2006

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Master's Theses. 2967.
DOI: <https://doi.org/10.31979/etd.hx3f-vwq3>
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**THE RELATIONSHIPS BETWEEN LEADERSHIP STYLES AND
EMPLOYEE ENGAGEMENT**

A Thesis

Presented to

The Faculty of the Department of Psychology

San Jose State University

In Partial Fulfillment

of the Requirements for the Degree

Master of Science

by

Joshua M. Metzler

August 2006

UMI Number: 1438582

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ABSTRACT

THE RELATIONSHIPS BETWEEN LEADERSHIP STYLES AND EMPLOYEE ENGAGEMENT

By Joshua M. Metzler

This thesis examines the relationships between transformational and transactional leadership styles and employee engagement (vigor, dedication, and absorption), on a sample of 251 university students. It examines the predictive ability of both leadership styles on engagement, hypothesizing that both styles will positively predict aspects of engagement, but that transformational leadership, the more effective style, will have greater predictive strength. In addition, correlations between the transformational and engagement dimensions are studied and compared. The MRC analyses found that both transformational and transactional leadership positively predicted employee vigor, dedication, and absorption, with transformational leadership possessing greater predictive strength. Contrary to expectations, Hotelling's t -tests did not support the proposed theoretical relationships between specific transformational and engagement dimensions. Only intellectual stimulation was found to be significantly more correlated to employee absorption than other transformational subscales. Implications, limitations, and future directions for leadership research are discussed.

ACKNOWLEDGEMENTS

I would like to thank the following people:

- My mother, Carol Metzler, for your unfailing love and support over the years.
- Amber Greeley, for standing by me and encouraging me through the long months apart.
- Howard Tokunaga, for acting as my thesis advisor and providing valuable feedback and direction to this project.
- Nancy Da Silva, for your willingness to work with me and act as my second reader, regardless of how we started the second year. Thank you for your careful attention, which greatly helped to improve this thesis.
- Michelle Deneau, for taking time to act as my third reader. Thank you for always being available to answer questions or provide guidance. Working for you was my first brush with a transformational leader, and I could not be more grateful for the experience.

THANK YOU

TABLE OF CONTENTS

SECTIONS	PAGE
List of Tables	viii
INTRODUCTION	1
Transactional Leadership	2
Transformational Leadership	4
Transactional vs. Transformational Leadership	7
Leadership Styles and Work-Related Outcomes	9
Engagement	12
Hypotheses and Theoretical Relationships between Concepts	16
Research Implications	22
METHOD	23
Participants	23
Instruments	25
Leadership Style	25
Employee Engagement	27
Procedure	28
RESULTS	29
Factor and Reliability Analyses	29
Descriptive Statistics	33
Correlations	36

Prediction of Subordinates' Ratings of Engagement	40
Comparison of Correlations	45
DISCUSSION	50
Implications	53
Limitations and Future Directions	55
REFERENCES	61
APPENDIX A: SURVEY MATERIALS	65
APPENDIX B: IRB APPROVAL LETTER	70

LIST OF TABLES

TABLE		PAGE
1.	Demographic Variables	24/25
2.	Principal Components Analysis of Leadership Measures, with Oblimin Rotation	30
3.	Principal Components Analysis of Engagement Measures, with Oblimin Rotation	33
4.	Means, Standard Deviations, Correlations, and Reliability Coefficients Among the Measured Variables	35
5.	Standard MRC Regressions Table	41
6.	Hotelling's <i>t</i> -tests Among Transformational Variables	46

Introduction

Leaders can have a profound impact and influence on individuals and organizations. Whether the influence is positive (e.g., Jack Welch at G.E.) or criminal (e.g., Ken Lay at Enron), organizations and individuals are changed as a result of leadership. Leaders relate to their employees and their employees relate to their work. Due to this connection, the leadership style and behaviors an individual uses may have an influence on important subordinate outcomes, such as performance, satisfaction, and perceptions of that leaders' effectiveness (Bass, 1997; Bass & Avolio, 1993).

In the past, there have been various ways of characterizing leadership, ranging from the trait approach, where the personal characteristics of leaders were emphasized, to situational leadership theory, proposing that leaders attune their behavior to fit with the developmental level of their team as a whole (Den Hartog & Koopman, 2002). However, in recent years, the focus of leadership research has shifted, accompanied by the acceptance of the distinction between transactional and transformational leadership, with an emphasis on the latter (Ehrlich, Meindl, & Viellieu, 1990). Both leadership styles have been found to relate to outcomes of employee satisfaction and performance (Bass, 1997), productivity (Longshore, 1988), and lower employee turnover (Bryant, 1990). One subordinate outcome, though, that has never been studied in relation to leadership theory is employee job engagement. The purpose of the proposed research is to study the relationships between transformational and transactional leadership styles and employee job engagement.

First, transactional and transformational leadership will be individually discussed and defined, followed by a review of how they relate to each other, as well as relate to important organizational and employee outcomes. Second, job engagement theory will be reviewed and its dimensions will be presented. The theoretical connections between dimensions of leadership and work engagement will follow. Third, research hypotheses will be presented.

Transactional Leadership

In the past, it has been customary to see leadership as a method of getting subordinates to meet job requirements by handing out rewards or punishment (Bass, 1985; Burns, 1978). At this basic level, leadership is seen simply as an exchange between the leader and the follower (Burns, 1978). However, transactional leadership theory is founded on the idea that leader-subordinate relations are based on a series of exchanges or implicit bargains between leaders and followers (Den Hartog & Koopman, 2002). The exchange may be economic, political or psychological (Burns, 1978). In the transactional leadership model, it is the leader's responsibility to recognize what actions must be taken by subordinates to achieve certain valued outcomes (Den Hartog & Koopman, 2002). This includes clarifying subordinate roles and task requirements so that employees are comfortable in exerting necessary efforts (Bass, 1985). In exchange for these supervisory actions, employees are expected to perform the duties assigned to them in order to achieve outcomes specified by their leaders.

Bass (1985) characterized transactional leadership as comprising of multiple dimensions. The first dimension is contingent rewarding or reinforcement (Den Hartog,

Van Muijen, & Koopman, 1997), where the leader clarifies what needs to be done and provides appropriate reinforcement for compliance. Contingent rewards may include praise for work well done, recommendations for increased pay and promotion, or admittance into the leader's in-group of preferred employees. Punishment is also a component of the contingent dimension, where the leader exhibits a negative reaction to a subordinate's deviation from performance norms. Punishment may take the form of reprimands, displayed disapproval, and exclusion of the employee to the leader's in-group.

The second dimension, management-by-exception, is characterized by managerial action that is only taken when things go wrong and standards are not met (Bass, 1985; Den Hartog et al., 1997). In this dimension, leaders avoid giving directions if the old ways work and allow followers to continue doing their jobs as always if performance goals are met (Hater and Bass, 1988). Management-by-exception may be either active or passive. Leaders who actively manage-by-exception proactively seek deviations from standardized procedures and take action only when deviations occur. The leader specifies the standards for compliance, as well as what constitutes ineffective performance (Bass, Avolio, Jung, & Berson, 2003).

Passive management-by-exception is characterized by leaders who only act after deviations have occurred. The leader either waits for problems to arise before taking action or takes no action at all (Bass et al., 2003). Generally, the modes of reinforcement are corrective criticism, negative feedback, and negative contingent reinforcement, rather than positive reinforcement used with contingent rewarding (Bass & Avolio, 1993). The

difference between the two is that in the active form the leader searches for deviations, whereas in the passive form the leader waits for problems to materialize (Hater and Bass, 1988). Active management-by-exception is generally considered more effective than the passive form, due to the close monitoring and corrective action directed toward employee actions and behavior, rather than the attitude of leadership avoidance by passive leaders (Bass et al., 2003).

Transformational Leadership

Whereas transactional leadership focuses on the exchange between leaders and followers, Burns' (1978) theory of transformational leadership suggested that employees function most effectively when led in a way that is beyond simple transactions. Further writings proposed that transformational leaders motivate followers to do more than they originally expected to do, while also seeking large shifts in their followers' attitudes, values, behaviors, morals, and needs (Bass, 1985; Hater & Bass, 1988; Den Hartog, Van Muijen, & Koopman, 1997). Hater and Bass (1988) note that the dynamics of transformational leadership involve strong personal identification with the leader, joining in a shared vision of the future, or going beyond the self interest exchange of rewards for compliance.

Transformational leaders induce additional effort by increasing their followers' confidence and by elevating the value of work outcomes through the expanding of their subordinates' transcendental interests (Bass, 1985; Hater & Bass, 1988; Yammarino & Bass, 1990). Transformational leaders expand these interests by raising the need level of their followers from security needs, related to the rewards and exchanges of transactional

leadership, to the need for achievement, self fulfillment, and self actualization (Bass, 1985; Whetstone, 2002). Followers are also more likely to transcend their own self interest for the sake of the team and organization under such a leader.

Bass (1985) conducted interviews with 70 senior executives, defining transformational leadership and asking respondents to describe a transformational leader with whom they had come in contact with. Respondents reported that the leader induced them to work above and beyond what was expected of them, while inciting support for the leader and the desire of their followers to satisfy the expectations of the leader. Their leader increased their awareness of and promoted higher levels of performance and greater innovativeness in their teams. As a result of the follower's belief in the leader and heightened self-confidence, total commitment to and belief in the organization emerged (Bass 1985).

When describing their leaders, the same respondents described them as friendly parental figures that treated the follower as an equal, despite possessing greater knowledge and experience. While serving as a model of integrity and fairness, the leaders set clear and high performance expectations and constantly encouraged followers' self development with advice, help, support, and recognition. The transformational leaders described were good listeners and built the self confidence of their followers, but could be firm, formal, and reprimand when necessary (Bass 1985). Lastly, transformational leaders are less willing to accept the status quo and are more likely to seek new ways of doing things.

Transformational leadership is comprised of four dimensions: idealized influence (charisma), inspirational motivation, individual consideration, and intellectual stimulation (Den Hartog and Koopman, 2002; Den Hartog et al., 1997). In the first dimension, the charismatic leader instills pride, faith, and respect in their followers, has an increased awareness of outcome value, importance, and priority, and transmits a sense of mission (Hater & Bass, 1988). Charismatic leaders excite, arouse, and inspire their followers, and will typically attract intense feelings of love from their subordinates, who will, in turn, seek to identify with their leader (Bass, 1985). The leader becomes an ideal that the subordinates strive to emulate.

The second dimension, inspirational motivation, was originally conceptualized as a sub factor within the idealized influence dimension. Inspiration describes a leader's capacity to act as a model for subordinates, the communication of a vision, and the use of symbols to focus efforts (Den Hartog & Koopman, 2002). Leaders behave in ways that motivate those around them by providing meaning and challenge to their followers' work. Such inspirational behaviors include the display of enthusiasm and optimism about performance, goals, and organizational values and vision (Bass, Avolio, Jung, & Berson, 2003).

In addition to the charismatic and inspirational abilities of transformational leaders, the third dimension, individual consideration, also significantly contributes to subordinates' achievement of their fullest potential (Yammarino & Bass, 1990). Individual consideration involves the delegation of projects to stimulate subordinate learning experiences, and emphasizes the coaching, teaching, and mentoring of followers

(Den Hartog & Koopman, 2002; Hater & Bass, 1988). This dimension promotes treating followers as individuals, developing individual relationships with subordinates, and linking the individual's current needs to the organization's mission (Bass, 1985).

The fourth and last dimension is intellectual stimulation. In this dimension, leaders arouse their followers to think in new ways and emphasize problem solving and the use of reasoning before taking action (Hater & Bass, 1988). These leaders stir the imagination, creativity, logic, and reasoning capabilities of their followers. There is no public ridicule or criticism of individual members' mistakes. New ideas and creative solutions to problems are solicited from followers, who are included in the process of addressing problems and finding solutions (Bass et al., 2003).

Transactional vs. Transformational Leadership

Although the two leadership styles appear very different, they are included together in one empirically supported model. The Full Range of Leadership Model, described by Bass (1998), encompasses every transformational and transactional leadership dimension. Fundamental to the model is the idea that every leader displays leadership styles, and dimensions of each style, to some extent (Bass, 1998). Leaders display behaviors from every transformational and transactional leadership dimension mentioned above. However, what makes a leader more transformational, or more transactional, are the frequencies of the leadership behaviors they exhibit.

The model proposes that a person with an optimal leadership profile displays successively higher frequencies of the transactional leadership styles of management-by-exception (passive), management-by-exception (active), contingent rewarding, and

displays most frequently the dimensions of transformational leadership. Previous literature will be discussed later showing that those leaders exhibiting more transformational behaviors are more effective and more predictive of positive subordinate workplace outcomes than leaders who exhibit higher frequencies of transactional behaviors. However, transactional leadership has also shown to be effective, though not to the level of transformational leadership. The literature will show that transaction based changes in subordinates, particularly those related to the contingent rewarding dimension, represent small, but often significant improvements to subordinate effort and performance.

As seen earlier, transactional and transformational leaders differ on the processes, behaviors and styles by which they motivate subordinates and on the types of goals they set (Den Hartog et al., 1997). The transactional leadership model focuses on exchange-based leader-follower relationships. Followers agree with, accept, or comply with the leader in exchange for praise, rewards, and resources or the avoidance of disciplinary action. Transactional leaders clarify expectations and specify standards for compliance, as well as what constitutes ineffective performance. As a result, followers who do not comply are punished, or recognition is offered when goals are achieved (Bass et al., 2003).

Transformational leadership differs from transactional leadership in the developmental orientation of the leader's behavior. Leaders who exhibit increased transformational behaviors focus on leader-follower relationships that are based on shared vision, transcending self interest, performance above expectations, personal

development, and success. Rather than viewing the leader as a source of reward or punishment, many followers identify with and want to emulate their transformational leaders. Such leaders build personal and social identification among followers with the mission and goals of the leader and organization. Transformational leaders gain the confidence of their followers so that the followers will have increased willingness to sacrifice (i.e., time away from home, long hours) for their team and organizations.

In addition, transformational leadership does not only rely on exchanges to motivate followers, but seeks to motivate those around them by providing meaning and challenge to their followers' work. Subordinates are encouraged to envision attractive future states, which they can ultimately envision for themselves (Bass et al., 2003). Lastly, rather than intervening only when subordinate behavior deviates from the norm, as many transactional leaders do (Bass, 1985), transformational leaders pay attention to each individual's need for achievement and growth by acting as a coach and mentor. New learning opportunities are created along with a supportive climate in which followers may grow.

Leadership Styles and Work-Related Outcomes

As seen above, transformational and transactional leadership differs in their approaches to leadership and leader-followers relations. The leadership models also differ in terms of work-related outcomes. Recent literature has shown that transformational leadership is often more effective than transactional leadership in achieving higher levels of improvement and change among subordinates (Bass, 1985; Den Hartog and Koopman, 2002). Whereas transformational leadership seek higher

order changes in subordinates, such as large shifts in attitudes, values, morals, beliefs, and needs, transactional leadership endeavors to improve the quantity and quality of performance, substituting one goal for another, and reducing resistance to action (Bass, 1985).

Bass and Avolio (2004) used the public school setting as an example. In such a setting, transactional leadership operates effectively when students pursue goals, such as good grades and parental or teacher approval. However, those are examples of exchanging effort for specific rewards. Even at its most optimal level, the transactional exchange may not substantially change the way students interpret the benefits of learning. The students may not actively pursue learning on their own beyond school or the transactional exchange process. True transformation occurs when students are intrinsically motivated to pursue their studies and further their own self-development. Although one style may not be “better” than the other in this example or others, it may be seen that transformational leadership, with its follower-centered emphasis and developmental orientation, is more strongly related to positive follower outcomes, which in turn affects organization outcomes.

Consistent positive statistical relationships have been found between transformational and transactional leadership and outcomes of employee satisfaction and performance (Bass, 1997; Bass & Avolio, 1993). When effectiveness of performance/satisfaction with the leader and leadership style ratings were obtained from the same source (subordinate), transformational leadership had the highest correlations,

with ratings of leader effectiveness and satisfaction, (Bass & Avolio, 1993) followed by contingent reward (transactional), and management-by-exception (transactional).

Additional research conducted using objective criteria of performance and outcome measures yielded similar results. In his study of Methodist minister leadership styles, Onnen (1987) reported that when ministers were more transformational versus transactional, church attendance and new church membership were higher. Longshore (1988) found groups led by U.S. Marine officers to be more productive when the officers were more transformational and less transactional. Bryant (1990) reported that nursing supervisors, rated by their followers as more transformational, ran units with lower turnover rates. Yammarino and Bass (1990) allowed the subordinates and superiors of junior officers to rate their leadership style. Those junior officers seen by their followers as more transformational had higher cumulative fitness reports and were more often given recommendations for early promotion. Overwhelmingly, the literature shows that transformational leadership, followed by transactional leadership, has a positive influence, not only on leaders' subordinates, but also outcomes related to the success of the organization.

As seen above, a multitude of research on the effects of transformational and transactional leadership on a variety of outcomes has been studied. Surprisingly, however, one outcome that previous research has failed to touch upon is the concept of employee job engagement and how it may be influenced by leadership style. This area of study is extremely important, due to the increased emphasis in research on positive

psychology (Schaufeli, Salanova, Gonzalez-Roma, & Bakker, 2002), and may have important implications for organizations in the future.

First, employee job engagement literature, theory, and dimensions will be discussed. This will be followed by a review of the theoretical connections that tie leadership and job engagement together. Lastly, research hypotheses will be presented.

Engagement

The study of engagement in work settings has become an increasingly important research topic in recent years, due to the emerging trend towards a 'positive psychology.' This trend focuses on human strengths and optimal functioning rather than on weaknesses and malfunctioning (Schaufeli et al., 2002). In other words, at its most basic level, job engagement is the study of the relationship between employees and their work. More specifically, job engagement may be considered "a positive, fulfilling, work-related state of mind" (Schaufeli & Bakker, 2004; p. 295). There are times in every employee's work lives when they feel more personally responsible and committed to performing tasks successfully, as well as times when they feel disengaged from a task, with little care for their level of performance (Britt, 2003). For quite some time, researchers have been interested in conceptualizing personal job engagement, and investigating the factors that may contribute to it (Kahn, 1990; Britt, 1999; Britt, 2003; Demerouti, Bakker, de Jonge, Janssen, & Schaufeli, 2001).

Over the years, several researchers have developed varying explanations for what factors characterize individuals' engagement, or disengagement, with their work. Kahn (1990) was one of the first to write on the subject of work-related engagement and

disengagement, conceptualizing engagement as the harnessing of organization members' selves to their work roles. In engagement, people employ and express themselves physically, cognitively, and emotionally during role performances. Although Kahn (1990) was a pioneer in the study of employee engagement, his definition of employee engagement is overly broad in nature. Kahn (1990) noted that in engagement, people employ and express themselves physically, cognitively, and emotionally during performance. However, due to the broad nature of this definition, such expressions have the possibility of being misrepresented as other employee outcomes, such as organizational citizenship behavior, organizational commitment, or job satisfaction/dissatisfaction. Although Kahn (1990) presents a comprehensive theoretical model of engagement, he does not propose an operationalization of the construct.

Unlike Kahn's (1990) broad conceptualization of engagement that focused on the harnessing of organization member's selves, Britt (1999; 2003) defined job engagement as being personally responsible for and committed to one's job performance. In this situation, engaged employees care about their performance in their work. Britt (2003) suggested that job engagement is predicted from the identity-relevance of a task. In the opinion of this study, however, we suggest that employees are capable of reaching engaged job states even when job tasks may be perceived as irrelevant to their identity or role.

Another conceptualization of engagement that has gained more attention in recent years, and that will be used for the purposes of this study, is Schaufeli's three dimensional model of job engagement (Maslach, Schaufeli, & Leiter, 2001; Schaufeli,

Salanova, Gonzalez-Roma, & Bakker, 2002). Schaufeli's model of job engagement originally stemmed from Maslach and Leiter's (1997) research on burnout.

Burnout is a metaphor that has been commonly used to describe "a state of mental weariness," or extreme exhaustion (Schaufeli & Bakker, 2004; p. 294). In studying this construct, Maslach and Leiter (1997) proposed a three dimensional model of burnout: emotional exhaustion, depersonalization, and professional efficacy (lack of personal accomplishments). Emotional exhaustion is characterized by work-related fatigue, and does not refer to other people one is working with. Emotional exhaustion prompts an individual to distance themselves emotionally and cognitively from their work. The second dimension, depersonalization, or cynicism, reflects "indifference or a distant attitude towards work in general, not necessarily with other people" (Schaufeli & Bakker, 2004; p. 294). Depersonalization may be an attempt to put distance between oneself and other people by actively ignoring them. Individuals use cognitive distancing by developing an indifference or cynical attitude when they are exhausted or discouraged (Maslach, Schaufeli, & Leiter, 2001). The final dimension, professional efficacy, reflects the tendency to evaluate one's work with recipients negatively (Schaufeli et al., 2001). Using their survey, the Maslach Burnout Inventory – General Survey (MBI-GS: Schaufeli, Leiter, Maslach, & Jackson, 1996), to measure burnout, high scores on exhaustion and depersonalization, and low scores on professional efficacy, are reflective of burnout.

When they began to incorporate the study of job engagement into their burnout research, Maslach and Leiter (1997) assumed that job engagement was the positive

antipode of burnout, and that engagement and burnout were dependent, inseparable models which sat on opposite ends of the same continuum. Thus, the three dimensions of their job engagement model were direct opposites of the burnout dimensions: energy (exhaustion), involvement (depersonalization), and efficacy (lack of personal accomplishment) (Schaufeli & Bakker, 2004). To Maslach and Leiter (1997), burnout is an erosion of job engagement, whereby “energy turns into exhaustion, involvement turns into cynicism, and efficacy turns into ineffectiveness” (p. 24).

Schaufeli et al. (2002), however, defined job engagement in its’ own right, proposing that the two were not opposite ends of one continuum, but separate, independent concepts that should be measured with different instruments. It is not presumed that job engagement act as the opposite of burnout. In this new model, job engagement is defined as “a persistent, positive, affective-motivational state of fulfillment in employees” (Maslach, Schaufeli, & Leiter, 2001; p. 417), rather than an affective state that appears when only employees are not burnt out (Maslach & Leiter, 1997). In Schaufeli’s conceptualization, employees who are not burnt out are not automatically engaged. Only those employees that are fulfilled on certain dimensions may be classified as engaged. The three dimensions that characterize engagement are vigor, dedication, and absorption.

According to Schaufeli et al. (2002), vigor may be defined as “high levels of energy and resilience, the willingness to invest effort in one’s job, the ability to not be easily fatigued, and persistence in the face of difficulties” (p. 417). Employee dedication involves a “strong involvement in one’s work, accompanied by feelings of enthusiasm

and significance, and by a sense of pride and inspiration” (p. 417). Absorption is conceptualized as a “pleasant state of total immersion in one’s work, characterized by time passing quickly and being unable to detach oneself from the job” (p. 417).

Hypotheses and Theoretical Relationships between Concepts

As seen, there has been a great deal of literature that has looked into the relationship between leadership theory and organizational outcomes. Newer research has also been conducted on job engagement theory. One recent study, conducted by Schaufeli and Bakker (2004), indirectly measured aspects of transformational leadership and its’ influence on job engagement. They found that two variables encompassed in the individual consideration dimension of transformational leadership (coaching and feedback) were positively related to vigor, dedication, and absorption. A second study, performed by May, Gilson, and Harter (2004), also found significant results relating job engagement to leadership. They found that employee job engagement was significantly correlated with supervisor relations, which they defined as the leader’s display of concern for their employees’ needs and feelings, as well as positive feedback to employees and encouragement from the leader to voice their concerns. They also found that job engagement was significantly related to meaningfulness, which measures the degree of meaning an individual discovers in their work. The characteristics of supervisor relations and meaningfulness are conceptually similar to dimensions of transformational leadership, specifically to the relationship-centered and developmental orientation of individual consideration and the work-related meaningfulness brought about by inspiration. As seen, previous research has added growing support to a possible relationship between job

engagement and leadership. However, there has not been research that has directly examined the possible relationship between leadership style and its' effects on subordinate work engagement levels.

Although there may not be empirical evidence that the two concepts are directly related, there are theoretical connections that can be drawn between leadership and engagement. Specifically, the connections exist between engagement and transformational leadership, proposed as the more optimal leadership style, over transactional leadership. However, based on previous literature discussed earlier, transactional leadership has also been found to positively relate to employee outcomes, though not at the same level as transformational leadership. Therefore, the proposed overall relationships between leadership styles and subordinate work engagement can be best described by the following hypotheses:

Hypothesis 1a: Ratings of transformational leadership (intellectual stimulation, individual consideration, inspirational motivation, and idealized influence) for supervisors will positively predict subordinate levels of vigor.

Hypothesis 1b: Ratings of transformational leadership (intellectual stimulation, individual consideration, inspirational motivation, and idealized influence) for supervisors will positively predict subordinate levels of dedication.

Hypothesis 1c: Ratings of transformational leadership (intellectual stimulation, individual consideration, inspirational motivation, and idealized influence) for supervisors will positively predict subordinate levels of absorption.

Hypothesis 2a: Ratings of transactional leadership (contingent rewarding, active/passive management-by-exception) for supervisors will positively predict subordinate levels of vigor, but to a lesser degree than transformational leadership.

Hypothesis 2b: Ratings of transactional leadership (contingent rewarding, active/passive management-by-exception) for supervisors will positively predict subordinate levels of dedication, but to a lesser degree than transformational leadership.

Hypothesis 2c: Ratings of transactional leadership (contingent rewarding, active/passive management-by-exception) for supervisors will positively predict subordinate levels of absorption, but to a lesser degree than transformational leadership.

In addition to the overall relationship, it is possible to hypothesize specific relationships between leadership styles and particular dimensions of job engagement. The proposed relationships are not based solely on theoretical similarities between construct definitions, but also on previous research that present relationships between leadership and other positive workplace phenomenon. Examples of relationships between leadership and positive workplace phenomena, such as organizational commitment, organizational citizenship behavior, and subordinate trust in leader, will serve to strengthen the theoretical justifications for each hypothesis.

Transformational leaders are characterized by their focus on the development and success of their employees (individual consideration) (Bass, Avolio, Jung, & Berson, 2003). This dimension is theoretically linked to Schaufeli's (2002) vigor dimension.

According to this dimension, engaged employees are more vigorous in their work and are more willing to invest effort in their work and persist in the face of difficulties. The developmental orientation and focus upon the success of their subordinates by transformational leaders should, theoretically, lead to more vigorous employees that are constantly encouraged to invest their best effort in their work.

In their study of leadership and organizational commitment, Podsakoff, MacKenzie, and Bommer (1996) found that individualized support, conceptually similar to individual consideration, was significantly related to organizational commitment. In another study, MacKenzie, Podsakoff, and Rich (2001) showed that individualized support also correlated significantly with two other important, positive workplace outcomes: organizational citizenship behavior (helping, sportsmanship, and civic virtue) and subordinate trust in their leader. As seen from the research, the transformational leadership dimension, individual consideration, has been shown to previously relate to positive workplace attitudes and phenomenon. Therefore, based on the theoretical and empirical support, it may be proposed that:

Hypothesis 3: Of the four transformational leadership dimensions, individual consideration will have the strongest relationship with employee vigor.

As mentioned, transformational leaders are noted for their charismatic and idealized qualities and ability to inspire subordinates. The leaders have the ability to impart a sense of work significance to their followers (Bass, 1985). Regarding job engagement theory, Schaufeli (2002) noted that engaged employees have higher levels of dedication to their work, which is characterized by a sense of significance, enthusiasm,

inspiration, and pride in their work. These leadership and engagement dimensions are linked by the sense of significance and inspiration that is bestowed upon and captured by the subordinate.

A similar relationship was found in previous research conducted by Podsakoff, MacKenzie, and Bommer (1996), where specific leadership characteristics significantly related to organizational commitment, defined as the relative strength of an employee's identification with and involvement in their work (Mowday, Steers, & Porter, 1979). Specifically, the leaders' articulation of their vision, high performance expectations, and fostering of acceptance for group goals, were found to be significantly related to organizational commitment. In relating the previous research to the current study, it may be seen that the characteristics presented from Podsakoff et al.'s (1996) research relate to Bass' characterization of charisma and inspiration, in that they both focus on the articulation of a vision and high performance expectations as a result of increased employee awareness of organizational outcome values. Likewise, the conceptualization of organizational commitment relates to Schaufeli's conceptualization of job engagement because both are positive workplace outcomes and both focus, at their core, on the involvement of employees' with their work. Therefore, the current study proposes that:

Hypothesis 4: Of the four transformational leadership dimensions, idealized influence and inspiration will have the strongest relationships with employee dedication.

Lastly, transformational leaders intellectually stimulate their employees, challenging their logic and stimulating their creativity and reasoning abilities (Bass & Avolio, 1993). As a result of this stimulation, employees should become increasingly absorbed in their work, fully concentrated and deeply engrossed in their tasks. Unless the job tasks are highly intellectually stimulating, many employees become mentally detached from their work, or not fully present in their roles (Kahn, 1990). However, this study proposes that leadership and employee engagement will be further linked due to intellectual stimulation that may theoretically drive employees to increased absorption.

Previous research has shown that intellectual stimulation is correlated to positive workplace outcomes. Podsakoff, MacKenzie, and Bommer (1996) found that intellectual stimulation is significantly related to organizational commitment, which has been established as conceptually similar to Schaufeli's (2004) conceptualization of job engagement. Intellectual stimulation, similar to individual consideration, was also found to be significantly related to organizational citizenship behaviors (helping and sportsmanship) and subordinate trust in their leader (Mackenzie et al., 2001). It may be deduced, then, that intellectual stimulation may be found to relate to a dimension of job engagement, specifically employee absorption. Due to the theoretical and empirical support, it may be proposed that:

Hypothesis 5: Of the four transformational leadership dimensions, intellectual stimulation will have the strongest relationship with employee absorption.

Research Implications

The relationship between leadership and subordinate engagement is important to investigate and has far reaching implications. Leaders that are rated higher on transformational leadership scales may have more engaged employees. High work engagement may lead to important outcomes, such as decreased employee health problems, turnover intentions, exhaustion, cynicism, and increased professional efficacy (Schaufeli & Bakker, 2004). If this relationship does exist, that points to organizational implications as well, such as the creation or revision of managerial selection criteria and selection devices, so that transformational leadership behaviors are targeted over purely transactional leadership. This would, in turn, transform the entire leadership structure of the organization. Recruiting and promotion policies could be altered, as well as leadership and executive training modules. However, if leadership style is not related to levels of subordinate engagement, managerial selection criteria can be more varied and individuals that rate very highly on transactional leadership dimensions can be promoted (taking into account various factors, not related to the current study).

Method

Participants

The sample in this study consisted of students enrolled in a university in the western region of the United States. This university is a commuter school in a large metropolitan area, where a large portion of students work while attending school.

Undergraduate student subjects were chosen through convenience sampling. Participation was offered to any student in the particular classroom in which permission from the professor had been granted to collect data. A demographic description of the sample may be seen in Table 1. A total of 263 students participated, out of 270 surveys that were distributed, leading to a 97% response rate. Of the 263 completed surveys, 12 questionnaires could not be used in data analyses due to missing data above the set cutoff (< 4 missing items), leading to a total sample of 251 participants. The sample comprised of 113 (45%) females and 133 (53%) males, with 5 missing responses (2%). The average participant age was 21.53, ranging from 18 to 56 years old. However, 83 % of participants were 23 or younger, leading to a high percentage of younger participants.

The mean hours per week worked were 24.89, and ranged from 3 to 60 hours per week. In regards to tenure, 57.1% of participants had only been in their positions for up to a year, and 83.8% had been at their positions for 1 to 3 years. Of the participants, 60.8% had worked for their current, or most current, supervisor for 6 months to 1 year, and 91% had worked under their rated supervisor for 1 to 3 years. When choosing which industry they had worked in, the highest combined percentage of respondents chose Retail (23.6%) and Food/beverage (18.3%). The highest percentage chose Other (26.4%),

and listed responses such as entertainment, healthcare, and childcare. In general, the sample may be described as youthful, working in lower level positions with little time in their position or under their current supervisor.

Table 1 Demographic Variables

			<i>Total Sample (N = 251)</i>		
<i>Measure</i>	<i>N</i>	<i>%</i>	<i>Measure(cont.)</i>	<i>N</i>	<i>%</i>
Gender			Industry		
Male	113	45 %	Retail	58	23.1 %
Female	133	53 %	Food/Beverage	45	17.9 %
			Communication	8	3.2 %
Age	M =		Technology	9	3.6 %
	21.53	SD = 5.84	Financial	9	3.6 %
18 - 22 years	192	76.6 %	Industrial	3	1.2 %
23 - 28 years	37	14.8 %	Energy/Utility	1	0.4 %
29 - 56 years	16	6.4 %	Manufacturing	10	4.0 %
Hours Worked per Week	M =	SD =	Hospitality	13	5.2 %
	24.89	11.80	Construction	5	2.0 %
3 - 10 hrs	25	10.0 %	Education	20	8.0 %
11 - 25 hrs	126	50.3 %	Other	65	25.9 %
26 - 39 hrs	46	18.4 %			
40 or more hrs	50	19.9 %			
Tenure			Other Industries*		
<6 Months	73	29.1 %	Mechanic	3	1.2 %
6 Months - 1 Yr	68	27.1 %	Swim Instructor	3	1.2 %
1 - 3 Yrs	66	26.3 %	Gym/Fitness	4	1.6 %
3 - 5 Yrs	27	10.8 %	Childcare	6	2.4 %
5 - 7 Yrs	7	2.8 %	Entertainment	3	1.2 %
>7 Yrs	6	2.4 %	Medical/Dental	10	4.0 %
Tenure under Supervisor					
<6 Months	89	35.5 %			
6 Months - 1 Yr	60	23.9 %			
1 - 3 Yrs	74	29.5 %			
3 - 5 Yrs	18	7.2 %			

5 - 7 Yrs	3	1.2	%
>7 Yrs	1	.4	%

* 60 Additional industries were given. Only a sample is presented above.

Instruments

Leadership style was assessed using Bass and Avolio's (2004) Multifactor Leadership Questionnaire (3rd edition, Form 5X). The Multifactor Leadership Questionnaire (MLQ), consisting of 32 items, measures subordinate perceptions of their supervisors' leadership styles. Subordinates rate their leaders on items that differentiate between transformational and transactional leadership behaviors.

The transformational leadership construct consists of four dimensions: idealized influence (charisma), inspiration, individual consideration, and intellectual stimulation (Bass, 1985). Transaction leadership consists of three dimensions: contingent reward, and active and passive management-by-exception (Den Hartog, Van Muijen, & Koopman, 1997). All MLQ items are responded to using a five-point frequency scale: *frequently, if not always* (4); *fairly often* (3); *sometimes* (2); *once in awhile* (1); and *not at all* (0). The leadership scales scores of a rated supervisor are calculated by taking the mean of the participant's ratings for each leadership dimension; therefore, scores on each dimension range from 0.00 to 4.00.

There are four dimensions of transformational leadership.

Idealized Influence (8 items: 4 attributed, 4 behavioral) – Charismatic leaders instill pride, faith, and respect in their subordinates. They have a gift for seeing and

communicating what is really important and transmitting a sense of mission (Bass, 1985) (e.g., “Talks about his/her most important values and beliefs”).

Inspirational Motivation (4 items) – Inspirational motivation describes a leader’s capacity to act as a model for subordinates. This includes the communication of their vision, and the use of symbols to focus efforts (Hater & Bass, 1988) (e.g., “Articulates a compelling vision of the future”).

Individualized Consideration (4 items) – Leaders using individualized consideration delegate tasks and responsibilities to subordinates to provide learning opportunities, provide employees coaching and teaching, and treat each subordinate as an individual (Den Hartog & Koopman, 2002) (e.g., “Treats me as an individual rather than just as a member of a group”).

Intellectual Stimulation (4 items) – Intellectually stimulating leaders arouse subordinates to think in new ways, while emphasizing problem solving and the use of reasoning before taking action (Hater & Bass, 1988) (e.g., “Suggests new ways of looking at how to complete assignments”).

Transactional leadership occurs when the leader sets expectations, standards, or goals to reward or discipline a follower depending on the adequacy of a follower’s performance (Bass, Avolio, Jung, & Berson, 2003).

Contingent Reward (4 items) – Leaders that utilize contingent rewarding behaviors provide rewards if subordinates perform or expend the necessary effort in accordance with agreements or requirements (Den Hartog, Van Muijen, & Koopman,

1997) (e.g., “Makes clear what one can expect to receive when performance goals are achieved”).

Management by Exception (8 items: 4 active, 4 passive) – Management by exception involves managerial action taken only when things go wrong and standards are not met (Bass, 1985) (active and passive forms, represented in the items “Directs attention towards failures to meet standards” and “Delays responding to urgent problems,” respectively).

Employee engagement was assessed using the Utrecht Work Engagement Scale (UWES; Schaufeli et al., 2002). The Utrecht Work Engagement Scale measures the extent to which employees are engaged in their jobs over three dimensions: vigor, dedication, and absorption. UWES items are responded to using a five-point frequency scale: *frequently, if not always* (4); *fairly often* (3); *sometimes* (2); *once in awhile* (1); and *not at all* (0). Engagement scores are calculated by taking the mean of participant scores per dimension. Higher scores in any of the three dimensions are indicative of engaged employees.

The three underlying dimensions of engagement are measured by three UWES subscales:

Vigor (6 items) – Vigorous employees have high levels of energy and mental resilience while working and increased willingness to invest effort in their work (Schaufeli et al., 2002) (e.g., “When I get up in the morning, I feel like going to work”).

Dedication (5 items) – Dedicated employees derive a sense of significance, enthusiasm, inspiration, pride and challenge from their work (Maslach, Schaufeli, & Leiter, 2001) (e.g., “I am enthusiastic about my job”).

Absorption (6 items) – Absorption is a pleasant state of total immersion in one’s work, which is characterized by time passing quickly and being unable to detach oneself from the job (Maslach, Schaufeli, & Leiter, 2001) (e.g., “When I am working, I forget everything else around me”).

Procedure

Emails were sent to professors requesting permission to distribute surveys to their students at the beginning of their classes. When permission had been granted to solicit research participation from their students, surveys were distributed to Psych 1 undergraduates in their classes during the first 20 minutes of their class. The questionnaires were accompanied by a letter, in which the goal of the study was briefly introduced, and the confidentiality and anonymity of the answers were emphasized. Students were kindly requested to fill out the questionnaire and place their completed surveys inside of the envelope that was left at the front of the classroom. After completion of all surveys, the envelopes were collected from the respective classrooms to ensure maximum participation.

Results

Factor and Reliability Analyses

Exploratory factor analyses were conducted to assess whether the leadership and engagement factor structures described by Bass and Avolio (2004) and Schaufeli and Bakker (2004) would hold. First, a principal components analysis with direct oblimin rotation was used to test the Multi-factor Leadership Questionnaire factor structure. The results are presented in Table 2. Six factors were produced with eigenvalues over 1. Bass and Avolio's factor structure, though, did not hold. Of the twenty items that represented the five transformational leadership dimensions, fourteen loaded on the first factor. The first factor also encompassed three of the four contingent rewarding items. Only management by exception, in both its active and passive forms, seemed to hold its structure, with all of the active items loading on the second factor, and all of the passive items loading on the third factor. It would appear from the factor analysis that the participants distinguished between three dimensions of leadership, with the first dimension representing an all-encompassing, positive measure of transformational and rewarding leadership and the second and third measures representing the negative behaviors of management by exception. The factor analyses of the current study did not support Bass' factor structure; however, many previous studies have produced results supporting the factor structure. For the current research, the use of the proposed factor structure, over a reduced set of factors, was imperative in the testing of hypotheses three, four, and five. As a result, for the purposes of the current study, Bass and Avolio's (2004) proposed factor structure were retained.

Table 2 Principal Components Analysis of Leadership Measures, with Oblimin Rotation

Items	Component					
	1	2	3	4	5	6
<i>Transactional - Contingent Rewarding</i>						
Provides me with assistance in exchange for my efforts						.63
Discusses in specific terms who is responsible for achieving performance targets	.53				-.44	
Makes clear what one can expect to receive when performance goals are achieved	.59					
Expresses satisfaction when I meet expectations	.81					
<i>Transactional - Management-by-exception (passive)</i>						
Fails to interfere until problems become serious				.70		
Waits for things to go wrong before taking action				.74		
Shows that he/she is a firm believer in "If it ain't broke, don't fix it."				.40	.66	
Demonstrates that problems must become chronic before taking action				.73		
<i>Transactional - Management-by-exception (active)</i>						
Focuses attention on irregularities, mistakes, exceptions, and deviations from standards				.47		
Concentrates his/her full attention on dealing with mistakes, complaints, and failures				.62		
Keeps track of all mistakes				.85		
Directs my attention towards failures to meet standards				.69		
<i>Transformational - Intellectual Stimulation</i>						
Re-examines critical assumptions to question whether they are appropriate						.82
Seeks differing perspectives when solving problems	.51					
Gets me to look at problems from many different angles	.55					
Suggests new ways of looking at how to complete assignments	.58					
<i>Transformational - Idealized Influence (behavior)</i>						
Talks about his/her most important values and beliefs					-.66	
Specifies the importance of having a strong sense of purpose	.73					
Considers the moral and ethical consequences of decisions				.58		
Emphasizes the importance of having a collective sense of mission	.59					
<i>Transformational - Idealized Influence (attributed)</i>						
Instills pride in me for being associated with him/her	.70					
Goes beyond self-interest for the good of the group	.57					
Acts in ways that builds my respect	.45			.42		
Displays a sense of power and confidence		.42				
<i>Transformational - Inspirational Motivation</i>						
Talks optimistically about the future	.69					
Talks enthusiastically about what needs to be accomplished	.86					
Articulates a compelling vision of the future	.67					
Expresses confidence that goals will be achieved	.84					
<i>Transformational - Individual Consideration</i>						
Spends time teaching and coaching	.56					
Treats me as an individual rather than just as a member of a group				.48		
Considers me as having different needs, abilities, and aspirations from others						
Helps me to develop my strengths	.63					

Internal consistencies were computed for the five transformational and three transactional leadership scales. Internal α coefficients for the five transformational scales were: inspirational motivation (4 items), $\alpha = .83$; intellectual stimulation (4 items), $\alpha = .77$; idealized influence (attributed; 4 items), $\alpha = .75$; idealized influence (behavior; 4 items), $\alpha = .63$; individual consideration (4 items), $\alpha = .70$. Internal α coefficients for the 3 transactional scales were: contingent rewarding (4 items), $\alpha = .70$; management-by-exception (passive; 4 items), $\alpha = .61$; management-by-exception (active; 4 items), $\alpha = .67$. Internal consistencies indicate that the transformational leadership measures were highly reliable, with only behavioral idealized influence slightly falling below the .70 cutoff proposed by Nunally (1967). The active and passive forms of management by exception also fell below the .70 alpha cutoff, with contingent rewarding being the only transactional measure to reach an acceptable alpha. However, as mentioned by Hartog, Van Muijen, and Koopman (1997), alpha is affected by the number of items in the scale. As each MLQ subscale possessed only four items, the alphas were bound to be lower than normal.

Principal components analyses with direct oblimin rotation were conducted on Schaufeli's engagement dimensions. The results are presented in Table 3. A three factor solution was produced with eigenvalues over 1; however, Schaufeli's factor structure did not hold. Of the six vigor items, half loaded on the first factor and half on the second. The dedication dimension almost kept its structure, with four items loading on the first factor, and only one loading on the third factor. The absorption item loadings were more varied, with three items loading on the third factor, one item loading on the first factor,

one complex item loading on both the first and second factors, and one item not loading on any of the three solutions. It appears that the first factor represents a dedication/vigor hybrid, while the second factor represents a reduced version of vigor. The third solution represents a reduced version of absorption. As with the MLQ, previous research has supported Schaufeli's three factor structure. If the engagement measures were collapsed or revised, it would be impossible to determine what constructs were being analyzed in the present study. It is not the purpose of the present study to revise or update the proposed engagement, or MLQ, measures. As a result, the proposed engagement factor structure was retained.

Internal consistencies were computed for the three engagement scales. Internal α coefficients were: vigor (6 items), $\alpha = .73$; dedication (5 items), $\alpha = .85$; absorption (6 items), $\alpha = .81$. From the alphas, it is clear that each engagement subscale is highly reliable. SPSS data analysis indicated that the vigor scale was most reliable with every item included in the measure. Removing any items from the measure would only lower the alpha. For the dedication alpha, removing the first dedication item would have increased the alpha, but only by .01, so all dedication items were maintained. Similar to vigor, the absorption alpha would only have decreased had any of the items been removed. As a result, the engagement dimensions were used in their most internally consistent form.

Table 3 Principal Components Analysis of Engagement Measures, with Oblimin Rotation

<i>Items</i>	<i>Component</i>		
	<i>1</i>	<i>2</i>	<i>3</i>
Vigor			
When I get up in the morning, I feel like going to work	.53		
At my work, I feel bursting with energy	.73		
At my work, I always persevere, even when things do not go well		.78	
I can continue working for very long periods of time		.58	
At my job, I am very mentally resilient		.72	
At my job, I feel strong and vigorous	.63		
Dedication			
To me, my job is challenging			.47
My job inspires me	.82		
I am enthusiastic about my job	.83		
I am proud of the work that I do	.79		
I find the work that I do full of meaning and purpose	.87		
Absorption			
When I am working, I forget everything else around me			.83
Time flies when I am working			
I get carried away when I am working			.65
It is difficult to detach myself from my job			.68
I am immersed in my work	.61		
I feel happy when I working intensely	.44	.44	

Descriptive Statistics

Leadership and engagement dimensions means and standard deviations are referenced in Table 4. Among the transformational leadership dimensions, inspirational motivation ($M = 2.64$) and idealized influence (attribute; $M = 2.52$) had the highest means, which implies that the leaders who were rated by this sample were more given to acting in inspiring and charismatic ways, over intellectual stimulation ($M = 2.23$) and idealized influence (behavior; $M = 2.25$). However, the transformational means differed only

slightly, which supports the MLQ factor analysis and reaffirms that the present sample did not differentiate between the various aspects of transformational leadership. Contingent rewarding ($M = 2.54$) had the highest mean among the transactional leadership dimensions, and had the second highest mean among all leadership dimensions, next to inspirational motivation. There was greater differentiation among the transactional dimensions, as the passive form of management by exception ($M = 1.47$) had the lowest mean of all eight leadership dimensions. The transactional means indicate that in their positions, participants were very familiar with supervisors who rewarded them in exchange for performance. However, less frequent from their leaders were management by exception behaviors, in either the active or passive form.

Among the engagement dimensions, employee vigor had the highest mean ($M = 2.35$), followed by dedication ($M = 2.22$) and absorption ($M = 1.90$). Based on the scale of measurement, these means imply that the current sample felt high levels of energy and mental resilience while working (vigor) and derived a sense of significance, enthusiasm, inspiration, pride and challenge from their work (dedicated) only part of the time. In addition, feelings of absorption, which is characterized as a pleasant state of total immersion in one's work, were practically non-existent. In general, the means indicate that the present sample was not highly, or even moderately, engaged in their work.

Table 4 Means, Standard Deviations, Correlations, and Reliability Coefficients Among the Measured Variables ($N = 251$)

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11
1. Vigor	2.35	.65	.73										
2. Dedication	2.22	.93	.71	.85									
3. Absorption	1.90	.81	.73	.76	.81								
4. Contingent Rewarding	2.54	.82	.42	.47	.38	.70							
5. Management-by-exception (passive)	1.47	.83	-.07	-.09	.07	-.24	.61						
6. Management-by-exception (active)	2.14	.84	.09	.10	.09	.18	.11	.67					
7. Intellectual Stimulation	2.23	.90	.38	.49	.42	.67	.19	.19	.79				
8. Idealized Influence (behavior; charisma)	2.25	.78	.35	.44	.37	.63	.19	.31	.67	.63			
9. Idealized Influence (attribute; charisma)	2.52	.86	.38	.45	.35	.73	.23	.14	.73	.69	.75		
10. Inspirational Motivation	2.64	.90	.35	.45	.37	.69	.18	.19	.66	.68	.69	.83	
11. Individual Consideration	2.35	.91	.35	.46	.35	.68	.14	.09	.73	.59	.72	.62	.70

* Correlation is significant at $p < .05$ ** Correlation is significant at $p < .001$ Reliability coefficients in Bold

Correlations

The Pearson correlation coefficients of all variables are presented in Table 4. The engagement subscale correlations ranged from .71 to .76, with all correlations significant at the .001 level. All three engagement scale correlations were high, reaching above .70. Although the inter-correlations were high, the dimensions were not collapsed for two reasons. One, if the dimensions had been collapsed, it would be impossible to analyze what the leadership styles were being related to. Second, the last three hypotheses focus on specific relationships between individual leadership and engagement dimensions. Editing the engagement dimensions would hinder the data analysis of these relationships. From the inter-correlations among the engagement subscales, it may be concluded that the dimensions of vigor, dedication, and absorption are highly related and are measuring similar employee engagement phenomena.

The correlations among the transactional leadership dimensions are also presented in Table 4. The correlations ranged from .18 to -.24. Two of the correlations, between contingent rewarding and management-by-exception (both active and passive), were significant at the .001 level. However, contingent rewarding was negatively related to passive management-by-exception ($r = -.24, p < .001$), while positively related to active management-by-exception ($r = .18, p < .001$). The passive and active forms of management-by-exception were not significantly related ($r = .11, p > .05$). The correlations indicate that as contingent rewarding behaviors increase, passive management-by-exception significantly increases and active management-by-exception

significantly decreases. As passive management-by-exception increases, the active form increases as well, but not significantly.

Among the transformational leadership subscales, every relationship was significant at the .001 level. The correlations ranged from .59 to .73. It is interesting to note that intellectual stimulation had the highest correlations among the transformational subscales, with two of the correlations breaching .70 (idealized influence, $r = .73, p < .001$; individual consideration, $r = .73, p < .001$). The data produced from this research sample generated very high inter-correlations among the transformational leadership dimensions. As any of the five transformational behaviors increased, the others transformational dimensions increased, as well. These results lend further support to the MLQ factor analysis results and the similar means found among the transformational dimensions, indicating that the present sample did not differentiate between the various aspects of transformational leadership, but instead viewed every leadership measure as representing the style as a whole. However, previous research supports Bass' proposed factor model, differentiating between the five transformational leadership dimensions. As a result, the proposed transformational dimensions were not collapsed into a single transformational dimension.

Other interesting relationships existed between contingent rewarding (transactional leadership) and the five transformational dimensions. Contingent rewarding related significantly to intellectual stimulation ($r = .67, p < .001$), idealized influence (behavior, $r = .63, p < .001$), idealized influence (attributed, $r = .73, p < .001$), inspirational motivation ($r = .69, p < .001$), and individual consideration ($r = .68, p$

< .001). As a leaders contingent rewarding behaviors increased, so did their transformational behaviors. These results are also in-line with the results of the MLQ factor analysis, which indicated that the contingent rewarding items should be collapsed into a single, positive leadership style with the transformational leadership dimensions, and should be differentiated from, not included with, the more negative leadership dimensions of active and passive management by exception. The present sample did not appear to see a difference between transactional rewarding behaviors and transformational behaviors, which also appear to reward followers through subordinate directed inspiration, charisma, stimulation, consideration, attention, and development.

The inter-correlations between the predictor and criterion variables reinforced the expected relationships of leadership to engagement. Specifically, the transactional dimension of contingent rewarding positively correlated to employee vigor ($r = .42, p < .001$), dedication ($r = .47, p < .001$), and absorption ($r = .38, p < .001$). The passive and active forms of management-by-exception were negatively, but not significantly, related to the three engagement dimensions. As expected, increased supervisory contingent rewarding behaviors such as task clarification, reinforcement for employee compliance, and rewards and recognition related strongly to increased employee levels of engagement, while management-by-exception behaviors such as corrective criticism and negative feedback were not found to relate to employee vigor, dedication, or absorption.

In contrast, transformational leadership correlated strongly with employee engagement. All five transformational leadership dimensions significantly correlated at the .001 level with the three engagement subscales. Leadership using higher levels of

transformational behaviors was related to higher levels of employee vigor, dedication, and absorption. Not only were the correlations high, but they were strikingly similar to each other. Comparisons of the correlations between the transformational dimensions and each engagement scale shows that the transformational correlations are almost identical to each other. The correlations between the transformational dimensions and employee vigor ranged from .35 to .38, with vigor correlating the strongest to intellectual stimulation ($r = .38, p < .001$) and idealized influence (attributed; $r = .38, p < .001$). However, the correlations only differed, from highest to lowest, by .03. Correlations between absorption and the transformational dimensions ranged from .35 to .42, with intellectual stimulation ($r = .42, p < .001$) relating the strongest to absorption. Although there was a slightly larger difference between transformational leadership and absorption, the range of correlations differed by only .07. Lastly, the correlations indicated that of all three engagement subscales, dedication was the most related to transformational leadership, with correlations ranging from .43 to .49. Once again, intellectual stimulation ($r = .49, p < .001$) had the strongest correlation to dedication, and once again, the correlations between the dimensions and dedication were nearly identical, with a difference in scores of .06. In general, of all five transformational dimensions, intellectual stimulation was the most correlated to employee engagement. This says little, though, due to the similarity of relationships between the transformational and engagement dimensions. The correlational evidence points to a lack of differentiation between the transformational dimensions, in their relationship to engagement phenomenon.

Based on previous findings in literature, the five transformational leadership dimensions were expected to significantly relate to the engagement subscales, with the transactional dimensions also relating significantly, but to a lesser extent. It is interesting to note, however, that transactional contingent rewarding was more strongly correlated to employee vigor than any of the five transformational dimensions. Additionally, the only transformational dimension more correlated to employee dedication and absorption was intellectual stimulation. It may be concluded then that supervisory rewarding behavior and efforts to arouse their followers to think in new ways and emphasize problem solving are the behaviors most correlated to employee work-related vigor, dedication, and absorption.

Prediction of Subordinates' Ratings of Engagement

Standard multiple regression analyses were used to test the first two hypotheses, which proposed that ratings of transformational leadership (intellectual stimulation, individual consideration, inspirational motivation, and idealized influence) will positively predict employee vigor, dedication, and absorption, and that ratings of transactional leadership (contingent rewarding, and active/passive management-by-exception) will positively predict employee vigor, dedication, and absorption, but to a lesser degree than transformational leadership. Six regressions were conducted in total, with one transactional and one transformational regression calculated for each engagement subscale. The results are presented in Table 5.

Table 5 Standard MRC Regressions Table

<i>Leadership Styles and Dimensions</i>	<i>Vigor</i>		<i>Dedication</i>		<i>Absorption</i>	
Transformational	<i>r</i>	β	<i>r</i>	β	<i>r</i>	β
Individual Consideration	.35 **	.07	.46 **	.15	.35 **	.06
Idealized Influence (b)	.35 **	.08	.44 **	.10	.37 **	.12
Idealized Influence (a)	.38 **	.12	.45 **	.03	.35 **	-.03
Inspirational Motivation	.35 **	.09	.45 **	.13	.37 **	.11
Intellectual Stimulation	.38 **	.13	.49 **	.21 *	.42 **	.24 *
<i>R</i>		.42		.54		.45
<i>R</i> ²		.18		.29		.20
<i>F</i> (5,245)		10.44 **		.19.69 **		12.14 **
Transactional						
Contingent Rewarding	.42 **	.42 **	.47 **	.48 **	.38 **	.43 **
Manage-by-exception (p)	-.07	.04	-.09	.02	.07	.17 *
Manage-by-exception (a)	.09	.01	.10	.01	.09	-.01
<i>R</i>		.42		.48		.42
<i>R</i> ²		.17		.23		.17
<i>F</i> (3,247)		17.40 **		24.01 **		17.36 **

* Correlation is significant at $p < .05$ ** Correlation is significant at $p < .001$

To test hypothesis 1a, five transformational dimensions were entered into the multiple regression, to test their ability to predict employee vigor. The results indicated that ratings of transformational leadership accounted for a significant amount of variability in employee vigor [$R^2 = .18$, $F(5, 245) = 10.44$, $p < .001$]. Beta weights showed, however, that none of the individual transformational dimensions had significant weight in predicting levels of employee vigor on the job. This was due to the high inter-correlations among the transformational subscales. Regardless, hypothesis 1 A was supported.

To test hypothesis 1b, the five transformational dimensions were entered into the regression, to test their ability to predict employee dedication. The results indicated that ratings of transformational leadership accounted for a significant amount of variability in employee dedication [$R^2 = .29$, $F(5, 245) = 19.69$, $p < .001$], supporting hypothesis 1b. Beta weights showed that of the five transformational dimensions, only intellectual stimulation ($\beta = .21$, $p < .05$) had significant weight in predicting subordinate dedication. In comparison, the results show that transformational leadership behaviors have greater ability to predict employee dedication over employee vigor, accounting for 11% more variance in dedication.

To test hypothesis 1c, a third regression was calculated to test the predictive ability of transformational leadership on employee absorption. The results indicate that ratings of transformational leadership accounted for a significant amount of variability in employee absorption [$R^2 = .20$, $F(5, 245) = 12.14$, $p < .001$], supporting hypothesis 1c. Similarly to results of hypothesis 1b, beta weights showed that only intellectual stimulation ($\beta = .24$, $p < .05$) had significant weight in predicting subordinate absorption. In conclusion to hypothesis 1, all three sub-hypotheses were supported, with transformational leadership significantly predicting employee vigor, absorption, and to the greatest amount, dedication. However, the only transformational dimension that had significant weight in predicting engagement was intellectually stimulating leadership behaviors.

Hypothesis 2 proposed that ratings of the three transactional leadership dimensions (contingent rewarding, and active and passive management-by-exception)

would predict employee engagement, but to a lesser degree than transformational leadership. Particularly, the first part of hypothesis 2a stated that transactional leadership would predict employee vigor. The results indicated that ratings of transactional leadership did significantly predict employee vigor [$R^2 = .17$, $F(3, 247) = 17.40$, $p < .001$]. Examination of the beta weights showed, though, that only contingent rewarding ($\beta = .42$, $p < .001$) had significant weight in predicting employee vigor. The second half of hypothesis 2a stated that the predictive power of transactional leadership would be less than that of transformational leadership. In comparing the predictive ability of both leadership styles, transformational leadership was slightly more predictive of employee vigor than transactional leadership, accounting for 18% of the variance in vigor, while transactional leadership only accounted for 17%. It is interesting to note that while transformational leadership was more predictive of employee vigor, none of the transformational dimensions had significant beta weights, while transactional contingent rewarding had significant weight at the .001 level. While the transformational dimensions were more predictive, the 1% difference is not enough to represent a true difference between transformational and transactional leadership. As a result, hypothesis 2a was not supported.

Hypothesis 2b stated that ratings of transactional leadership would positively predict employee dedication, but to a lesser degree than transformational leadership. Transactional leadership accounted for a significant amount of variance in employee dedication [$R^2 = .23$, $F(3, 247) = 24.01$, $p < .001$], supporting the first part of hypothesis 2b. The beta weights confirmed the predictive ability of contingent rewarding ($\beta = .48$, p

<.001), as that transactional leadership dimension was the only one to add significant weight to the prediction of dedication. In comparing the predictive ability of both leadership styles, transformational leadership was more predictive of employee dedication, accounting for 29% of the variance in dedication, while transactional leadership only accounted for 23%, supporting the second part of hypothesis 2b. Comparison of the significant transformational and transactional beta weights indicated that contingent rewarding had twice the predictive value ($\beta = .48, p < .001$) than intellectual stimulation ($\beta = .21, p < .05$).

Lastly, hypothesis 2c stated that ratings of transactional leadership would predict employee absorption, but to a lesser degree than transformational leadership. The regression results indicated that transactional leadership significantly predicted employee absorption [$R^2 = .17, F(3, 247) = 17.36, p < .001$], supporting the first part of the hypothesis. Two transactional dimensions, contingent rewarding ($\beta = .43, p < .001$) and passive management-by-exception ($\beta = .17, p < .01$), added significant weight in predicting absorption. Supporting the second part of hypothesis 2c, transformational leadership accounted for 20% of the variance in absorption, while transactional leadership only accounted for 17%. However, two transactional dimensions had significant power to predict employee absorption, while only intellectual stimulation added weight from the five transformational dimensions. In conclusion, the first two hypotheses were supported, providing additional evidence that while both leadership styles are effective and predictive of employee vigor, dedication, and absorption, transactional is predictive to a lesser degree than transformational leadership.

Comparison of Correlations

In order to test hypotheses 3 through 5, Hotelling's *t*-tests (Guilford & Truchter, 1978) were calculated. Hotelling *t*-tests are used to compare two variables that are correlated to the same third variable. The equation is presented below:

$$t = (r_1 - r_2) \sqrt{(N - 3) (1 + r_3) / 2 (1 - r_3^2 - r_1^2 - r_2^2 + 2 r_3 r_1 r_2)}$$

In this equation, r_1 and r_2 represent the correlations of two variables with the same third variable, while r_3 represents the correlation between the two variables. N represents the number of participants in the study. For example, in hypothesis 3, the correlations of individual consideration with employee vigor were compared to the correlations between the other transformational dimensions and vigor. When comparing individual consideration and intellectual stimulation, the correlation of individual consideration and vigor would be inserted for r_1 and the correlation of intellectual stimulation and vigor would be inserted for r_2 . The correlation between individual consideration and intellectual stimulation would be inserted for r_3 . The results of the calculations were then compared to the significance levels on a unit norm table. If the Hotelling *t* value produced was greater than 1.65, then individual consideration would be considered significantly more correlated, at the .05 level, to vigor than intellectual stimulation. In the case of the present research, Hotelling's test was used to determine whether certain transformational leadership behaviors were significantly more correlated to employee

vigor, dedication, and absorption, over other behaviors. The results are presented in Table 6.

Table 6 Hotelling's *t*-tests Among Transformational Variables

<i>Leadership Dimensions by Hypothesis</i>		<i>Vigor</i>			
<i>Hypothesis 3</i>	<i>IS</i>	<i>IFb</i>	<i>IFa</i>	<i>IM</i>	
Individual Consideration	-.70	0.00	-.69	0.00	
		<i>Dedication</i>			
<i>Hypothesis 4</i>		<i>IC</i>	<i>IS</i>		
Idealized Influence (behavior)		-.40	-1.13		
Idealized Influence (attribute)		-.24	-1.00		
Inspirational Motivation		-.21	-.89		
		<i>Absorption</i>			
<i>Hypothesis 5</i>		<i>IC</i>	<i>IFb</i>	<i>IFa</i>	<i>IM</i>
Intellectual Stimulation	1.66 *	1.08	1.66 *	1.06	

* Significant at .05 level

IS: Intellectual Stimulation

IFb: Idealized Influence (behavior)

IFa: Idealized Influence (attribute)

IC: Individual Consideration

IM: Inspirational Motivation

Hypothesis 3 proposed that of the four transformational leadership dimensions, individual consideration would have the strongest relationship with employee vigor. However, the transformational dimension (individual consideration) proposed to be the most related to employee engagement (specifically, vigor) was not the dimension most correlated to it. The dimension most correlated to vigor was, in fact, intellectual stimulation. However, Hotelling's *t*-tests were calculated and individual consideration was statistically compared to intellectual stimulation (-.70), idealized influence (behavior; 0.00), idealized influence (attribute; -.69), and inspirational motivation (0.00). The

developmental orientation and focus upon the success of their subordinates by transformational leaders should have, theoretically, lead to more vigorous employees that are constantly encouraged to invest their best effort in their work. This theoretical relationship did not hold up, though, in the current sample, as individual consideration was not significantly more correlated to employee vigor than the other transformational dimensions. Hypothesis 3 was not supported.

It is interesting to note that of all eight leadership dimensions, not only was individual consideration not the most correlated to employee vigor, but intellectual stimulation was not the most correlated either. Transactional contingent rewarding was the leadership behavior most related to feelings of vigor in the workplace. For exploratory purposes, Hotelling *t*-tests were calculated to test whether contingent rewarding was significantly more correlated to employee vigor than intellectual stimulation, the most correlated transformational dimension. A score of $t = .86$ was produced and compared to a unit norm table to determine the significance of the difference between the two correlations. The difference between the two correlations was not significant at the .05 level, indicating that though contingent rewarding was more highly correlated to vigor than intellectual stimulation and individual consideration, the differences between the relationships were not statistically significant.

Hypothesis 4 proposed that of the four transformational leadership dimensions, idealized influence and inspirational motivation would have the strongest relationships with employee dedication. Hotelling's *t*-tests were calculated and idealized influence and inspirational motivation produced negative results in comparison to the other

transformational dimensions, as a result of having weaker relationships to dedication than individual consideration and intellectual stimulation. Comparing inspirational motivation to individual consideration and intellectual stimulation produced scores of -.21 and -.89, respectively. Idealized influence (behavior) produced scores of -.40 and -1.13 in comparison to individual consideration and intellectual stimulation, respectively. Idealized influence (attribute) had scores of -.24 and -1.00. To have been significantly more correlated to dedication than other transformational dimensions, scores would have had to reach 1.65. Not only were the three transformational dimensions not more correlated to dedication than individual consideration and intellectual stimulation, but they were less correlated, though not significantly less correlated. This is most likely due to the similarity of the correlations of all five transformational to each other. The lack of differentiation between the dimensions made it impossible to compare them or find significant difference between them. As a result, hypothesis 4 was not supported.

Hypothesis 5 proposed that of the four transformational leadership dimensions, intellectual stimulation would have the strongest relationship with employee absorption. As seen in Table 1, intellectual stimulation was the transformational leadership behavior most correlated to employee absorption. Hotelling's *t*-tests were calculated to determine if the correlations between intellectual stimulation and absorption were statistically superior to those of idealized influence (behavior, attribute), individual consideration, and inspirational motivation with absorption. Comparing the difference between intellectual stimulation and behavioral idealized influence, Hotelling's formula produced a *t* score of 1.08, which was not significant at the .05 level. Intellectual stimulation was found to not

be significantly more correlated to absorption, in comparison to inspirational motivation, and produced a t score of 1.06. However, comparing the difference between intellectual stimulation and idealized influence (attribute), Hotelling's formula produced a t score of 1.66, which was significant at the .05 level. This t score and significance also represents the comparison between intellectual stimulation and individual consideration, as both attributed idealized influence and individual consideration had correlations of .35. As a result, hypothesis 5 was partially supported. The relationship between intellectual stimulation and employee absorption was significantly stronger than that of attributed idealized influence and individual consideration to absorption. However, there was not a significant difference between the relationships of intellectual stimulation, behavioral idealized influence, and inspirational motivation to employee absorption. The fact that intellectual stimulation was found to be more correlated to an aspect of engagement than other transformational dimensions is even more significant given the fact that all the transformational correlations were so clustered together and that the present sample appeared to struggle differentiating between the different aspects of transformational leadership.

Discussion

The present study was conducted to examine the relationships between transformational and transactional leadership and employee engagement. Fundamental to the research was Bass' (1998) Full Range of Leadership Model, which proposed that every leader displays each leadership style to some degree. However, persons with a more optimal leadership profile frequently display more transformational behaviors, over transactional behaviors. Previous research supports this model (Bass, 2004; Den Hartog & Koopman, 2002; Bass & Avolio, 1993), reinforcing that transformational and transactional leadership each relate to positive employee outcomes, but that transformational, with its' focus on higher order changes in subordinates and large shifts in their attitudes, values, morals, beliefs, and needs, has greater predictive power. As a result, this study hypothesized that both leadership styles would positively predict employee vigor, dedication, and absorption (hypothesis 1), but that transformational leadership would have greater power to predict the dimensions of employee engagement (hypothesis 2).

For every aspect of engagement in hypothesis 1, transformational leadership behaviors, as a whole, had the ability to predict employee vigor, dedication, and absorption. As a result, hypotheses 1a, 1b, and 1c were supported. Bass (1998) stated that transformational leaders are charismatic, such that their followers seek to identify with and emulate them. They inspire their followers with challenge and persuasion, which provides meaning and understanding to their work. The transformational leader is intellectually stimulating, pushing subordinates to question assumptions and logic and to

expand the use of their abilities. Finally, the leader considers each subordinate as an individual. Such a leader takes an interest in the development of their subordinates and provides them with support, mentoring, and coaching. However, the current study found that of the five transformational leadership behaviors, only intellectual stimulation had the ability to predict employee dedication and absorption.

As proposed in hypothesis 2, transactional leadership also positively predicted employee vigor, dedication, and absorption, but to a lesser degree than transformational leadership. However, transformational leadership behaviors were only slightly more predictive of employee vigor and absorption than transactional leadership. Transactional leadership was much less predictive of employee dedication, compared to transformational leadership. As a result, hypotheses 2a, 2b, and 2c were supported.

While, in a general sense, transactional leadership was less predictive of the engagement dimensions than transformational leadership, our study found that one transactional behavior, contingent rewarding, carried great weight in the prediction of vigor, dedication, and absorption. For employee dedication and absorption, the only consistent predictors were intellectual stimulation (transformational) and contingent rewarding (transactional). However, contingent rewarding carried double the predictive weight, and was the only significant predictor for employee vigor. Thus, in the current study, transformational leadership behaviors, as a whole, were more predictive of employee engagement than transactional leadership, but one transactional leadership dimension, contingent rewarding, was the single most predictive dimensions of engagement.

The current study also investigated significant differences among leadership styles that related to employee vigor, dedication, and absorption. Fundamental to the hypotheses were theoretical relationships between leadership and engagement, based on the conceptualizations of the constructs. The present study sought to investigate three relationships. First, hypothesis 3 proposed that individual consideration would have the strongest relationship with employee vigor, based on the developmental orientation and focus upon the success of their subordinates by transformational leaders. Hypothesis 4 proposed that idealized charismatic influence and inspirational motivation would be significantly more correlated to employee dedication than the other transformational leadership dimensions, based on the sense of significance and inspiration that is bestowed upon and captured by the subordinate. Lastly, hypothesis 5 proposed that intellectual stimulation would have the strongest relationship with employee absorption, because transformational leaders intellectually stimulate their employees, challenging their logic and stimulating their creativity, which as a result, should lead employees to become increasingly absorbed in their work, fully concentrated and deeply engrossed in their tasks.

The results of the present study did not support the proposed theoretical relationships between the various leadership and engagement dimensions. First, individual consideration was not the leadership behavior with the strongest relationship to employee vigor. Of the transformational leadership behaviors, intellectual stimulating leadership was found to relate more to feelings of vigor. However, of all transactional and transformational behaviors, the present study found that contingent rewarding

behaviors were the most affiliated with feelings of vigor, energy, and mental resilience in subordinates. Thus, hypothesis 3 was not supported.

The results of hypothesis 4 indicated that idealized charismatic influence and inspiration were not the leadership behaviors most related to employee dedication, in this sample. The two leadership behaviors were, in fact, the least related to employee dedication, in comparison to the other transformational behaviors, though they were still significantly related to it. As a result of these findings, hypothesis 4 was not supported.

The proposed theoretical relationship between intellectual stimulation and employee absorption was the only relationship to be partially supported. The results found that intellectual stimulation had the most powerful relationship to feelings of absorption. In addition to being the most correlated to absorption, the results indicated that intellectual stimulation was significantly more related to absorption than attributed idealized influence and individual consideration. Due to the lack of significance difference between the intellectual stimulation and behavioral idealized influence and inspirational motivation relationships, it cannot be said whether intellectually stimulating behaviors are more important to subordinate feelings of absorption and engagement than other transformational leadership behaviors. As a result, hypothesis 5 was partially supported.

Implications

The present study has important implications for leadership research and real-world organizations. First, the present study added to the body of leadership literature by being the first to show that different leadership styles have value in predicting employee

engagement. The results indicated that both transformational and transactional leadership styles can predict engagement. The current study reinforces previous literature, indicating that transactional and transformational leadership behaviors have a great impact on subordinates. Transformational leadership, particularly, had the greatest power to predict employee dedication, followed by absorption and vigor, respectively.

These findings now add to a growing body of literature supporting the effectiveness of both transactional and transformational leadership styles, with transformational leadership as the most optimal form of leadership. Due to the fact that the hypothesized relationships between leadership styles and engagement were supported, future researchers can be more confident that these findings will transcend to other research settings, with other populations, and even transcend into the organizational environment.

On the practical side, the indication that intellectual stimulation and contingent rewarding are significant predictors of employee vigor, dedication, and absorption, has important implications for the design of lower level positions in organizations. This is should be particularly relevant for industries where a high percentage of their core workforce consists of lower level positions, such as retail and food/beverage organizations. In the pursuit of an engaged, lower level workforce, leaders should ensure that those positions are oriented around creativity and intellectual stimulation, so that the monotony of the position might be minimized. Supervisors who stimulate their subordinates might also foster a participatory environment where subordinates feel included and that their intellectual capacity and input matters, rather than a hierarchical,

bureaucratic environment where subordinates are simply expected to do what they are told. From a transactional standpoint, this study shows that leaders should also highlight supervisory rewarding behaviors, but not management-by-exception, which are so often the management behaviors ineffectively used by supervisors in this context.

Subordinates must feel that they are being properly rewarded for their value and work.

Lastly, this research has reinforced the importance of transformational leadership behaviors to subordinates and to organizations. For subordinates, all three dimensions of engagement significantly related to every dimension of transformational leadership. As a whole, the five transformational leadership behaviors were able to significantly predict employee vigor, dedication, and absorption. This has important implications for organizations. Organizations must train and develop transformational leadership at all levels of the business, if they wish to have greater influence on employee engagement. As this study has shown, this will have an impact on the engagement levels of their employees, which can then have an important impact on other employee outcomes. If transformational leaders can create engaged employees, studies have shown that engagement can then lead to increased feelings of commitment in subordinates, and decreased health complaints, cynicism, and exhaustion (Demerouti et al., 2001).

Limitations and Future Directions

One of the major limitations of the current study was the pool of participants that was used. University students from a commuter school were the most readily available individuals to choose from for a subject pool. As mentioned earlier, over 75% of the sample were in their early twenties or younger. The sample worked mostly in part-time

positions and, as they were still attending university, very few were college graduates. It was assumed that most had work experience, based on the population of the university they attended. However, many of the students had very little work experience, or had only worked in their current position, or under their current supervisor, for less than one year. This lack of experience in their specific organizational context could have tainted their responses. Also, with little work experience, they may not have had the opportunity to work under different supervisors who utilize different leadership styles, which may also have limited their pool of experiences from which their perceptions could be based.

Also, as mentioned, many of the participants were employed in positions in retail, food/beverage, or childcare and education positions, which might be considered boring and unchallenging to university students seeking higher education. The sample may have found it hard to exhibit engagement behaviors in situations such as those. In general, the sample was youthful, working in lower level positions with little time in their position or under their current supervisor. In all reality, for many of the students in this setting, the primary purpose of their work position was to assist in paying for college, which may have been part of the reason that contingent rewarding was so important to this sample. Also, given the industries most of the employees worked in and the level they functioned at, it would be surprising if many had ever even worked directly for a true transformational leader. These limitations may have also skewed the participant responses.

A second limitation, also found in the participant pool, was that many of the individuals who participated in the study were not currently employed, but based their

supervisory leadership style and engagement ratings on their most recent work experience and supervisor. Methods were not used to determine a cut-off, in order to remove any participants whose work experience was deemed too far in the past. As a result, there was little control over how far back individuals were rating their perceptions of their leader and feelings of engagement. The time lag between working in that organizational context and taking the survey could have led to memory bias, which might have had positive or negative influences on their ratings and perceptions.

A third limitation in the study was found in the use of the Multifactor Leadership Questionnaire (MLQ). When the MLQ is used in its complete format, groups of three subordinates per supervisor rate their perceptions of that leader. This adds inter-rater reliability and validity to the scores that each leader is given, which was missing in the present research due to the fact that only one subordinate rated one supervisor. Also, in the complete MLQ form, supervisors fill out a rater form also, which allows them to rate themselves on the various leadership behaviors. These ratings can then be compared to the ratings of their subordinates. Again, this was not conducted in the present study, due to the lack of access to the subordinate's supervisors.

A second MLQ limitation was that the current study's principal components factor analysis did not support Bass and Avolio's (2004) proposed leadership factor structure. A similar study, conducted by Heinitz, Liepmann, and Felfe (2005), recently reexamined the factor structure of the MLQ (version 5X Short). The researchers assumed a reduced set of factors would provide a better description of the leadership facets assessed with the MLQ. The parallel analysis conducted in their study indicated that a

three-factor solution was sufficient to describe the leadership behavior facets that are assessed using the MLQ 5X, the three factors being transformational, transactional, and laissez faire leadership (which was omitted for the present study). The obtained reduced set of factors, consequently, contained less items and did not comprise all the facets of transformational leadership. The proposed names of the three factors were charismatic goal orientation, management by exception, and passive-avoidant leadership. Confirmatory factor analysis showed a better fit for this solution than for the original nine-factor structure. However, the regression analyses showed that, for the criteria examined in their study, the reduced set of items lost information in comparison to the original model. The amount of variance explained was reduced by approximately 20%. In the present study, Bass and Avolio's (2004) factor structure was maintained for the purpose of the study, but the lack of confirmatory evidence to support their factor structure may have impacted the data analyses.

To address these issues in the future, leadership researchers should utilize samples from populations that have more work experience in more varied, and higher level, positions. If individuals are allowed to participate who are rating previous feelings of engagement in relation to a previous supervisor, then a cut-off should be implemented, in order to reduce the effects of memory bias. Also, this same research, regarding ratings of leadership style and their effects on employee engagement, should be conducted in organizational settings, rather than a university setting, where there are opportunities for multiple subordinates to rate one leader, and access is available to have those same supervisors rate themselves as well. In regards to the MLQ, if the leadership research

community desires more exact measurement of the different transformational and transactional facets, one solution might be that we have to conceptualize more precise items, with an increased capability to differentiate between the various leadership subscales. Further research should be conducted to determine the viability of Bass' (1985) original factor structure.

Additionally, future research and applied settings should consider the link between leadership styles and their relationship to productivity and profitability, via subordinate engagement. In the past, another important employee outcome, satisfaction, was thought to increase subordinate performance and the profitability of the organization. However, research conducted by Bernhardt, Donthu, and Kennett (2000) demonstrated that there was no significant relationship between employee satisfaction and performance. As a result of this research, the focus on increasing employee productivity through increased satisfaction has decreased. However, if certain leadership behaviors increase employee engagement, then the study of engagement, with its focus on employee dedication, vigor, and work-related absorption, may be fruitful in increasing employee performance and productivity in organizational settings. This may, in turn, increase the profitability of the business as a whole.

Lastly, organizations should consider the suitability of the transformational model with a US workforce that is becoming better educated. Lawler (1985) reviewed data showing that today's US workers are better educated and that better educated workers are more concerned about interesting work, participation in decision-making, and the development of their abilities. It has been reasonably argued that raising education, and

at the same time maintaining a traditional approach to work design and management (transactional leadership), can be counterproductive (O'Toole, 1977). It is counterproductive because people who are not able to use their skills on the job are dissatisfied, and as a result, turnover and absenteeism may increase, and they may engage in such counterproductive behavior as sabotage in order to utilize their skills and competences. Lawler also observed that organizations are developing management styles that are more participative to accommodate the increased education level and accompanying higher expectations. Hater & Bass (1988) noted that transformational and transactional leaders both display varying amounts of participative decision styles, but that transformational leadership would seem to be congruent with a better educated workforce. For example, a better educated work force that is eager to apply and develop its abilities on a job would probably thrive under a leader who transmitted a sense of mission, stimulated learning experiences, and aroused new ways of thinking. Leaders who simply reward performance according to expectations are not likely to energize a work force expecting personal enrichment.

In a world where, increasingly, it is not technology or products, but human capital that makes the difference between business success and failure, organizations must hold themselves accountable for the leadership behaviors that they promote. Organizations must train and develop visionary leaders who have the ability to lead an organization effectively into the future, while also caring for, stimulating, and engaging their most important resource: their employees.

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APPENDIX: Survey Literature and IRB Approval

- A. Survey Materials**
- B. IRB Approval Letter**

Appendix A

Survey Materials

Please check the statement that most applies to your current situation:

- _____ I am currently employed.
_____ I am not currently employed, but I have work experience.
_____ I have never been employed.

* If you checked the first or second response, please continue on to fill out the survey. If you checked the third response, you are not eligible for participation in this study. Thank you for your time.

Job Engagement Rater Form

Using the response options below, please circle the number that corresponds with how involved you feel in your job. Please respond to each of the statements drawing from your experiences *in your current or most recent job*.

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. When I get up in the morning, I feel like going to work	0	1	2	3	4
2. To me, my job is challenging	0	1	2	3	4
3. When I am working, I forget everything else around me	0	1	2	3	4
4. At my work, I feel bursting with energy	0	1	2	3	4
5. My job inspires me	0	1	2	3	4
6. Time flies when I am working	0	1	2	3	4
7. At my work, I always persevere, even when things do not go well	0	1	2	3	4
8. I am enthusiastic about my job	0	1	2	3	4
9. I get carried away when I am working	0	1	2	3	4
10. I can continue working for very long periods of time	0	1	2	3	4
11. I am proud of the work that I do	0	1	2	3	4
12. It is difficult to detach myself from my job	0	1	2	3	4
13. At my job, I am very mentally resilient	0	1	2	3	4

14. I find the work that I do full of meaning and purpose	0	1	2	3	4
15. I am immersed in my work	0	1	2	3	4
16. At my job, I feel strong and vigorous	0	1	2	3	4
17. I feel happy when I working intensely	0	1	2	3	4

MLQ Multifactor Leadership Questionnaire Rater Form (5x-Short)

This questionnaire is used to describe the leadership style of a supervisor *in your current or most recent job*. 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.*

Thirty-five descriptive statements are listed on the following page. Judge how frequently each statement fits the person you are describing.

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. Provides me with assistance in exchange for my efforts	0	1	2	3	4
2. Re-examines critical assumptions to question whether they are appropriate	0	1	2	3	4
3. Fails to interfere until problems become serious	0	1	2	3	4
4. Focuses attention on irregularities, mistakes, exceptions, and deviations from standards	0	1	2	3	4
5. Talks about his/her most important values and beliefs	0	1	2	3	4
6. Seeks differing perspectives when solving problems	0	1	2	3	4
7. Talks optimistically about the future	0	1	2	3	4
8. Instills pride in me for being associated with him/her	0	1	2	3	4
9. Discusses in specific terms who is responsible for achieving performance targets	0	1	2	3	4
10. Waits for things to go wrong before taking action	0	1	2	3	4
11. Talks enthusiastically about what needs to be accomplished	0	1	2	3	4
12. Specifies the importance of having a strong sense of purpose	0	1	2	3	4
13. Spends time teaching and coaching	0	1	2	3	4
14. Makes clear what one can expect to receive when performance goals are achieved	0	1	2	3	4

15. Shows that he/she is a firm believer in "If it ain't broke, don't fix it."	0	1	2	3	4
16. Goes beyond self-interest for the good of the group	0	1	2	3	4
17. Treats me as an individual rather than just as a member of a group	0	1	2	3	4
18. Demonstrates that problems must become chronic before taking action	0	1	2	3	4
19. Acts in ways that builds my respect	0	1	2	3	4
20. Concentrates his/her full attention on dealing with mistakes, complaints, and failures	0	1	2	3	4
21. Considers the moral and ethical consequences of decisions	0	1	2	3	4
22. Keeps track of all mistakes	0	1	2	3	4
23. Displays a sense of power and confidence	0	1	2	3	4
24. Articulates a compelling vision of the future	0	1	2	3	4
25. Directs my attention towards failures to meet standards	0	1	2	3	4
26. Considers me as having different needs, abilities, and aspirations from others	0	1	2	3	4
27. Gets me to look at problems from many different angles	0	1	2	3	4
28. Helps me to develop my strengths	0	1	2	3	4
29. Suggests new ways of looking at how to complete assignments	0	1	2	3	4
30. Emphasizes the importance of having a collective sense of mission	0	1	2	3	4
31. Expresses satisfaction when I meet expectations	0	1	2	3	4
32. Expresses confidence that goals will be achieved	0	1	2	3	4
33. Gets me to do more than I expected to do	0	1	2	3	4
34. Heightens my desire to succeed	0	1	2	3	4
35. Increases my willingness to try harder	0	1	2	3	4

Demographics

1. Gender:
 male female
2. Age: _____
4. How many hours per week do you (or did during your most recent job) work: _____
5. Please circle the option which best represents how long you have been at your current, or most recent, job:
 - a. < 6 months
 - b. 6 months - 1 year
 - c. 1 - 3 years
 - d. 3 - 5 years
 - e. 5 - 7 years
 - f. > 7 years
6. Please circle the option which represents how long you have worked with your current, or most recent, supervisor:
 - a. < 6 months
 - b. 6 months - 1 year
 - c. 1 - 3 years
 - d. 3 - 5 years
 - e. 5 - 7 years
 - f. > 7 years
7. What is your organization's primary industry?
 - a. Retail
 - b. Food/Beverage
 - c. Communication
 - d. Technology
 - e. Financial Services
 - f. Industrial
 - g. Energy/Utility
 - h. Manufacturing

- i. Hospitality
- j. Construction
- k. Education/Research
- l. Other (please specify): _____

Appendix B

IRB Approval Letter

San José State
UNIVERSITY

**Office of the Provost
Associate Vice President
Graduate Studies & Research**

One Washington Square
San José, CA 95192-0025
Voice: 408-924-2427
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E-mail: gradstudies@sjsu.edu
<http://www.sjsu.edu>

To: Joshua Metzler
1419 Rosalia Ave.
San Jose, CA 95130

From: Pam Stacks
AVP, Graduate Studies & Research

Date: November 28, 2005

The Human Subjects-Institutional Review Board has approved your request to use human subjects in the study entitled:

"The Effects of Transformational and Transactional Leadership styles on Employee Engagement."

This approval is contingent upon the subjects participating in your research project being appropriately protected from risk. This includes the protection of the anonymity of the subjects' identity when they participate in your research project, and with regard to all data that may be collected from the subjects. The approval includes continued monitoring of your research by the Board to assure that the subjects are being adequately and properly protected from such risks. If at any time a subject becomes injured or complains of injury, you must notify Pam Stacks, Ph.D. immediately. Injury includes but is not limited to bodily harm, psychological trauma, and release of potentially damaging personal information. This approval for the human subjects portion of your project is in effect for one year, and data collection beyond November 28, 2006 requires an extension request.

Please also be advised that all subjects need to be fully informed and aware that their participation in your research project is voluntary, and that he or she may withdraw from the project at any time. Further, a subject's participation, refusal to participate, or withdrawal will not affect any services that the subject is receiving or will receive at the institution in which the research is being conducted.

If you have any questions, please contact me at (408) 924-2480.

Cc: Howard Tokunaga

The California State University:
Chancellor's Office
Bakersfield, Channel Islands, Chico,
Dominguez Hills, East Bay, Fresno,
Fullerton, Humboldt, Long Beach,
Los Angeles, Maritime Academy,
Monterey Bay, Northridge, Pomona,
Sacramento, San Bernardino, San Diego,
San Francisco, San José, San Luis Obispo,
San Marcos, Sonoma, Stanislaus