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TRANSFORMATIONAL LEADERSHIP

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## ABSTRACT

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Transformational leadership has been one of the most heavily researched theories of leadership of the past 25 years, largely because this style has been associated with a wide range of positive individual- and organizational-level outcomes. Despite the need for transformational leaders, the antecedents of transformational leadership behavior remain ambiguous. Numerous potential antecedents of transformational leadership have been identified in the past, but this research has focused on popularly addressed or commonly measured variables rather than characteristics with a strong theoretical link to transformational leadership. The current study expands on past research by examining a theoretically driven predictor of transformational leadership behavior. Specifically, the current study will examine whether a leader's implicit person theory (IPT) will be a predictor of leadership behaviors. This theory was chosen as a potential antecedent because it centers on the concept of malleability or change, and as such shares a strong intuitive connection with transformational leadership (which itself places a heavy emphasis on change and growth). Results did not support our hypotheses, however, as regression analysis revealed that IPT failed to account for significant variation in leadership behavior after accounting for some of the most commonly examined

predictors in the literature, (the Big Five personality traits). Limitations of the current study and opportunities for future research are discussed.

## INTRODUCTION

The recognition of strong leadership as a critical factor for organizational success is not new. The great French military leader, Napoleon, once declared that an army of sheep led by a lion could defeat an army of lions led by a sheep (Bass, 1990). Evidence that leadership is still a topic of great interest in society is not hard to find. Each day stories appear in newspapers and other media discussing instances of successful leadership or disappointing failure by those in charge, from political leaders to the chief executive officers of business and industry. Few would debate the importance to organizations of identifying ways to harness the positive effects of high-quality leadership.

With the vast amount of attention given to the topic, countless theories have been posited regarding what constitutes successful leadership. One theory that has received tremendous attention over the past 25 years is Full Range Leadership Theory, the origins of which were first introduced in 1978 by James MacGregor Burns (Judge & Piccolo, 2004). This theory suggests that leaders can display a full range of leadership styles, categorized as transformational, transactional and laissez-faire behavior (Bass & Riggio, 2006). While the vast majority of leaders exhibit some degree of both transformational and transactional behavior, those leaders exhibiting a higher level of transformational behavior tend to be most effective (Judge & Piccolo, 2004). As will be detailed later,



transformational leadership has been shown to have a positive impact on important outcomes such as job satisfaction, motivation, performance, worker effectiveness and perceptions of leader effectiveness (Bass, 1999; Judge & Piccolo, 2004; Lowe, Kroeck, & Sivasubramaniam, 1996; Parry & Sinha, 2004). At the core of transformational leadership behavior is the concept of change; transformational leaders stimulate and inspire followers to achieve beyond current expectations, driving growth within followers and the development of the organization as a whole. In short, the research suggests that organizations should seek to obtain transformational leadership in order to maximize organizational success (Bass, 1999).

To this end, the proposed study seeks to examine potential antecedents of transformational leadership. This is a needed area of research, as evidenced by the recent call for additional investigation regarding antecedents of transformational leadership by Avolio, Walumbwa, and Weber (2009). Avolio et al (2009) stated that, despite the tremendous focus on the topic by leadership researchers, little is known about why some leaders engage in more transformational behavior or what factors may predict transformational leadership. Given the heavy emphasis on change and growth in transformational leadership, the current study will examine whether a leader's implicit person theory will be a predictor of leadership behaviors. This theory was chosen as a potential antecedent because it centers on the concept of malleability or change, and as such shares a strong intuitive connection with transformational leadership. Specifically, the current research will examine if people who hold the belief that individual attributes and performance can be changed (*incremental* implicit person theory) are more likely to exhibit the behaviors characteristic of transformational leaders than people who believe

that individual attributes and performance are fixed and trait-like (*entity* implicit person theory).

This review will begin with an explanation of Full Range Leadership Theory, focusing on transformational and transactional leadership (laissez-faire leadership, or the absence of leadership behavior, is rarely discussed in the literature). The outcomes and antecedents associated with transformational leadership will be examined, followed by a discussion of implicit person theory and why the proposed relationship with transformational leadership is theoretically justified. Finally, the goals of the current study will be summarized and the practical and theoretical implications of this research will be discussed.

### The Full Range of Leadership

As mentioned above, Full Range Leadership Theory describes transformational, transactional, and laissez-faire leadership. Most attention has been focused on the transformational and transactional styles, while laissez-faire leadership (or the absence of leadership) is rarely discussed and considered to be separate (Bass & Riggio, 2006). Burns (1978) first suggested transformational and transactional leadership as opposite ends of a continuum, but Bass (1985) modified this theory by arguing that transformational and transactional leadership are two entirely separate constructs (Judge & Piccolo, 2004). Although the behaviors inherent in these two leadership styles are quite different, most leaders engage in both sets of behaviors to some degree (Bass, 1985). Based on this assertion, the Full Range Leadership Theory suggests that every leader displays some degree of both transformational and transactional behavior, but that each

leader's profile involves more of some behaviors and less of the others (Bass, 1999). The ensuing sections will describe transformational and transactional leadership in greater detail. Laissez-faire leadership will not be discussed in further detail because it is generally accepted as an ineffective leadership strategy and considered separate from transformational and transactional leadership (Bass & Riggio, 2006).

### Transformational Leadership

Transformational leadership was first defined by Burns (1978) as a set of behaviors where leaders work with followers to collaboratively achieve higher levels of motivation and performance than ever thought possible (Humphreys & Einstein, 2003). As mentioned above, Bass expanded upon Burns' model of transformational leadership in 1985 by specifying the behaviors associated with transformational leadership while also further clarifying their effect on followers and organizations (Humphreys & Einstein, 2003). Transformational leaders exhibit four key behaviors: idealized influence, inspirational motivation, intellectual stimulation and individualized consideration (Bass, 1999). These four behaviors create identification with and dedication to the goals, interests and values of the leader while simultaneously helping followers to develop their own skills, fulfill their own needs and think more creatively. In doing so, the four behaviors of transformational leadership stimulate and inspire followers to achieve extraordinary outcomes, such as higher levels of satisfaction and improved performance (Bass & Riggio, 2006).

The first of the four key transformational behaviors is *idealized influence*. Idealized influence involves providing followers with an energizing purpose, modeling

ethical conduct, and encouraging followers to identify with a vision for the future (Avolio, Bass, & Jung, 1999). Put differently, idealized influence is the degree to which a leader behaves in admirable ways causing followers to identify with and want to follow the leader (Judge & Piccolo, 2004). It is worth noting that this behavior is sometimes referred to as *charisma* rather than idealized influence, although idealized influence has been the accepted description of this behavior since Bass and Avolio argued for the change in terminology in 1991 (Bass, 1999). The substitution of the term idealized influence is intended to represent that this behavior is much more than a degree of personal magnetism; rather, idealized influence refers to influencing the ideals and goals of followers in an admirable and moral manner (Bass, 1999). Exhibiting idealized influence requires more than just charm or an alluring personality, as the behavior also involves displaying conviction, taking moral stands and appealing to followers on an emotional level (Judge & Piccolo, 2004). A sample item from the Multifactor Leadership Questionnaire (the most common measure of Full Range Leadership Theory), or MLQ, that represents idealized influence is “The leader emphasizes the importance of having a collective sense of mission” (Bass & Riggio, 2006).

*Inspirational motivation* refers to a leader’s ability to articulate goals and a future-oriented vision to followers in an inspiring manner (Sosik & Cameron, 2010). Leaders who engage in inspirational motivation challenge followers with high standards, communicate optimism about future goal attainment, and provide meaning for the task at hand (Judge & Piccolo, 2004). Some leadership theorists combine idealized influence and inspirational motivation into one category because both behaviors involve the leader’s ability to influence and inspire followers to take action and are grounded largely in the

communication of a vision of a better future (Godzyk, 2008). The distinction between the two behaviors comes largely from their focus. While idealized influence's main focus is on generating identification with a leader that will cause employees to want to follow, inspirational motivation centers upon communicating the actual vision or purpose which followers will support (Judge & Piccolo, 2004). Put simply, idealized influence involves getting people to want to follow, while inspirational motivation entails specifying the destination. A sample item from the MLQ that represents inspirational motivation is "The leader articulates a compelling vision of the future" (Bass & Riggio, 2006).

*Intellectual stimulation* refers to the degree to which the leader stimulates the followers' efforts by challenging assumptions, taking risks, and seeking the input and ideas of followers (Judge & Piccolo, 2004). Leaders with this trait promote the creativity of followers while also encouraging constant innovation and the search for new solutions to problems (Bass, 1999). Intellectual stimulation promotes visionary and novel thinking in followers. For example, an intellectually stimulated follower will question methods, seek out opportunities to improve existing systems and increase efficiency (Godzyk, 2008). A sample item from the MLQ that represents intellectual stimulation is "The leader gets others to look at problems from many different angles" (Bass & Riggio, 2006).

*Individualized consideration* refers to the degree to which leaders attend to each follower's needs, act as a mentor or coach to followers, and listen to the concerns and desires of each follower (Judge & Piccolo, 2004). Leaders display this behavior when they pay attention to the development of followers and support their growth and development (Bass, 1999). Individualized consideration is much more than the leader

caring about the feelings of the follower; this behavior involves taking affirmative action to develop the follower's abilities by delegating tasks and responsibilities in a manner which creates opportunities for growth and learning. A sample item from the MLQ that represents individualized consideration is "The leader spends time teaching and coaching" (Bass & Riggio, 2006).

Idealized influence, inspirational motivation, intellectual stimulation and individualized consideration comprise the key components of transformational leadership. Through these four behaviors, transformational leaders stimulate and inspire followers to achieve extraordinary outcomes. Each behavior is separately measured by the MLQ, although researchers typically combine them into a single measure of the transformational leadership construct (Bass & Riggio, 2006). This review will now briefly discuss the nature of transactional leadership, which is often contrasted with and provides a useful conceptual foil for transformational leadership.

### Transactional Leadership

Transactional leadership is defined largely by the exchange between superior and subordinate, and as such revolves around the idea that the leader and the follower influence one another by providing each other something of value. In other words, the leader gives the follower something he or she wants, such as a strong performance review, in exchange for something which the superior needs, such as increased productivity and compliance (Humphreys & Einstein, 2003). Transactional leaders, thus, cater to the self-interests of followers (Bass, 1999). An example of transactional

leadership behavior would be a supervisor offering financial rewards for productivity or denying rewards for a lack of productivity.

Much like transformational leadership, transactional leadership is characterized by a set of defined behaviors. These three behaviors serve as the measurable factors for the transactional leadership construct and are *contingent reward* (the degree to which the leader sets up constructive transactions or exchanges for followers), *management by exception-active* (the ways in which a leader proactively takes corrective action based upon the results of exchanges between the leader and the follower), and *management by exception-passive* (the ways in which a leader reactively takes corrective action based upon the results of exchanges between the leader and the follower) (Judge & Piccolo, 2004).

It is important to note that all leaders exhibit some degree of both transformational and transactional behavior (Bass, 1985). Bass went so far as to argue that the best leaders are both transformational and transactional, and that the true benefit of transformational leadership is really an incremental value added above and beyond the positive impact of transactional leadership (Bass, 1998). This argument suggests that transformational leadership behavior does not occur as a replacement but rather as an augment of transactional behavior, allowing for transformational leaders to build upon a transactional base (Bass, 1985). This theorized augmentation effect has received some support in recent research, but more work is needed before the augmentation theory can be fully endorsed (Bass & Riggio, 2006; Judge & Piccolo, 2004).

## Outcomes of Transformational and Transactional Leadership

Many studies have confirmed that high levels of transformational leadership behavior as compared to transactional behavior are associated with a wide variety of positive outcomes. The finding that transformational leadership can be more effective than transactional leadership was supported in a meta-analysis by Lowe, Kroeck, and Sivasubramaniam (1996). The meta-analysis, based on 33 studies examining the relationships between transformational behaviors and effectiveness found that the behaviors of transformational leadership were all strongly correlated with work unit effectiveness while transactional behaviors failed to lead to similar levels of effectiveness. Further, each transformational leadership behavior analyzed showed a stronger relationship with effectiveness than any transactional characteristic. Ninety five percent credibility intervals generally excluded zero for transformational scales and included zero for transactional scales, suggesting the existence of a positive relationship between transformational leadership and effectiveness across different contexts. Relationships between transactional scales and effectiveness were more ambiguous.

Transformational leadership's ability to predict effectiveness does not appear to be limited to any particular industry. One notable study examined the relationships of transformational and transactional leadership with ratings of unit potency, cohesion and performance in 72 light infantry platoons in the U.S. Army. The results showed that platoon leaders who were rated as showing higher levels of transformational behavior tended to have more effective platoons, although transactional behavior was still an important component of success. This finding provided support for the theory that transformational leadership improves performance above and beyond transactional



leadership (Bass, Avolio, Jung, & Berson, 2003). Other studies have replicated this finding that transformational leadership can enhance team effectiveness in both the public and private sector (Geyer & Steyrer, 1998; Parry & Sinha, 2005). The impact of transformational leadership behavior also appears to cross cultural barriers; studies have found evidence of that transformational leadership is predictive of an increase in effectiveness in the United States, Canada, Austria, China, Poland and Scotland (Bass, 1999).

Research has shown that transformational leadership can not only influence the effectiveness of an organization, but also perceptions of the leader. Managers who exhibit behaviors consistent with transformational leaders are more likely to be seen by their colleagues and employees as satisfying and effective leaders than those who exhibit more transactional behavior (Bass, 1990). Transformational leadership not only influences the perceptions of followers, but also coworkers and supervisors. Managers rated as high performers by their supervisors were also more likely to be rated as more transformational than transactional leaders (Bass, 1990). More recently, a meta-analysis of 87 studies reported that transformational leadership exhibited positive, nonzero relationships with follower job satisfaction ( $p = .58$ ), follower satisfaction with the leader ( $p = .71$ ), follower motivation ( $p = .53$ ), leader job performance ( $p = .27$ ), group or organization performance ( $p = .26$ ), and rated leader effectiveness ( $p = .64$ ) (Judge & Piccolo, 2004).

The evidence above clearly supports the beneficial nature of transformational leadership to organizations. Based upon this conclusion, it is in the best interest of organizations to try to determine how best to facilitate transformational leadership

behavior. To answer this question, discussion will now turn to prior research regarding the antecedents of transformational leadership.

### Antecedents of Transformational Leadership

Prior research has examined multiple potential antecedents to transformational leadership. While an investigation of whether leaders are born, made, or some combination of the two is beyond the scope of this study, it is worth noting that the general consensus within the leadership literature is that both traits (such as intelligence, conscientiousness, and agreeableness) and environmental factors (such as training or life experiences) play an important role in shaping the likelihood that an individual will display leadership behavior (Bass & Riggio, 2006).

While researchers suggest it is unlikely that any one trait is overwhelmingly predictive of transformational leadership (Zaccaro, 2007), several personality traits have been found to be correlated with transformational leadership behavior, suggesting a combination of many traits best predicts the behavior. Past research has identified that the Big Five personality traits are weakly correlated with transformational leadership behavior (Johnson, Vernon, Harris, & Lang, 2004; Judge & Bono, 2000; Bono & Judge, 2004). A meta-analysis of 26 articles containing a total of 384 correlations found relationships with transformational leadership and Neuroticism ( $p = -.15$ ), Extraversion ( $p = .19$ ), Openness ( $p = .11$ ), Agreeableness ( $p = .10$ ) and Conscientiousness ( $p = .10$ ) (Bono & Judge, 2004). Bono and Judge noted the need for future research which focuses on predictors with a stronger theoretical link to transformational leadership than the Big Five, which is exactly what the present study seeks to examine.

Beyond the Big Five, the relationship between transformational leadership and several other traits have been studied. One study involving ratings of forty commissioned officers in the United States Air Force Academy found that high scores on transformational leadership were associated with a distinct personality pattern characterized by high levels of pragmatism, nurturance, and feminine attributes and lower levels of criticalness and aggression (Ross & Offerman, 1997). In another study assessing military academic leaders, researchers found that leader intelligence and emotional coping skills were significant predictors of transformational leadership (Atwater & Yammarino, 1993). Past research has also identified weak yet significant correlations between transformational leadership and cognitive ability, social intelligence, emotional intelligence, and self-confidence (Bass & Riggio, 2006). Taken together, these findings support the value of personality factors or traits as predictors of transformational leadership behavior.

In addition to personality traits, other factors have also been shown to predict future transformational leadership behavior. For example, a study conducted on a diverse group of 182 community leaders found that the moral standards of one's parents as well as leadership experiences in school and extracurricular activities tend to forecast tendencies to be more transformational as adults (Avolio, 1994).

Although past research on predictors of transformational leadership has identified numerous potential antecedents and shows promise, this research has focused on popularly addressed or commonly measured variables rather than characteristics with a strong theoretical link to transformational leadership. This shortcoming is reflected in the generally weak relationships that have been observed between the predictors discussed

above and transformational leadership. The current study will seek to address this weakness in the literature by testing whether a predictor variable (implicit person theory) with a strong theoretical connection to transformational leadership predicts over and above the relationships with the Big Five personality traits described above.

One study that suggests the hypothesized relationship between implicit person theory and transformational leadership behavior was conducted using data collected from 227 managers from multiple organizations as well as their 2247 subordinates. The data suggested that cynicism about organizational change negatively predicted future transformational leadership. In other words, individuals who were skeptical about the possibility of change in the organization were less likely to engage in behaviors consistent with transformational leadership (Bommer, 2004). The potential connection between a belief in the capacity to change and transformational leadership behavior invites the possibility of implicit person theory (IPT), which involves an individual's beliefs about the malleability of internal and external attributes, as an antecedent or predictor of transformational leadership behavior. As discussed above, the importance of change underlies both implicit person theory and transformational leadership theory, suggesting that IPT may be another meaningful individual difference variable which predicts transformational leadership. Before this relationship can be fully examined, however, the discussion must turn to understanding the nature of implicit person theory itself.

### Implicit Person Theory

The basic framework of implicit person theory was established in a seminal work by Dweck and Leggett in 1988. Their model suggests that individuals differ in their beliefs regarding the malleability of the abilities of oneself and others, and that these beliefs orient individuals toward particular goals. For instance, depending upon their beliefs individuals may be motivated to approach or avoid learning situations. These goals, in turn, result in different patterns of cognition, affect, and behavior (Dweck & Leggett, 1988).

There are two general types of implicit theories that individuals may hold. The first type is an *incremental theory*. Incremental theorists believe that attributes are changeable, increasable and controllable. The second type is an *entity theory*. Entity theorists believe that attributes are fixed and uncontrollable. Individuals hold implicit theories about attributes of both themselves and others. For example, an incremental theorist would argue that intelligence is malleable; an individual can become more intelligent through hard work and increased effort. An entity theorist would argue that intelligence is fixed; an individual is as intelligent as he or she will ever be, as this attribute is an unchangeable trait (Dweck & Leggett, 1988).

Dweck and Leggett argue that the implicit theory an individual holds will impact what kinds of goals that person chooses to pursue. Similar to the two kinds of implicit theories, two kinds of goals are presented. *Learning goals* are the type of goals most often selected by incremental theorists. These goals center on trying to improve or develop one's ability. Individuals who set learning goals tend to view achievement situations as opportunities to increase their competence or acquire new skills. On the

other hand, *performance goals* are the type of goals most often chosen by entity theorists and focus on establishing the adequacy of their ability and avoiding providing evidence of any lack of competence. Essentially, performance goals focus individuals on proving their ability while learning goals orient individuals towards improving their ability (Dweck & Leggett, 1988).

Finally, the type of goal that an individual is likely to select based on their implicit theory orients that individual towards different reactions to challenge or failure. Dweck and Leggett describe two different patterns of reactions, and each pattern is comprised of cognitive, affective and behavioral components. Performance goals tend to foster a *helpless response*, which is also termed as a maladaptive pattern. The helpless pattern is characterized by negative self-cognitions (attributing failure to personal inadequacy), negative affect (boredom or anxiety), and a decrease in future performance. In short, individuals who engage in a helpless pattern of response to failure view their difficulties as insurmountable and indicative of low ability. Since their low ability is fixed, further effort is perceived as futile. In contrast to the helpless response, learning goals tend to lead to a *mastery response*, or an adaptive pattern. The mastery pattern is characterized by positive cognitions (viewing challenges as opportunities for growth rather than failure), positive affect (unflagging optimism and engagement), and either maintaining or increasing one's level of performance. Mastery-oriented individuals viewed difficulties as opportunities for development and embraced challenge as a chance to improve themselves and acquire new skills (Dweck & Leggett, 1988).

As would logically follow from the discussion of different responses to failure above, implicit theory has been shown to predict behavior in a variety of settings. One

study followed students through 2 years of junior high school, and found that incremental theorists had an upward trajectory in grades while entity theorists rarely improved their academic performance (Blackwell, Trzesniewski, & Dweck, 2007). Another study used negative feedback after a conceptual ability test to investigate whether implicit theory would indeed determine the attributions individuals would make in face of failure. The study confirmed the causal link between incremental theory and effort attributions (Hong, Chiu, Dweck, Lin, & Wan, 1999). Other studies have shown that individuals' implicit theories are predictive of whether or not they will confront bias or prejudice and can also impact to what extent individuals are affected by stereotype threat (Aronson, Fried & Good, 2002; Rattan & Dweck, 2010). Research has also confirmed that implicit theory can impact training outcomes and reactions to negative social behaviors (Dweck, Chiu, & Hong, 1995a; Kraiger, Ford & Salas, 1993; Martocchio, 1994).

The literature suggests that implicit person theory can impact not only one's own behavior but also an individual's social perceptions of and behavior towards others, although this area of research is still relatively nascent. Four studies conducted by Plaks, Stroessner, Dweck, and Sherman (2001) found that incremental theorists tended to display greater attention to and recognition of stereotype inconsistent information than entity theorists. In addition, studies have shown that whether an individual holds an entity or incremental theory impacts the likelihood of discriminatory behavior. In a study with college students, Freitas, Levy, and Dweck (1997) examined whether entity theorists would be more likely than incremental theorists to act on existing stereotypes when interacting with members of stereotyped groups. Participants were led to believe they were playing a game against either a law student or an unidentified opponent. Consistent

with the stereotype that lawyers are competitive, students holding entity theories, but not students holding incremental theories, played more competitively against the law student. Research has also shown that implicit person theory influences susceptibility to attribution errors, intergroup bias, and perceptions of group homogeneity (Levy, Plaks, Hong, Chiu, & Dweck, 2001). Taken together, these findings imply that the implicit person theory an individual holds affects the way they perceive and interact with other people.

One interesting and controversial issue regarding implicit person theory is whether implicit theories are themselves fixed traits or malleable states. While the literature does not have a firm answer to this question, current research seems to suggest that while implicit person theory can be manipulated, it is a fairly stable construct which does not fluctuate significantly over time. People's implicit theories are essentially beliefs, and while beliefs are not easy to change, they are more malleable than personality traits (Dweck, 2008).

Research has shown that performance or learning goals, as well as the helpless or mastery responses that they tend to create, can indeed be manipulated and induced in an experimental setting (Martocchio, 1994; Hong, Chiu, Dweck, Lin, & Wan, 1999; Blackwell, Trzesniewski, & Dweck, 2007). Two studies by Blackwell, Trzesniewski, and Dweck (2007) explored the role of implicit theories in the academic achievement of adolescents. In the first study, they found that the belief that intelligence is malleable (incremental theory) predicted an upward trajectory in grades over two years of junior high school, while the belief that intelligence is fixed (entity theory) displayed a flat trajectory. In the second study, an intervention teaching incremental theory to junior high



students promoted positive change in classroom motivation and improved grades as compared to a control group. The results of these studies suggest that implicit theory is not a permanent trait, as it can be manipulated. The fact that a measurement of implicit theory had predictive power over a two year span, however, implies that implicit theory is a relatively stable belief within individuals.

Research has shown that the beliefs which form different implicit theories appear to emerge in adolescence, which is when theories about traits such as intelligence seem to crystallize. Once these beliefs have formed, they are unlikely to change unless directly manipulated (Blackwell, Trzesniewski, & Dweck, 2007). This is not to suggest that individuals will select goals or act in line with their implicit beliefs all of the time. People may choose a goal that is not necessarily in line with their implicit theory in certain situations or when provided with certain instructions, but it appears that the general tendency towards one type of goal or another is relatively constant (Dweck, Chiu, & Hong, 1995b). One explanation for behavior inconsistent with an individual's implicit theory is that people may hold both entity and incremental theories to different degrees, although one theory is generally dominant. Thus, certain situations may make the less dominant theory more accessible and lead to a goal that is not in line with an individual's dominant implicit theory. While it seems contradictory to hold both incremental and entity theories, as the two beliefs are essentially opposites, Dweck notes that the fact that two beliefs are conflicting does not necessarily prevent people from holding them- the beliefs that people hold are not always rationally aligned (Dweck, Chiu & Hong, 1995b).

Taken together, the literature suggests that while implicit theory is not a permanent or fixed trait, it is a trait-like belief that individuals hold which generates a

tendency within individuals towards one kind of goal or another (Dweck, Chiu, & Hong, 1995b; Dweck & Leggett, 1988). Implicit person theory is a construct similar to other trait-like beliefs such as chronic self-concept or goal orientation (Chen, Gully, Whiteman, & Kilcullen, 2000; Cross, Gore, & Morris, 2003). Past research has acknowledged that these trait-like beliefs are not entirely permanent yet can be still treated as stable constructs, as will be the case in the current research.

Dweck and Leggett also address the generalizability of their model. They argue that mutability or controllability is a dimension that helps categorize important things, whether external or internal, abstract or concrete. Individuals hold implicit theories about not only the malleability of their own attributes but also about the malleability of the attributes of the people around them. (Dweck & Leggett, 1988). For example, an entity theorist would assert that other people generally are what they are and that there is little one can do to alter them. On the other hand, an individual who holds an incremental theory would propose that people can be made more competent and that desirable qualities can be cultivated. This facet of Dweck and Leggett's argument suggests that individuals, such as leaders, can and do hold theories about whether the performance of other individuals, such as subordinates, is malleable or fixed. It is this crucial element of implicit person theory that allows for the proposed relationship with transformational leadership that the current research will examine.

#### Connecting the Dots: Implicit Person Theory and Transformational Leadership

At its core, implicit person theory deals with the beliefs individuals hold about whether change is possible, whether in themselves or others. Transformational leadership

behavior centers largely on creating and fostering change and increasing performance above current levels. Bass himself stated that transformational leaders “inspire and excite their employees with the idea that they may be able to accomplish great things with extra effort,” a proposition that begs the connection with incremental theory (Bass, 1990). The proposed connection between implicit person theory and transformational leadership clearly has intuitive appeal.

Research has already provided reason to believe that implicit person theory can have an impact on leadership behavior in general. A study by Joslin found that certain thinking and belief preferences were predictive of the emergence of transformational leadership behaviors (Joslin, 1996). Specifically, the study found that individuals with an interest in getting along with others and who highly value the opinion of other people were more likely to act in a transformational manner. This finding suggests that certain beliefs or thinking tendencies can impact the likelihood of transformational leadership behavior and provides a precedent for the relationship between the beliefs that constitute implicit person theory and transformational leadership proposed in the current research. Four recent studies by Rattan, Good and Dweck (2012) provided evidence that implicit person theory can impact the way individuals in a leadership role interact with followers. Specifically, the studies showed that instructors who endorse an entity theory of math intelligence more readily judged students to have low ability than incremental instructors. The results also indicated that entity instructors employed different strategies when interacting with students they perceived as low in math ability. These studies suggest that leaders with different implicit theories exhibit different leadership behavior and strategies. Two studies by Heslin and Vandewalle provided further support for this

finding by examining the relationship between implicit person theory and performance evaluations. In one study, the data revealed that implicit person theory does indeed have an impact on how managers rate performance. After witnessing poor performance, incremental managers were more likely to acknowledge strong performance than entity theorists. Incremental managers were also more likely to appraise poor performance as such after witnessing strong performances in the past (Heslin, Latham & VandeWalle, 2005). In another study, the implicit theory of the manager was found to predict employees' perceptions of the procedural justice with which their last performance evaluation was conducted. Specifically, employees were more likely to report that they had been provided a procedurally just performance review if their manager endorsed an incremental theory (Heslin & VandeWalle, 2011). Together, this research suggests that incremental managers may indeed behave differently than do entity managers, which provides a precedent for the proposition that incremental managers will differ from entity managers in terms of the type of leadership behavior they display.

### Study Overview

Taking this broad argument a step further, each of the four behaviors associated with transformational leadership can be logically connected to implicit person theory. As described previously, these four behaviors are idealized influence, inspirational motivation, intellectual stimulation and individualized consideration.

Idealized influence involves providing followers with an energizing purpose, modeling ethical conduct, and encouraging followers to identify with a vision for the future (Avolio, Bass, & Jung, 1999). Idealized influence refers to a leader's ability to

generate identification with the leader amongst subordinates, or to get people to want to follow (Judge & Piccolo, 2004). While a belief in the possibility of change is not central to every aspect of idealized influence (for example, the modeling of ethical conduct does not seem likely to depend upon a belief in the malleability of performance), a leader who believes performance is malleable seems more likely to provide a potentially motivating vision for a better future. The better future which a transformational leader envisions is unlikely to exist under the assumption that followers cannot improve their performance through increased effort; what energizing purpose could follower's identify with that does not include increased performance? The collective sense of mission that is vital to idealized influence would appear to be more likely conceived by an individual who holds an incremental theory of performance. While it is not impossible for a leader to exhibit the behavior of idealized influence without holding an incremental belief regarding performance, it is hypothesized that leaders with an incremental implicit person theory will be more likely to exhibit the behavior of idealized influence than leaders who hold an entity theory.

*Hypothesis 1: After accounting for the Big Five, leaders who endorse an incremental implicit person theory will exhibit the transformational behavior of idealized influence more often than leaders who endorse an entity theory.*

The next transformational behavior, inspirational motivation, refers to a leader's ability to articulate goals and a future-oriented vision in an inspiring manner (Sosik & Cameron, 2010). As opposed to idealized influence, the focus here shifts from creating a desire to follow the leader to communicating the destination in an inspiring manner. Inspirational motivation typically involves challenging followers to meet high standards

and communicating optimism about future levels of achievement (Judge & Piccolo, 2004). These actions appear dependent on a belief that followers are capable of improving performance to meet higher standards or reach higher levels of achievement. Inspirational motivation is also closely tied to the vision of a better future crucial to idealized influence, and as such the proposed connection between this vision and incremental beliefs described above is still relevant. Because the behavior which comprises inspirational motivation seems largely based on the assumption that followers can indeed increase their level of performance, we hypothesize that leaders who hold an incremental belief regarding performance will be more likely to exhibit inspirational motivation as well.

*Hypothesis 2: After accounting for the Big Five, leaders who endorse an incremental implicit person theory will exhibit the transformational behavior of inspirational motivation more often than leaders who endorse an entity theory.*

The third transformational behavior, intellectual stimulation, refers to the degree to which a leader challenges assumptions, takes risks, and seeks the input and ideas of followers (Judge & Piccolo, 2004). Intellectual stimulation involves stimulating followers' efforts to be creative, questioning assumptions, reframing problems, and approaching old situations in new ways. Followers are encouraged to use new approaches and be innovative (Bass & Riggio, 2006). All of the strategies mentioned above assume that a fresh or different manner of attacking a problem can produce a better solution. Phrased differently, looking at a task differently can lead to higher performance on that task than in the past. This mindset is undoubtedly more likely in an incremental theorist, as entity theory would suggest that performance is a fixed trait and cannot be altered

through a new approach or innovative problem-solving technique. Thus, we hypothesize that leaders who hold an incremental belief regarding performance will be more likely to exhibit intellectual stimulation behavior.

*Hypothesis 3: After accounting for the Big Five, leaders who endorse an incremental implicit person theory will exhibit the transformational behavior of intellectual stimulation more often than leaders who endorse an entity theory.*

Finally, the transformational behavior of individualized consideration refers to the degree to which leaders attend to each follower's needs, act as a mentor or coach, and listen to the concerns and desires of each follower (Judge & Piccolo, 2004). A main focus of this behavior is on supporting the growth and development of followers (Bass, 1990). A focus on follower development would appear unlikely if the leader did not believe that performance could be increased in the future through practice or increased effort. Why work to develop the abilities of follower's if performance is a fixed, unchangeable trait? Dweck and Leggett themselves state that an entity theory should inhibit the pursuit of change, while incremental theory should encourage people to act on and develop the people around them (Dweck & Leggett, 1988). In addition, prior research has already shown that implicit person theory may impact the willingness to provide coaching to followers. Heslin, Vandewalle and Latham (2006) reported that managers with an incremental theory were more willing to provide coaching to a poor performing employee than were managers with an entity theory. In addition, incremental theorists displayed an increased quality and quantity of performance improvement suggestions. Based on this combination of reasoning and prior research, we hypothesize that leaders who hold an

incremental belief regarding performance will be more likely to exhibit individualized consideration behavior.

*Hypothesis 4: After accounting for the Big Five, leaders who endorse an incremental implicit person theory will exhibit the transformational behavior of individualized consideration more often than leaders who endorse an entity theory.*



## METHOD

### Sample

The sample for the current study came from two sources. The first sample consisted of head athletic coaches from a large high school in Southern California. Coaches from all sports available at the school were given the opportunity to participate in the study, including both male and female teams. The second sample consisted of supervisors who work with IUPUI in an HR setting and are currently or were recently enrolled in the Fundamentals of Supervision (FOS) course available at the University. The individuals recruited through the FOS course all hold a job which involves the supervision of others, although the exact nature of this supervision and organizational rank of these jobs differs between individuals.

Our final sample consisted of 39 participants. This group included 24 participants in the FOS Course at IUPUI (3 men and 21 women) and 15 head athletic coaches from GHCHS (10 men and 5 women). With the exception of the notable difference in gender, the groups did not meaningfully differ in terms of age, tenure, or educational background. We originally hoped to include subordinate data in our analyses; however, not enough subordinate data was available for analysis due to practical limitations. The small size of our sample is a significant limiting factor in the current study, and should be kept in mind during all further discussion.

### Procedure

All participants from both groups (FOS participants and head athletic coaches) were asked to fill out survey measures. The materials given to each group were identical. The survey materials included the Leader Form of the Multifactor Leadership Questionnaire, which asks participants to self-report on their own leadership behavior. In addition, participants were given a measure of implicit person theory and the International Personality Item Pool (IPIP), which measures the Big Five personality traits. Demographic information was also collected.

Coaches were offered the opportunity to complete the study materials during an annual coaches meeting held on August 6<sup>th</sup>, 2012. Coaches who were unable to complete the study materials at this meeting had the option of completing the materials online as well. Participants in the FOS course at IUPUI were contacted electronically and offered the opportunity to complete the study materials online.

### Measures

Two main measures were used in this study: the Multifactor Leadership Questionnaire- Short Form 5X (or MLQ) and an Implicit Person Theory measure. In addition, the International Personality Item Pool (IPIP) was used to measure the Big Five personality traits. Basic demographic information was also collected. All measures have been included in Appendix B.

*MLQ.* Leadership was measured on the basis of the seven dimensions of the MLQ. Each dimension was represented by several items, using a 5-point scale ranging

from “not at all” to “frequently, if not always.” The seven dimensions corresponded with the four transformational leadership behaviors (idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration), the two transactional leadership behaviors (contingent reward and management-by-exception), and laissez-faire leadership. The MLQ has two forms- the Leader Form and Rater Form. The difference between the forms is whether the questions are worded to allow for self-report by the leader or to allow for followers to report on their leader’s behavior. For example, an item from the Leader Form is “I spend time teaching and coaching;” the equivalent item from the Rater Form is “The person I am rating spends time teaching and coaching.” Because not enough subordinate data was available for analysis, only the Leader Form was used in the current study. See Appendix B for a copy of both forms of the MLQ- Leader Form as well as a scoring key which describes which items correspond with which leadership behaviors.

Although the MLQ has been shown to have acceptable internal reliability in the past, some subscales of the MLQ had troubling internal consistency in the current study. Specifically, the subscales for intellectual stimulation ( $\alpha = .62$ ), individualized consideration ( $\alpha = .68$ ), contingent reward ( $\alpha = .59$ ), management-by-exception: passive ( $\alpha = .49$ ), and laissez-faire ( $\alpha = .53$ ) all had a coefficient alpha of less than .70. In addition, the composite scale for transactional leadership had an alpha of only .65. The subscales for idealized influence ( $\alpha = .88$ ), inspirational motivation ( $\alpha = .72$ ), and management-by-exception: active ( $\alpha = .72$ ), as well as the composite scale for transformational leadership ( $\alpha = .92$ ), had better internal reliability.

*Implicit Person Theory.* Implicit person theory was measured using the three-item questionnaire advocated by Dweck, Chiu, and Hong (1995). Only three items were used because implicit theory is a construct with a simple unitary theme, and repeatedly rephrasing the same idea could potentially lead to confusion or boredom on the part of respondents. One concern regarding this measure is that so few items may create issues of low internal reliability. This was not the case in the current study, as this measure had acceptable internal consistency ( $\alpha = .87$ ).

The three items in the implicit theory questionnaire were (a) “The kind of person someone is something very basic about them and it can’t be changed very much,” (b) “People can do things differently, but the important parts of who they are can’t be changed,” and (c) “Everyone is a certain kind of person and there is not much that can be done to really change that.” Respondents indicated their agreement on a 6-point scale ranging from 1 (strongly agree) to 6 (strongly disagree). To score this questionnaire, scores on the three items were averaged to form an overall implicit theory score, with a higher score indicating a stronger entity theory.

*IPIP.* The 50-item IPIP was administered to assess the Big Five personality traits. This scale is often used to assess the five factor model of personality in time-sensitive research settings (Cooper, Smillie, & Corr, 2010). Reliabilities for each factor ranged from .80 to .87 in a recent study of the psychometric properties of the scale (Donellan, Oswald, Baird, & Lucas, 2006). The internal consistency of each scale was acceptable in the current study, with coefficient alphas ranging from .71 to .87.

*Demographics and additional information.* All participants were asked their age, gender, tenure in their current position, and level of education.

## RESULTS

Before examining the results of the current study, it is important to reiterate that the likelihood of obtaining statistically significant results was reduced by small sample size and unreliability. These practical limitations should be kept in mind during all discussion and analysis of the results of the current study.

Descriptive statistics and correlations among the variables of interest are reported in Table 1. As reported in Table 1, all four of the subscales for transformational leadership were strongly positively correlated with one another ( $r = .47-.77, p < .05$ ). Contingent reward was also significantly positively correlated with all four of the transformational behaviors ( $r = .37-.71, p < .05$ ). The composite scales for transformational leadership and transactional leadership were positively related ( $r = .54, p < .05$ ).

Implicit person theory (IPT) had a weak negative relationship with all four transformational leadership behaviors, although none of these correlations were significant. The correlations were in the expected direction, however, with individuals holding an entity theory (high IPT scores) tending to exhibit less transformational leadership behavior. Interestingly, contingent reward showed the strongest relationship with IPT ( $r = -.38, p < .05$ ). This correlation suggests that individuals who hold an entity theory are less likely to exhibit contingent reward behavior. IPT was not significantly

related to composite transformational or transactional leadership scores, although the correlation was negative (as anticipated) in both instances.

Of the Big Five personality traits, emotional stability showed the strongest relationships with leadership behavior. Emotional stability was significantly correlated to idealized influence ( $r = .52, p < .05$ ), inspirational motivation ( $r = .33, p < .05$ ), individualized consideration ( $r = .49, p < .05$ ), management-by-exception: passive ( $r = -.32, p < .05$ ), and laissez-faire ( $r = -.53, p < .05$ ). No other Big Five trait was significantly related to more than one leadership behavior.

#### Tests of Hypotheses

The goal of the current study was to examine whether implicit person theory predicted the four transformational leadership behaviors. These questions were examined with hierarchical regression analyses. For these tests, all demographic variables which were significantly correlated with the dependent variable (the transformational leadership behavior of interest) were entered in the first step of regression. In step two, the Big Five personality traits were added to the model. Finally, in step three, implicit person theory was added to the model.

Hypothesis 1 predicted that IPT would account for significant incremental variance beyond the Big Five. Specifically, Hypothesis 1 suggested that there would be a positive relationship between leaders who endorse an incremental implicit person theory and those that report engaging in higher levels of the transformational behavior of idealized influence. As reported in Table 2, this hypothesis was not supported. IPT failed

to account for significant variance above and beyond that already accounted for by the Big Five and demographic variables ( $\Delta R^2 = .000, p = .950$ ).

Hypothesis 2 predicted that IPT would account for significant incremental variance beyond the Big Five. Specifically, Hypothesis 2 suggested that there would be a positive relationship between leaders who endorse an incremental implicit person theory and those that report engaging in higher levels of the transformational behavior of inspirational motivation. As reported in Table 3, this hypothesis was not supported. IPT again failed to account for significant variance above and beyond that already accounted for by the Big Five and demographic variables ( $\Delta R^2 = .001, p = .814$ ).

Hypothesis 3 predicted that IPT would account for significant incremental variance beyond the Big Five. Specifically, Hypothesis 3 suggested that there would be a positive relationship between leaders who endorse an incremental implicit person theory and those that report engaging in higher levels of the transformational behavior of intellectual stimulation. As reported in Table 4, this hypothesis was not supported. IPT failed to account for significant variance above and beyond that already accounted for by the Big Five and demographic variables ( $\Delta R^2 = .029, p = .295$ ).

Hypothesis 4 predicted that IPT would account for significant incremental variance beyond the Big Five. Specifically, Hypothesis 4 suggested that there would be a positive relationship between leaders who endorse an incremental implicit person theory and those that report engaging in higher levels of the transformational behavior of individualized consideration. As reported in Table 5, this hypothesis was not supported. IPT failed to account for significant variance above and beyond that already accounted for by the Big Five and demographic variables ( $\Delta R^2 = .000, p = .934$ ).

A final hierarchical regression analysis was conducted in the same manner as those described above using the composite transformational leadership score as the focal outcome. The results of this analysis are reported in Table 6. In this test, implicit person theory once again failed to predict a significant amount of variance above and beyond the Big Five and demographic variables ( $\Delta R^2 = .001, p = .788$ ).

In sum, none of the hypotheses were supported.

#### Additional Analyses

In addition to the tests of our hypotheses, several additional analyses were conducted. Because of the significant correlation between contingent reward and implicit person theory, a hierarchical regression was conducted to determine if implicit person theory predicted contingent reward behavior above and beyond the Big Five. The results of this analysis are reported in Table 7. We found that, once again, implicit person theory failed to predict a significant amount of variance after accounting for the Big Five ( $\Delta R^2 = .049, p = .131$ ).

Independent sample t-tests were conducted to examine whether significant differences existed between our two groups (supervisors contacted through the Fundamentals of Supervision course at IUPUI and athletic head coaches at GHCHS). The results of these analyses are summarized in Table 8. Participants from the GHCHS group engaged in a significantly higher mean level of idealized influence ( $t = -3.313, p < .05$ ), inspirational motivation ( $t = -2.392, p < .05$ ), individualized consideration ( $t = -2.318, p < .05$ ), contingent reward ( $t = -2.902, p < .05$ ), and management-by-exception: active ( $t = -3.729, p < .05$ ) than participants from the Fundamentals of Supervision course at IUPUI.



Not surprisingly, GHCHS participants also exhibited higher composite levels of both transformational ( $t = -3.154, p < .05$ ) and transactional ( $t = -4.388, p < .05$ ) leadership behavior.

Finally, independent sample t-tests were conducted to examine whether significant gender differences existed within our sample. The results of these analyses are summarized in Table 9. Male participants exhibited a significantly higher mean level of idealized influence ( $t = -2.667, p < .05$ ), contingent reward ( $t = -2.569, p < .05$ ), management-by-exception: active ( $t = -3.604, p < .05$ ), composite transformational leadership ( $t = -2.196, p < .05$ ), and composite transactional leadership ( $t = -4.026, p < .05$ ). Female participants exhibited a significantly higher amount of management-by-exception: passive ( $t = 2.650, p < .05$ ).

## DISCUSSION

Over the past 25 years, transformational leadership has received significant research attention. Despite the focus on transformational leadership, the antecedents of transformational leadership remain ambiguous and unclear. Past research on predictors of transformational leadership has focused on commonly studied and easily measured variables rather than predictors with a strong theoretical link to transformational leadership behavior. The current study attempted to address this issue by examining whether an individual's beliefs about the malleability of human attributes (IPT) was associated with an individual's likelihood of exhibiting transformational leadership behavior. Specifically, we hypothesized that individuals who held an incremental theory would be more likely to exhibit the four behaviors associated with transformational leadership, even after accounting for the Big Five personality traits.

### Discussion of Hypotheses Tests

Unfortunately, results did not support our predictions. IPT failed to account for a significant amount of variance above and beyond that already accounted for by the Big Five for all four transformational leadership behaviors. The first, and most likely, explanation for these findings is that our sample was simply too small and our measures too unreliable to detect the true relationships that exist between the focal variables in the

present research. Despite the likelihood that these practical limitations influenced our findings, two other explanations for our results are worthy of discussion.

One potential explanation for the lack of support for our hypotheses is that IPT may not be a significant predictor of transformational leadership. The correlation between the two variables was not significant ( $r = -.18$ ), although the correlation was in the expected direction (individuals holding an entity theory tending to exhibit less transformational leadership behavior). One reason that IPT may not meaningfully predict transformational leadership, despite the argument presented throughout this paper, is that the link discussed between the two constructs is conceptual and intuitive, rather than based on empirical evidence. With the exception of studies linking IPT and coaching behavior (which is an important component of individualized consideration), our hypotheses were based on the conceptual similarity between a belief in the capacity for change and the actual behaviors which aim to create change. In other words, our hypothesis that IPT would predict the four transformational leadership behaviors was largely based on deduction and logic, rather than past research and empirical evidence. It is possible that, despite the logical and conceptual connection between IPT and transformational leadership which inspired our hypotheses, IPT is not causally or significantly related to transformational leadership in reality.

A second potential explanation for our findings is that, even if IPT does capture some variation in transformational leadership, this variance is not unique and is already accounted for by the Big Five and/or demographic variables. In this scenario, IPT may indeed be significantly related to transformational leadership, but fail to capture anything that the Big Five does not already enable us to predict.

It is worth noting that the relationships found between the Big Five personality traits and transformational leadership were much stronger than past research has suggested (see Table 1). In particular, Agreeableness ( $r = .32$ ), Emotional Stability/Neuroticism ( $r = .49$ ), and Openness to Experience ( $r = .36$ ) all had very strong correlations with transformational leadership. Meta-analytic evidence suggests that no Big Five personality trait has a correlation with transformational leadership stronger than  $r = .20$  (Bono & Judge, 2004). Thus, the unusually strong relationships between the Big Five and transformational leadership in the current sample could be impacting our results and masking IPT's relationship with transformational leadership in our regression analyses.

#### Discussion of Additional Analyses

As detailed in the Results section, our additional analyses revealed significant group and gender differences in participant's leadership behavior. First, coaches from the GHCHS subject pool reported significantly higher levels of transformational and transactional leadership behavior than participants from the FOS course at IUPUI. It is possible that the groups actually do exhibit different amounts of leadership behavior given their expected roles. Athletic coaches are in a more traditional, stereotypical "leadership" role, and may engage in more explicit and frequent leadership behavior than individuals in supervisory roles in an office setting. For example, halftime speeches and pep talks during games are a common part of athletic coaching, and offer a prime opportunity to engage in motivational leadership behavior. Office settings do not lend themselves as readily to this type of frequent, stereotypical leadership behavior.

Another potential difference between the two groups is the types of individuals being supervised. High school athletic coaches work largely with volunteers (student-athletes), whereas supervisors in an office setting work with subordinates who are often under contract and dependent upon their role as a subordinate to provide for themselves. This difference in the type of individuals in subordinate roles may impact the leadership behavior each group engages in.

A final potential reason for this finding is that individuals in the different groups may have simply interpreted our survey materials differently. All but one participant from the GHCHS group completed the study materials in pencil-and-paper form, while all but two IUPUI participants completed the study materials electronically. Although it is hard to determine a theoretical reason why this would strongly impact results, it is a potential confound.

Results indicated that men reported exhibiting higher levels of transformational and transactional leadership than women. The one exception to this trend was that women tended to report higher levels of the management-by-exception: passive behavior. These findings are surprising and directly contradict past research; meta-analytic evidence suggests that women exhibit higher levels of transformational leadership and contingent reward, while men tend to exhibit more management-by-exception behavior, both active and passive (Eagly, Johannesen-Schmidt & van Engen, 2003). The gender differences in leadership behavior found in the current study are difficult to interpret, and may simply be due to an idiosyncrasy in our sample. Most of the men in our sample were from the GHCHS group, most of the women were from the FOS group, and we had more women

( $n= 26$ ) overall than men ( $n= 13$ ). Because of these features of our sample, it is possible we simply did not get a good representation of gender differences.

### Limitations and Directions for Future Research

The current study has several significant limitations. First and foremost, our sample size is clearly problematic. Our total sample size was only 39, which drastically limits our ability to draw meaningful conclusions from the current analysis. In addition, sample size prevented us from including subordinate data in our analyses. Initially, we hoped to examine whether a leader's IPT predicted follower's perceptions of the leader's leadership behavior; practical limitations and small sample size prevented us from examining this question. Due to the insufficient size of our sample, all conclusions drawn from present data should be interpreted with extreme caution.

Our small sample size also limited the analyses we were able to conduct. First, we were unable to conduct any analysis using subordinate data. This data could be powerful, as it would allow us to examine whether a leader's IPT is predictive of how subordinates perceive that leader's behavior. Future research on transformational leadership should seek to collect subordinate data and examine what variables predict not only leader's ratings of their own behavior, but also subordinate ratings of their leader's behavior.

A second limitation to our analyses due to our small sample size was that we were unable to conduct extreme group analyses. In past research, participants have been categorized into extreme groups based on their IPT (Dweck, Chiu, & Hong, 1995). It would be interesting to see whether extreme beliefs regarding the malleability of human attributes are more predictive of transformational leadership behavior than individuals

who hold a more moderate IPT. Because of our small sample size, we were unable to compare extreme group. Future research examining IPT as a potential antecedent of transformational leadership should consider categorizing individuals into extreme groups based on IPT.

In addition to small sample size, another limitation of the current study is reliability of some of the measures. Although the measure of leadership behavior used in the current study, the MLQ, has been utilized and found reliable in past research, reliability data for the current study was not ideal for many subscales. In particular, the scales for contingent reward ( $\alpha = .59$ ) management-by-exception: passive ( $\alpha = .49$ ), and transactional leadership overall ( $\alpha = .65$ ) had low internal reliability. Although the composite scale for transformational leadership had strong internal reliability ( $\alpha = .92$ ), the subscales for intellectual stimulation ( $\alpha = .62$ ) and individualized consideration ( $\alpha = .68$ ) had reliabilities below .7. Thus, in addition to our small sample size, poor reliability may have impacted the interpretability of our results.

Another limitation of the current study is the failure to collect outcome data. Although the relationship between transformational leadership and various outcomes has already been established (Judge & Piccolo, 2004), future research no antecedents of transformational leadership could include outcome measures to verify past results and check that measures are related as theory suggests they should be.

A final limitation is the cross-sectional nature of our data. Cross-sectional data provides only a snapshot at a given time point and does not allow for any analysis of change over time. In some cases, this can lead to misleading or inaccurate inferences.

Though not as significant a limitation as the small sample size or unreliability discussed above, the cross-sectional nature of our data is a notable limitation.



## CONCLUSION

The current study sought to examine whether IPT, or individuals' beliefs about the malleability of human attributes, predicted transformational leadership behavior above and beyond the Big Five. IPT was chosen because of the strong conceptual connection between beliefs about change (IPT) and transformational leadership, which emphasizes change and growth. Unfortunately, significant practical limitations impacted the interpretability of our results, which failed to support our hypotheses.

Future research should continue to seek to clarify the antecedents of transformational leadership. As noted throughout this study, much ambiguity still remains about what factors predict transformational leadership, and few variables with a strong theoretical link have been examined. Considering the limitations of the present research discussed above, we believe that the current data is not enough to invalidate the hypothesis that IPT is a significant and potentially useful predictor of transformational leadership. Future research should seek to collect more data regarding IPT and transformational leadership as well as seek to identify and examine other predictors which may have a strong theoretical link to transformational leadership. In particular, data collected in a sample in which leader-subordinate relationships are more structured and hierarchical (i.e., the military) could be valuable.

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## TABLES



Table 1. Correlation Matrix

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1. II	3.78	0.78	.88																			
2. IM	4.03	0.66	.77*	.72																		
3. IS	3.82	0.56	.54*	.47*	.62																	
4. IC	4.06	0.72	.73*	.61*	.58*	.68																
5. CR	3.77	0.71	.71*	.74*	.37*	.65*	.59															
6. MBEA	2.67	0.76	.24	.12	-.10	.15	.33*	.72														
7. MBEP	2.09	0.57	-.11	-.01	-.02	-.15	.03	.06	.49													
8. LF	1.56	0.52	-.33*	-.32	.03	-.23	-.36*	-.05	.39*	.53												
9. IPT	3.56	0.98	-.11	-.11	-.26	-.21	-.38*	.03	-.12	.20	.87											
10. EXT	3.69	0.73	.24	.20	-.02	.07	.05	-.19	-.22	-.15	-.02	.87										
11. AGR	4.41	0.51	.24	.24	.25	.41*	.26	-.31	.02	-.16	-.46*	.14	.80									
12. CON	4.33	0.47	.04	-.03	.12	.21	-.01	.02	.06	.13	-.16	-.03	.53*	.71								
13. ES	4.18	0.77	.52*	.33*	.24	.49*	.30	-.15	-.32*	-.53*	-.11	-.21	.44*	-.16	.89							
14. OPN	4.03	0.48	.30	.31	.30	.34*	.12	-.31	.01	.06	.08	.31	.07	.07	.12	.75						
15. TFL	3.90	0.61	.95*	.85*	.70*	.85*	.74*	.17	-.09	-.28	-.18	.17	.32	.08	.49*	.36*	.92					
16. TCL	3.22	0.59	.57*	.51*	.15	.47*	.80*	.83*	.06	-.24	-.20	-.09	-.05	.01	.09	-.13	.54*	.65				
17. AGE	42.24	10.56	.33*	.39*	.21	.35*	.34*	.01	.14	-.46*	-.04	-.07	.29	.01	.45*	-.04	.37*	.21	1			
18. GEN	0.33	0.48	.40*	.24	.11	.26	.39*	.51*	-.40*	-.21	-.07	-.02	-.18	-.09	.03	-.04	.34*	.55*	-.01	1		
19. EDU	3.49	0.69	.03	.15	.16	.03	-.10	-.35*	.27	-.10	-.12	.17	.19	-.18	-.05	.11	.08	-.29	.17	-.33*	1	
20. TEN	54.89	84.12	.31	.28	.22	.27	.27	.29	.36*	-.20	-.17	-.09	.07	-.08	.13	-.01	.33*	.35*	.41*	-.01	.10	1

\*Correlation is significant at  $p < .05$  level (2-tailed). Reliability (coefficient alpha) on diagonal.

Key: II= Idealized Influence, IM= Inspirational Motivation, IS= Intellectual Stimulation, IC= Individualized Consideration, CR= Contingent Reward, MBEA= Management-by-Exception: Active, MBEP= Management-by-Exception: Passive, LF= Laissez-Faire, IPT= Implicit Person Theory, EXT= Extraversion, AGR= Agreeableness, CON= Conscientiousness, ES= Emotional Stability, OPN= Openness to Experience, TFL= Transformational Leadership, TCL= Transactional Leadership, AGE= Age, GEN= Gender, EDU= Education, TEN= Tenure

Table 2. Hierarchical Regression Analysis of Idealized Influence

<u>Step</u>	<u>Variable</u>	$\beta$	$R^2$	$\Delta R^2$	$F$ <u>Change</u>
1	Age	.330*	.264	.264	6.265*
	Gender	.397*			
2	Age	.161	.511	.247	3.028*
	Gender	.414*			
	Extraversion	.091			
	Agreeableness	.129			
	Conscientiousness	-.070			
	Emotional Stability	.333*			
	Openness	.247			
3	Age	.160	.511	.000	.004
	Gender	.415*			
	Extraversion	.090			
	Agreeableness	.136			
	Conscientiousness	-.072			
	Emotional Stability	.332*			
	Openness	.247			
	IPT	.110			

Dependent Variable: Idealized Influence, \* $p < .05$

Table 3. Hierarchical Regression Analysis of Inspirational Motivation

<u>Step</u>	<u>Variable</u>	$\beta$	$R^2$	$\Delta R^2$	$F$ <u>Change</u>
1	Age	.391*	.153	.153	6.507*
2	Age	.328	.304	.151	1.344
	Extraversion	.085			
	Agreeableness	.147			
	Conscientiousness	-.144			
	Emotional Stability	.092			
	Openness	.287			
3	Age	.333	.305	.001	.056
	Extraversion	.087			
	Agreeableness	.121			
	Conscientiousness	-.137			
	Emotional Stability	.095			
	Openness	.297			
	IPT	-.042			

Dependent Variable: Inspirational Motivation, \* $p < .05$

Table 4. Hierarchical Regression Analysis of Intellectual Stimulation

<u>Step</u>	<u>Variable</u>	$\beta$	$R^2$	$\Delta R^2$	$F$ <u>Change</u>
1	Extraversion	-.184	.186	.186	1.467
	Agreeableness	.217			
	Conscientiousness	-.053			
	Emotional Stability	.148			
	Openness	.328			
2	Extraversion	-.181	.215	.029	1.132
	Agreeableness	.101			
	Conscientiousness	-.027			
	Emotional Stability	.172			
	Openness	.346*			
	IPT	-.195			

Dependent Variable: Intellectual Stimulation, \* $p < .05$

Table 5. Hierarchical Regression Analysis of Individualized Consideration

<u>Step</u>	<u>Variable</u>	$\beta$	$R^2$	$\Delta R^2$	$F$ <u>Change</u>
1	Age	.346*	.120	.120	4.889*
2	Age	.150	.400	.280	2.891*
	Extraversion	-.116			
	Agreeableness	.221			
	Conscientiousness	.011			
	Emotional Stability	.308			
	Openness	.328*			
3	Age	.149	.400	.000	.007
	Extraversion	-.116			
	Agreeableness	.229			
	Conscientiousness	.009			
	Emotional Stability	.307			
	Openness	.326*			
	IPT	.014			

Dependent Variable: Individualized Consideration, \* $p < .05$

Table 6. Hierarchical Regression Analysis of Transformational Leadership

<u>Step</u>	<u>Variable</u>	$\beta$	$R^2$	$\Delta R^2$	$F$ <u>Change</u>
1	Age	.287	.283	.283	4.468*
	Gender	.330*			
	Tenure	.213			
2	Age	.111	.552	.269	3.483*
	Gender	.367*			
	Tenure	.235			
	Extraversion	.027			
	Agreeableness	.217			
	Conscientiousness	-.052			
	Emotional Stability	.269			
	Openness	.320*			
	3	Age			
Gender		.373*			
Tenure		.244			
Extraversion		.026			
Agreeableness		.243			
Conscientiousness		-.058			
Emotional Stability		.265			
Openness		.316*			
IPT		.041			

Dependent Variable: Transformational Leadership, \* $p < .05$

Table 7. Hierarchical Regression Analysis of Contingent Reward

<u>Step</u>	<u>Variable</u>	$\beta$	$R^2$	$\Delta R^2$	$F$ <u>Change</u>
1	Age	.348*	.262	.262	6.207*
	Gender	.379*			
2	Age	.232	.359	.098	.914
	Gender	.425*			
	Extraversion	-.035			
	Agreeableness	.332			
	Conscientiousness	-.168			
	Emotional Stability	.059			
	Openness	.134			
3	Age	.261	.409	.049	2.412
	Gender	.389*			
	Extraversion	-.025			
	Agreeableness	.160			
	Conscientiousness	-.127			
	Emotional Stability	.083			
	Openness	.159			
	IPT	-.261			

Dependent Variable: Contingent Reward, \* $p < .05$

Table 8. Test of Group Differences

	Group		<i>t</i>	<i>df</i>
	IUPUI	GHCHS		
Idealized Influence	3.490 (.758)	4.250 (.583)	-3.313*	37
Inspirational Motivation	3.844 (.646)	4.333 (.580)	-2.392*	37
Intellectual Stimulation	3.750 (.552)	3.933 (.563)	-1.002	37
Individual Consideration	3.861 (.762)	4.383 (.533)	-2.318*	37
Contingent Reward	3.534 (.711)	4.150 (.515)	-2.902*	37
Management-by-Exception: Active	2.361 (.566)	3.167 (.783)	-3.729*	37
Management-by-Exception: Passive	2.135 (.566)	2.017 (.601)	.622	37
IPT	3.764 (.882)	3.222 (1.067)	1.722	37
Transformational Leadership	3.686 (.603)	4.230 (.468)	-3.154*	37
Transactional Leadership	2.950 (.461)	3.655 (.529)	-4.388*	37

\* $p < .05$ ;  $N = 24$  (IUPUI),  $N = 15$  (GHCHS)

Standard deviations appear in parentheses below means



Table 9. Test of Gender Differences

	<u>Gender</u>		<i>t</i>	<i>df</i>
	<u>Female</u>	<u>Male</u>		
Idealized Influence	3.563 (.837)	4.221 (.412)	-.2667*	37
Inspirational Motivation	3.923 (.699)	4.250 (.530)	-1.482	37
Intellectual Stimulation	3.779 (.601)	3.904 (.463)	-.657	37
Individual Consideration	3.929 (.823)	4.327 (.359)	-1.655	37
Contingent Reward	3.580 (.665)	4.154 (.642)	-2.569*	37
Management-by-Exception: Active	2.401 (.505)	3.212 (.906)	-3.604*	37
Management-by-Exception: Passive	2.250 (.458)	1.770 (.665)	2.650*	37
IPT	3.603 (.874)	3.461 (1.198)	.419	37
Transformational Leadership	3.751 (.679)	4.185 (.287)	-2.196*	37
Transactional Leadership	2.992 (.429)	3.679 (.626)	-4.026*	37

\* $p < .05$ ;  $N = 26$  (female),  $N = 13$  (male)

Standard deviations appear in parentheses below means

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## APPENDICES

### Appendix A: Proposal Introduction

The recognition of strong leadership as a critical factor for success is not new. The great French military leader, Napoleon, once declared that an army of rabbits led by a lion could defeat an army of lions led by a rabbit (Bass, 1990). Evidence that leadership is still a topic of great interest in society is not hard to find. Each day stories appear in newspapers and other media discussing instances of successful leadership or disappointing failure by those in charge, from political leaders to the chief executive officers of business and industry. One recent study reported that leadership can account for as much as 50% of the variance in organizational effectiveness (Godzyk, 2008). Based on this evidence, it is vital that organizations identify ways to harness the positive effects of high-quality leadership.

With the vast amount of attention given to the topic, countless theories have been posited regarding what constitutes successful leadership. One theory that has received tremendous attention over the past 25 years is Full Range Leadership theory, the origins of which were first introduced in 1978 by James MacGregor Burns (Judge & Piccolo, 2004). This theory suggests that leaders can display a full range of leadership styles, categorized as transformational, transactional and laissez-faire behavior (Bass & Riggio, 2006). While the vast majority of leaders exhibit some degree of both transformational and transactional behavior, those leaders whom exhibit a higher level of transformational behavior tend to be most effective (laissez-faire leadership, or the absence of leadership behavior, is considered separate) (Judge & Piccolo, 2004). As will be detailed later, transformational leadership has been shown to have a positive impact on important outcomes such as job satisfaction, motivation, performance, worker effectiveness and

perceptions of leader effectiveness (Bass, 1999; Judge & Piccolo, 2004; Lowe, Kroeck & Sivasubramaniam, 1996; Parry & Sinha, 2004). At the core of transformational leadership behavior is the concept of change; transformational leaders stimulate and inspire follower to achieve beyond current expectations, driving growth within followers and the development of the organization as a whole. In short, the research suggests that organizations should seek to obtain transformation leadership in order to maximize organizational success (Bass, 1999).

To this end, the proposed study seeks to examine potential antecedents of transformational leadership. This is a needed area of research, as evidenced by the recent call for additional investigation regarding antecedents of transformational leadership by Avolio, Walumbwa, and Weber (2009). Avolio et al (2009) stated that, despite the tremendous focus on the topic by leadership researchers, little is known about why some leaders engage in transformational behavior or what factors may predict transformational leadership. Given the heavy emphasis on change and growth in transformational leadership, the current study will examine whether a leaders implicit person theory will be a predictor of leadership behaviors. This theory was chosen as a potential antecedent because it centers on the concept of malleability or change, and as such shares a strong intuitive connection with transformational leadership and has the potential to be a powerful predictor of this behavior. Specifically, the current research will examine if individual's who hold the belief that individual attributes and performance can be changed (or an incremental implicit person theory) are more likely to exhibit the behaviors characteristic of transformational leaders than individuals who believe that

individual attributes and performance are fixed and trait-like (or an entity implicit person theory).

This review will begin with an explanation of Full Range Leadership theory, focusing on transformational and transactional leadership. The outcomes and antecedents associated with transformational leadership will be examined, followed by a discussion of implicit person theory and why the proposed relationship with transformational leadership is theoretically justified. Finally, the goals of the current study will be summarized and the practical and theoretical implications of this research will be discussed.

### **The Full Range of Leadership**

As mentioned above, Full Range Leadership theory describes transformational, transactional, and laissez-faire leadership. Most attention has been focused on the transformational and transactional styles, while laissez-faire leadership (or the absence of leadership) is rarely discussed and considered separate (Bass & Riggio, 2006). Burns (1978) first suggested transformational and transactional leadership as opposite ends of a continuum, but Bass (1985) modified this theory by arguing that transformational and transactional leadership are two entirely separate constructs (Judge & Piccolo, 2004). Although the behaviors inherent in these two leadership styles are quite different, most leaders engage in both sets of behaviors to some degree (Bass, 1985). Based on this assertion, the Full Range Leadership theory suggests that every leader displays a frequency of both transformational and transactional behavior, but that each leader's profile involves more of some behaviors and less of the others (Bass, 1999). The ensuing sections will describe transformational and transactional leadership in greater detail.

Laissez-faire leadership will not be discussed in further detail because it is generally accepted as an ineffective leadership strategy and considered separate from transformational and transactional leadership (Bass & Riggio, 2006).

### **Transformational Leadership**

Transformational leadership was first defined by Burns (1978) as a set of behaviors where leaders work with followers to collaboratively achieve higher levels of motivation and performance than ever thought possible (Humphreys & Einstein, 2003). As mentioned above, Bass expanded upon Burns' model of transformational leadership in 1985 by specifying the behaviors associated with transformational leadership while also further clarifying their effect on followers and organizations (Humphreys & Einstein, 2003). Transformational leaders exhibit four key behaviors (that serve as the four measurable factors of the transformational leadership construct within the Multifactor Leadership Questionnaire or MLQ): idealized influence, inspirational motivation, intellectual stimulation and individualized consideration (Bass, 1999). These four behaviors create identification with and dedication to the goals, interests and values of the leader while simultaneously helping followers to develop their own skills, fulfill their own needs and think more creatively. In doing so, the four behaviors of transformational leadership stimulate and inspire followers to achieve extraordinary outcomes, such as higher levels of satisfaction and improved performance (Bass & Riggio, 2006).

The first of the four key transformational behaviors is *idealized influence*. Idealized influence involves providing followers with an energizing purpose, modeling ethical conduct, and encouraging followers to identify with his or her vision for the future (Avolio, Bass, & Jung, 1999). Put differently, idealized influence is the degree to which a

leader behaves in admirable ways causing followers to identify with and want to follow the leader (Judge & Piccolo, 2004). It is worth noting that this behavior is sometimes referred to as *charisma* rather than idealized influence, although idealized influence has been the accepted description of this behavior since Bass and Avolio argued for the change in terminology in 1991 (Bass, 1999). The substitution of the term idealized influence is intended to represent that this behavior is much more than a degree of personal magnetism; rather, idealized influence refers to influencing the ideals and goals of followers in an admirable and moral manner (Bass, 1999). Exhibiting idealized influence requires more than just charm or an alluring personality, as the behavior also involves displaying conviction, taking moral stands and appealing to followers on an emotional level (Judge & Piccolo, 2004). A sample item from the MLQ that represents idealized influence is “The leader emphasizes the importance of having a collective sense of mission” (Bass & Riggio, 2006).

*Inspirational motivation* refers to a leader’s ability to articulate goals and a future-oriented vision to followers in an inspiring manner (Sosik & Cameron, 2010). Leaders who engage in inspirational motivation challenge followers with high standards, communicate optimism about future goal attainment, and provide meaning for the task at hand (Judge & Piccolo, 2004). Some leadership theorists combine idealized influence and inspirational motivation into one category because both behaviors involve the leader’s ability to influence and inspire followers to take action and are grounded largely in the communication of a vision of a better future (Godzyk, 2008). The distinction between the two behaviors comes largely from their focus. While idealized influence’s main focus is on generating identification with a leader that will cause employees to want to follow,

inspirational motivation centers upon communicating the actual vision or purpose which followers will support (Judge & Piccolo, 2004). Put simply, idealized influence involves getting people to want to follow, while inspirational motivation entails specifying the destination. A sample item from the MLQ that represents inspirational motivation is “The leader articulates a compelling vision of the future” (Bass & Riggio, 2006).

*Intellectual stimulation* refers to the degree to which the leader stimulates the followers’ efforts by challenging assumptions, taking risks, and seeking the input and ideas of followers (Judge & Piccolo, 2004). Leaders with this trait promote the creativity of followers while also encouraging constant innovation and the search for new solutions to problems (Bass, 1999). Intellectual stimulation promotes visionary and novel thinking in followers. For example, an intellectually stimulated follower will question methods, seek out opportunities to improve existing systems and increase efficiency (Godzyk, 2008). A sample item from the MLQ that represents intellectual stimulation is “The leader gets others to look at problems from many different angles” (Bass & Riggio, 2006).

*Individualized consideration* refers to the degree to which leaders attend to each follower’s needs, act as a mentor or coach to followers, and listen to the concerns and desires of each follower (Judge & Piccolo, 2004). Leaders display this behavior when they pay attention to the development of followers and support their growth and development (Bass, 1999). Individualized consideration is much more than the leader caring about the feelings of the follower; this behavior involves taking affirmative action to develop the follower’s abilities by delegating tasks and responsibilities in a manner which creates opportunities for growth and learning. A sample item from the MLQ that



represents individualized consideration is “The leader spends time teaching and coaching” (Bass & Riggio, 2006).

Idealized influence, inspirational motivation, intellectual stimulation and individualized consideration comprise the key components of transformational leadership. Through these four behaviors, transformational leaders stimulate and inspire followers to achieve extraordinary outcomes. Each behavior is separately measured by the MLQ, although researchers typically combine them into a single measure of the transformational leadership construct (Bass & Riggio, 2006). This review will now briefly discuss the nature of transactional leadership, which is often contrasted with and provides a useful conceptual foil for transformational leadership.

### **Transactional Leadership**

Transactional leadership is defined largely by the exchange between superior and subordinate, and as such revolves around the idea that the leader and the follower influence one another by providing each other something of value. In other words, the leader gives the follower something he or she wants, such as a strong performance review, in exchange for something which the superior needs, such as increased productivity and compliance (Humphreys & Einstein, 2003). Transactional leaders, thus, cater to the self-interests of followers (Bass, 1999). An example of transactional leadership behavior would be a supervisor offering financial rewards for productivity or denying rewards for a lack of productivity.

Much like transformational leadership, transactional leadership is characterized by a set of defined behaviors. These three behaviors serve as the measurable factors for the transactional leadership construct and are *contingent reward* (the degree to which the

leader sets up constructive transactions or exchanges for followers), *management by exception-active* (the ways in which a leader proactively takes corrective action based upon the results of exchanges between the leader and the follower), and *management by exception-passive* (the ways in which a leader reactively takes corrective action based upon the results of exchanges between the leader and the follower) (Judge & Piccolo, 2004).

It is important to note that all leaders exhibit some degree of both transformational and transactional behavior (Bass, 1985). Bass went so far as to argue that the best leaders are both transformational and transactional, and that the true benefit of transformational leadership is really an incremental value added above and beyond the positive impact of transactional leadership (Bass, 1998). This argument suggests that transformational leadership behavior does not occur as a replacement but rather as an augment of transactional behavior, allowing for transformational leaders to build upon a transactional base (Bass, 1985). This theorized augmentation effect has received some support in recent research, but more work is needed before the augmentation theory can be fully endorsed (Bass & Riggio, 2006; Judge & Piccolo, 2004).

### **Outcomes of Transformational and Transactional Leadership**

Many studies have confirmed that high levels of transformational leadership behavior as compared to transactional behavior are associated with a wide variety of positive outcomes. The finding that transformational leadership can be more effective than transactional leadership was supported in a meta-analysis by Lowe, Kroeck, and Sivasubramaniam (1996). The meta-analysis, based on 33 studies examining the relationships between transformational behaviors and effectiveness found that the

behaviors of transformational leadership were all strongly correlated with work unit effectiveness while transactional behaviors failed to lead to similar levels of effectiveness. Further, each transformational leadership behavior analyzed showed a stronger relationship with effectiveness than any transactional characteristic. 95% credibility intervals generally excluded zero for transformational scales and included zero for transactional scales, suggesting the existence of a positive relationship between transformational leadership and effectiveness across different contexts. Relationships between transactional scales and effectiveness were more ambiguous.

Transformational leadership's ability to boost effectiveness does not appear to be limited to any particular industry. One notable study examined the relationships of transformational and transactional leadership with ratings of unit potency, cohesion and performance in 72 light infantry platoons in the U.S. Army. The results showed that platoon leaders who were rated as showing higher levels of transformational behavior tended to have more effective platoons, although transactional behavior was still an important component of success. This finding provided support for the theory that transformational leadership improves performance above and beyond transactional leadership (Bass, Avolio, Jung, & Berson, 2003). Other studies have replicated this finding that transformational leadership can enhance team effectiveness in both the public and private sector (Geyer & Steyrer, 1998; Parry & Sinha, 2005). The impact of transformational leadership behavior also appears to cross cultural barriers; studies have found evidence of that transformational leadership is predictive of an increase in effectiveness in the United States, Canada, Austria, China, Poland and Scotland (Bass, 1999).

Research has shown that transformational leadership can not only influence the effectiveness of an organization, but also perceptions of the leader. Managers who exhibit behaviors consistent with transformational leaders are more likely to be seen by their colleagues and employees as satisfying and effective leaders than those who exhibit more transactional behavior (Bass, 1990). Transformational leadership does not only influence the perceptions of followers. Managers rated as high performers by their supervisors were also more likely to be rated as more transformational than transactional leaders (Bass, 1990). More recently, a meta-analysis of 87 studies reported that transformational leadership exhibited positive, nonzero relationships with follower job satisfaction (.58), follower satisfaction with the leader (.71), follower motivation (.53), leader job performance (.27), group or organization performance (.26), and rated leader effectiveness (.64) (Judge & Piccolo, 2004).

The evidence above clearly supports the beneficial nature of transformational leadership to organizations. Based upon this conclusion, it is in the best interest of organizations to try to determine how best to facilitate transformational leadership behavior. To answer this question, discussion will now turn to prior research regarding the antecedents of transformational leadership.

### **Antecedents of Transformational Leadership**

Prior research has examined multiple potential antecedents to transformational leadership. While an investigation of whether leaders are born, made, or some combination of the two is beyond the scope of this study, it is worth noting that the general consensus within the leadership literature is that both traits (such as intelligence, conscientiousness, and agreeableness) and environmental factors (such as training or life

experiences) play an important role in shaping the likelihood that an individual will display leadership behavior (Bass & Riggio, 2006).

While researchers suggest it is unlikely that any one trait is overwhelmingly predictive of transformational leadership (Zaccaro, 2007), several personality traits have been found to be correlated with transformational leadership behavior, suggesting a combination of many traits best predicts the behavior. One study found that high scores on transformational leadership were associated with a distinct personality pattern characterized by high levels of pragmatism, nurturance, and feminine attributes and lower levels of criticalness and aggression (Ross & Offerman, 1997). In another study of 247 adult twin pairs, a strong positive correlation was found between transformational leaders and the personality factors of extroversion, conscientiousness and openness to experience. Conversely, transactional leadership was negatively correlated with conscientiousness, extroversion, and agreeableness (Johnson, Vernon, Harris, & Lang, 2004). In another study assessing military academic leaders, researchers found that leader intelligence and emotional coping skills were significant predictors of transformational leadership (Atwater & Yammarino, 1993). Taken together, these findings support the value of personality factors or traits as predictors of transformational leadership behavior.

Other individual factors have also been shown to predict future transformational leadership behavior. For example, a study conducted on a diverse group of 182 community leaders found that the moral standards of one's parents as well as leadership experiences in school and extracurricular activities tend to forecast tendencies to be more transformational as adults (Avolio, 1994).

One particularly interesting finding regarding potential antecedents to transformational leadership behavior was conducted using data collected from 227 managers from multiple organizations as well as their 2247 subordinates. The data suggested that cynicism about organizational change negatively predicted future transformational leadership. In other words, individuals who were skeptical about the possibility of change in the organization were less likely to engage in behaviors consistent with transformational leadership (Bommer, 2004). The potential connection between a belief in the capacity to change and transformational leadership behavior invites the possibility of implicit person theory (IPT), which involves an individual's beliefs about the malleability of internal and external attributes, as an antecedent or predictor of transformational leadership behavior. As discussed above, the importance of change underlies both implicit person theory and transformational leadership theory, suggesting that IPT may be another meaningful individual difference variable which predicts transformational leadership. Before this relationship can be fully examined, however, the discussion must turn to understanding the nature of implicit person theory itself.

### **Implicit Person Theory**

The basic framework of implicit person theory was established in a seminal work by Dweck and Leggett in 1988. Their model suggests that individuals differ in their beliefs regarding the malleability of the abilities of oneself and others, and that these beliefs orient individuals towards particular goals. For instance, depending upon their beliefs individuals may be motivated to approach or avoid learning situations. These

goals, in turn, result in different patterns of cognition, affect, and behaviors (Dweck & Leggett, 1988).

There are two general types of implicit theories that individuals may hold. The first type is an *incremental theory*. Incremental theorists believe that attributes are changeable, increasable and controllable. The second type is an *entity theory*. Entity theorists believe that attributes are fixed and uncontrollable. Individuals hold implicit theories about attributes of both themselves and others. For example, an incremental theorist would argue that intelligence is malleable; an individual can become more intelligent through hard work and increased effort. An entity theorist would argue that intelligence is fixed; an individual is as intelligent as he or she will ever be, as this attribute is an unchangeable trait (Dweck & Leggett, 1988).

Dweck and Leggett continue to argue that the implicit theory an individual holds will impact what kinds of goals that person chooses to pursue. Similar to the two kinds of implicit theories, two kinds of goals are presented. *Learning goals* are the type of goals most often selected by incremental theorists. These goals center on trying to improve or develop one's ability. Individuals who set learning goals tend to view achievement situations as opportunities to increase their competence or acquire new skills. On the other hand, *performance goals* are the type of goals most often chosen by entity theorists and focus on establishing the adequacy of their ability and avoiding providing evidence of any lack of competence. Essentially, performance goals focus individuals on proving their ability while learning goals orient individuals towards improving their ability (Dweck & Leggett, 1988).

Finally, the type of goal that an individual is likely to select based on their implicit theory orients that individual towards different reactions to challenge or failure. Dweck and Leggett describe two different patterns of reactions, and each pattern is comprised of cognitive, affective and behavioral components. Performance goals tend to foster a *helpless response*, which is also termed as a maladaptive pattern. The helpless pattern is characterized by negative self-cognitions (attributing failure to personal inadequacy), negative affect (boredom or anxiety), and a decrease in future performance. In short, individuals who engage in a helpless pattern of response to failure view their difficulties as insurmountable and indicative of low ability. Since their low ability is fixed, further effort is perceived as futile. In contrast to the helpless response, learning goals tend to lead to a *mastery response*, or an adaptive pattern. The mastery pattern is characterized by positive cognitions (viewing challenges as opportunities for growth rather than failure), positive affect (unflagging optimism and engagement), and either maintaining or increasing one's level of performance. Mastery-oriented individuals viewed difficulties as opportunities for development and embraced challenge as a chance to improve themselves and acquire new skills (Dweck & Leggett, 1988).

As would logically follow from the discussion of different responses to failure above, implicit theory has been shown to predict behavior in a variety of settings. One study followed students through 2 years of junior high school, and found that incremental theorists had an upward trajectory in grades while entity theorists rarely improved their academic performance (Blackwell, Trzesniewski, & Dweck, 2007). Another study used negative feedback after a conceptual ability test to investigate whether implicit theory would indeed determine the attributions individuals would make in face of failure. The



study confirmed the causal link between incremental theory and effort attributions (Hong, Chiu, Dweck, Lin, & Wan, 1999). Other studies have shown that individuals' implicit theories are predictive of whether or not they will confront bias or prejudice and can also impact to what extent individuals are impacted by stereotype threat (Aronson, Fried & Good, 2002; Rattan & Dweck, 2010). Research has also confirmed that implicit theory can impact training outcomes and reactions to negative social behaviors (Dweck, Chiu, & Hong, 1995a; Kraiger, Ford & Salas, 1993; Martocchio, 1994).

The literature suggests that implicit person theory can impact not only one's own behavior but also an individual's social perceptions of and behavior towards others, although this area of research is still relatively nascent. Four studies conducted by Plaks, Stroessner, Dweck, and Sherman (2001) found that incremental theorists tended to display greater attention to and recognition of stereotype inconsistent information than entity theorists. In addition, studies have shown that whether an individual holds an entity or incremental theory impacts the likelihood of discriminatory behavior. In a study with college students, Freitas, Levy, and Dweck (1997) examined whether entity theorists would be more likely than incremental theorists to act on existing stereotypes when interacting with members of stereotyped groups. Participants were led to believe they were playing a game against either a law student or an unidentified opponent. Consistent with the stereotype that lawyers are competitive, students holding entity theories, but not students holding incremental theories, played more competitively against the law student. Research has also shown that implicit person theory influences susceptibility to attribution errors, intergroup bias, and perceptions of group homogeneity (Levy, Plaks, Hong, Chiu, & Dweck, 2001). Taken together, these findings imply that the implicit

person theory an individual holds affects the way they perceive and interact with other people.

One interesting and controversial issue regarding implicit person theory is whether implicit theories are themselves fixed traits or malleable states. While the literature does not have a firm answer to this question, current research seems to suggest that while implicit person theory can be manipulated, it is a fairly stable construct which does not fluctuate significantly over time. People's implicit theories are essentially beliefs, and while beliefs are not easy to change, they are more malleable than broad personality traits (Dweck, 2008).

Research has shown that performance or learning goals, as well as the helpless or mastery responses that they tend to create, can indeed be manipulated and induced in an experimental setting (Martocchio, 1994; Hong, Chiu, Dweck, Lin, & Wan, 1999; Blackwell, Trzesniewski, & Dweck, 2007). Two studies by Blackwell, Trzesniewski and Dweck (2007) explored the role of implicit theories in the academic achievement of adolescents. In the first study, they found that the belief that intelligence is malleable (incremental theory) predicted an upward trajectory in grades over two years of junior high school, while the belief that intelligence is fixed (entity theory) displayed a flat trajectory. In the second study, an intervention teaching incremental theory to junior high students promoted positive change in classroom motivation and improved grades as compared to a control group. The results of these studies suggest that implicit theory is not a permanent trait, as it can be manipulated. The fact that a measurement of implicit theory had predictive power over a two year span, however, implies that implicit theory is a relatively stable belief within individuals.

Research has shown that the beliefs which form different implicit theories appear to emerge in adolescence, which is when theories about traits such as intelligence seem to crystallize. Once these beliefs have formed, they are unlikely to change unless directly manipulated (Blackwell, Trzesniewski, & Dweck, 2007). This is not to suggest that individuals will select goals or act in line with their implicit beliefs all of the time. People may choose a goal that is not necessarily in line with their implicit theory in certain situations or when provided with certain instructions, but it appears that the general tendency towards one type of goal or another is relatively constant (Dweck, Chiu, & Hong, 1995b). One explanation for behavior inconsistent with an individual's implicit theory is that people may hold both entity and incremental theories to different degrees, although one theory is generally dominant. Thus, certain situations may make the less dominant theory more accessible and lead to a goal that is not in line with an individual's dominant implicit theory. While it seems contradictory to hold both incremental and entity theories, as the two beliefs are essentially opposites, Dweck notes that the fact that two beliefs are conflicting does not necessarily prevent people from holding them- the beliefs that people hold are not always rationally aligned (Dweck, Chiu & Hong, 1995b).

Taken together, the literature suggests that while implicit theory is not a permanent or fixed trait, it is a fairly stable belief that individuals hold which generates a tendency within individuals towards one kind of goal or another (Dweck, Chiu, & Hong, 1995b; Dweck & Leggett, 1988).

Dweck and Leggett also address the generalizability of their model. They argue that mutability or controllability is a dimension that helps categorize important things, whether external or internal, abstract or concrete. Individuals hold implicit theories about

not only the malleability of their own attributes but also about the malleability of the attributes of the people around them. (Dweck & Leggett, 1988). For example, an entity theorist would assert that other people generally are what they are and that there is little one can do to alter them. On the other hand, an individual who holds an incremental theory would propose that people can be made more competent and that desirable qualities can be cultivated. This facet of Dweck and Leggett's argument suggests that individuals, such as leaders, can and do hold theories about whether the performance of other individuals, such as subordinates, is malleable or fixed. It is this crucial element of implicit person theory that allows for the proposed relationship with transformational leadership that the current research will examine.

### **Connecting the Dots: Implicit Person Theory and Transformational Leadership**

At its core, implicit person theory deals with the beliefs individuals hold about whether change is possible, whether in themselves or others. Transformational leadership behavior centers largely on creating and fostering change and increasing performance above current levels. Bass himself stated that transformational leaders “inspire and excite their employees with the idea that they may be able to accomplish great things with extra effort,” a proposition that begs the connection with incremental theory (Bass, 1990). The proposed connection between implicit person theory and transformational leadership clearly has intuitive appeal.

Research has already provided reason to believe that implicit person theory can have an impact on leadership behavior in general. A study by Susan J. Bauers Joslin found that certain thinking and belief preferences were predictive of the emergence of transformational leadership behaviors (Joslin, 1996). Specifically, the study found that

individuals with an interest in getting along with others and who highly value the opinion of other people were more likely to act in a transformational manner. This finding suggests that certain beliefs or thinking tendencies can impact the likelihood of transformational leadership behavior and provides a precedent for the relationship between the beliefs that constitute implicit person theory and transformational leadership proposed in the current research.

Four recent studies by Rattan, Good and Dweck (2012) provided evidence that implicit person theory can impact the way individuals in a leadership role interact with followers. Specifically, the studies showed that instructors who endorse an entity theory of math intelligence more readily judged students to have low ability than incremental instructors. The results also indicated that entity instructors employed different strategies when interacting with students they perceived as low in math ability. These studies suggest that leaders with different implicit theories exhibit different leadership behavior and strategies. Two studies by Heslin and Vandewalle provided further support for this finding by examining the relationship between implicit person theory and performance evaluations. In one study, the data revealed that implicit person theory does indeed have an impact on how managers rate performance. After witnessing poor performance, incremental managers were more likely to acknowledge strong performance than entity theorists. Incremental managers were also more likely to appraise poor performance as such after witnessing strong performances in the past (Heslin, Latham & Vandewalle, 2005). In another study, the implicit theory of the manager was found to predict employees' perceptions of the procedural justice with which their last performance evaluation was conducted. Specifically, employees were more likely to report that they

had been provided a procedurally just performance review if their manager endorsed an incremental theory (Heslin & VandeWalle, 2011). Together, this research suggests that incremental managers may indeed behave differently than do entity managers, which provides a precedent for the proposition that incremental managers will differ from entity managers in terms of the type of leadership behavior they display.

### **Study Overview**

Taking this broad argument a step further, each of the four behaviors associated with transformational leadership can be logically connected to implicit person theory. As described previously, these four behaviors are idealized influence, inspirational motivation, intellectual stimulation and individualized consideration.

Idealized influence involves providing followers with an energizing purpose, modeling ethical conduct, and encouraging followers to identify with his or her vision for the future (Avolio, Bass, & Jung, 1999). Idealized influence refers to a leader's ability to generate identification with the leader amongst subordinates, or to get people to want to follow (Judge & Piccolo, 2004). While a belief in the possibility of change is not central to every aspect of idealized influence (for example, the modeling of ethical conduct does not seem likely to depend upon a belief in the malleability of performance), a leader who believes performance is malleable seems more likely to provide a potentially motivating vision for a better future. The better future which a transformational leader envisions is unlikely to exist under the assumption that followers cannot improve their performance through increased effort; what energizing purpose could follower's identify with that does not include increased performance? The collective sense of mission that is vital to idealized influence would appear to be more likely conceived by an individual who holds

an incremental theory of performance. While we do not contend that it is impossible for a leader to exhibit the behavior of idealized influence without holding an incremental belief regarding performance, we do we hypothesize that leaders with an incremental theory of performance will be more *likely* to exhibit the behavior of idealized influence than leaders who hold an entity theory.

*Hypothesis 1: Leaders who endorse an incremental theory of performance will exhibit the transformational behavior of idealized influence more often than leaders who endorse an entity theory.*

The next transformational behavior, inspirational motivation, refers to a leader's ability to articulate goals and a future-oriented vision in an inspiring manner (Sosik & Cameron, 2010). As opposed to idealized influence, the focus here shifts from creating a desire to follow the leader to communicating the destination in an inspiring manner. Inspirational motivation typically involves challenging followers to meet high standards and communicating optimism about future levels of achievement (Judge & Piccolo, 2004). These actions appear dependent on a belief that followers are capable of improving performance to meet higher standards or reach higher levels of achievement. Inspirational motivation is also closely tied to the vision of a better future crucial to idealized influence, and as such the proposed connection between this vision and incremental beliefs described above is still relevant. Because the behavior which comprises inspirational motivation seems largely based on the assumption that followers can indeed increase their level of performance, we hypothesize that leaders who hold an incremental belief regarding performance will be more likely to exhibit inspirational motivation as well.

*Hypothesis 2: Leaders who endorse an incremental theory of performance will exhibit the transformational behavior of inspirational motivation more often than leaders who endorse an entity theory.*

The third transformational behavior, intellectual stimulation, refers to the degree to which a leader challenges assumptions, takes risks, and seeks the input and ideas of followers (Judge & Piccolo, 2004). Intellectual stimulation involves stimulating follower's efforts to be creative, questioning assumptions, reframing problems, and approaching old situations in new ways. Followers are encouraged to use new approaches and be innovative (Bass & Riggio, 2006). All of the strategies mentioned above assume that a fresh or different manner of attacking a problem can produce a better solution. Phrased differently, looking at a task differently can lead to higher performance on that task than in the past. This mindset is undoubtedly more likely in an incremental theorist, as entity theory would suggest that performance is a fixed trait and cannot be altered through a new approach or innovative problem-solving technique. Thus, we hypothesize that leaders who hold an incremental belief regarding performance will be more likely to exhibit intellectual stimulation behavior.

*Hypothesis 3: Leaders who endorse an incremental theory of performance will exhibit the transformational behavior of intellectual stimulation more often than leaders who endorse an entity theory.*

Finally, the transformational behavior of individualized consideration refers to the degree to which leaders attend to each follower's needs, act as a mentor or coach, and listen to the concerns and desires of each follower (Judge & Piccolo, 2004). A main focus of this behavior is on supporting the growth and development of followers (Bass, 1990).



A focus on follower development would appear unlikely if the leader did not believe that performance could be increased in the future through practice or increased effort. Why work to develop the abilities of follower's if performance is a fixed, unchangeable trait? Dweck and Leggett themselves state that an entity theory should inhibit the pursuit of change, while incremental theory should encourage people to act on and develop the people around them (Dweck & Leggett, 1988). In addition, prior research has already shown that implicit person theory may impact the willingness to provide coaching to followers. Heslin, Vandewalle and Latham (2006) reported that managers with an incremental theory were more willing to provide coaching to a poor performing employee than were managers with an entity theory. In addition, incremental theorists displayed an increased quality and quantity of performance improvement suggestions. Based on this combination of reasoning and prior research, we hypothesize that leaders who hold an incremental belief regarding performance will be more likely to exhibit individualized consideration behavior.

*Hypothesis 4: Leaders who endorse an incremental theory of performance will exhibit the transformational behavior of individualized consideration more often than leaders who endorse an entity theory.*

The proposed hypotheses have both practical and theoretical implications. If implicit theory is found to be strongly related to transformational leadership, it would behoove organizations to consider the implicit theory of individuals before placing them into job situations where transformational behavior would be beneficial. It would certainly be valuable to organizations to know if particular kinds of individuals are more likely than others to create innovation, change or any of the other positive outcomes

associated with transformational leadership. The proposed research would also expand current implicit person theory by identifying a new outcome associated with the theory (i.e., transformational behavior) and further expanding upon the impact of implicit theory from a managerial perspective. In addition, the current study could potentially identify a useful antecedent to transformational leadership that could create greater understanding of the construct itself and what factors contribute to its development. Finally, the proposed study could potentially open the door to future research examining whether interventions that manipulate the implicit person theory of individuals can lead to an increase in transformational leadership behavior. While much work must be done before such an intervention can be tested, the possibility of unearthing a relatively simple intervention which could increase transformational behavior is certainly an exciting one.

## Appendix B: Measures

### *Multifactor Leadership Questionnaire*

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## **MLQ Multifactor Leadership Questionnaire Leader Form (5x-Short)**

My Name: \_\_\_\_\_ Date: \_\_\_\_\_

Organization ID #: \_\_\_\_\_ Leader ID #: \_\_\_\_\_

This questionnaire is to describe your leadership style as you perceive it. Please answer all items on this answer sheet. **If an item is irrelevant, or if you are unsure or do not know the answer, leave the answer blank.**

Forty-five descriptive statements are listed on the following pages. Judge how frequently each statement fits you. The word "others" may mean your peers, clients, direct reports, supervisors, and/or all of these individuals.

Use the following rating scale:

Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always
0	1	2	3	4

1. I provide others with assistance in exchange for their efforts.....0 1 2 3 4
2. I re-examine critical assumptions to question whether they are appropriate .....0 1 2 3 4
3. I fail to interfere until problems become serious .....0 1 2 3 4
4. I focus attention on irregularities, mistakes, exceptions, and deviations from standards.....0 1 2 3 4
5. I avoid getting involved when important issues arise .....0 1 2 3 4
6. I talk about my most important values and beliefs.....0 1 2 3 4
7. I am absent when needed .....0 1 2 3 4
8. I seek differing perspectives when solving problems .....0 1 2 3 4
9. I talk optimistically about the future .....0 1 2 3 4
10. I instill pride in others for being associated with me .....0 1 2 3 4
11. I discuss in specific terms who is responsible for achieving performance targets .....0 1 2 3 4
12. I wait for things to go wrong before taking action .....0 1 2 3 4
13. I talk enthusiastically about what needs to be accomplished .....0 1 2 3 4
14. I specify the importance of having a strong sense of purpose .....0 1 2 3 4
15. I spend time teaching and coaching .....0 1 2 3 4

	Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always
	0	1	2	3	4
16. I make clear what one can expect to receive when performance goals are achieved .....	0	1	2	3	4
17. I show that I am a firm believer in "If it ain't broke, don't fix it." .....	0	1	2	3	4
18. I go beyond self-interest for the good of the group .....	0	1	2	3	4
19. I treat others as individuals rather than just as a member of a group .....	0	1	2	3	4
20. I demonstrate that problems must become chronic before I take action .....	0	1	2	3	4
21. I act in ways that build others' respect for me .....	0	1	2	3	4
22. I concentrate my full attention on dealing with mistakes, complaints, and failures .....	0	1	2	3	4
23. I consider the moral and ethical consequences of decisions .....	0	1	2	3	4
24. I keep track of all mistakes .....	0	1	2	3	4
25. I display a sense of power and confidence .....	0	1	2	3	4
26. I articulate a compelling vision of the future .....	0	1	2	3	4
27. I direct my attention toward failures to meet standards .....	0	1	2	3	4
28. I avoid making decisions .....	0	1	2	3	4
29. I consider an individual as having different needs, abilities, and aspirations from others .....	0	1	2	3	4
30. I get others to look at problems from many different angles .....	0	1	2	3	4
31. I help others to develop their strengths .....	0	1	2	3	4
32. I suggest new ways of looking at how to complete assignments .....	0	1	2	3	4
33. I delay responding to urgent questions .....	0	1	2	3	4
34. I emphasize the importance of having a collective sense of mission .....	0	1	2	3	4
35. I express satisfaction when others meet expectations .....	0	1	2	3	4
36. I express confidence that goals will be achieved .....	0	1	2	3	4
37. I am effective in meeting others' job-related needs .....	0	1	2	3	4
38. I use methods of leadership that are satisfying .....	0	1	2	3	4
39. I get others to do more than they expected to do .....	0	1	2	3	4
40. I am effective in representing others to higher authority .....	0	1	2	3	4
41. I work with others in a satisfactory way .....	0	1	2	3	4
42. I heighten others' desire to succeed .....	0	1	2	3	4
43. I am effective in meeting organizational requirements .....	0	1	2	3	4
44. I increase others' willingness to try harder .....	0	1	2	3	4
45. I lead a group that is effective .....	0	1	2	3	4

## MLQ      Multifactor Leadership Questionnaire Scoring Key (5x) Short

My Name: \_\_\_\_\_ Date: \_\_\_\_\_

Organization ID #: \_\_\_\_\_ Leader ID #: \_\_\_\_\_

**Scoring:** The MLQ scale scores are average scores for the items on the scale. The score can be derived by summing the items and dividing by the number of items that make up the scale. All of the leadership style scales have four items, Extra Effort has three items, Effectiveness has four items, and Satisfaction has two items.

Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always
0	1	2	3	4

**Idealized Influence (Attributed) total/4 =**

**Management-by-Exception (Active) total/4 =**

**Idealized Influence (Behavior) total/4 =**

**Management-by-Exception (Passive) total/4 =**

**Inspirational Motivation total/4 =**

**Laissez-faire Leadership total/4 =**

**Intellectual Stimulation total/4 =**

**Extra Effort total/3 =**

**Individual Consideration total/4 =**

**Effectiveness total/4 =**

**Contingent Reward total/4 =**

**Satisfaction total/2 =**

1.	<b>Contingent Reward</b> .....	0	1	2	3	4
2.	<b>Intellectual Stimulation</b> .....	0	1	2	3	4
3.	<b>Management-by-Exception (Passive)</b> .....	0	1	2	3	4
4.	<b>Management-by-Exception (Active)</b> .....	0	1	2	3	4
5.	<b>Laissez-faire Leadership</b> .....	0	1	2	3	4
6.	<b>Idealized Influence (Behavior)</b> .....	0	1	2	3	4
7.	<b>Laissez-faire Leadership</b> .....	0	1	2	3	4
8.	<b>Intellectual Stimulation</b> .....	0	1	2	3	4
9.	<b>Inspirational Motivation</b> .....	0	1	2	3	4
10.	<b>Idealized Influence (Attributed)</b> .....	0	1	2	3	4
11.	<b>Contingent Reward</b> .....	0	1	2	3	4
12.	<b>Management-by-Exception (Passive)</b> .....	0	1	2	3	4
13.	<b>Inspirational Motivation</b> .....	0	1	2	3	4
14.	<b>Idealized Influence (Behavior)</b> .....	0	1	2	3	4
15.	<b>Individual Consideration</b> .....	0	1	2	3	4

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Continued =>

	Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always
	0	1	2	3	4
16.					
17.					
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43.					
44.					
45.					

### *Implicit Person Theory*

Please indicate your agreement with the following statements based on the scaled displayed below:

<b>Strongly Disagree</b>						<b>Strongly Agree</b>
1	2	3	4	5	6	

1. The kind of person someone is something very basic about them and it can't be changed very much
2. People can do things differently, but the important parts of who they are can't be changed
3. Everyone is a certain kind of person and there is not much that can be done to really change that

### *Demographics and Additional Info: Head Coach Version*

1. Age: \_\_\_\_\_
2. Gender: \_\_\_\_\_
3. Highest Level of Education Completed: \_\_\_\_\_
4. Please indicate how long you have spent in your current head coaching position:  
\_\_\_\_\_
5. Would you like to receive a feedback report based on your responses to this survey? \_\_\_\_\_
6. As a means to thank you for your participation in this study, you are invited to enter a lottery for \$50. To be included in the \$50 lottery, please include your name below: \_\_\_\_\_

### *Demographics and Additional Info: FOS Sample- Supervisor Version*

1. Age: \_\_\_\_\_
2. Gender: \_\_\_\_\_
3. Highest Level of Education Completed: \_\_\_\_\_
4. Please indicate how long you have spent in your current supervisory position:  
\_\_\_\_\_
5. Would you like to receive a feedback report based on your responses to this survey? \_\_\_\_\_
6. As a means to thank you for your participation in this study, you are invited to enter a lottery for \$50. To be included in the \$50 lottery, please include your name below: \_\_\_\_\_

*IPIP*

The following phrases describe people's normal behaviors – there are no correct or incorrect answers. Please use the rating scale below to describe how accurately each statement describes *you*. Describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself, in relation to other people you know of the same sex as you are, and roughly your same age. So that you can describe yourself in an honest manner, your responses will be kept in absolute confidence. Please read each statement carefully and select the number on the scale that corresponds to your choice.

**Use the following scale as you respond to each item**

<b>Very Inaccurate</b>		<b>Neither</b>		<b>Very Accurate</b>
1	2	3	4	5

I...

1. Am the life of the party.
2. Feel little concern for others.
3. Am always prepared.
4. Get stressed out easily.
5. Have a rich vocabulary.
6. Don't talk a lot.
7. Am interested in people.
8. Leave my belongings around.
9. Am relaxed most of the time.
10. Have difficulty understanding abstract ideas.
11. Feel comfortable around people.
12. Insult people.
13. Pay attention to details.
14. Worry about things.
15. Have a vivid imagination.
16. Keep in the background.
17. Sympathize with others' feelings.
18. Make a mess of things.
19. Seldom feel blue.
20. Am not interested in abstract ideas.



21. Start conversations.
22. Am not interested in other people's problems.
23. Get chores done right away.
24. Am easily disturbed.
25. Have excellent ideas.
26. Have little to say.
27. Have a soft heart.
28. Often forget to put things back in their proper place.
29. Get upset easily.
30. Do not have a good imagination.
31. Talk to a lot of different people at parties.
32. Am not really interested in others.
33. Like order.
34. Change my mood a lot.
35. Am quick to understand things.
36. Don't like to draw attention to myself.
37. Take time out for others.
38. Shirk my duties.
39. Have frequent mood swings.
40. Use difficult words.
41. Don't mind being the center of attention.
42. Feel others' emotions.
43. Follow a schedule.
44. Get irritated easily.
45. Spend time reflecting on things.
46. Am quiet around strangers.
47. Make people feel at ease.
48. Am exacting in my work.
49. Often feel blue.
50. Am full of ideas.