 1980s, there has been a resurgence in research surrounding trait theory, and several works have been dedicated to confirming a relationship between personal attributes and leadership effectiveness. Kirpatrick and Locke (1991) agreed that traits indeed do matter. Specifically, they maintained that leaders differ from non-leaders in their drive, desire to lead, honesty/integrity, self-confidence, cognitive ability, and knowledge of the business. Unlike trait theorists in the early 1900s, Kirpatrick and Locke (1991) clarified the role that traits play in a leader's effectiveness. They asserted that "traits alone are not sufficient for successful leadership – they are only a precondition" (Kirpatrick & Locke, 1991, p. 49). They elaborate on their position by explaining that leaders who do have certain traits (as those mentioned above) may be predisposed to be effective, but they must take certain actions to capitalize on the possession of them (i.e. role modeling, goal-setting, creating a vision).

Research on trait leadership has cued leadership experts on the personal characteristics that underlie successful leadership behaviors. They have then been able to use this knowledge to assist them in predicting what abilities a leader will need to function most effectively (Chemers, 2000; Hogan et al., 1994; Judge et al., 2002; Yukl &

Van Fleet, 1992). It is likely that this perspective helped to pave the way for introducing EI as a viable factor in effectiveness research.

Across several meta-analyses using the trait approach, researchers indicate that there is some relationship between an individual's capacity to handle emotions and leadership performance (Bass, 1990; Kirpatrick & Locke, 1991; Lewis, 2000; Yukl, 1998; Yukl & Van Fleet, 1992;). Yukl and Van Fleet (1992) refer to this capacity as emotional maturity. The authors suggest that individuals who are emotionally mature tend to be more effective leaders since they are less self-centered and more concerned about others, possess a higher degree of self-control (less impulsive), are less prone to mood swings and emotional outbursts, and are more open to suggestions and criticism. Another factor that has been identified as a leadership trait is emotional stability, also referred to as emotional control, or emotional balance (Hogan et al., 1994). In some cases, self-confidence has been interpreted to share similar characteristics as those espoused by emotional stability (Kirpatrick & Locke, 1991; Judge et al., 2002). According to Hogan et al. (1994), leaders with emotional stability present themselves in a manner that is cool, steady, and self-confident, opposed to appearing anxious, worried, and overly emotional.

The consistency with which emotional characteristics were found to be associated with effective leaders among trait studies indicates that emotions are somehow linked to leadership. To improve upon approaches to leadership effectiveness, it seems essential that subsequent approaches emphasize 1) whether the leader is aware of the importance of, and ways in which emotions are intricately involved in the leadership process and 2) whether the individual possesses the skills required to negotiate the emotions and

capitalize upon their usage in order to maximize leadership effectiveness. Following the tradition of the trait approach, a growing number of researchers claim that there is a powerful individual difference that distinguishes ineffective leaders from effective leaders and meets the aforementioned criteria: EI (Barbuto & Burbach, 2006; Caruso et al., 2001; George, 2000; Morand, 2001; Sosik & Megerian, 1999; Wong & Law, 2002).

Theoretical Work on Leadership Effectiveness and EI

Some key research is dedicated to laying the theoretical foundation for why emotionally intelligent people excel over those lower in EI when it comes to leadership. Most convincing is the work by those who discuss the relationship between EI and leadership strictly in terms of the abilities model (Caruso et al., 2001; Caruso & Salovey, 2004; George, 2000). These authors present the most convincing and approach by providing a thorough understanding for how each of the four EI abilities specifically contributes to leadership processes and behaviors. An overview of these theoretical works is presented in this section followed by a review of empirical findings in the next section.

Both George and Caruso and colleagues agree that the abilities model of EI offers the most accurate depiction of the EI construct. George's (2000) argument is rooted firmly in research highlighting the central role of emotions in the leadership process. She recognizes that the skills and abilities integrated into Mayer and Salovey 's (1990) framework of EI (appraisal and expression of emotion; the use of emotion to enhance cognitive processes and decision making; knowledge about emotions; and the management of emotions) are likely to enhance an individual's ability to function in such arenas as work, close relationships, and personal achievement. However, George advocates that EI contributes to leadership in a unique way due to its role in enhancing an

individual's ability to perform specific activities that are quintessential to a leader's effectiveness.

George (2000) posits that one of the fundamental elements of a leader's objectives is to create a set of goals, or vision, which will instill in followers a collective sense of inspiration and willingness for task accomplishment. In other words, emotionally intelligent leaders can draw on their heightened ability to interpret the often ambiguous and emotionally-laden information made available to them, to create a vision that is not only appropriate but innovative and satisfactory to those involved. Above simply authoring it, leaders must be able to communicate the vision to others. Leaders with high levels of EI can accurately appraise the feelings of followers and, more importantly, understand why they feel the way they do. Leaders can then take the steps necessary to incorporate this information into relaying their goals and objectives to the organization. In doing so, they can increase the likelihood that followers will adopt the common goals as their own. In addition, emotionally intelligent leaders can instill in their followers a collective sense of enthusiasm by using their own positive moods to express excitement for the accomplishments ahead (George, 2000).

George (2000) also suggests that EI may assist leaders in making employees aware of the importance of certain work activities and behaviors (i.e. organizational problems arise, sudden business opportunities present themselves). For example, high EI leaders can manage their emotions to exemplify enthusiasm and confidence rather than uncertainty and generate this same sentiment in followers. Additionally, high EI leaders can accurately appraise the feelings of others and gauge their reactions to different events. Over a period of time, these leaders can learn to do what is necessary to generate

the desired emotional climate in the organization. By consistently considering the emotional state of followers and reacting in a way that shows this consideration, leaders create a sense of trust for themselves in others.

George (2000) mentions two more aspects of leadership effectiveness that are augmented by those with high levels of EI: decision making and establishment of organizational culture. Salovey and Mayer (1990) maintain that EI can aid individuals in using their emotion to prioritize their demands and therefore direct their attention toward pressing issues and away from those that are of less concern. For example, an emotionally intelligent leader may push back a project deadline in order to boost the morale of his or her fatigued employees. George emphasizes that these skills are essential in the decision making process for leaders. When leaders are inundated with a number of issues, those with high levels of EI can manage their emotions in order to capitalize on the positive ones (use them as a source of motivation and inspiration) and stifle those that would be distracting. In addition, EI may increase flexibility and creativity in decision making. EI enables individuals to use positive moods to inspire thinking that may otherwise not be generated and reorganize information in a more useful and innovative way (Salovey & Mayer, 1990). Leaders can make use of these abilities to make effective decisions that may not be suggested by others within the organization and also those on the outside, giving them the opportunity to gain an edge upon competitors.

Leaders play an essential role in expressing the culture of an organization. They serve as role models who exemplify values that the organization deems as meaningful and central to their purpose (Hollander & Offermann, 1990; Trice & Beyer, 1983; Van Maanen & Kunda, 1989). Because values are emotion laden (Ashforth & Humphrey,

1993; George, 2000; Trice & Beyer, 1983), leaders who can more skillfully extract the emotions from the organizational beliefs may be at an advantage in communicating the organizational culture in a powerful and accurate way (George, 2000). Because EI can certainly assist in this process by aiding individuals in the identity and expression of emotion (Mayer et al., 1990; Salovey & Mayer, 1990), George (2000) argues that establishing and communicating an organization's culture and identity is yet another aspect of leadership effectiveness that is strongly improved by the use of a leader's emotionally intelligent skills.

Caruso et al. (2001) agrees with some of George's theory, but adopt a more systematic approach in explaining the relationship between EI and leadership. They examine each of the components of EI and propose ways in which each are instrumental in increasing a leader's ability to be effective. The authors argue that the first component of EI, the ability to identify emotions (Mayer & Salovey, 1997; Mayer et al., 1990; Salovey & Mayer, 1990), is a pivotal aspect of leadership. This skill enables leaders to be aware of the emotions and feelings that accompany their interactions with followers as well as situations that may prompt feelings of stress, frustration, or excitement. Similar to George (2000), the authors agree that this skill also allows leaders to differentiate between followers' real and fake emotional expressions, which is fundamental to knowing how to draw an honest assessment of the situation and respond in a way that is accurate in light of followers' true emotional experiences.

One way in which leaders demonstrate the second component of EI, "using emotions," (Mayer & Salovey, 1997; Salovey & Mayer, 1990) is by motivating others through the planning of work activities. According to Caruso et al. (2001), when

followers appear to feel 'down' or 'neutral,' leaders may assign more work requiring detail. However, when followers feel positive or upbeat, leaders can maximize these mood by engaging followers in creative tasks, such as brainstorming or problem-solving. In support of other researchers who emphasize the importance of emotional contagion (Ashforth & Humphrey, 1992; George & Brief, 1992; Hatfield, Cacioppo, & Rapson, 1992), Caruso et al. (2001) suggests that emotionally intelligent leaders may be especially skilled at shaping the emotional outlook of the group (i.e. enthusiasm, optimism).

Understanding emotions is most closely associated with the communication skills used by the leader. Emotionally intelligent leaders are equipped with the insight to see people's pattern of emotions, the relationship between emotions, and how emotional states change from one to another. This information is crucial for helping leaders learn about what makes people behave or think the way they do. This knowledge, in turn, enables the leader to communicate more effectively, because it allows leaders to more thoroughly understand the other person's perspective (Caruso et al., 2001; George 2000). Lastly, Caruso et al. (2001) asserts that managing emotions promotes effective leadership by enabling leaders to display emotions that are appropriate and helpful in encouraging followers, rather than those that instill fear or anxiety in such times of stress or uncertainty. Thus, because skillful emotion management is a key component of EI, emotionally intelligent leaders can use this ability to help gain control of themselves in situations where emotions run high and maintain an emotional state among followers that is productive instead of detrimental.

The works cited above offer a solid theoretical foundation for the ways in which EI can increase a leader's effectiveness. In accordance with other authors (Brown &

Moshavi, 2005; George, 2000; Sosik & Megerian, 1999; Wong & Law, 2002) Caruso et al. (2001) firmly state that EI appears to be the new factor that explains leadership effectiveness. However, even these experts along with George (2000) explain that it is not accurate to say that EI alone predicts effective leadership. Other factors, such as a leader's intellect, experience, and practical intelligence should also be considered when evaluating an individual's ability to lead well.

Despite other predictors, EI should be considered as a powerful agent because of its role in facilitating the behaviors and abilities that are instrumental in successful leadership performance. However, experts argue that more research is needed to identify the specific competencies that require EI in different leadership positions (Caruso et al., 2001, George, 2000). They also state that empirical work is critical to support their theoretical propositions and to establish the specific ways in which EI influences an individual's ability to perform leadership behaviors.

Empirical Research on Leadership Effectiveness and EI

Though not yet widespread, some researchers have heeded to the request for empirical work investigating the relationship between EI and leadership. The novelty of research on the EI of leaders has provided academic scholars with the open opportunity to apply EI to almost any area of interest. Existing studies cover a variety of leadership issues. Unfortunately, problems with measuring EI often complicate the interpretation of the research findings and weaken the usability of data. Nevertheless, the work generated indicates that EI is relevant to a wide range of leadership and reiterates the need to standardize the measurement of EI.

Recent interest has been directed towards the relationship between EI and transformational leadership. Transformational leadership theory is viewed as largely relationship-oriented, requiring advanced emotional skills on the part of the leader (Barbuto & Burbach, 2006; Brown & Moshavi, 2005; Burns, 1978; Humphrey, 2002; Sosik & Megerian, 1997). Transformational leaders use emotional skills to motivate their followers beyond mere fulfillment of goals to surpassing them via a common vision (Burns, 1978; Bass & Avolio, 1990). Transformational leadership often seems to arise in crisis situations or among leaders who bring about great change (Humphrey, 2002). Bass and Avolio (1990, 2000) identify four transformational leadership behaviors: "intellectual stimulation" (leaders to challenge the organization's accepted but ineffective practices or ways of thinking); "inspirational motivation" (leaders replace old practices with a new future direction); "idealized influence" (leaders embody and role model the new ways); and "individualized consideration" (leaders considering and accommodate for the unique needs and qualities of each follower). Success of these behaviors draws heavily upon the leader's ability to emotionally involve followers and generate enthusiasm for adopting new goals, behaviors, and vision (Barbuto & Burbach, 2006; Brown & Moshavi, 2005; Burns, 1978; Humphrey, 2002; Sosik & Megerian, 1997). Moreover, transformational leaders may require a higher capacity for managing their own emotions to overcome adversity (Humphrey, 2002) and become a "symbolic and emotional force of organizational change" (Barubuto & Burbach, 2006).

Given the overlap of the emotional undercurrent of transformational leadership behaviors and emotionally intelligent skills, Barbuto and Burbach (2006) proposed that EI would be significantly related to both self-perceptions and rater-perceptions of

transformational leadership. Eighty elected community leaders and 388 direct-reports, resulting in 388 leader-member pairs, from the Midwest participated in the field study. Leaders completed a self-report measure of EI six weeks prior to attending a leadership workshop and completed the transformational leadership measure at the workshop. Four to six raters were selected by each leader to complete the rater version of the measure, which was mailed directly to the researchers. Rater responses were linked to leaders responses via a coding system that protected the anonymity of participants. Leaders' EI was assessed by a 30-item self-report measure with five underlying dimensions (loosely based on the mixed-model approach): empathic response, mood regulation, interpersonal skill (managing relationships and building networks), internal motivation, and self awareness. Transformational leadership was measured by an adaptation of Bass and Avolio's (1995) Multi-factor Leadership Questionnaire consisting of 4 subscales: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration.

Barbuto and Burbach (2006) calculated correlations between leaders' overall EI as well as EI subscales, and all subscales of leader and rater-reported transformational leadership behaviors. Results revealed significant correlations between leaders' EI and each of the leader-reported transformational leadership behaviors: (rs = .21 to .42, ps < .05). Additionally, four of the EI subscales (empathic response, mood- regulation, interpersonal skill, and internal motivation) were significantly correlated with at least three of the four transformational leadership behaviors (rs = .11 to .53, ps < .05). Interestingly, leaders' mood regulation was negatively related to leaders' intellectual

stimulation, inspirational motivation, and idealized influence. Self-awareness was significantly related with leaders' self-reported inspirational motivation (r = -.24, p < .01). Only empathic response was found to achieve any significant relationships with rater-reported transformational leadership behaviors (intellectual stimulation, and individualized consideration; rs = .16, ps < .01).

There are some notable strengths of the research conducted by Barbuto and Burbach (2006). A healthy sample size and response rate was achieved for the study (86% for leaders and 70% for subordinates). Additionally, attempts were made to gather leadership data from multiple measures (self and rater-reported). Furthermore, leader-rated transformational leadership behaviors were for the most part, consistently related with scales proposed to measure EI.

Despite these strengths, the work of Barbuto and Burbach (2006) invites some criticism. First, raters were self-selected by leaders, leaving some room for bias given the opportunity for leaders to choose those that would provide more favorable ratings. Bias could have been somewhat alleviated if scores were averaged for each leader. Instead, each follower was considered to form a leadership dyad, an unusual approach when attempting to draw associations between individual difference scores and some type of outcome measure. Most importantly, glaring inconsistencies of the authors' definition of EI and other results leave the reader unconvinced of whether the work really examines the construct of EI or simply a set of related psychological attributes. For example, Barbuto and Burbach (2006) report an inverse relationship between self awareness and interpersonal skills (r = -.11, p < .05) and virtually no relationship between mood regulation and empathetic response (r = -.09, p> .1). EI subscales, joined together by the

overarching definition of EI, should demonstrate consistent empirical relationships among one another (Brackett et al., 2003; Mayer & Salovey, 1990; Mayer et al.,2002, Mayer et al., 2001). Barbuto and Burbach's (2006) conflicting relationships between the EI scales themselves confirms their confusion about the definition of EI. Even the authors recognize that perhaps using an abilities measure is a more accurate way of truly measuring EI (Barbuto and Burbach, 2006).

Other researchers shows interest in the impact of leaders' EI on followers' perceptions but examine the role of followers' EI in influencing these perceptions. Wong and Law (2002) proposed that leaders' EI would be positively related to subordinates' in-role behaviors (job performance), job satisfaction, and extra-role behavior (organizational citizenship behavior). One hundred and forty-six middle-level administrators in the Hong Kong Government completed the authors' newly developed 16-item measure of EI and an additional measure evaluating the in-role and extra-role behaviors of one direct report. In addition, the subordinates completed a survey that included the same EI measure as the one given to their leaders, as well as questions pertaining to job satisfaction, job characteristics, education level, and tenure in their organizations.

Wong and Law (2002) developed a "simple, practical, and statistically acceptable" measure of EI for the purposes of their study (p. 251). The development of the scale was based on the responses of 120 MBA and undergraduate students in a large university who were first familiarized with the four dimensions of EI (Mayer & Salovey, 1997) and then asked to generate items of self-report that are descriptive of an emotionally intelligent individual. The final result was a 16-item scale that contained four items for each of the four EI dimensions as shown by factor analysis. Following analyses

on factor structure, internal consistency, convergence, and discriminant and incremental validity, Wong and Law (2002) conclude that they succeeded in developing a reliable and valid measure of EI that is not only suitable for their study, but for further studies as well.

The results of Wong and Law's (2002) study provided evidence that supports two of the three relationships originally predicted. After controlling for followers' job perceptions, followers' EI, followers' education level, and followers' tenure, hierarchical regression analyses showed that leaders' EI scores had a significant effect on subordinates' out-role behaviors (organizational citizenship behaviors) and a significant effect on subordinates' job satisfaction. No effect was found on subordinates' in-role behaviors (job performance). These correlations were small to moderate in size (*r*s = .21 to .26).

This work suggests that the EI of leaders may have at least some impact on aspects of their subordinates' work experience. The relationships examined in Wong and Law's (2002) study illustrate the potential far-reaching effects that a leader's EI has on followers' attitudinal outcomes which may in turn, impact their proclivity to perform above and beyond specified job duties (organizational citizenship behaviors). Certainly this motivational view pertaining to the impact of a leader's EI further substantiates its role as a key factor in leadership.

Though the efforts made by the authors to establish acceptable statistical properties for their measure of EI should be applauded, respondents' scores were based on self-evaluation. According to Mayer and colleagues, one of the strongest attributes of their measure of EI is that it relies on the measurement of individuals' emotionally intelligent skills and is not assessed by self-evaluations (Mayer & Salovey, 1997; Mayer

et al., 1999; Mayer et al., 2001). Wong and Law's use of self-assessment to measure EI is clearly at odds with the definition on which they base their research.

Further, leaders' EI scores were correlated with outcome scores for only one subordinate. Of further concern is that Wong and Law (2001) fail to explain the method by which evaluated followers were chosen. This uncertainty makes it questionable whether or not the results incorporate some other extraneous factors. For example, leaders could have chosen the one person whom they knew would give render positive evaluations. Overall, the weaknesses of Wong and Law's study introduce some doubt regarding the validity of their results.

Future efforts should be devoted to research that is valuable in three ways. First, the research should provide a greater understanding of leadership in general. That is, subsequent studies targeting the role of EI in leadership effectiveness should primarily address aspects of leadership that are perhaps either understudied or absent from the literature. Second, research should use instruments that adhere to the scientific and empirical definition of EI and therefore assess individuals' actual abilities rather than their own assessments of whether they exhibit certain abilities. Finally, in conjunction with the first two suggestions, new studies should pinpoint a specific aspect of the leadership process that is essential in achieving effectiveness and sufficiently demonstrate why emotionally intelligent leaders are better equipped to master this domain. In an effort to meet these three criteria, the present research examines the communication behaviors used by leaders during their interactions with followers. Specifically, it aims to demonstrate that shows that EI (assessed by the Mayer-Salovey-Caruso EI Test-MSCEIT; Mayer et al., 2002) facilitates the verbal and nonverbal communication skills

necessary to lead effectively. The following sections are devoted to presenting the rationale for the study's hypotheses.

Communication Process of Leaders

A large portion of the leadership literature indicates that assessing leadership behavior is essential to understanding leadership effectiveness (Hemphill, 1950; Stogdill, 1963; Yukl, 1981; Yukl et al., 1990). In the 1950s, researchers at The Ohio State University attempted to identify successful leadership behaviors via subordinates' ratings of leaders' performance (Hemphill, 1950). A factor analysis revealed that subordinates had a strong tendency to categorize leaders' behaviors as either task-oriented (initiating structure) or people-oriented (consideration). This method of classification formulated the basis of prominent behavioral questionnaires, such as the Leader Behavior Description Questionnaire (Hemphill, 1950).

Despite the dominance of the LBDQ and similar questionnaires, researchers began to view this "two-factor conceptualization" (Yukl & Van Fleet, 1992) as too restrictive or too abstract. (Larson, Hunt, & Osborn, 1976; Yukl, 1981; Yukl et al., 1990). In other words, more specificity was required to really comprehend what leaders do. A great demand was placed on research that used direct observation to examine the intricate behaviors of a specific aspect of leadership performance, such as a leader's communication behaviors.

A number of researchers strongly agree that a leader's communication with followers has a profound effect on a leader's overall effectiveness (Awamleh & Gardner, 1999; Barlow, Hansen, Fuhriman, & Finley, 1982; Howell & Frost, 1989; Johlke, Duhan, & McClatchey, 2001; Koorsgaard, Brodt, & Whitener, 2002; Lewis, 2000; Sagie, 1996;

Sorenson & Savage, 1989; Yrle, Harman, & Galle, 2002). Much of this research focuses on leaders' communication style. Sorenson and Savage (1989) also refer to this term as "communicator style" and describe it as "the way people present themselves when they communicate" (p. 331). For example Sagie (1996) found that leaders demonstrating a "directive communication style" had higher levels of group performance compared to leaders who were less directive. Leaders who were heavily involved in every decision and provided frequent and immediate feedback had groups that achieved a higher percentage of correct solutions in a shorter time period compared to less directive leaders. Additionally, results of Johlke et al. (2001)'s study showed that supervisors who used a communication style that was non-coercive and encouraged two-way information sharing reduced followers' uncertainties about their task requirements. The authors reasoned that this finding carried high importance because less ambiguity about employees' requirements would likely lead to a higher level of productivity and task accomplishment.

Others indicate that leaders who have relaxed, attentive, and friendly communication styles are perceived by followers as being more effective compared to leaders with more rigid styles (Baker & Ganster, 1985; Honeycutt & Worobey, 1987). Sorenson and Savage (1989) examined the effects of two prominent leader communication styles, supportiveness and dominance on followers' ratings of leadership effectiveness in a laboratory setting. The results revealed that in a leadership situation that required strong direction, leaders who demonstrated greater dominance (control over activities and the flow of communication) received more favorable ratings of effectiveness from followers. In situations that required a high level of participation from group members, leaders who displayed stronger supportive style (encouraging input from

members, letting communication flow freely) had more positive ratings of leadership effectiveness. Additional work by Awamleh and Gardner (1999) revealed that leaders' charismatic communication style was positively associated with followers' evaluations of leader effectiveness. Specifically, followers who watched a videotape of a leader who delivered a dynamic and powerful visionary message rendered more positive evaluations of the leader compared to those who watched a videotape of a less charismatic leader.

The research described above provides convincing evidence that, regardless of whether the relationship is directly or indirectly measured, the way in which a leader communicates is an important factor influencing one's ability to be effective. This association may exist because a leader's communication style is the dimension that most accurately reflects the nature of the leader-follower relationship (Barlow et al., 1982; Korsgaard et al., 2002; Sorrenson & Savage, 1989; Yrle et al., 2002). According to Sorrenson and Savage (1989), the way in which a leader delivers a message provides strong interpretive cues to followers concerning how a leader views their association. For example, if the leader delivers the message in a way that is domineering and intimidating, the follower will probably assume that the leader wants him or her to simply comply with demands. On the other hand, if the leader delivers the message in a way that is friendly and supportive, the follower will most likely conclude that the leader is interested in his or her contributions and therefore, interested in a relationship that is more reciprocal.

As mentioned earlier, leadership studies that identify and closely examine the intricacies of leadership behaviors are sparse. Focusing on communication style, however, directly lends itself to this type of detailed research. Several sources emphasize that a leader's communication style is revealed through very specific and minute

behaviors (Awamleh & Gardner, 1999; Holladay & Combs, 1993, 1994; Howell & Frost, 1989; Sorenson & Savage, 1989; Yrle et al., 2002). Sorrenson and Savage (1989) reason that leader-follower relationships are very rarely overtly defined. That is, a leader is not likely to blurt, "You are my subordinate and must do what I say." (p. 329). Rather, a leader uses his or her communication behaviors to relay this information. More specifically, leaders define and relay their communication style through their nonverbal cues and verbal language.

Sorrenson and Savage (1989) suggest that nonverbal behaviors are the best signals that members use to determine how the leader desires to relate to them. A number of notable authors who have conducted extensive research on nonverbal behaviors strongly support this notion. For instance, Snyder (1974) declares that "research clearly indicates that much information about a person's affective states, status and attitude, cooperative and competitive nature of social interaction, and interpersonal intimacy is expressed and accurately communicated to others in nonverbal expressive behavior" (p. 526). Other authors suggest that nonverbal behaviors contain valuable information about the relationship between communicators because they convey emotions and the expression of feelings (Eckman, et al., 1972; Friedman & Miller-Herringer, 1991; Friedman, Prince, Riggio, & DiMatteo, 1980; Friedman, Riggio & Casella, 1988; Riggio & Friedman, 1986).

The most common nonverbal cues classified in leadership communication research are leaders' facial expressions, body movement, posture, eye contact, hand gestures, and vocal tone (Awamleh & Gardner, 1999; Holladay & Combs, 1993, 1994; Howell & Frost, 1989; Sorenson & Savage, 1989). There seems to be general agreement

that leaders possessing charismatic communication skills are emotionally expressive, energetic, and animated (Awamleh & Gardner, 1999; Conger & Kanungo, 1988, 1994; Holladay & Coombs, 1993, 1994; Howell & Frost, 1989). A number of researchers characterize the charismatic communication style similarly across studies. For example, Howell and Frost (1989) trained confederate charismatic leaders to exhibit vocal variety (frequent changes in voice pitch and tone), constant eye contact with followers, relaxed posture, and animated facial expressions (i.e. smiles). Holladay and Coombs (1993, 1994) and Awamleh and Gardner (1999) used the same behaviors as Howell and Frost to train actors who posed as leaders delivering a speech on videotape. They also added frequent body gestures, such as lively hand motions and head movement.

In addition to nonverbal cues, verbal behaviors are used consistently throughout the literature to characterize leaders' way of communicating with followers. Awamleh and Gardner (1999) suggested that a leader's choice of words may make the difference between delivering a powerful and effective message or delivering one that is weak and has no impact on followers. The classifications used to study verbal behaviors are usually catered for a specific purpose of research and therefore vastly differ from study to study. For example, some researchers have coded leaders' verbal statements according to their "valence," or whether the message is positive, negative, or neutral (Komaki, 1986; Komaki et al., 1986). Other authors focus on the verbal behaviors used among differing leader communication styles (Awamleh & Gardner, 1999; Barlow et al., 1982; Howell & Frost, 1989).

However, research exploring the communication of leaders is lacking in several ways. First and foremost, the number of studies examining the specific verbal and

nonverbal behaviors of leaders are few. Given the importance of communication in leadership, more studies should be generated in order to increase scholars' understanding of this aspect. Additionally, though researchers studying leaders' communication style should be applauded for noting the intricate verbal and nonverbal behaviors used by leaders, their studies rely mostly on following a script and training a confederate to exhibit these behaviors (Awamleh & Gardner, 1999; Barlow et al., 1982; Holladay & Combs, 1993, 1994; Howell & Frost, 1989). Consequentially, some of the relevancy of these behaviors to the leadership process is lost, because they have not been directly observed during actual interactions between a leader and follower.

Lastly, research studying how leaders communicate often overlooks the emotional underpinnings of communication. Notable theorists argue that communication, in its very nature, is an emotional process (DePaulo, 1992; Friedman & Miller-Herringer, 1991; Riggio & Friedman, 1986; Snyder, 1974). In other words, researchers readily recognize that regardless of whether feelings or emotions are expressed, they underlie the communication process between individuals. Moreover, research indicates that the leadership relationship itself is laden with emotions and the communication process relays information about the leadership relationship. Therefore, it seems apparent that for these reasons, the emotional component of leader's communication should be strongly considered. However, opportunities to examine how leaders differ in their ability to communicate according to their emotional capacities have yet to be fully explored.

To assist in furthering researchers' understanding of leadership effectiveness, efforts should be made to directly observe the specific verbal and nonverbal communication behaviors used by a leader while interacting with followers. In particular,

leaders' verbal statements should be measured and analyzed to assess the content of the messages relayed to followers. In addition, nonverbal behaviors, such as facial expressions, eye contact, and hand gestures should also be identified. Finally, because of the emotional undertones and relationship cues that accompany leaders' communication patterns, EI should be explored as the factor that may facilitate the verbal and nonverbal behaviors that positively contribute to an individual's ability to be an effective leader.

Rationale for Present Study

The purpose of the present study was three-fold: to show that EI facilitates leadership effectiveness using multiple measures; to establish the circumstances under which this relationship occurs; and to examine whether leaders' verbal and nonverbal communication behaviors account for this relationship. The majority of researchers studying the relationship between EI and leadership effectiveness have suggested that the underlying reason for this association may rest in the relationship enhancing features of EI (Barbuto & Burbach, 2006; Brown & Moshavi, 2005; Caruso et al., 2001; Caruso & Salovey, 2004; George, 2000; Morand, 2001; Sosik & Megerian, 1999; Wong & Law, 2002). For example, frequent references have been made to the role of a leader's EI in producing comradery, cooperation, and other indicators of a strong interpersonal relationship between leader and follower (Caruso et al., 2001; George, 2000; Sosik & Megerian, 1999; Wong & Law, 2002). Emotionally intelligent leaders establish such quality relationships through their ability to powerfully use their emotional skills to communicate. Although research devoted wholly to the topic of communication in the EI literature is severely lacking, existing literature does offer some reasoning that supports the relationship between EI and specific kinds of verbal and nonverbal behaviors.

Research explaining the "first branch" of EI may be the best source of information for how EI may influence the verbal behaviors of leaders. The first branch pertains to the "perception, appraisal, and expression of emotion" (Mayer & Salovey, 1997, p. 10). Mayer and Salovey (1997) explain that this EI skill enables individuals to identify emotion in one's physical states, feelings, and thoughts. Additionally, this skill also facilitates the ability to express how one is feeling and the needs which may be related to them. Salovey and Mayer (1990) offer that the accurate expression of emotion includes using the most appropriate verbal language to speak clearly about one's feelings.

Some research indicates that followers tend to evaluate "open" and "expressive" leaders more favorably than those who may be more closed and introverted (Awamleh & Gardner, 1999; Baker & Ganster, 1985; Sorrenson & Savage, 1989). From this perspective, emotionally intelligent leaders may have the advantage over those with lower levels of EI. However, it may not always be that the leadership situation requires the leader to speak openly about one's feelings pertaining to work issues or the follower. Realistically, it is more likely the case that leaders must be aware of the emotions involved (their own and the follower's) and choose their verbal language with those emotions in mind. This seems to be most applicable to situations that present the opportunity to shape the leadership relationship. Situations such as these contain thoughts with emotional undertones and expression of those thoughts must be done so with clarity and sensitivity (Sorrenson & Savage, 1989; Yrle et al., 2002).

A prime example of an interpersonal, relationship-building situation is when leaders provide feedback to subordinates. Leaders' messages delivered in this context may not be overtly discussing emotions but may be related to emotional issues. For

example, followers may feel hurt or discouraged by negative feedback or excited and motivated by positive feedback. Therefore, during feedback sessions, at least some approval, positive encouragement and reassurance from the leader may be needed by the follower. These tactics, on the part of the leader, may suggest that they are more attuned and sensitive to the needs of the followers, and have a greater awareness of followers' emotions. More importantly, even when negative feedback is given, a mix of encouraging messages may help to preserve the relationship, maintain followers' positive perceptions of the leader, and motivate the follower toward improvement. According to this reasoning, emotionally intelligent leaders may be more equipped to use verbal language that is more supportive and encouraging compared to those lower in EI, at least in situations similar to that described above.

Very little research, if any, has been conducted on the nonverbal behaviors expressed by emotionally intelligent individuals. However, research on nonverbal behaviors suggests the importance of the fourth branch of EI, regulating emotions. A number of prominent researchers assert that nonverbal behaviors are a revealing source of emotional communication and thus require a great deal of control in order to only reveal those that are appropriate and relevant to the situation at hand (DePaulo, 1992; Friedman & Miller-Herringer, 1991; Riggio & Friedman, 1986; Snyder, 1974). Emotion regulation is considered by EI experts to be a highly complicated but highly-developed skill for individuals with high levels of EI (Mayer & Salovey, 1995, 1997; Salovey & Mayer, 1990). Accordingly, emotionally intelligent individuals may be more skillful at displaying nonverbal behaviors not only due to their empathic skills, but their emotion regulation skills as well.

Some research emphasizes the importance of leaders' abilities to hide certain negative emotions in favor of expressing those that may be more instrumental in boosting morale and maintaining followers' motivation. Ashforth and Humphrey (1995) claim that leaders who express un-controlled emotions to their followers, such as stress, anger, or frustration, are likely to experience devastating consequences, such as followers' loss of morale, lack of team spirit, and lower productivity in terms of attaining desired goals.

In accordance with Ashforth and Humphrey (1995), many researchers agree that leaders' expression of emotions has a huge impact on followers' responses and their perceptions of the leader (Bass, 1990; Conger & Kanungo, 1998; George 1995, 2000; Hatifield et al., 1994). In particular, Lewis (2000) found that followers who viewed a videotape of a leader delivering an angry speech gave that leader lower ratings of leadership effectiveness compared to followers who viewed a leader delivering either a sad or neutral speech. Conversely, George (1995) revealed that sales managers who reported experiencing positive moods at work had work groups that provided a high quality of customer service. Therefore, in light of the research presented above, emotionally intelligent leaders certainly appear to be at an advantage over those with lower levels of EI in terms of their nonverbal communication behaviors, because they are more adept at controlling for inappropriate expressions of emotions and expressing appropriate ones in communicating with followers (Caruso, 2001, George, 2000). Emotionally intelligent leaders' sensitive communication skills, in part, bolster the leadership relationship and also contribute positively to the leader's ability to be effective. Similar to the verbal behaviors of emotionally intelligent leaders, the nonverbal behaviors would also relay positive emotion, encouragement, and support. More specifically,

leaders' facial expressions, and other body movements might demonstrate attentiveness, concern, and sensitivity for the follower. Similar to verbal behaviors, this pattern of nonverbal behaviors is likely to occur in highly interpersonal situations. However, not all tasks have a strong interpersonal component, and EI may not be a required element for leadership success in all cases. For example, in situations where the leader's performance is predominantly dependent upon his or her knowledge or technical skills, EI may not be necessary. Therefore, when evaluating EI as a key factor for leadership effectiveness, the leadership context, such as the nature of the task, is an important moderator to consider. This perspective forms the basis of situational leadership theory, originally proposed by Perrow (1970).

Perrow (1970) adopted a "pure approach," to situational leadership arguing that effective leadership resides solely in the structural features, such as the elements of the situation or in the task since they determine a leader's behaviors. Less stringent theories, known as contingency theories, evolved later, viewing effective leadership as a combination of an individuals' abilities, traits, and skills, and situational factors. Essentially, a leader's performance is determined by the right fit between what motivates a leader and the situation that supports and reinforces these motivations. Current leadership theorists incorporate situational and contingency theory by arguing that some leader characteristics, traits, and capacities may render some individuals successful for some tasks but not in others (Avolio, 2007; Vroom & Jago, 2007). In terms of EI, Caruso et al. (2001) agreed that the lack of EI does not necessarily predict disaster for a leader.

Thus, EI is never a disadvantage for leaders, but may not be vital in all situations. Accordingly, it is expected that leaders' levels of EI will positively influence one's

effectiveness, but only when the task is "interpersonal" and emphasizes the leader's ability to communicate needs and emotions of the followers. If the task is highly structured and emphasizes that the leader simply provide knowledge and direction for task accomplishment, EI will not be necessary for the leader to achieve effectiveness.

In order to determine whether the above reasoning is correct, proper measurement of leadership effectiveness is needed. In many cases, researchers have used followers' evaluations as the sole means for assessing effectiveness (Chemers, 2000; Hogan et al., 1994). Given followers' pivotal role in leadership success, it is reasonable to consider followers' endorsements of the leader as a basic requirement for establishing effectiveness. However, once effectiveness has been established from the follower's perspective, acquiring additional measurements, such as leaders' performance on their own task requirements and followers' performance, provide a more complete view of leadership effectiveness. Moreover, substantiating followers' positive evaluations with more objective measures alleviates the possibility that followers gave more favorable ratings to leaders simply because they liked them better.

Therefore, based on the preceding theoretical review, I propose that leaders' EI will be positively related to leadership effectiveness (assessed by multiple measures) and that positive verbal and nonverbal communication behaviors mediate this relationship. However, the link between EI and effectiveness will only hold when the leader and follower are engaged in an "interpersonal" task and not when they are engaged in a "structural" task (based strictly on task accomplishment). Following is a more detailed description of the study and its hypotheses.

Chapter Two: Introduction to Study and Hypotheses

Overview

In a laboratory setting, two participants engaged in a work simulation task involving the building of a model. Participants were randomly assigned to a leader or follower role, and pairs were randomly assigned to complete an "interpersonal" task or a "structural" task. The interpersonal task required the leader to administer feedback to the follower on his or her performance. The structural task required the leader to provide specific prepared instructions to the follower. Participants' EI was measured by the MSCEIT (Mayer et al., 2002). Leaders' nonverbal behaviors were directly observed, recorded on videotape, and then analyzed by trained coders. Verbal behaviors were transcribed from videotapes and then analyzed by a computer program that detects specific patterns of words according to its built-in dictionary containing preexisting word categories. Followers' evaluations of the leader (using Likert-type items) were considered the main measure of leadership effectiveness. In cases in which the link between EI and followers' evaluations was found, objective measures of leaders' and followers' performance were assessed to fully capture leadership effectiveness.

Hypotheses

Because no significant relationship between leaders' EI scores and followers' evaluation of the leader were expected for the structural task, the following hypotheses apply only for the interpersonal task.

Leadership Effectiveness

In line with previous research, I predicted that followers' evaluations of effectiveness would be positively correlated with leader's EI scores. Expert ratings and

the objective measure of follower's performance (model scores) were expected to follow the same trend.

Communication Behaviors

Nonverbal behaviors. I also predicted that leaders' EI would be positively associated with the following nonverbal behaviors: smiles, eye contact, and hand gestures. This group of nonverbal behaviors demonstrate consideration, attentiveness and encouragement toward the follower (Awamleh & Gardner, 1999; Holladay & Coombs, 1993, 1994; Howell & Frost, 1989; Lewis, 2000). EI scores were predicted to be negatively associated with nonverbal signs of disapproval or inattentiveness: frowns, head-shakes, shoulder shrugs, and object manipulation. In addition, observed ratings of friendly, attentive emotional behaviors were expected to be positively correlated with EI.

Verbal behaviors. Predicting specific verbal behaviors was more difficult given the amount of variation contained in human speech compared to nonverbal displays Therefore, hypotheses for verbal behaviors were broader in scope and aimed mostly at detecting more general verbal patterns rather than specific word items. The Linguistic Inquiry and Word Count program (LIWC), a computerized content analysis program was used to examine leaders' verbal transcripts. The computer program detects specific patterns of words according to its built-in dictionary containing preexisting word categories. These word categories were used to formulate predictions. Leaders' EI scores were expected to be positively associated with the use of 1st person plural references to communicate comradery and cooperation, as well as "assents" (affirmative words, such as 'yes' and 'all right.'). EI was also expected to be positively associated with the following verbal categories: "positive emotions," "positive feelings," "sociability,"

"communication," "assents," and "optimism" due to their tendency to reflect relationship bolstering emotions, such as encouragement and support. EI scores were predicted to be negatively associated with 1st person singular references as well as "negative emotions" and "negations."

Mediational Analyses

Verbal and nonverbal behaviors were expected to mediate (explain) the relationship between EI and measures of leadership effectiveness.

Chapter Three: Study

Participants

Participants consisted of 135 pairs of introductory psychology students (N=270, 51% female, 49% male) who participated in partial fulfillment of a course requirement. Participants were of diverse racial and ethnic backgrounds (approximately 36% Caucasian, 24% Asian, 21% Hispanic, 11% African-American, and 8% Other). At the time of sign-up, students were told that they must have fluent understanding of English in order to participate. Before participating, all individuals signed and returned informed consent forms that gave their permission to be videotaped during the experiment. Thirty-two pairs of participants were eliminated due to missing MSCEIT scores for the leader, and one pair was eliminated because members misunderstood the directions for building the model. One-hundred and two pairs were retained for analyses.

Measures

Emotional Intelligence

Mayer, Salovey, Caruso, EI Test-(MSCEIT). The MSCEIT is based on the ability model of EI and measures the four branches of EI: identifying emotions, using emotions, understanding emotions, and managing emotions (Mayer & Salovey, 1997). The test was administered online by Multi-Health Systems, Inc (MHS) of Toronto, Canada. Test-takers entered a unique user name and password at the MHS website. The test took approximately 30 to 45 minutes to complete. The measure consisted of 141 items that yielded a total EI score, two Area scores, and four Branch Scores. Area scores included one score for "experiential area," which is the combination of scores for the identifying emotions and facilitating thought branches; and one score for "strategic area," which is

the combination of scores for the understanding emotions and managing emotions branches. Items asked test-takers to identify emotions expressed in a face or design, generate a mood and solve problems with that mood, define the causes of different emotions, and determine what would occur in hypothetical scenarios involving themselves or other people according to the emotions involved. Internal consistency scores for each of the branch scores ranged from .79 to .91. Similarly, Brackett & Mayer (2003) reported internal consistency scores ranging from .74 to .89. Test-retest reliability with a one-month lag time was found to be .86. Discriminant validity scores showed close to zero correlations with tests of IQ (Ciarrochi, Chan & Caputi, 2000) and a correlation of .18 with the BarOn EQ-I (Brackett & Mayer, 2003). These correlations indicated that the MSCEIT was measuring something relatively unique.

Participants' MSCEIT results were scored automatically by MHS. I obtained the excel file of participants' scores by accessing a secured account on the MHS website. Similar to IQ tests, scores are positioned on a normal curve with a mean of 100 and a standard deviation of 15 MHS uses one of two objective scoring methods: general consensus scoring and expert scoring. For general consensus scoring, each participant's responses for each scale are compared with those of more than 5000 MSCEIT test-takers in the normative database. For example, if 70 percent of people feel that a photo contained a sad face, then the best response would be "sad" for that item. If a respondent's score is about "average," that means the respondent's EI level is like that of most people. Expert scoring compares individuals' responses with those of emotions experts who have consensually determined which test answers are better or worse. The

experts are made up of 21 members of the International Society for Research on Emotions.

The authors assert that general consensus scoring and expert consensus scoring will, in general, reflect the same ability level. For the purposes of this research, the general consensus scoring method was used. This was recommended by the authors for the majority of test applications (Mayer et al., 2002).

Leadership Effectiveness

Followers' evaluation of the leader. Similar to many approaches to measuring leadership effectiveness (Bass, 1990; Bass & Avolio, 1997; Dansereau, Alutto, & Yammarino, 1984; Edwards, Rode, & Ayman, 1989; Hemphill, 1950; Hogan et al., 1994; Liden & Maslyn, 1998), this measure gauged followers' perspectives on two broad categories: "task accomplishment" and the "interpersonal" aspect of leadership. Items were adapted from existing measures of leadership effectiveness (Dansereau et al., 1984; Liden & Maslyn, 1998) to be suitable for the study at hand. Participants were also asked to respond to three open-ended questions regarding what an ideal leader would do in the assigned task, the leader's strengths, and the leader's weaknesses. See Appendix A for a complete list of items.

Thirteen items were used to tap followers' evaluation of the leader's performance. The scale ranged from 0 (strongly disagree) to 10 (strongly agree). Some reverse-scored items were also included. Participants were encouraged to carefully consider the potential accuracy of each response option and consider 0 and 10 to be extreme scores.

A Principal Components analysis with Varimax rotation yielded 3 components exceeding an Eigen value of 1 with several items having factor loadings of $\geq .4$ on two

or more components. All of the items with the exception of "My leader did a good job giving me all of the information I needed" had loadings ranging from .14 to .81 on the first factor. A second principal components analysis forcing a one-factor solution revealed that all items had loadings of $\geq .4$. This solution was retained for the purposes of analysis. Therefore, one score for followers' evaluation of the leader's effectiveness was computed by taking the average of the 13 items ($\alpha = .89$). See Table A1 for factor loadings for all items.

Expert ratings. Leaders were evaluated on the quality of their performance evaluations on several items. To create this pool of items, in-depth interviews were conducted with a group of ten volunteers from a large financial organization who have extensive experience both receiving and giving formal performance evaluations in an actual workplace setting. Interviewees were asked to describe specific behaviors that make a leader effective when delivering a performance evaluation to a follower. Follow-up questions regarding ineffective performance, behaviors related to positive feedback and negative feedback, as well as other probes were asked to clarify information. Behaviors most commonly mentioned resulted in eleven items along which experts rated leaders in the present study. Items were edited for clarification purposes by an independent group of industrial/organizational doctoral students (separate from the raters). A review of the literature and training materials for giving performance evaluations confirmed that these same behaviors were typically recommended to leaders for delivering effective performance evaluations. Items included "displayed confidence and comfort in role as leader" and "gave specific examples of behavior when giving ratings, comments, etc." All items included in expert ratings are presented in Appendix

B. Raters evaluated leaders on each item on a scale of 1 (not at all) to 5 (very much). A "not applicable" response option was also included.

Six raters watched the first two-minutes of the videotaped sessions and then evaluated the leaders along the items in Appendix B. This methodology was adopted from previous research revealing that judgments (including perceived effectiveness) correlate highly with actual outcome measures even when they are based on observations as brief as ten seconds (Ambady, Berneiri, & Richeson, 2000; Babdad, Bernieri & Rosenthal, 1991; Hecht & LaFrance, 1995; Prickett, Gada-Jain, & Bernieri, 2000). Original videotapes were carefully edited to capture the first two minutes of the leader's performance. Subjects appeared on the tape in the original order of their participation in the study. Raters were six doctoral students from the Industrial/Organizational PhD program who were considered to be Subject Matter Experts due to their extensive knowledge of research on leadership effectiveness, performance evaluations, and other relevant work-related topics.

All raters were given written copies of the detailed coding instructions and reviewed them thoroughly in a training session with the experimenter. To first gain a greater understanding of the leaders' task and the range of behaviors among the different leaders, all raters started by randomly selecting ten 2-minute video clips to watch in their entirety. Then, raters proceeded to watch each of the video clips for the second time in its entirety before recording his or her ratings.

Inter-rater reliability was calculated using the intraclass correlation coefficient (ICC) for the 6 raters on each of the 11 items. The effective reliability (average measure ICC) for each of the 11 items ranged from .69 to .84, with an average of .78. The single

judge reliability (single measure ICC) ranged from .27 to .47, with an average of .38. One score for each item was computed by calculating the average of ratings across the 6 judges.

Next, a principal components analysis on the 11 items with Varimax rotation yielded 3 components exceeding an Eigen value of 1 with several items having factor loadings of $\geq .4$ on two or more components. However, all items loaded at least .47 on the first component. Thus, a decision was made to collapse across items. Therefore, one score for the expert ratings of leadership effectiveness was computed by taking the average of the 11 items ($\alpha = .83$; $M = 3.48$; $SD = .41$; scores ranged from 2.41 to 4.58).

Model ratings. Trained coders were used to evaluate the videotaped finished model of the school. Coders were given a checklist that was used to indicate whether a required feature was either present or absent on the model (i.e. correct number of doors, windows, ramps, etc.). One point was awarded for each feature that was correctly included in the model. Higher scores were reflective of more complete and therefore, better quality models. For the interpersonal task, models were assessed and total scores were calculated once before and once after feedback, with the highest possible point total being 14 points for the interpersonal task and 17 for structural.

Creativity was also considered to be a criteria of model quality and was measured on a 3-point scale, 1 = 'not at all,' 2 = 'some' and 3 = 'very much.' Two coders were used to establish inter-rater reliability for model creativity. Coders were trained by being given written criteria for creativity (i.e. color patterns, unique structures, innovative decorations) and examples of each possible rating were generated by reviewing the videotaped models and discussing the criteria. Each coder rated a sample of 20% of the

models separately and inter-rater reliability was calculated using the intraclass correlation coefficient. IRR was first established at .13. Criteria were reexamined and clarified and discrepancies were discussed. IRR increased to .62 after the second attempt. Any discrepancies were discussed until agreement was reached among the coders. One coder then completed coding the remaining models.

Single item measures of overall leadership effectiveness. Single-item measures of "overall leadership effectiveness" revealed additional information about the impact of EI on perceptions of individuals' overall success as leaders. The same item asking individuals to evaluate leaders' overall effectiveness was included for followers' evaluations of the leader (scale of 0 to 10), expert ratings (scale of 1 to 5), and emotional ratings (scale of 1 to 5).

Communication Behaviors

Emotional ratings. Three undergraduate research assistants reviewed two-minute clips of leaders' videotaped interactions with followers and coded for leaders' emotional behaviors. Behaviors such as emotionally expressive, perspective taking, genuine, and openness were chosen, because they were identified by leading experts as behavioral characteristics common to EI in the literature (Caruso & Salovey, 2004; Mayer et al. 2004; Mayer et al., 1990; Mayer & Salovey, 1990, 1993; Salovey & Mayer, 1990). The same procedure used to assess expert ratings was followed. Coders viewed all 46 2-minute clips before beginning the actual coding process to become familiarized with the content of the tapes and the variance among leaders. Coders then watched each 2-minute clip in its entirety and rated leaders on the 9 emotional behaviors on a scale of 1 (not at

all) to 5 (very much). Coders based their judgments on a definition sheet that contained operational definitions and examples of each behavior (see Appendix C).

Inter-rater reliability was calculated using the intraclass correlation coefficient (ICC) for the 3 raters on each of the 9 items. The effective reliability (average measure ICC) for each of the 11 items ranged from .40 to .81, with an average of .67. The single judge reliability (single measure ICC) ranged from .18 to .59, with an average of .43. One score for each item was computed by calculating the average of ratings across the three judges.

Next, a principal components analysis on the 9 items with Varimax rotation yielded 1 component with loadings ranging from .56 to .83. Thus, a decision was made to collapse across items. Therefore, one score for the emotional ratings was computed by taking the average of the 9 items (α = .93; M = 3.64; SD = *.64;* scores ranged from 2.22 to 5.00).

Nonverbal behaviors. The set of coders used to code for leaders' emotional ratings coded for leaders' nonverbal behaviors as well. Coders first viewed each clip to render their judgments for leaders' emotional ratings and then reviewed the same clip again in its entirety to code for nonverbal behaviors. Seven nonverbal behaviors were coded. They included smiles, frowns, eye contact, head shakes, hand gestures, shoulder shrugs, and object manipulation. Two behaviors, head nods and crossing of the arms were dropped from the coding scheme. Head nods were omitted because they were indistinguishable by coders when previewing the videotapes during training. Crossed arms was omitted because no participants displayed the behavior. Coders were equipped with a definition sheet that operationalized each behavior. A complete list of nonverbal

behaviors and operational definitions are included in Appendix D. The operational definitions of nonverbal behaviors followed the general coding procedures originated by Riggio and Friedman (1983, 1986). Coders indicated the extent that the leader displayed each of the nonverbal behaviors on a scale of 1 to 3 where 1 means "not at all," 2 means "moderately" and 3 means "very much."

Inter-rater reliability was calculated using the intraclass correlation coefficient (ICC) for the three raters on each of the seven items. The effective reliability (average measure ICC) for each of the 11 items ranged from .42 for headshakes to .86 for smiles. The single judge reliability (single measure ICC) ranged from .20 for headshakes to .68 for smiles. One score for each behavior was computed by calculating the average of ratings across the three judges. Means ranged from 1.16 for head shakes to 2.57 for eye contact.

Verbal behaviors. Leaders' verbal transcripts from the two-minute video clips were transcribed to text files. Verbal behaviors were analyzed using the Linguistic Inquiry and Word Count computer program (LIWC) (Pennebaker, Francis, & Booth, 2001). The LIWC is a content analyses program that was created to study the emotional and cognitive content of verbal and written speech. The application analyzes each text file one word at a time, detecting the occurrences of words according to 82 language definitions or categories established by its internal dictionary. For each participant, the percent of words falling into each category is compiled. A percentage is calculated for each category that reflects a percentage of total words, with the exception of variables such as "raw word count" and "words per sentence." Though all categories in LIWC's default dictionary were included in analyses, the following categories were selected for

hypothesis testing: 1st person plural (we, our, us); 1st person singular (I, me); assent (yes, ok); positive emotions (happy, pretty, good); positive feelings (happy, joy, love); optimism and energy (certain, pride, love); negations (no, never, not); and negative emotions (anxiety, anger, sadness). Also included were two broader word categories: "sociability," which refers to words that imply a sense of community, sharing, and a general sense of social behavior and relationships (share, friend, consult) and "communication" which refers to words of personal exchange (share, talk, converse). See Appendix E for examples of words contained in each category.

Materials

Building materials (Legos). The task required leader and follower to build a model of a school using legos, which are small plastic building materials that can be connected to one another simply by pressing the parts together. Pieces come in a variety of colors. Legos are widely available in toy stores. Participants in both leadership tasks received a complete set of Legos (approximately 500 pieces) including the pieces needed to include windows, ramps, and doors on the model. They were told to use those pieces that they thought to be necessary to complete the model.

Procedure

Participants were informed that the study consisted of two parts: Part 1 was a lab experiment exploring working relationships and Part 2 involved completion of an EI measure. All participants completing both parts received credit equivalent to participating in two separate studies. Students signed up for Part 1 using an online software tool and signed up for Part 2 with the experimenter upon completion of the lab study. To avoid confounding the follower's evaluations of the leader's effectiveness with familiarity with

the participant, participants were asked to not sign up with someone with whom they were previously acquainted. Participants were informed at the time of sign-up and again at the beginning of the experiment that Part 1 would be videotaped and that videotapes would only be viewed by those involved in data collection and analyses.

Part 1

The lab experiment took place in a classroom with a one-way mirror and observation room and lasted for approximately one hour and fifteen minutes. Upon arrival at the laboratory, participants completed informed consent forms, which explained that the purpose of the experiment was to explore some work activities as they occur in real work environments. Each participant was then given a four-item questionnaire. The items asked for some background information about their work experience including the nature of the job(s) occupied, number of years of experience, how well they work with others, and their future work plans. The experimenter then explained that she would need a couple of minutes to look over their responses and would return shortly to explain the rest of the experiment. Upon her return, the experimenter explained that the questionnaire revealed that one particular individual was better suited for the leader role and the other, the follower role. This procedure was used to bolster the authority and legitimacy of the leader during the experiment. In reality, participants were randomly assigned to the leader or follower role.

A desk with two chairs was positioned so that participants' activities could be viewed clearly from the observation room. The camera was not visible to participants during taping. Because the leader's behaviors were those of interest, only the leader was videotaped. However, all of the follower's dialogue could be heard on the videotape.

Before the start of the experiment, each dyad was randomly assigned to complete either the “interpersonal” task or the “structural” task. The leader was told to work with each follower according to what he or she felt was necessary to a) direct the activities of the pair and b) accomplish the assignment to the best of their abilities.

The experimenter then gave the instructions for either the interpersonal or structural task. Participants were encouraged to follow the directions, give their best efforts, and try to adopt their roles as if they were immersed in a real work environment. Once participants verified that they understood the directions, the experimenter left the room and the interactions between leader and follower began.

For both tasks, the leader and follower were told to imagine being employed at “Titan Construction” – an up and coming construction company eager to make its mark in the construction industry. They were asked to imagine that Titan has recently been chosen to build a new school, Landon Memorial High School. However, an emergency situation has just surfaced and the CEO was requesting the team's (leader and follower) help. The model that Titan had submitted as the design for the new school building had suddenly been rejected. To maintain the contract and keep it away from their biggest competitor, Sterling Construction, a new model needed to be submitted within the next hour. In order to emphasize the importance of, and add legitimacy to, the role of leader, the leader and follower were told that they work together as a team; just like in the real world, however, the quality of the work would reflect the quality of the leader. Both were told that they would have the opportunity to rate each other’s performance after the completion of the task. The follower then remained in the main laboratory and the leader was led to a separate room, adjacent to the laboratory, where additional directions were

administered to clarify his/her role as leader. The leader was given a "letter" from the CEO, which explained the urgency of the situation and the requirements for building the model. From this point, the procedure differed according to the task.

Interpersonal Task. For the interpersonal task, the follower's job was to actually build the model. Although the leader did generate ideas for building the model and explained the instructions to the follower, the main responsibility of the leader was to deliver a performance evaluation to the follower based on his or her performance after the model was completed. The interpersonal task consisted of five phases: planning meeting (between leader and follower-5 minutes); model building (by follower-20 minutes); performance evaluation (by leader-10 minutes); improvements to the model (by follower-5 minutes); and written evaluation of the leader (by follower-until completion).

Before the start of the planning meeting, the leader was given time to review the letter from the CEO and formulate a plan for building the model. Only the leader was given the actual written instructions for the model to create dependence of the follower on the leader for critical information about the job. The leader was told that he/she should think carefully about the layout for the model since there would only be a short amount of time to meet with the follower and finalize their plan before the model-building phase began. The model requirements in the letter included such details as number of doors, window placement, "ramps" for wheelchair accessibility, and some opportunities to add creativity and uniqueness. These directions were created to provide some direction for the building of the model, but still vague enough to allow some variance in the follower's performance (for a full description of the building guidelines, see Appendix F). That is, the task was designed to allow for both positive and negative feedback from the leader.

The pair was then given five minutes for the planning meeting phase. They were told of the following goals: the first priority was for the follower to completely finish the model within 20 minutes. Pilot testing showed that twenty minutes was the right amount of time for high performing participants to complete the task with some challenge. "Complete" meant that each of the requirements had to be included in the model and that all of the walls were built up to reach the height of the doors with no spaces between any of the blocks. In other words, it should appear to be a finished product. This standard was set to add difficulty to the task. The second goal was to incorporate as much creativity as possible. Creativity was defined as adding "personal touches," thinking "outside of the box" and adding uniqueness. During the meeting, the pair was encouraged to discuss details, make sketches, and refer to the requirements sheet. The requirement sheet and any other written information was left with the follower at the conclusion of the meeting. The leader then left the room, and the follower was given 20 minutes to build the model on his or her own. This procedure is similar to what occurs in natural work settings where the follower first works on a project alone (with some initial instruction from the leader) and then approaches his or her superior for feedback and evaluation. The pair was told that at the conclusion of the model building, the leader would review the follower's work and deliver a performance evaluation on specific aspects of the follower's performance. Afterwards, the follower would have five minutes to make any crucial changes to finalize the model.

Next, the follower engaged in the model-building phase while the experimenter met with the leader and gave him/her detailed instructions for delivering the performance evaluation. The experimenter began with a brief explanation of the performance

evaluation and its use in organizations as a critical element in improving performance, making decisions for career placement, advancement, and rewards (i.e. bonuses). Further, the leader was told that his/her role was pivotal to the follower's performance because it was the only opportunity that he/she would have to catch any errors, make any suggestions, and motivate the follower before the 5-minute improvement phase and final submission of the model. The experimenter then thoroughly reviewed a written set of instructions discussing all of the requirements for the performance evaluation and answered any of the leader's questions.

The experimenter then alerted the follower when five minutes remained, and again when the 20-minute time limit expired. At the conclusion of the model-building phase, the experimenter delivered the model on a platform to the leader. The leader had seven minutes to privately review the follower's work, formulate his/her impressions of the follower's performance, and prepare for the performance evaluation according to the instructions. (Pilot testing revealed that 7 minutes was a sufficient amount of time for leaders). The leader was given rating sheets to record notes about the follower's performance (For an example rating sheet, see Appendix G). The purpose of the rating sheets was to help the leader remember key information and to keep his/her thoughts organized during the performance evaluation. (The sheets were not to be shown to the follower.) The leader could refer to the notes during the evaluation as needed. When the 7-minute review time ended, the leader joined the follower to deliver the performance evaluation.

For the performance evaluation phase, leaders had a total of ten minutes to deliver their feedback to the follower. Pairs were reminded not to make any changes during the

actual evaluation in order to ensure that the time was focused on the leader's feedback and to maximize the use of the 5-minute improvement session afterwards. This reminder was given in order to augment leaders' communication rather than replacing discussion with physical activity in building the model. Videotaping began at the start of the performance evaluation and stopped when it was over. If the leader concluded before the time period officially ended, he/she alerted the experimenter

The performance evaluation included two major elements: the actual rating for each of four dimensions on a scale of 1 ("poor") to 5 ("excellent") and an explanation for why the leader gave each of those ratings, such as specific examples describing the follower's strengths and weaknesses. This instruction was given to guarantee that all leaders would give both positive and negative feedback and have more of an opportunity to interact with the follower. The four dimensions were: "attention to detail" (adhering to the building requirements and the information discussed in the planning meeting with the leader), "creativity," (contributing his her own unique style and ideas to creating the model), "use of time," (making proper use of the 20 minutes to accomplish the goals of the task), and "overall evaluation" (the overall perception of the follower's performance with all points considered.) Leaders were encouraged to take their time and thoroughly discuss any information that they thought would be helpful to improve the model. The leader was reminded that Titan was depending upon the pair's efforts to create the "best model" possible in order to maintain the contract and that ultimately, the quality of the model reflected his/her abilities to be a leader.

At the conclusion of the performance evaluation, the experimenter escorted the leader back into the other room while the follower was given five minutes to make

corrections to the model according to the leader's feedback. At the conclusion of five minutes, the experiment then proceeded with the leader evaluation phase.

The experimenter distributed the Follower's Evaluation of the Leader form to the follower. The follower was prompted to think critically about the leader's performance and to answer honestly since the leader would not be shown the evaluation. While the follower completed the evaluation in private, the experimenter took the model to the observation room to be recorded for coding purposes. At the conclusion of the experiment, all participants were signed up to complete Part 2 within one or two weeks of completing Part 1.

Structural Task. For the structural task, the pair was presented with the same work scenario in which the main task was to build a model out of legos for Titan Construction. However, instead of the follower building the model alone and then receiving feedback from the leader, the leader and follower worked together to build the model. The leader's main responsibility was to deliver a detailed set of instructions to the follower while the follower built the model. The structural task consisted of two phases: model-building (by leader and follower-15 minutes); and the written evaluation of the leader (by follower-until completion.

After the scenario was presented, the leader was given time to review the "letter from the CEO" (same letter as in the interpersonal task) and a set of building requirements. As with the interpersonal task, only the leader was given these written requirements to create dependence of the follower on the leader for critical information. These guidelines included ten explicit, challenging, and detail-oriented requirements compared to the more ambiguous instructions for the interpersonal task. Requirements for

the structural task are presented in Appendix H. The structural task was designed to put the leader in a position that focused specifically on task accomplishment rather than interpersonal skills. Therefore, although some feedback resulted during the actual model building, the feedback was more likely to be task-focused rather than follower-focused.

When the leader alerted the experimenter that he or she had finished reviewing the memo and instructions, the leader rejoined the follower. The experimenter then explained that the pair would have 15 minutes for the model-building phase (Pilot testing showed that 15 minutes was the right amount of time for high performing teams to complete the task with some challenge.) During that time, the leader would administer the exact instructions for building the model but only the follower could actually build. The goals were to have, at the end of 15 minutes, a finished product. Each of the 10 requirements were to be included, the building was to be a solid structure, and the walls were to be built up to the height of the doors. They were also encouraged to incorporate as much creativity as possible. For the same motivation purposes as in the interpersonal task, the pair was told that the quality of the product reflected the quality of the leader and that Titan was dependent upon their success to maintain the contract for the company. The experimenter prompted the pair to begin and alerted them when five minutes remained. Although the total time spent on the structural task was less than that which was required for the interpersonal task, the time that the leader and follower spend actually interacting with one another was roughly equivalent (about 15 minutes). After completion of the model-building phase, the evaluation of the leader phase began. Procedures for this phase were identical to those in the interpersonal task.

Part 2

During Part 2, the EI measure was administered online in a computer laboratory. Participants again completed consent forms that included a brief description of the test and an assurance that their scores would be kept confidential and that no identifying information would be attached to them. Participants' EI scores and results from the experiment were matched according to an ID consisting of participants' first and last initials and last four digits of their social security number. Once the matching was complete, the Ids were destroyed. The test took approximately 30 to 45 minutes to complete. At the conclusion of the test, participants were fully debriefed, thanked, and offered a piece of candy or small prize as a token of appreciation.

Chapter Four: Results of Study

Leadership Effectiveness

Followers' evaluation of the leader. The interpersonal task was expected to draw out empathic and motivational behaviors, giving emotionally intelligent leaders the advantage over those with lower levels of EI. Because the technical nature of the structural task, no relationship between leaders' EI and leadership effectiveness was expected.

An F-Test revealed that mean scores for leaders' MSCEIT scores were comparable across both tasks ($F\,[1,100] = 1.27$, $p > .1$) The mean score for the Interpersonal task was 92.92 ($SD = 12.74$), and the mean score for the Structural task was 90.33 ($SD = 10.42$).

As predicted, leaders' EI scores were significantly correlated with followers' evaluation scores for the interpersonal task ($r = .40$, $p < .01$) but not in the structural task ($r = .11$, $p > .1$). In other words, for the interpersonal task only, leaders who were higher in EI were perceived as having more consideration for followers' needs and feelings, creating better teamwork and cooperation, showing support and encouragement, and providing relevant knowledge and information to create a model with which followers felt satisfied.

Given that emotionally intelligent leaders have the tendency to be more positive and optimistic, perhaps those high in EI provided followers with better scores on the model and more favorable feedback, leading followers to reciprocate by rating the leader higher on effectiveness. To test this hypothesis, ratings given to followers (scale of 1 to 5) for attention to detail, use of time, and creativity were averaged to produce a single

measure of follower performance given by the leader ($\alpha = .71$, $M = 3.30$, $SD = .83$). Regression analysis confirmed that leaders' EI scores were significantly, positively related to ratings given to the follower ($\beta = .30$, $p < .05$). In addition, ratings given to the follower were significantly related to followers' evaluation of the leader ($\beta = .35$, $p < .05$). These relationships would be of great concern if they significantly impacted the relationship between leaders' EI and followers' evaluations of the leader. However, the relationship remained significant ($\beta = .33$, decreasing from $\beta = .40$, $p < .05$), when controlling for ratings given to the follower. These results ruled out the possibility that higher ratings given to the follower, explained the relationship between leaders' EI and followers' effectiveness evaluations.

Followers' evaluation of the leader was used as the primary measure of leadership effectiveness. Analysis of the relationship between EI and other measures of leadership effectiveness would only be conducted if the relationship between EI and follower evaluations scores was first established. Because no significant relationship between leaders' EI and followers' evaluation scores were found for the structural task, further analyses was not necessary. The remaining analyses were conducted for the interpersonal task only.

Expert ratings. As expected, leaders higher in EI were perceived by outside experts as being more adept at delivering performance evaluations compared to those lower in EI ($r = .36$, $p < .05$). Specifically, leaders who were higher in EI were perceived as displaying more confidence and focus, being more responsive towards followers, and being organized, patient, and thorough throughout the session.

Objective measure of followers' performance (model ratings). Total scores out of a possible 14 points were calculated twice – once before feedback and again after feedback. Greater fulfillment of model requirements yielded higher scores. Moreover, total model scores after feedback were thought to reflect, to some degree, leader's efforts to provide feedback that would produce the "highest quality model possible." Total model scores before feedback were significantly correlated with leaders' EI scores (β = .31, $p \leq .05$) as were model scores after feedback (β = .38, $p \leq .01$). In addition, model scores before feedback were significantly correlated with model scores after feedback (β = .68, $p < .01$). To test whether EI had its impact during the actual performance evaluation (i.e. feedback session), results needed to show that the relationship between leaders' EI and model scores after feedback remained significant when controlling for model scores before feedback. However, this relationship failed to reach acceptable levels of significance (R^2 = .10, β = .32, decreasing from R^2 = .12, β = .38, p = .11). Though these results show that leaders' EI impacted followers' performance, the failure to substantiate the relationship between leaders' EI and model scores after feedback makes it difficult to conclude with complete certainty that the impact of EI was isolated to the leader's performance during the feedback session.

However, the relationship between expert ratings and model ratings suggest that leader's performance during the feedback session with the follower, while not wholly attributable to leaders' EI, did impact follower's performance. Expert ratings were based on observations of the leader while they performed during the feedback session. These ratings were significantly correlated with model scores after feedback (r = .43, $p < .01$) but not before feedback (r = .26, $p > .10$). Therefore, there is some evidence that shows

that better performance on the part of the leader during the feedback session assisted followers in producing higher quality models.

Additionally, a positive relationship was also expected between leaders' EI and model creativity. However, this relationship was non-significant both before and after feedback (*ps* > .1).

Single item measures of overall leadership effectiveness. Leaders' EI strongly influenced followers' and external raters' view of leaders' overall leadership effectiveness. Leaders' EI had significant relationships with followers' overall leadership effectiveness item ($r = .42$, $p < .01$) and expert ratings' overall leadership effectiveness item ($r = .35$, $p < .05$). The correlation between leaders' EI and emotional ratings' overall leadership effectiveness item was positive, but this effect did not reach acceptable levels of significance ($r = .27$, $p = .07$). Mean scores for all leadership effectiveness measures are presented in Table A2.

Communication Behaviors

Emotional ratings. Emotional ratings were reflective of emotionally intelligent characteristics (i.e. perspective taking, emotionally expressive, genuine, warm, engaged) and therefore expected to be significantly correlated with EI scores. Ratings were positively correlated to leaders' EI scores, but this effect failed to reach significance ($r = .26$, $p = .08$).

Nonverbal behaviors. Positive nonverbal behaviors associated with openness, being genuine, and warmth (smiles, eye contact, and hand gestures) were expected to show positive relationships with leaders' EI scores. Negative nonverbal behaviors associated with uncertainty, disapproval, and distraction (frowns, head shakes, shoulder

shrugs, and object manipulation), were expected to correlate negatively with leaders' EI scores. Contrary to predictions, all relationships between leaders' EI scores and nonverbal behaviors were nonsignificant (rs = -.11 to .19, ps > .1). Mean ratings and correlations with EI for emotional ratings and nonverbal behaviors can be found in Table A2.

Verbal behaviors. Verbal behaviors were analyzed by the LIWC computerized content analysis program. A number of relevant verbal categories were assumed to reflect comradery, encouragement, and other relationship bolstering characteristics of effective leadership relationships and therefore be positively correlated with leaders' EI ('1st person plural,' 'assents,' 'affect,' 'positive emotions,' 'positive feelings,' 'sociability,' 'communication,' and 'optimism'). Other verbal categories were thought to reflect less team orientation and discouragement, and expected to be negatively correlated with leaders' EI: 1st personal singular, negative emotions, and negations. As predicted, several of the "positive" categories were significantly correlated with leaders' EI scores: positive feelings (r = .33, p < .05); sociability (r = .30, p < .05), and communication (r = .45, p < .01). Contrary to predictions, no other categories were significantly correlated with leaders' EI (rs = -.24 to .25, ps > .1).

LIWC automatically generates a number of content categories in addition to those included for hypotheses testing. Because examination of leaders' verbal behaviors is a new and unexplored research territory, I wanted to document any additional relationships that emerged. Word count, or the number of total words spoken by the target, was positively correlated with leaders' EI (r = .29, p < .05), and the percentage of 'fillers'(i.e. 'you know,' 'like,' and 'I mean') was negatively correlated with leaders' EI (r = -.41,

$p < .01$). Mean scores for all verbal behaviors and correlations with EI are presented in Table A3.

Mediational Analyses of verbal behaviors on EI and leadership effectiveness

Before proceeding with tests of mediation, a variable must first satisfy three perquisite conditions. First, there must be a significant relationship between the independent variable and the mediating variable. Second, the independent variable must significantly affect the dependent variable, and last, the mediator must significantly impact the dependent variable (Baron & Kenny, 1986).

The results presented thus far satisfy two of the three conditions for establishing some verbal categories as mediating the relationship between EI and leadership effectiveness. Satisfying the first condition, word count, positive feelings, sociability, and communication each showed significant, positive relationships with leaders' EI. Fulfilling the second condition, leaders' EI was significantly correlated with higher evaluations for two measures of leadership effectiveness: followers' evaluations and expert ratings.

Mediation is shown when a previously significant relationship between an independent variable and dependent variable is no longer significant. Perfect mediation occurs when the correlation is reduced to zero (Baron & Kenny, 1986).

Mediators of followers' evaluations. Word count and sociability were significantly correlated with followers' evaluations of the leader ($\beta = .40$, $p < .01$ and $\beta = .32$, $p < .05$, respectively).

Tests of mediation for word count and sociability on the relationship between leaders' EI scores and followers' evaluation of the leader were conducted using multiple

regression. When leaders' EI was entered into the regression equation alone, EI was a significant predictor of followers' evaluation of the leader (β = .40, $p < .01$). With the addition of word count as a predictor, the relationship between leaders' EI and followers' evaluation remained significant (β = .30, $p < .01$), revealing that word count alone was not a significant mediating variable. Sociability was then entered alone to test its mediating impact on leaders' EI and follower evaluations. A similar pattern emerged with leaders' EI remaining a significant predictor of followers' evaluations (β = .33, $p < .05$). When both sociability and word count were entered into the regression model together, EI was no longer a significant predictor but the beta weight was still fairly high (β = .27, $p = .07$). These results reveal that word count and sociability, together, showed partial mediation on the relationship between EI and followers' evaluations of the leader.

Mediators of expert ratings. The following verbal behaviors showed significant relationships with expert ratings of leadership effectiveness: word count (β = .43, $p < .01$), positive feelings β = .37, $p < .01$), and sociability (β = .39, $p < .01$). Recall that EI was a significant predictor of expert ratings (β = .36, $p < .05$). Multiple regression revealed partial mediation for word count (β = .23, $p = .11$), positive feelings (β = .24, $p = .10$) and sociability (β = .26, $p = .10$). When all three variables were entered into the model, the beta coefficient dropped to nearly zero (β =.05, $p = .72$). Therefore, word count, positive feelings and sociability, together mediated the relationship between EI and expert ratings.

Finally, percentages of fillers (meaningless interruptions) used by the leader were negatively correlated with expert ratings (β = -.41, $p < .01$). Fillers partially mediated the

relationship between EI and expert ratings dropping the beta weight from β = .36 (*p*= .02). to β= .20 (*p* = .2).

Exploratory Analyses

Followers' EI. Some recent interest has been generated on the impact of *followers' EI* on leadership effectiveness (Wong & Law, 1992). However, studies which collect EI data for followers are rare. Therefore, a concrete understanding of how followers' EI impacts leadership effectiveness, if at all, has yet to be established within the literature. Because followers' EI scores were retained in this study (N=40), exploratory analyses were conducted in an effort to explore some questions surrounding followers' EI.

It was thought that followers' EI may have impacted their perceptions of leadership effectiveness. Perhaps higher levels of followers' EI infused followers with more empathy, or emotional connection with their leader, resulting in more favorable evaluations. However, a significant relationship between followers' EI and followers' evaluation of the leader was not established ($r = -.09$, $p > .1$).

The relationship between followers' EI and followers' performance was also tested. Perhaps higher levels of followers' EI enabled followers to focus more on the task, or better incorporate the leaders' feedback, which resulted in higher quality models. However, relationships between followers' EI and model scores before and after feedback were nonsignificant ($r = .14$, $p > .1$ and $r = .28$, $p > .1$, respectively).

Chapter Five: Discussion

The overarching purpose of this study was to address some outstanding issues regarding EI and leadership effectiveness that exist within the current EI literature. Research strongly suggests that EI is a strong contributor to leadership effectiveness, but empirical evidence for this relationship using a valid measure of EI is lacking. Additionally, whether situational factors impact an emotionally intelligent leader's ability to be effective remains unknown. Finally, though it has been proposed that individuals with high EI possess advanced social and emotional skills that enhance their leadership capabilities, specific emotionally intelligent behaviors have yet to be identified. Findings of this research respond to the issues mentioned above, providing much needed clarification for how EI manifests in successful leadership behaviors.

Two participants playing the roles of leader and follower engaged in a work simulation task that involved the building of a model. For some pairs, the task was interpersonal in nature, requiring the leader to administer feedback to the follower on his or her performance. For others, the task was structural in nature, requiring the leader to provide specific prepared instructions to the follower. Participants' EI was measured by the MSCEIT (Mayer et al., 2002), and leadership effectiveness was assessed with followers' ratings, expert ratings, and followers' performance on the model. Leaders' nonverbal behaviors were also videotaped and analyzed by trained coders. Finally, verbal behaviors were transcribed from videotapes and content analyzed. Below I describe the findings associated with these outcome measures and discuss their connections and contributions to the larger literature on EI and leadership effectiveness.

The main hypotheses pertained to the relationship between EI and effectiveness on the two types of work tasks. Results revealed that, as predicted, higher EI was associated with greater leadership effectiveness on the interpersonal but not the structural task. Further these effects were demonstrated across multiple measures, including followers' evaluations and expert ratings. These findings legitimate the role of EI in leadership effectiveness by remaining true to the original definition of EI (operationalized by the MSCEIT), and showing that EI contributes to several aspects of a leader's performance. Additionally, these results highlight the importance of considering the leadership context when evaluating the contribution of EI. The present findings strongly suggest that EI may not be a relevant factor in leadership effectiveness under circumstances that do not require relationship-building skills.

Further, we now know that emotional intelligence assists leaders by fine-tuning their communication skills in more specific ways than originally thought. That is, emotionally intelligent leaders tend to rely on verbal language that places a special emphasis on bolstering collegiality and rapport with their subordinates. Word categories of positive feelings, sociability, and communication were all significantly correlated with EI. Additionally, although not predicted, emotional intelligence aided leaders in creating more free-flowing speech. That is, use of fillers (meaningless speech) was negatively correlated with EI. Moreover, both collegial verbal behaviors and fluid speech enabled leaders to achieve greater leadership effectiveness.

Specific verbal behaviors mediated the relationships between EI and two of the three measures of leadership effectiveness. Sociability and word count were found to be mediators of followers' evaluations while word count, positive feelings, sociability, and

fillers were mediators of expert ratings. These new findings reveal what emotionally intelligent leaders actually do and thus provide a more specific understanding of *why* emotional intelligence predicts leadership effectiveness.

Leaders' EI and Leadership Effectiveness

EI was predicted to contribute to an individual's leadership capabilities because identifying emotions, using emotions, understanding emotions, and managing emotions likely enhance the rapport-building skills that are thought to be critical for leadership effectiveness (Caruso & Salovey, 2004; Caruso et al., 2001; George 2000). According to contingency theories of leadership, a leader's effectiveness is also dependent upon whether the task demands or constraints of a leadership situation bring about the relevant skills or abilities (Avolio, 2007). Thus, I predicted that EI would augment leaders' effectiveness to the extent that the task elicited considerate, empathic, communication skills. Results confirmed these expectations. Higher EI scores for leaders were accompanied by higher follower evaluations when the task required leaders to use sensitive communication skills to deliver a performance evaluation to their subordinate. This relationship was absent when leaders and followers engaged in a structural task that focused on fulfilling technical requirements and was therefore significantly less emotional in content.

In this study, the differing impact of leaders' EI on leadership effectiveness across the two tasks was most likely due to the task demands placed on the leaders. All elements of both leadership situations leading up to the task descriptions were kept identical. Both tasks centered on the main responsibility of building a model according to a set of specified instructions, but the similarities between leaders' actual job tasks ended there.

On the interpersonal task, the leader's success was dependent upon his/her ability to not only provide relevant, helpful, information but show a certain amount of personal finesse in delivering feedback in a way that was motivating, encouraging, and did not leave the follower feeling personally insulted. The task was designed to challenge a leader's emotional awareness and understanding of how emotional components affect one's own and another's emotional state and ultimately, performance. The emotional acuity required to motivate another person to a desired end while still providing negative criticisms of the other's abilities and efforts requires leaders to skillfully identify emotions and masterfully use that information. Those emotional skills go unchallenged within the structural task of providing technical instructions to a follower. For the structural task, success was largely contingent upon giving organized, clear, and accurate information targeted towards task accomplishment. Any feedback given to the follower was largely task focused and not directed personally towards the follower, rendering leaders' EI an unnecessary element under such circumstances.

Other confirmed predictions for the interpersonal task indicate that the influential effects of a leader's EI may be more far-reaching than suggested in existing studies. Leaders' EI positively impacted expert ratings and followers' performance on building the model. Additionally, positive relationships between EI and single item indexes of overall leadership effectiveness were found for followers' evaluations and expert ratings. The importance of all of these findings should not be overlooked. First and foremost, these results provide ample support for the link between EI and leadership effectiveness by providing empirical evidence to an idea that has been largely theoretical up to this time. Second, relationships were established among leaders' EI and multiples measures

of effectiveness representing different aspects of a leader's performance. In general, studies that use multiple measures to assess leadership effectiveness are rare (see Barbuto & Burbach, 2006) and studies measuring EI against more than one measure of leadership effectiveness are virtually nonexistent.

EI has garnered attention in the leadership domain mostly because of its portrayal as a social construct. Given this assumption, it is not necessarily surprising that emotionally intelligent leaders encourage favorable impressions from followers after having the opportunity to create a positive, meaningful, personal exchange with their subordinates. However, the relationship between EI and expert ratings suggests that EI assists leaders in managing their own job performance as well. Expert ratings focused solely on leaders' abilities to fulfill specific job responsibilities required by the task. Thus, abilities to use and manage emotional information appear to aid emotionally intelligent leaders to organize their thoughts, prioritize their duties, and focus on goal accomplishment, even when satisfying the emotional needs of others is also of utmost importance. These findings suggest that in addition to building relationships with others, EI may help leaders excel by allowing them to give proper attention to task fulfillment.

Leaders' EI also impacted followers' performance. Leaders' EI was positively associated with model ratings after feedback, as predicted. However, the finding that leaders' EI was also positively associated with model ratings *before* feedback implies that leaders may have influenced followers' performance in a manner different than originally thought. The original assumption was that EI would have the greatest influence on model building by enabling leaders to conduct a performance evaluation which was focused, clearly communicated, thorough, and full of helpful suggestions. As a result, followers

would be better equipped to improve the model during the five-minute correction time and thus receive higher model ratings. It is not that leaders' efforts in the performance evaluation had no impact on the follower. Higher model ratings after feedback were strongly correlated with higher expert ratings, indicating that the more leaders fulfilled the requirements during the performance evaluation, the better followers performed on model building. It may be that the role of EI in augmenting followers' performance was largely motivational. Leaders had five minutes to interact with followers during the planning meeting before model construction began. Perhaps high EI leaders used their rapport building and motivational skills even before the actual performance evaluation session while outlining their plans with the follower, and their positive influence continued to encourage followers to perform well throughout the remainder of the experiment.

Leaders' EI and Communication Behaviors

As expected, the social nature of the interpersonal task created ample opportunity for emotionally intelligent leaders to showcase their emotionally attuned communication skills. In the absence of research examining specific communication behaviors of emotionally intelligent leaders, the rationale for *why* emotionally intelligent individuals would display some behaviors over others was explained in somewhat general terms. That is, emotionally intelligent leaders were expected to display verbal and nonverbal behaviors that exuded more positive emotion and less negative emotion. As a result, leaders high in EI would reflect emotionally intelligent characteristics such as warmth, encouragement, and optimism. Emotional ratings reflecting these same characteristics were correlated in the expected positive direction with EI, suggesting that at least to some

degree, emotionally intelligent leaders did portray a friendly, outgoing image. However, results revealed a more targeted pattern of verbal behaviors. Although a clear nonverbal pattern of behaviors was not uncovered, content analysis revealed positive relationships between leaders' EI and the word categories of positive feelings, social, and communication, all promoting relationship building and collegiality. Words in the sociability category reflected leaders' concern with being interpersonally connected with partners. Similarly, words in the communication category reflected having a connection or trading ideas with the follower. Positive feelings reflected affiliation and affection. These results provide strong reason to believe that EI assists leaders in using language that is more purposeful in building a strong relationship and instilling positive, upbeat, or encouraging feelings within another.

In the LIWC dictionary, the word category positive feelings, included 'affection,' forgiving,' 'love,' and 'caring.' This category included words that expressed positive emotion or personal feelings toward another individual. According to the EI literature, identifying emotions and accurately describing and expressing them with appropriate 'emotional language' is believed to be a hallmark trait of emotionally intelligent individuals (Mayer & Salovey, 1990). LIWC categories included a wider range of words than those that were used by leaders during their performance evaluations. A closer scrutiny of leaders' verbal transcripts revealed that high EI leaders most frequently used phrases similar to, 'I liked that you…,' or 'I loved how you…' to express positive feelings. At first glance, the emotional component of these common phrases may be overlooked. However, it is important to consider that there are alternative ways to express favorability that do not necessarily relay a connection with someone, or offer a personal

stake in the statement. For example, a leader could state, “The doors are good in that place,” or alternatively, “I like that you put the doors there.” Though both are similar in content, the latter places value on the follower’s contributions and also exudes personal appreciation.

Sociability and communication were rather broad categories and included a large number of words, some of which overlapped with one another. Sociability included words referring to relationships with others and activities associated with being social, or building relationships with others. Also included within this category were any references to others (‘we,’ ‘you’ ‘he,’ etc.). This verbal pattern suggests that emotionally intelligent leaders may have a tendency to be aware of their social environment and are therefore likely to recognize others, or refer to social or interpersonal occurrences. In reference to the communication category, emotionally intelligent leaders generally made more references to past conversations or ideas exchanged with the follower during the planning meeting, ‘We agreed upon…,’ ‘I remember you mentioned…,’ or ‘We talked about that before…’. Phrases such as these suggest that those with EI were more apt to emphasize joint participation, the exchange of ideas or the contribution of others.

Though not originally predicted, additional relationships between leaders’ EI and speech patterns were uncovered. Word count (number of total words) was significantly correlated with leaders’ EI. A review of verbal transcripts revealed that leaders higher in EI tended to elaborate more on thoughts, offer more suggestions, and review information for clarification purposes. Total time of evaluation was not significantly correlated with leaders’ EI, suggesting that higher EI didn’t necessarily involve more time with the follower. Rather, emotionally intelligent leaders appear to have used their time more

efficiently. Perhaps the most provocative unexpected finding was a significant negative relationship between leaders' EI and 'fillers,' or words or phrases that contain no meaningful speech (i.e. 'you know,' or 'I mean' or the word 'like'). Leaders with higher levels of EI use fewer fillers. In communication research, these phrases, as well as stuttering, are referred to as 'disfluencies' or disruptions in the flow of speech. Prior research has shown that, in adolescents, stuttering is related to a decreased capacity to regulate emotions, specifically to control anxiety or stifle emotional reactions to surrounding events (Karrass et al., 2006). Though the authors recognized that adults are likely to develop self-control techniques that allow them to better control stuttering, there is still evidence suggesting that a lack of emotion regulatory skills is at the root of stuttering or disfluent speech (Anderson, Pellowski, Conture & Kelly, 2003). Of course, regulating emotions is a pivotal ability imparted by EI and appears to equip leaders with a greater ability to manage their emotions, calm nerves, or focus attention on the conversation. These essential regulating skills allow leaders to remain in control, thereby decreasing the presence of breaks in speech.

Given that the verbal behaviors of emotionally intelligent leaders demonstrated a focused attempt to augment the partnership with their followers, it is of some curiosity that 'collegial' verbal categories mediated to a lesser extent the relationship between EI and followers' evaluations than they did between EI and expert ratings. That is, sociability was a partial mediator of EI and followers' evaluations, whereas sociability and positive feelings were partial mediators of EI and expert ratings. Followers' evaluations required followers to rate leaders on both task-oriented and relationship-oriented aspects of effectiveness. Perhaps the process of considering the leaders'

expertise and efforts toward task accomplishment of the model and also other relational efforts by the leader deemphasized the importance placed on the leader's use of positive feelings. It is possible that from a more external vantage point, experts considered equally both social awareness and positivity when evaluating leaders according to their performance requirements.

In addition, word count partially mediated (explained) both followers' evaluations and expert ratings. It appears that leaders' abilities to elaborate and provide additional explanations were relevant to both followers and experts. Decreased presence of fillers was also a partial mediator of expert ratings. Fewer breaks in speech appeared to elevate leaders' performance when delivering the performance evaluation. All of these findings contribute greatly to an otherwise vague understanding of how emotional intelligence contributes to leadership effectiveness. However, more research is still required to further explore emotionally intelligent leaders' speech patterns in order to fortify and expand upon these initial findings.

Efforts to uncover EI differences in leaders' nonverbal behaviors proved difficult. Initial screening of videos suggested broad differences between enthusiastic, confident, and engaged high EI-leaders versus lethargic, insensitive, and indifferent low EI-leaders. Careful consideration was paid towards choosing an effective methodology and coding scheme that would best fit research purposes. Videotaped recordings focused only on leaders' faces and upper body. Leaders' nonverbal behaviors were studied in the absence of followers' behaviors in order to avoid the contamination of coders' judgments that may have resulted from observing followers' reactions. Codings were designed to detect an overall pattern in nonverbal communication that showed how much or how little

emotionally intelligent leaders display certain behaviors. Despite these efforts, results failed to show a relationship between leaders' EI and any of the nonverbal content categories.

However, not all efforts to examine leaders' nonverbal behaviors were futile. Although not significant, the direction of relationships between leaders' EI and the majority of 'negative nonverbal behaviors (frowns, shoulder shrugs, and object manipulation) were in the expected negative direction. This pattern of findings tentatively suggests that leaders higher in EI do make some attempts to control their expression of negative emotion. This finding and the lack of existing research measuring emotionally intelligent individuals' nonverbal behaviors warrants further testing in future studies.

Contributions to Existing Research

Until now, considering EI as a crucial factor of leadership effectiveness, although theoretically sound, has been presented without much understanding of the details surrounding the relationship. We now have evidence that, under relationship-building circumstances, emotionally intelligent leaders achieve effectiveness through their elaborate use of collaborative, and smooth verbal communication. According to EI experts, empirical studies of any kind are needed to develop a full understanding of the depth and breadth of the EI construct. Though great strides have been made in EI research in the past decade or so, EI is still considered to be a relatively new construct with a great number of interpersonal and applied arenas in which its relevance has yet to be explored. The identification of verbal patterns by emotionally intelligent leaders greatly contributes to existing research on EI, leadership, and communication.

Perhaps it is not that surprising that EI is linked to the elaborative use of socially-focused, positive language. Theoretical work has supported this reasoning relatively well. However, the notion that higher EI may be associated with more fluid, less disruptive speech is entirely novel. Such outcomes are likely to fuel much discussion among researchers and experts within the communications, emotions, and leadership fields.

To date, behavioral studies involving EI are severely lacking. In addition, very few observational studies of leadership behaviors, let alone specific communication behaviors, have been conducted. Innovative approaches, such as using a computerized content analysis program, and a more gestalt approach to obtaining observational data reduce man power and introduce less human error while still yielding accurate and meaningful data. I expect that these methods will encourage other researchers to conduct more studies in the same vain.

Further, the use of an ability measure of EI not only serves to further validate a relatively new instrument (MSCEIT) but also enforces the model of EI that is thought to most likely resemble a form of intelligence rather than a cluster of dispositional variables. The findings of this study are therefore expected to provide solid support for a claim that has mostly been discussed in theoretical terms thus far. Confirming EI as a key factor in effective leadership skills will also assist in quieting critics who consider EI to be "too soft" to be of any importance.

Lastly, much of the existing research has focused on discussing why EI makes a significant difference in leadership interactions. Yet little effort has been made to explore the circumstances under which EI does not contribute to leadership effectiveness. Perhaps researchers are wary that such exploration may detract from the progress that has been

made to substantiate the EI-leadership link. Nevertheless, such research must be conducted in order to discover exactly how EI enables a leader to function more effectively. The present findings strongly suggest that whether an emotionally intelligent leader outperforms a leader low in EI depends, in part, on the emotional demands of the task. Additionally, evidence has also been presented that shows that at least one set of specific leadership skills, relationship-endorsing verbal language, is augmented by an individual's EI. The current research findings create a stepping stone for researchers to explore whether there are other situational variables that moderate the relationship between EI and effectiveness.

Possible Limitations

Field studies are often preferred to laboratory studies when examining issues concerning leadership. However, some researchers do vouch for the value of conducting leadership studies in a laboratory setting. Namely, Eagly, Karau, and Makhijani (1995) argue that although leadership studies in the laboratory may be different from those that occur in the field by perhaps being narrower in scope, both approaches examine similar underlying processes. An environment offering a high degree of control was more suitable for the present study. Use of a laboratory setting in which leader-follower interactions were confined to a particular situation for a limited amount of time was crucial to attaining the desired behavioral measurements for leaders.

In real work-world settings, leaders and followers have a longer time to establish a relationship, and followers are therefore presented with multiple opportunities to evaluate their leader's performance. However, existing research supports the notion that perceptions of leaders are often based on a limited amount of information. For example,

research devoted to emergent leadership or implicit leadership theory is founded on the notion that subordinates attribute leadership to those individuals who are thought to portray characteristics of a leader (Hogan et al., 1994; Hollander et al., 1977; Meindl, 1995). It is still possible that leaders' communication behaviors may change over a longer period of acquaintance with the follower, however. Consequentially, the results of the current study may be most applicable to short-term leadership relationships or first-time meetings. More research needs to be conducted in order to determine whether the same relationships between EI, communication, and leadership effectiveness found in this study exist in long-term leadership relationships.

An additional question that should be addressed is whether the "emotionally intelligent" skills identified in this study are unique to leadership situations or might also emerge in other situations requiring interactions among people. That is, an individual high in EI might be apt to demonstrate skills similar to those described in this study across a variety of interpersonal situations. However, the pattern of communication skills demonstrated by an emotionally intelligent person in a leadership situation is likely to be remarkably different from that of an emotionally individual interacting with a friend. There are significant features of leadership relationships that make them distinct from "normal" interpersonal relationships. Specifically, Chemers (2000) asserts that leadership relationships are uniquely set apart from other relationships because one individual is assigned to be an authority figure. Each individual must take on a leader/follower role while still remaining dependent on the other for success. The distinction between leadership and other interpersonal encounters is made more prominent when one considers that people in a leadership role do not communicate in the same manner as they

do in non-leadership roles. Role and social expectations dictate the use of certain behaviors that are more appropriate and applicable than others. It is plausible, then, that the communication behaviors of emotionally intelligent leaders would be distinct from those of emotionally intelligent individuals who do not occupy leader roles. More research is needed to examine this possibility.

Implications

Organizations can benefit from the findings of this research. Though many employees have begun to attend workshops or programs intended to increase their EI, these programs may not be based on empirical findings. Some training programs may not teach behaviors that are legitimately "emotionally intelligent" but are rather assumed to be reflective of the construct. However, a recent book by Caruso and Salovey (2004) shows that efforts are being made to develop training programs that are based on the scientific model of EI. Using academic research as their foundation, their book provides organizations and managers with a specific "how-to" training manual for leading with the four facets of EI (Caruso & Salovey, 2004). They present case studies and prescribe tools and exercises needed for learning and improving emotionally intelligent leadership skills. The findings presented here lay the foundation for research-focused training programs similar to the one presented by Caruso and Salovey. Training others to mimic the verbal behaviors associated with high EI might help to improve an individual's overall effectiveness as a leader.

Moreover, the results of this study may provide some practical and ethical considerations for organizations to consider before accepting EI as a predictor of leadership effectiveness. The findings of this study suggest that EI may not be required

by all leaders in order for them to be effective. Some settings, such as the military, may have strict guidelines that require the leader to carry out duties regardless of personal feelings or sentiment. If organizations are made aware that they should first consider leaders' task requirements before assessing employees' EI, they may be able to save time and money by administering EI tests only if they are pertinent. Knowing whether or not EI is indeed a contributor to leadership effectiveness on a given task could potentially save an organization from the legal consequences that may result in using unrelated criteria for selection purposes.

Direction of Future Research

Though this study attempted to sample a wide variety of verbal and nonverbal behaviors, other communicative behaviors exist whose relationship with EI has yet to be established. More sophisticated coding schemes that include followers' behaviors are integral to understanding how leaders' EI dynamically plays out in actual exchanges between leaders and followers. Though practical and methodological considerations would make such research challenging, the contributions to leadership and EI research would be significant. Additionally, the present coding schemes did not incorporate whether the actual content of the leader's message contained positive or negative feedback. For example, studies which investigate how leaders use their emotionally intelligent skills to communicate effectively while still providing negative feedback would show how high EI leaders incorporate the valence of messages within communication behaviors.

Results of this study did not reveal any striking relationships involving followers' EI, but other studies have sparked interest in the topic (see Wong & Law, 2002). Studies

focusing on the impact of follower EI on the leader/follower relationship would provide additional information about the workings of EI within leadership dynamics. Moreover, such studies would be in line with the general trend of leadership research emphasizing the follower role.

Finally, although the laboratory study offers a great deal of control in studying the leadership process, efforts should be made to replicate these results in a field setting. Such research would not only serve to validate the emotionally intelligent behaviors found in this study but also aid in uncovering other behaviors that are germane to leadership interactions. Field research could also help to uncover whether situational variables other than task type influence the association between leader EI and effectiveness.

Table A1

Factor Loadings for Follower Evaluation Items

Component	*1*	*2*	*3*	*Forced 1-factor*
Ideas and contributions were important	.81	.20	.20	.77
Leader considered needs and feelings	.81		.11	.67
My leader made me want to cooperate	.79	.23	.25	.80
Would like to have leader as friend	.72		.41	.73
I liked my leader	.67	.19		.57
My leader gave me all of the information I needed	.82			.50
Completely satisfied with the final product	.17	.77		.49
Impressed with my leader's skills	.31	.72	.33	.75
I would work with my leader again	.53	.56	.36	.84
My leader and I had excellent teamwork	.52	.52	.36	.81
Accomplished more with a different leader	.14	.35	.82	.68
My leader could have worked harder	.16	.32	.76	.65
If my leader showed me more support I would be more motivated	.31	-.33	.71	.40

Table A2

Mean Scores for Measures of Leadership Effectiveness

	n	*M*	*SD*
Followers' evaluation	46	6.43	1.71
Expert ratings	46	3.48	.41
Model scores before feedback	43	10.72	2.42
Model scores after feedback	42	11.79	1.46
Model creativity before feedback	43	1.91	.68
Model creativity after feedback	42	1.98	.64
Followers' single-item			
overall effectiveness	46	6.98	1.64
Expert ratings' single-item			
overall effectiveness	46	3.29	.66
Emotional ratings' single-item			
overall effectiveness	45	3.37	.85

Note. The scales for the measures above are as follows: Follower's Evaluation (0 to 10); Expert Ratings (1 to 5); Model Scores (maximum 14 points); Model Creativity (1 to 3); Emotional Ratings (1 to 5)

Table A3

Mean Ratings for Emotional Ratings and Nonverbal Behaviors and Correlations with EI

	n	*M*	*SD*	*r*	*p*
Emotional ratings	44	3.64	.64	.26	.08
Hand gestures	45	2.46	.48	.08	>.2
Smiles	45	1.99	.72	.06	>.2
Eye contact	45	2.57	.43	.19	>.1
Frowns	45	1.36	.51	-.02	>.2
Shoulder shrugs	45	1.16	.36	-.18	>.1
Object manipulation	45	2.02	.66	-.11	>.1
Head shakes	45	1.16	.30	.09	>.2

Note. All nonverbal behaviors were rated on a scale of 1 to 3.

Emotional ratings were rated on a scale of 1 to 5.

Table A4

Mean Ratings for Verbal Behaviors and Correlations with EI

	n	*M*	*SD*	*r*
1st Person Plural	45	.69	.84	-.16
Assents	45	1.61	1.75	-.24
Positive emotions	45	3.01	1.44	.22
Positive feelings	45	.40	.50	.33*
Sociability	45	8.78	2.30	.30*
Communication	45	1.90	.87	.45**
Optimism	45	.46	.49	.13
1st Person Singular	45	4.09	1.66	.25
Negations	45	1.52	.89	-.15
Negative emotions	45	.40	.48	-.09
Word Count	45	315.61	54.24	.29*
Fillers	45	1.90	1.97	-.41**

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

Note. With the exception of total word count, mean values represent percentage of total words spoken by the leader.

Appendix A

Follower Evaluation Items

1. My leader could have worked harder to accomplish the goal at hand.
2. I am *completely* satisfied with the finished product that my leader and I completed together.
3. If I had to work on a class project, I would choose to work with my leader again.
4. My leader made me feel that my ideas and contributions were important.
5. During our interaction, my leader considered my needs and feelings.
6. My leader made me want to cooperate with him or her.
7. My leader is the kind of person one would like to have as a friend.
8. I am impressed with the skills and knowledge that my leader used to perform his/her job.
9. I would have accomplished more on the task if I worked with a different leader.
10. I like my leader very much as a person.
11. My leader did a good job giving me all of the information that I needed to do my job well.
12. If my leader showed me more support and encouragement, I may have been more motivated to perform better.
13. My leader and I had *excellent* teamwork.
14. Think carefully. Considering the comments that you provided in the first part of this evaluation, and the responses that you provided for the previous 13 items, please provide your overall rating for your leader.

15. What would you consider to be the ideal leader in the work simulation you just participated? (open-ended)
16. Compared to the response that you provided for Question (15), please list your leader's strengths. (open-ended)
17. Compared to the responses that you provided for Question (15) and Question (16), please list your leader's weaknesses (What could your leader have done better?). (open-ended)

Appendix B

Expert Rating Items

1. Displayed confidence and comfort in role as leader
2. Actively created opportunities for follower to ask questions, express opinions, provide responses.
3. Was responsive when follower spoke
4. Gave specific examples of behavior when giving ratings, comments, etc.
5. Gave performance evaluation in a well structured, organized manner
6. Gave specific suggestions/examples for how to improve performance or correct weaknesses
7. Spoke in a manner that was easy to understand
8. Gave feedback that was well balanced between positives and negatives
9. Discussed each item patiently and thoroughly (did not rush)
10. Was fully engaged and focused during performance evaluation
11. Demonstrated respect and sensitivity for follower
12. Please rate the overall effectiveness of the leader on a scale of 1 to 5 where 1 means “very poor” and 5 means “very good.”

Appendix C

Operational Definitions of Emotional Behaviors

1. *Perspective Taking* – The ability to place oneself in another's shoes; understanding the feelings/emotions/experience of another and trying to see a situation from that person's point of view

   Examples of Behavior:

   - A leader shows that he/she really tried to see what the follower actually had to do in order to complete the task (i.e. shows recognition of difficulty; mentions understanding of time constraints; "I understand that this task must have been really difficult for you…"; "It must have been really hard for you to…")
   - A leader may ask questions that reflect an effort to understand the follower's perspective/feelings. (i.e. A leader may ask, "Is there anything that was unclear?" "How can I help you…")

2. *Emotionally Expressive* – The ability to communicate emotion either through emotionally laden words, expressions, or nonverbal expression (facial expressions, vocal tone); doesn't appear void of emotion

   Examples of Behavior:

   - A leader openly expresses his/her own emotions. (i.e. "I am really happy with the job that you did")
   - A leader may use words that are more emotional than others. (i.e. "I think you did a really awesome job" vs. "That was good.")

- Easy to detect emotion from the leader or sense that overall they are energetic, excited, pleased, disappointed, enthusiastic, angry, frustrated, etc.
- Leader is not "emotionally flat" (i.e. shows little to no emotion; maintains same facial expression or tone of voice regardless of content of message)

3. *Openness* – The ability to stay open to one's own feelings, even those that may be unpleasant by inviting discussion, welcoming feedback, asking questions, seeking additional information

   Examples of Behavior:

   a. A leader creates opportunities for follower to voice opinions, comments, etc.; asks follower for feedback instead of simply talking at the follower (i.e. Leader may probe for more information "Does that make sense to you?" "Is there anything more that you want to share with me?")
   b. When follower does offer something that may be in disagreement, the leader is not defensive and doesn't cut the follower off. Instead, the leader listens and acknowledges what the follower is saying either by probing or showing acceptance, etc. (i.e. "I see what you're saying…" "Could you tell me more about that…")

4. *Genuine* – Authentic, sincere, not faking anything; straightforward and honest. It is easy to trust that what the person is saying is true.

Examples of Behavior:

c. Leader's verbal message is consistent with his/her nonverbal communications i.e. leader smiles when he or she is being encouraging; leader may frown when apologizing.

d. Leader follows through with what is said i.e. gives positive feedback when he expressing pleasure with the follower's work

5. *Warm* – Friendly, inviting; shows acceptance

Examples of Behavior:

a. Leader doesn't appear as gruff or standoffish

b. Leader makes attempts to make follower feel comfortable (i.e. introduces self; appears relaxed)

6. *Socially Awkward* – Appears uncomfortable; doesn't know how to react or respond; appears unnatural

Examples of Behavior:

a. Leader may fumble over words, or experience loss of words (i.e. "Um..er..well…") act nervous, or appear jittery

b. May express nervous laughter or otherwise appear to not know how to react/behave

c. May appear to rush through conversation to get it over with

7. *Engaged* – Focused, attentive, makes effort; appears interested in person and the task

Examples of Behavior:

a. Leader shows that he/she really cares about getting the job done; 100% focus on getting the job done (i.e. clarifies what is being said; gives a lot of suggestions; tries to get follower involved)

b. Sends message that giving performance evaluation is first priority

8. *Respectful* – Shows consideration for other person's feelings; is not dismissive or rude

Examples of Behavior:

a. Leader uses polite language

b. Leader does not interrupt what follower says (waits until follower is finished speaking before speaking)

c. Leader does not dismiss what follower says by not responding or not addressing follower's thoughts/ideas/feelings.

9. *Motivational* – Has ability to positively influence another; instills the desire to want to perform better or improve; uplifting; inspiring

Examples of Behavior:

a. Leader expresses words of encouragement; gives brief pep talks i.e. "I know we can do this…" "You did a great job"

Appendix D

Operational Definitions of Nonverbal Behaviors

1. *Smiles* **-** Leader shows upturned corners of the mouth
2. *Frowns* – Leader shows downturned corners of the mouth
3. *Eye contact* – Leader looks directly at follower when speaking or when follower speaks to leader (regardless of whether or not follower is looking at leader)
4. *Head Nod* – Leader moves head in vertical motion
5. *Head Shakes* – Leader moves head in horizontal motion
6. *Hand Gestures* **–** Leader makes motions with hands (i.e. pointing, mimics drawing, thumbs up sign, high fives, etc.)
7. *Shoulder Shrugs* **–** Leader lifts shoulder above neck level
8. *Cross of arms* **–** Leader folds arms across chest
9. *Object manipulation* **–** Leader plays or "fidgets" with objects/materials (i.e. twirls pen; taps fingers on desk; twirls hair; runs fingers through hair; touches face; plays with Legos; taps paper to face, etc.); movements that seem to be made without a specific purpose in mind (not to punctuate a statement or elaborate on an idea, etc.)

Appendix E

Examples of Words Contained in LIWC Categories

CATEGORY	WORDS
1st Person Singular	I, I'd, I'll, I'm , me, mine, my, myself
1st Person Plural	let's, our ours ourselves, us, we'd, we'll, we're we've
Negations	Didn't, doesn't, don't, hadn't, hasn't, haven't, isn't, nothing, nowhere, nope, no, none, not, without, won't
Assent	Ok, yes, yeah, alright, agree, fine, accept, accepting
Positive Emotion	Accept, beautiful, awesome, affection, agree, determined, easy, encourage, perfect, pleasing, promising, rich, romantic
Positive Feeling	Adore, affection, giggling, glad, like, love, passion, grateful, enjoy
Optimism	Award, best, bold, brave, challenge, commitment, confident, daring, definite, easy, glory, hero, inspire, super
Negative Emotion	Arrogant, assault, bewildered, boring, burden, cheat, careless, cruel, defeat, temper, ugly, unsure, upset, uncertain, defect, fail, flunk, disgust, dislike
Sociability	Admits, adult, advice, anybody, ask, friend, buddy, buddies, him, confide, contact, dad, daughter, everything, expresses, families, forgiving, herself, group, guest, hello, help, listen, meet, neighbor
Communication	Apology, advice, ask, communicate, counsel, describe, explain, gives, gossips, heard, talk, meet, interact, question, share, spoke, suggested
Fillers	I don't know, I mean, oh well, whatever, ya know,

Appendix F

Building Guidelines for Interpersonal Task

Background information:

The construction will be a scaled-down model of a building that will accommodate approximately 1000 students. 250 of whom are junior high students. Therefore, one part of the school will be dedicated specifically to junior high and must be clearly distinguished in the model. However, the entire school must be housed in one building.

Entrances:

To adhere to fire code regulations, there must be at least four entrances, one on each side of the building. Additionally, the main entrance in the front of the building must be twice as large and clearly distinguishable compared to all others. It must have at least one window on either side of the entrance.

Special Features:

Of the four entrances, two must be wheelchair accessible. The exact number of windows for the building will be determined at a later date. However, one window should be placed on every side of the school to designate a row of window to be placed there.

Note: Entrances can be marked by using door pieces.

Windows can be marked by using window pieces.

Pieces that are slanted on one side can be used as ramps.

Also, remember that you will be evaluating your follower on the following dimensions:

- creativity
- use of time (follower has 20 minutes)
- attention to detail

Appendix G

Example Rating Sheet for Follower's Performance

Attention to Detail

SOME POINTS TO THINK ABOUT:

You should first review the guidelines given to your subordinate. You are to use these guidelines to help you evaluate your employee's performance on building the model of the school. You may also want to refer back to the planning meeting that you first held with your follower and determine whether he or she followed the plan that you both discussed.

- Please tell your follower your rating on a scale of 1 ("poor") to 5 ("excellent") for "Attention to Detail"

RATING for "ATTENTION TO DETAIL": _____

STRENGTHS:

WEAKNESSES:

Appendix H

Building Guidelines for Structural Task

The following are instructions for building the model. You must follow each guideline step by step. You may provide the follower with any information that you think will help accomplish each step successfully. However, you may NOT take part in the actual building of the model. Be sure to read through all the instructions before you begin directing the follower.

1. The model must be built using only those materials (Legos) that reflect Landon Memorial's school colors: Red, Yellow, and Blue.
2. As you are building the model, keep in mind that there should be no empty spaces between any of the Legos for the walls of the structure (you do not have to fill in the floor or build a roof).
3. At the front of the building, there should be a main entrance marked with two doors.
4. The main entrance should be clearly distinguished from all other entrances. That is, it should have some kind of unique marking around it, to make it different from the others.
5. There must be a window on either side of the main entrance.
6. In front of the building, there should be a structure built which symbolizes a fountain.
7. There should be one entrance on each side of the building, but only one door should be used to mark each.

8. On one side of the model, the entrance should be marked with a ramp. (There should be a Lego piece that is has one side that is slanted at a 45 degree angle.) to symbolize wheelchair accessibility.
9. There should be two windows at the back of the building. A border of white Legos should surround each window.
10. There should be one window on each of the remaining sides of the building

Bibliography

Ambady, N., Bernieri, F.J., & Richeson, J.A. (2000). Toward a histology of social behavior: Judgmental accuracy from thin slices of the behavioral stream. *Advances in Experimental Social Psychology, 32,* 201-271.

Anderson, J.D., Pellowski, M.W., Conture, E.G., & Kelly, E.M. (2003). Temperamental characteristics of young children who stutter. *Journal of Speech, Language and Hearing Research, 46,* 1221-1223.

Ashforth, B.E. & Humphrey, R.H. (1995). Emotion in the Workplace: A reappraisal. *Human Relations, 48,* 97-125.

Avolio, B.J. (2007). Promoting more integrative strategies for leadership theory-building. *American Psychologist 62,* 25-33.

Awamleh, R., & Gardner, W.L. (1999). Perceptions of leader charisma and effectiveness: The effects of vision content, delivery, and organizational performance. *Leadership Quarterly, 10,* 345-373.

Babdad, E., Bernieri, F., & Rosenthal, R. (1991). Students as judges of teachers' verbal and nonverbal behavior. *American Educational Research Journal, 28,* 211-234.

Baker, D.D., & Ganster, D.C. (1985). Leader communication style: A test of average versus vertical dyad linkage models. *Group and Organization Studies, 10,* 242-259.

Barbuto, J.E. Jr., & Burbach, M.E. (2006). The emotional intelligence of transformational leaders: A field study of elected officials. *The Journal of Social Psychology, 146,* 51-64.

Barlow, S., Hansen, W.D., Fuhrimna, A.J., & Finley, R. (1982). Leader communication style: Effects on members of small groups. *Small Group Behavior, 13,* 518-531.

Bar-On, R. (1997a) . *Bar-On Emotional Quotient Inventory: A Measure of Emotional Intelligence.* Toronto, ON: Multi-Health Systems, Inc.

Bar-On, R. (1997b). *Emotional Quotient Inventory: Technical Manual.* Toronto: Multi-Health Systems, Inc.

Baron, R.M., & Kenny, D.A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical consideration. *Journal of Personality and Social Psychology, 51,* 1173-1182.

Barrick, M.R., & Mount, M.K., (1996). Effects of impression management and self-deception on the predictive validity of personality constructs. *Journal of Applied Psychology, 81,* 261-272.

Bass, B.M. (1990). *Bass and Stogdill's Handbook of Leadership* (3rd ed.). New York: Free Press.

Bass, B.M., & Avolio, B.J. (1990). Developing transformational leadership: 1992 and beyond. *Journal of European Industrial Training, 14,* 21-27.

Bass, B.M., & Avolio, B.J. (1997). *Multifactor Leadership Questionnaire Manual.* Palo Alto, CA: Mindgarden.

Brackett & Mayer (2003). Convergent, discriminant, and incremental validity of competing measures of emotional intelligence. *Personality and Social Psychology Bulletin, 29,* 1147-1158.

Brackett, M.A., Mayer, J.D., & Warner, R.M. (2004). Emotional intelligence and its relation to everyday behaviour. *Personality and Individual Differences 36,* 1387-1402.

Brackett, M.A., Rivers, S.E., Shiffman, S., Lerner, N., & Salovey, P. (2006). Relating emotional abilities to social functioning: A comparison of self-report and performance measures of emotional intelligence. *Journal of Personality and Social Psychology, 91,* 780-795.

Brown, F.W., & Moshavi, D. (2005). Transformational leadership and emotional intelligence: A potential pathway for an increased understanding of interpersonal influence. *Journal of Organizational Behavior, 26,* 867-871.

Burns, J.M. (1978). *Leadership.* New York: Harper & Row.

Cantor, N., & Kihlstrom, J.F. (1989). Social intelligence and cognitive assessments of personality. In R.S. Wyer, & T.K. Srull, *Advances in Social Cognition* (pp. 103-147). Hillsdale, NJ: Lawrence Erlbaum.

Carlyle, T (1907). *Heroes and Hero Worship.* Boston, MA: Adams.

Carrothers, R.M., Gregory, S.W., & Gallagher, T.J. (2000). Measuring emotional intelligence of medical school applicants. *Academic Medicine, 75,* 456-463.

Caruso, D.R., Mayer, J.D., & Salovey, P. (2001). Emotional intelligence and emotional leadership. In R.E. Riggio, S.E. Murphy, & F.J. Pirozzolo (Eds.), *Multiple Intelligences and Leadership* (pp. 55-74). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Caruso, D.R.& Salovey, P. (2004). *The Emotionally Intelligent Manager: How to Develop and Use the Four Key Emotional Skills of Leadership.* San Francisco: Josey-Bass.

Chemers, M.M. (2000). Leadership research and theory: A functional integration. *Group Dynamics: Theory Research, and Practice, 4,* 27-43.

Ciarrochi, J.V., Chan, A.Y.C., & Caputi, P. (2000). A critical evaluation of the emotional intelligence concept. *Personality and Individual Differences, 28,* 539-561.

Conger, J.A. & Kanungo, R.N. (1988). The empowerment process: Integrating theory and practice. *Academy of Management Review, 13,* 471-482.

Conger, J.A. & Kanungo, R.N. (1994). *Charismatic Leadership in Organizations.*

Cote, S. & Miners, C. (2006). Emotional intelligence, cognitive intelligence, and job performance. *Administrative Science Quarterly, 51,* 1-28.

Cronbach, L.J. (1960). *Essentials of Psychological Testing* (2nd ed.). New York: Norton.

Dansereau, F., Alutto, J.A., and Yammarino, F.J. (1984). Theory Testing in Organizational Behavior: The Variant Approach. Englewood Cliffs, NJ: Prentice-Hall. (In Dansereau, 1995 "A Dyadic Approach to Leadership: Creating and Nurturing This Approach Under Fire" *Leadership Quarterly 6,*(4), 479-490.

Davies, M., Stankov, L., & Roberts, R.D. (1998). Emotional intelligence: In search of an elusive construct. *Journal of Personality and Social Psychology, 75,* 989-1015.

DePaulo, B.M. (1992). Nonverbal behavior and self-presentation. *Psychological Bulletin, 111,* 203-243.

Dienstbier, R.A. (1984). The role of emotion in moral socialization. In C.E. Izard, J.Kagan, & R.B. Zajonc (Eds.), *Emotions, Cognition, and Behavior* (pp. 484-514). Cambridge, MA: Cambridge University Press.

Eckman, P., Friesen, W.V., & Ellsworth, P. (1972). *Emotion in the Human Face.* New York: Pergamon.

Edwards, J.E., Rode, L.G., Ayman, R. (1989). The construct validity of scales form four leadership questionnaires. *The Journal of General Psychology, 116,* 171-181.

Fiedler, F.E. (1964). A contingency model of leadership effectiveness. In L. Berkowitz (Ed.), *Advances in Experimental Social Psychology 1,* New York: Academic Press, 149-190.

Fisher, C.D. & Ashkanasy, N.M. (2000). The emerging role of emotions in work life: an introduction. *Journal of Organizational Behavior, 21,* 123-129.

Friedman, H.S., & Miller-Herringer, T. (1991). Nonverbal display of emotion in public and in private: Self-Monitoring, Personality, and Expressive Cues. *Journal of Personality and Social Psychology, 61,* 766-775.

Galton, F. (1869). *Hereditary Genius: An Inquiry into its Laws and Consequences.* London: Macmillan and Co.

Gardner, H. (1983). *Frames of Mind: The Theory of Multiple Intelligences.* New York: Basic Books.

George, J. (2000). Emotions and leadership: The role of emotional intelligence. *Human Relations, 53,* 1027-1055.

George, J. & Brief, A.P. (1992). Feeling good – doing good: A conceptual analysis of the mood at work – organizational spontaneity relationship. *Psychological Bulletin, 112,* 310-329.

Goleman, D. (1995). *Emotional Intelligence.* New York: Bantam Books.

Graen, G. & Cashman, J. (1975). A role-making model of leadership in formal organizations: A developmental approach. In J.G. Hunt & L.L. Larson (eds.), *Leadership Frontiers.* Ohio: Kent State University, p. 143-165.

Grandey, A.A. (2000). Emotion regulation in the workplace: A new way to conceptualize emotional labor. *Journal of Health Psychology, 5,* 95-110.

Guilford, J.P. (1967). *The Nature of Human Intelligence.* New York: McGraw-Hill.

Hatfield, E., Cacioppo, J., & Rapson, R.L. (1992). Primitive emotional contagion. In M.S. Clark (Ed.), *Review of Personality and Social Psychology, 14,* 151-177.

Hecht, M.A., & LaFrance, M. (1995). How (fast) can I help you? Tone of voice and telephone operator efficiency in interactions. *Journal of Applied Social Psychology, 25,* 2086-2098.

Hemphill, J.K. (1950). *Leader Behavior Description.* Columbus: Ohio State University Personnel Research Board.

Herrnstein, R. & Murray, C. (1994). *The Bell Curve: Intelligence and Class Structure in American Life.* New York: Free Press.

Hoffman, M.L. (1984). Interaction of affect and cognition in empathy. In C.E. Izard, J.Kagan, & R.B. Zajonc (Eds.), *Emotions, Cognition, and Behavior.* (pp. 103-131). Cambridge, MA: Cambridge University Press.

Hogan, R., Curphy, G.J., & Hogan, J. (1994). What we know about leadership effectiveness and personality. *American Psychologist, 49,* 493-504.

Holladay, S.J., & Coombs, W.T. (1993). Communicating visions: An exploration of the role of delivery in the creation of leader charisma. *Management Communication Quarterly, 6,* 405-427.

Holladay, S.J., & Coombs, W.T. (1993). Speaking of visions and visions being spoken: An exploration of the effects of content and delivery in the perceptions of leader charisma. *Management Communication Quarterly, 8,* 165-189.

Hollander, E.P. & Offermann, L.R. (1990). Power and leadership in organizations: Relationships in transition. *American Psychologist, 45,* 179-189.

Honeycutt, J.M., & Worobey, J.L. (1987). Impressions about communication styles and competence in nursing relationships. *Communication Education 36,* 217-227.

Hoschild, A.R. (1983). *The Managed Heart: Commercialization of Human Feelings.* Berkeley, CA: University of California Press.

Howell, J.M., & Frost, P.J. (1989). A laboratory study of charismatic leadership. *Organizational Behavior and Human Decision Processes, 43,* 243-269.

House, R.J., & Mitchell, T.R. (1974). Path-goal theory of leadership. *Journal of Contemporary Business, 3,* 81-97.

Humphrey, R.H. (2002). The many faces of emotional leadership. *The Leadership Quarterly, 13,* (493-504).

Isen, A.M., Daubman, K.A., & Nowicki, G.P. (1987). Positive affect facilitates creative problem solving. *Journal of Personality and Social Psychology, 52,* 1122-1131.

Johlke, M.C., Duhan, D.F., McClatchey, C.A. (2001). Supervisor communication practices and boundary spanner role ambiguity. *Journal of Managerial Issues, 13,* 87-102.

Judge, T.A., Bono, J.E., Ilies, R., Gerhardt, M.W. (2002). Personality and leadership: A qualitative and quantitative review. *Journal of Applied Psychology, 87,* (765-780).

Karrass, J.; Walden, T.A.; Conture, E.G. (2006). Relation of emotional reactivity and regulation to childhood stuttering. *Journal of Communication Disorders, 39,* 402-423.

Kelly, J.R. & Barsade, S.G. (2001). Mood and emotions in small groups and work teams. *Organizational Behavior and Human Decision Processes, 86,* 99-130.

Kirpatrick, S.A., & Locke, E.A. (1991). Leadership: Do traits matter? *Academy of Management Executive,* 48-58.

Korsgaard, M.A., Brodt, S.E., & Whitener, E.M. (2002). Trust in the face of conflict: The role of managerial trustworthy behavior and organizational context. *Journal of Applied Psychology, 87,* 312-319.

Lam, L.T. & Kirby, S.L. (2002). Is emotional intelligence an advantage? An exploration of the impact of emotional and general intelligence on individual performance. *The Journal of Social Psychology, 142* (1), 133-143.

Larson, L.L., Hunt, J.G., & Osborn, R.M. (1976). The great hi-hi leader behavior myth: A lesson from Occam's razor. *Academy of Management Journal, 19,* 628-641.

Lewis, K.M. (2000). When leaders display emotion: How followers respond to negative emotional expression of male and female leaders. *Journal of Organizational Behavior, 21,* 221-234.

Liden, R.C., & Maslyn, J.M. (1998). Multidimensionality of Leader-Member Exchange: An empirical assessment through scale development. *Journal of Management 24,* 43-72.

Lopes, P.N., Brackett, M.A., Nezlek, J.B., Schutz, A., Selin, I., & Salovey, P. (2004). Emotional intelligence and social interaction. *Personality and Social Psychology Bulletin 30*, 1018-1034.

Lopes, P.N., Salovey, P., Cote, S., & Beers, M. (2005). Emotion regulation abilities and the quality of social interaction. *Emotion, 5,* 113-118.

Mann, R.D. (1959). A review of the relationships between personality and performance in small groups. *Psychological Bulletin 56,* 241-270.

Martinez-Pons, M. (1997). The relation of emotional intelligence with selected areas of personal functioning. *Imagination, Cognition, and Personality, 17,* 3-13.

Mayer, J.D., Carlsmith, K.M., & Chabot, H.F. (1998). Describing the persons' external environment: conceptualizing and measuring the life space. *Journal of Research in Personality, 32,* 253-296.

Mayer, J.D., Caruso, D.R., & Salovey, P. (1999). Emotional intelligence meets traditional standards for an intelligence. *Intelligence, 27,* 267-298.

Mayer, J.D., Dipaolo, M., & Salovey, P. (1990). Perceiving affective content in ambiguous visual stimuli: A component of emotional intelligence. *Journal of Personality Assessment, 54,* 772-781.

Mayer, J.D. & Geher, G. (1996). Emotional intelligence and the identification of emotion. *Intelligence, 22,* 89-113.

Mayer, J.D. & Salovey, P. (1993). The intelligence of emotional intelligence. *Intelligence, 17,* 433-442.

Mayer, J.D. & Salovey, P. (1995). Emotional intelligence and the construction and regulation of feelings. *Applied and Preventive Psychology, 4,* 197-208.

Mayer, J.D. & Salovey, P. (1997). What is emotional intelligence? In P. Salovey & D. Sluyter (Eds.), *Emotional Development and emotional intelligence: Implications for educators.* (pp. 3-31).

Mayer, J.D., Salovey, P., & Caruso, D.R. (2004). Emotional intelligence: Theory, findings, and implications. *Psychological Inquiry, 15,* 197-215.

Mayer, J.D., Salovey, P., & Caruso, D.R. (2002). *Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) User's Manual.* Toronto, Ontario: Multi-Health Systems.

Mayer, J.D., Salovey, P., Caruso, D.R., & Sitarenios, G. (2001). Emotional intelligence as a standard intelligence. *Emotion, 1,* 232-242.

Mayer, J.D., Salovey, P., Caruso, D.R., & Sitarenios, G. (2003). Measuring emotional intelligence with the MSCEIT V2.0. *Emotion, 3,* 97-105.

Mayer, J.D., Salovey, P., Gomberg-Kaufman, & Blainey, K. (1991). A broader conception of mood experience. *Journal of Personality and Social Psychology, 60,* 100-111.

Meindl, J.R. (1995). The romance of leadership as a follower-centric theory: A social constructionist approach. *Leadership Quarterly, 6,* 329-341.

Morand, D.A. (2001). The emotional intelligence of managers: Assessing the construct of validity of a nonverbal measure of "people skills." *Journal of Business and Psychology, 16,* 21-33.

Newsome, S., Day, A.L., & Catano, V.M. (2000). Assessing the predictive validity of emotional intelligence. *Personality and Individual Differences, 29,* 1005-1016.

Pennebaker, J.W., Frnacis, M.E., & Booth, R.J. (2001). *Linguistic Inquiry and Word Count (LIWC 2001): A computer-based test analysis program.* Mahwah, NJ: Lawrence Erlbaum Publishers.

Perrow, C. (1970). *Organization Analysis: A Sociological View.* Belmont, CA: Wadsworth.

Prickett, T., Gada-Jain, N., & Bernieri, F.J. (1999). First impression in a job interview: The first 20 seconds. Manuscript in Preparation, University of Toledo.

Rafaeli, A. & Sutton, R.I. (1987). Expression of emotion as part of the work role. *Academy of Management Review, 12,* 23-37.

Ree, M.J. & Earles, J.A. (1993). *g* is to psychology what carbon is to chemistry: A reply to Sternberg and Wagner, McClelland, And Calfee. *Current Directions in Psychological Science, 1,* 11-12.

Riggio, R.E. (1989). *Social Skills Inventory Manual.* Palo Alto, CA: Consulting Psychologists Press.

Riggio, R. E., & Friedman, H. S. (1983). Individual differences and cues in deception. *Journal of Personality and Social Psychology, 45,* 899-915.

Riggio, R.E., & Friedman, H.S. (1986). Impression formation: The role of expressive behavior. *Journal of Personality and Social Psychology, 50,* 421-427.

Roberts, R.D., Zeidner, M., & Matthews, G. (2001). Does emotional intelligence meet standards for an intelligence? Some new data and conclusions. *Emotion, 1,* 196-231.

Salovey, P., & Grewal, D. (2005). The science of emotional intelligence. *Current Directions in Psychological Science, 14,* 281-285.

Salovey, P., & Mayer, J.D. (1990). Emotional Intelligence. *Imagination, Cognition, and Personality, 9,* 185-211.

Schmidt, F.L. & Hunter, J.E. (1993). Tacit knowledge, practical intelligence, general mental ability, and job knowledge. *Current Directions in Psychological Science,* 8-9.

Schutte, N.S., Malouff, J.M., Bobik, C., Coston, T.D., Greeson, C., Jedlicka, C., Rhodes, E., & Wendorf, G. (2001). Emotional intelligence and interpersonal relations. *The Journal of Social Psychology, 141,* 523-536.

Silver, M.A. (1999). Emotional intelligence and legal education. *Psychology, Public Policy, and Law, 5,* 1173-1203.

Snyder, M. (1974). Self-monitoring of expressive behavior. *Journal of Personality and Social Psychology, 30,* 526-537.

Sorenson, R.L., & Savage, G.T. (1989). Signaling participation through relational communication. *Group & Organization Studies, 14,* 325-354.

Sosik, J.J., & Megerian, L.E. (1999). Understanding leader emotional intelligence and performance: The role of self-other agreement on transformational leadership perceptions. *Group & Organization Management, 24,* 367-390.

Sternberg, R.J. (1985). *Beyond IQ: A triarchic theory of human intelligence.* New York: Viking.

Stogdill, R.M. (1948). Personal factors associated with leadership: A survey of the literature. *Journal of Psychology, 25,* 35-71.

Thorndike, E.L. (1920). Intelligence and its uses. *Harper's Magazine,* 140, 227-235.

Thorndike, E.L. & Stein, S. (1937). An evaluation of the attempts to measure social intelligence. *Psychological Bulletin, 34,* 275-284.

Trice, H.M. & Beyer, J.M. (1993). *The cultures of work organizations.* Englewood Cliffs, NJ: Prentice Hall.

Van Maanen, J., & Kunda, G. (1989). "Real feelings": Emotional expression and organizational culture. *Research in Organizational Behavior, 11,* 43-103.

Vroom, V.H., & Jago, A.G. (2007). The role of the situation in leadership. *American Psychologist, 62,* 17-24.

Walker, R.E., & Foley, J.M. (1973). Social Intelligence: Its history and measurement. *Psychological Reports, 33,* 839-864.

Wechsler, D. (1958). *The Measurement and Appraisal of Adult Intelligence.* (4^{th} ed.). Baltimore, MD: The Williams & Wilkins Company.

Weinstein, E.A. (1969). The development of interpersonal competence. In D.A. Goslin (Ed.), *Handbook of Socialization Theory and Research.* Rand McNally, Chicago.

Wong, C., & Law, K.S. (2002). The effects of leader and follower emotional intelligence on performance and attitude: An exploratory study. *The Leadership Quarterly, 13,* 243-274.

Yrle, A.C., Hartman, S., & Galle, W.P. (2002). An investigation of relationships between communication style and leader-member exchange. *Journal of Communication Management, 6,* 257-268.

Yukl, G. (1998). *Leadership in Organizations.* (4th ed.) Upper Saddle River, NJ: Prentice-Hall.

Yukl, G., & Van Fleet, D.D. (1992). Theory and research on leadership in organizations. In M.D. Dunnette and L.M. Hough (Eds.), *Handbook of Industrial Organizational Psychology, 3,* Palo Alto, CA: Consulting Psychologists Press, 147-197.

Yukl, G., Wall, S., & Lepsinger, R. (1990). Preliminary report on the validation of the management practices survey. In K.E. Clark & M.B. Clark (Eds.), *Measures of Leadership,* West Orange, NJ: Leadership Library of America, 223-238.