Examining the relationship between transformational leadership and engagement

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EXAMINING THE RELATIONSHIP BETWEEN TRANSFORMATIONAL LEADERSHIP AND 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
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August 2008
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ABSTRACT

EXAMINING THE RELATIONSHIP BETWEEN TRANSFORMATIONAL LEADERSHIP AND ENGAGEMENT

by Ritu Koppula

Several studies have examined the relationship between leadership and employee engagement, however, only a few have attempted to study the linkage specifically between the multidimensional constructs of transformational leadership and employee work engagement. Avolio, Bass and Jung (1999) define transformational leaders as being charismatic in their ability to influence employees to go above and beyond what is expected of them, for the greater good of the organization. Schaufeli, Salanova, Gonzalez-Roma and Bakker (2002) discuss engagement in terms of employee vigor, dedication, and absorption at work.

The main purpose of this thesis is to explore the relationship between transformational leadership and employee job engagement. Specifically, it is hypothesized that transformational leadership will have a positive relationship with engagement, and will also be most predictive of job engagement over and above the control variables discussed in this study, namely, social support received by employees, and job resources available to them at work.
ACKNOWLEDGEMENTS

This thesis is a product of all the love and support I have received from my family. My husband, Prashanth, has always been a wise mentor and the truest of friends to me. His reassuring confidence and gentle inspiration were pivotal in breaking the cycle of despair I found faced with in 2002 (because I was in a career limiting job, and felt less than inspired), when he suggested I take a break from my career and go back to school to study something I had always wanted to, psychology.

Next, I want to express my gratitude to the two guiding angels in my life, my mother, Renu Arora, and my mother’s sister, Dr. Urmila Mehandru, who after coming to terms with the fact that I had quit my “secure” job in corporate America, whole heartedly stood behind me and provided me with unending emotional, spiritual and financial support, in this very important next step in my life. Last, but not least, I’d like to thank my sister, Raksha Arora, who has always been my personal cheer leader in wanting me to be all I can, and who loves me unfailingly.

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Introduction

The main purpose of this study is to investigate the interrelationship between the multidimensional constructs of transformational leadership, as conceptualized by Avolio, Bass, and Jung (1999), and employee job engagement, as conceptualized by Schaufeli, Salanova, Gonzalez-Roma, and Bakker (2002). Broadly speaking, it is theorized that transformational leadership will have a positive predictive relationship with employee job engagement. However, to make this research study even more insightful, several control variables such as, social support from supervisors/coworkers, and having the latitude to make decisions at work, are also examined.

Employee Job Engagement

Generally speaking, employee job engagement research is vast and consists of several definitions of work engagement. However, according to Jones and Harter (2005), even though there is no formalized definition of work engagement, there is much commonality about the construct of work engagement and about how it is generally defined and measured by researchers in industrial and organizational psychology. Therefore, to obtain a better understanding of the topic of employee job engagement (also known as work engagement), a brief discussion about the different perspectives of employee work engagement put forth by various researchers is delineated.

The following section attempts to outline these research theories, measures and perspectives of employee work engagement as discussed in psychological literature. However, note that while previous psychological literature on the subject of employee job engagement is vast, for the purposes of this research study, Schaufeli and Bakker’s (2002) definition and measure of employee job engagement will be used. Furthermore, the
rational for choosing Schaufeli et al.’s conceptualization of employee job engagement for this research study will also be presented.

*Perspectives of Employee Job Engagement*

*Kahn’s theory on job engagement and disengagement.* Kahn (1990) was one of the foremost researchers of job engagement. He suggested that there was variation in the amount that people gave of their personal selves to the work they did simply because they were likely to experience pushes and pulls, to and away from their work related tasks. He described the pushes toward being psychologically present at work, or pulls away from work (that is, being psychologically absent), as personal engagement and personal disengagement, respectively. Kahn further defined personal engagement as the physical, emotional and cognitive energy dedicated to tasks being performed, and personal disengagement as the physical, emotional and cognitive detachment of the self from tasks being executed.

Kahn also discussed the concept of job engagement in terms of the interaction between the individual self and the work role, and made the argument that when individuals respected both their sense of personal selves and their work role as being distinct, without one compromising the value of the other, it would result in personal engagement. However, he argued that when the boundaries between the personal self and the work role became indistinct and blurred, then personal disengagement would be the outcome. Kahn also emphasized the importance of assigning meaning to work as being an essential element in creating employee job engagement, a theory that was also supported by several other researchers. Billett (2001) postulated that when individuals actively sought meaning in the work they did by attributing value to the effort they put into achieving their goals,
employee job engagement would result; Sonnentag (2003) asserted that when employees were encouraged to actively participate at work, and devote extra effort to their tasks, they were more likely to remain engaged in the job; and Gavin and Mason (2004) noted that when employees made meaningful work related contributions for the greater good of the organization, they reported being happier, healthier and more productive.

Occupational health psychology and job engagement. The discipline of Occupational Health Psychology (OHP) focuses on the relationship between employee health and well-being in the workplace. Historically, the major concentration of OHP research had been on workplace conditions that caused sickness and ill health, and on factors that contributed to negative stressors and strain on the job. However, more recently, a new trend in OHP research known as “positive psychology” emerged, which strongly acknowledged the importance of creating a positive and optimistic employee mindset that enabled individuals to thrive at work. The underlying aim of this positive psychology research theory emphasized the well-being of employees while simultaneously underscoring their role in contributing to workplace productivity (Seligman & Csikszentmihalyi, 2000). Though it was widely believed that employee job engagement theories established their basis in the field of occupational health psychology, other researchers argued that the genesis of employee job engagement theories could be attributed to positive psychology research. For example, Duran, Extremera, and Rey (2004) asserted that employee job engagement had its foundational principles in this field of positive psychology, a claim also supported by Kahn (1990); Seligman and Csikszentmihalyi (2000); Harter, Schmidt, and Hayes (2002); and Harter, Schmidt, and Keyes (2003), all of whom believed that a positive psychological mindset was the basis for
constructive engagement, well-being and happiness in life, including work life. In particular, Harter et al. (2003) believed that when employees experienced physical, emotional or cognitive strain at work, these negative stressors would result in disengaged employees and in reduced productivity and profits for employers.

*Leiter and Maslach’s conceptualization of job engagement.* Employee job engagement, previously discussed by researchers as a condition of positive psychology, was regarded by Maslach and Leiter (1997) to be the opposite of burnout, a negative psychological state. Generally speaking, even though Maslach and Leiter’s conceptualization of job engagement was somewhat similar to Kahn's (1990) definition of personal engagement and disengagement, the authors were able to add to the existing body of engagement research by operationalizing job engagement using the Maslach Burnout Inventory (MBI) scale that they developed in 1980. Based on the premise that job engagement was the antithesis of burnout, Maslach and Leiter characterized burnout using the multidimensional MBI scale, which was composed of three dimensions, namely, emotional exhaustion, inefficacy (reduced personal accomplishment), and depersonalization. Conversely, Maslach and Leiter characterized employee job engagement as the state of energy, efficacy and involvement, and made the argument that when burnout occurred, the state of energy with respect to work would turn into exhaustion, the state of involvement would turn into cynicism, and the state of efficacy would turn into inefficacy or ineffectiveness. Furthermore, Maslach and Leiter characterized the measurement of employee job engagement and burnout as being two opposites of the same continuum, where high scores obtained on the MBI scale meant high burnout, but low job engagement, and low scores on the MBI scale meant low burnout, but
high job engagement. Maslach and Leiter also defined the three subscales of burnout in detail. They explained that emotional exhaustion would result when individuals gave too much of themselves to their work/clients and ended up feeling emotionally depleted or physically fatigued; depersonalization would occur when workers provided services without compassion/empathy for their clients, callously treating them as impersonal objects rather than as people, and inefficacy would occur when employees experienced negative self perceptions, considered themselves to be incompetent, felt unable to cope with their job demands, and believed that they would be unable to meet their goals.

Early researchers such as Leiter and Maslach (1988) also conceptualized burnout as a psychological condition likely to be experienced exclusively by those who worked in human services professions, hospitals and health care settings. However, in later years, due to the influence of industrial-organizational psychological theory and research, the scope and prevalence of burnout was found to be present across a variety of professional organizations (Maslach, Schaufeli, & Leiter, 2001). Menzies, Jantzi, and Leithwood (1996) supported this theory and found that burnout, typically symptomatic of chronic stress, was likely to be as prevalent in human service and non-human service occupations. Similarly, Demerouti, Bakker, Nachreiner, and Schaufeli (2001) also found that the measurement of job burnout was generalizeable beyond human service occupations. In 1996, Maslach, Jackson, and Leiter re-characterized their previously developed Maslach Burnout Inventory scale so that it could be used to measure burnout in all types of workplaces, and not just those that were limited to providing human services. The newly formulated Maslach Burnout Inventory – General Survey (MBI-GS) scale replaced the cynicism dimension with depersonalization and professional efficacy with inefficacy.
because of the ability of these substituted words to generalize across all work environments.

*Schaufeli’s conceptualization of work engagement.* In 2002, Schaufeli, Salanova, Gonzalez-Roma, and Bakker developed the Utrecht Work Engagement Scale (UWES) to measure work engagement. While their conceptualization of work engagement was somewhat related to Maslach and Leiter (1997) research on employee job engagement, Schaufeli et al. took a varying perspective on how work engagement should be defined and operationalized. They defined work engagement as an energetic state of fulfillment experienced by employees, better explained by the amount of vigor, dedication, and absorption individuals committed to their work. They also described engagement as an “affective-cognitive” (p. 295) frame of mind characterized by vigor, dedication, and absorption. Specifically, they defined vigor as being typified by high levels of energy accompanied by persistence, dedication as being associated with a sense of meaningfulness, significance and pride, and they characterized absorption as the capability to focus and concentrate deeply on tasks assigned at work.

While still maintaining that burnout and job engagement should be considered as theoretically opposed, Schaufeli et al. (2002) asserted that work engagement and burnout did not necessarily have to be measured as polar opposites on the MBI scale. In being able to sufficiently measure employee work engagement independently from burnout, Schaufeli et al. rejected Leiter and Maslach’s (1996) theory which stated that burnout and engagement should be considered as two opposite ends of the continuum on a single scale. Instead, they advocated that employee work engagement could be measured using the Utrecht Work Engagement Scale (UWES), which they had previously established as
demonstrating factorial validity. In establishing the validity of the scale, the authors were able to demonstrate that each subscale of employee engagement, namely, vigor, dedication, and absorption, were independently predictive of work engagement.

The evolution of the body of knowledge on job engagement has been progressive, both in terms of the theoretical development of the concept of work engagement, and its measurement. The advancement of job engagement literature also moved away from focusing primarily on individual engagement toward creating group engagement. Lizzio and Wilson (2001) suggested that in order for group engagement to occur, teams would need to collectively shift from a mindset of basic engagement (where individuals build acceptance, trust and formulate an identity) to a mindset of working engagement (where individuals actively participate in purposeful decision making and take ownership of goal-setting). In doing so, the authors’ suggested that the application of engagement in collective entities would be possible. The generalization of work engagement in the collective context was important because it provided the theoretical basis for the application of research findings to entities such as organizations, companies and corporations. Finally, since previous workplace related literature referred to employee job engagement synonymously with work engagement (Maslach and Leiter, 1997; Sonnentag, 2003), for the purposes of this study, the terms have been used interchangeably.

At this point in the research paper, it seems most appropriate to emphasize that several theoretical relationships were found between the various subscales comprising the UWES (developed by Schaufeli et al., 2002) measuring employee work engagement, and job burnout which was conceptualized and operationalized by Leiter and Maslach in 1998. For example, Rothmann and Storm (2003) believed that the overarching concept of well-
being comprised of work engagement and job burnout. They also discussed the vigor
dimension of work engagement as being theoretically related to the exhaustion dimension
of job burnout, dedication as being theoretically related to cynicism, and absorption as
being theoretically related to the ineffectiveness dimension of burnout. Similarly,
Demerouti, Bakker, Nachreiner, and Schaufeli (2001) suggested that the multidimensional
facets making up job burnout, such as emotional exhaustion, were similar in
conceptualization to the lack of energy and fatigue experienced by employees, and that the
depersonalization dimension of burnout was akin to feelings of "alienation, disengagement,
or cynicism" (p. 500) experienced by employees at work. Given these findings, for the
purposes of this study, it is suggested that the emotional exhaustion dimension of burnout
parallels the vigor dimension of engagement, depersonalization parallels absorption and
reduced personal accomplishment parallels dedication.

Job Characteristics that Predict Employee Work Engagement

Rude (2003) noted that several factors outside the control of an individual can
impact employee job engagement. These external factors, also known as job
characteristics, include job demands made on employees, social support received from
supervisors and coworkers, job related feedback and latitude in decision making.

Relationship between Control Variables and Work Engagement

According to Karasek, Brisson, Kawakami, Houtman, Bongers, and Amick (1998),
work environments consist of several social and psychological characteristics, such as the
freedom given to employees to make decisions, as well as the support received by
employees from coworkers and supervisors. Described in their research as the Job
Demands-Control (JDC) stress model, Karasek et al. assert that the inability of employees
to engage in decision making creates psychological strain, and that the lack of a supportive work environment results in low employee motivation, negative learning, and the erosion of previously learnt skills. Since Karasek et al.'s JDC model best explained the control variables of social support and decision latitude; it was relied upon for the purposes of this study.

According to Salanova, Peiro, and Schaufeli (2002), the JDC model was based on the principle that job stressors such as high job demands, but low control over the major aspects of the job, produced physical and psychological strain for employees. Job demands, they noted, included several factors such as infrequent social support and the lack of decision latitude available on the job. Salanova et al. suggested that the more control over decision making employees were given, the more likely they were to experience well-being and less burnout, especially if they were given significant control over the tasks they needed to perform on a daily basis. Burke and Greenglass (1995) noted that the type of environmental setting the employee was made to work in also determined the amount of burnout they experienced. The influence of managers/supervisors in providing leadership, the amount of stress experienced and individual demographic factors could all significantly contribute to or eliminate burnout. In their 1995 study, the authors found that 75% of the variance in job burnout was accounted for by the amount of stress and the type of leadership present in the organization. They also found that extra-organizational factors, such as the lack of social support from supervisors and coworkers in the work environment, accounted for an additional 14% of the variance in psychological strain and job burnout experienced by employees.
Social support as a control variable. Feldman, Brondolo, Ben-Dayan, and Schwartz (2002) believed that social support comprised of supervisor-subordinate support as well as social support received from family and coworkers. Leiter and Maslach (1988) postulated that social support would bear a positive or negative relationship with burnout, based on the differing types of support and sources of support offered to the employee. For example, the authors believed that if the contact between a supervisor and subordinate involved the supervisor recognizing the efforts of the subordinate, then the exchange was likely to be one of positive social support. On the other hand, if the interpersonal communication between the supervisor and subordinate/coworkers was contentious, then the exchange was likely to be one of negative social support (due to the conflict experienced and feelings of unpleasantness that would be likely to follow), and would ultimately lead to lack of energy and exhaustion, reduced job involvement and feelings of inefficacy. Leiter and Maslach also found a negative relationship between having an unpleasant supervisor and organizational commitment, and a positive relationship between having an unpleasant supervisor and emotional exhaustion, depersonalization and personal accomplishment.

Cubitt and Burt (2002) found that the lack of social support, or loneliness, was a significant predictor of job burnout, where loneliness accounted for 24% of the variance in the level of emotional exhaustion and 28% in the amount of depersonalization experienced. Janssen, Schaufeli, and Houkes (1999) also found that higher levels of social support from coworkers were negatively correlated with emotional exhaustion, reduced personal accomplishment and depersonalization. Furthermore, they found that the availability of social support from supervisors was negatively correlated with emotional exhaustion,
reduced personal accomplishment and depersonalization, indicating that the lack of social support from coworkers and supervisors was a significant factor in the feelings of emotional exhaustion and cynicism being experienced by employees at work.

Undoubtedly, managers and coworkers play a significant role in how employees engage on the job. Firth, Mellor, Moore, and Loquet (2003) found that 30% of variance in job satisfaction was accounted for by high levels of supervisor support and low job stress. Maslach et al. (2001) argued that prolonged exposure to stressors, specifically in relation to employees having tense interactions with managers, or lack of support from supervisors, would result in exhaustion and would ultimately lead to feelings of being burnt-out or less engaged at work. They also reported that when employee’s felt like they were able to communicate with their managers and receive supervisory support from them, their level of job satisfaction increased. This finding was reinforced by Seltzer and Numerof (1988) who found a negative relationship between supervisor support and burnout. Similarly, Himle, Jayaratne, and Thyness (1989) demonstrated that emotionally supportive peers and managers were able to increase the level of personal accomplishment and satisfaction experienced by staff at work. Price and Weiss (2000) also found that when an environment of social support among coaches and athletes was encouraged, sports players reported having increased positive interactions amongst team members, and reported feeling less burnt-out and anxious. Furthermore, Taris, Peeters, LeBlanc, Schreurs, and Schaufeli (2001) postulated that relationships between people were investments of “energy, effort and attention” (p. 304). They believed that equity in relationships were based on the principle that people sought reciprocation in relationships in such a way that what was invested by one party should be proportional to what was received in return. However, the
authors cautioned that when there was an imbalance in the reciprocation, inequity would result leading to feelings of exhaustion (lack of energy in furthering the relationship) and depersonalization (causing individuals to psychologically disengage from the relationship). Given these findings, it is suggested that if an inequitable relationship between leaders and followers or between managers and coworkers exists, then it could result in maladaptive strain, or job burnout.

Decision latitude as a control variable. Karasek et al.’s (1998) Job Demands/Control (JDC) model asserted that decision latitude was comprised of skill discretion and control over decision making and that both were integral to determining employee well-being. They defined skill discretion as the flexibility given to employees in determining what skills should be employed at work and decision authority as the freedom or autonomy employees exercised over how to carry out their tasks. In 1996, Theorell and Karasek found a strong relationship between low decision latitude and heart disease, a serious medical condition. They advocated that employers should provide employees with the opportunity to participate in decision making as a means to enhance their well-being. According to Leiter and Maslach (1998), full engagement at work helped employees stay energized and connected with their tasks, leading to feelings of competency, and the ability to manage job demands, thereby keeping strain/burnout in check. Providing resources to employees, such as access to information, feedback, and autonomy, as well as providing them with the opportunity to participate in decision making (Maslach, Schaufeli, & Leiter, 2001) were considered vital to employee engagement, or conversely, if found to be absent, responsible for employee job burnout. Jansses, Schaufeli, and Houkes (1999) referred to the JDC model as the Conservation of Resources (COR) theory and explained that at work,
employees focus on the pursuit of resources to accomplish their tasks. However, if faced with a lack of resources or high job demands (stressors), then employees would be likely to experience strain, exhaustion, and job burnout. This theory was also supported by Schaufeli and Bakker (2002) who postulated that the availability of job resources created work engagement, and that the lack of resources created disengagement. Similarly, Demerouti et al. (2001) found that if employees were provided with limited resources at work, then they would experience lack of energy and low motivation.

Given these findings, it may be argued that the availability of job resources, such as the latitude in decision making, is vital in determining the level of employee engagement or disengagement at work.

Transformational Leadership and Work Engagement

*Transformational Leadership Defined*

While there is much literature on the topic of leadership, this research study focuses on Bass’s conceptualization and measurement of leadership. Bernard Bass (1999) was one of the foremost researchers of leadership studies who categorized leaders as being either transactional or transformational. He suggested that transformational leaders displayed “superior leadership performance” (p. 21) when they appealed to the elevated spirit of individuals, to motivate them to transcend their individual self interest for the greater good of the organization. Other definitions of transformational leadership have been proposed by Avolio, Bass, and Jung (1999) who defined transformational leaders as being charismatic and influential in their ability to make employees do more than what was expected of them at work. Likewise, Seltzer and Bass (1990) asserted that transformational leaders commanded by inspiring and encouraging their subordinates to use novel methods
to solve problems. Several adjectives have also been used in workplace literature to describe transformational leaders, such as charismatic, powerful, influential, trustworthy, confident, inspirational, motivating, exciting, world-class, and considerate (Bass, Avolio, & Goodheim, 1987; Bass, 1985).

On the other hand, Bass (1985) defined transactional leadership as being highly exchange oriented, meaning that employees would only receive rewards if they met performance outcomes and previously outlined goals. Since the principles of transactional leadership theory were based solely on the operational give-and-take relationship between leaders and followers, Bass (1985) and other researchers suggested that the theory of transactional leadership was limited in scope. Furthermore, they theorized that transactional leadership did not consider the holistic exchange between a leader and follower because it only relied on the transactional, exchange oriented aspect of the relationship. Harter (2000) also made a distinction between the two types of leadership styles and argued that that transformational leadership, more than transactional leadership, would be likely to raise the level of awareness of employees and motivate them to contribute above and beyond what was expected of them at work. Over the years, transformational leadership theories have also been shown to occupy a preeminent position in leadership research (Lim & Ployhart, 2004) over transactional leadership theories. They have also been found to be more predictive of several key organizational outcomes (Seltzer & Bass, 1990).

The Multifactor Leadership Questionnaire Form 5X-Short (MLQ) was developed by Bass and Avolio in 1999 and the instrument was found to be strongly predictive in its ability to measure transformational leadership. Furthermore, it was developed to capture
transformational behaviors displayed in the workplace at all managerial/leadership levels (Avolio & Bass, 2004). Several scholars have also advocated the use of the MLQ, such as Antonakis, Avolio, and Sivasubramaniam, 2003. While the MLQ contains items that measure the “Full Range of Leadership Development” (FRLD) (Avolio & Bass, 2004; p. 1), comprising items that specifically assess the presence of transactional leadership, transformational leadership, passive/avoidant leadership, active leadership, and laissez-faire leadership; however, only the transformational leadership items of the MLQ scale will be used for this study.

The transformational leadership items of the MLQ developed by Bass and Avolio (1999) consisted of four subscales, namely, idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. Idealized influence was defined as the ability of the leader to garner the admiration, respect and trust of their subordinates. Inspirational motivation was defined as the ability of the leaders to motivate subordinates to stretch themselves to reach lofty goals by stimulating their imagination and strengthening their optimistic mindset. Intellectual stimulation was defined as the ability of leaders to help their subordinates approach issues with fresh perspective and without fearing any negative consequences of sharing their ideas openly. And, individualized consideration was defined as the ability of the leader to play a mentoring role with followers and to help them realize their untapped potential (Bass, Avolio, Jung, & Berson, 2003). Bass (1985) also argued that transformational leaders were not only to be found at the highest echelon of organizations, but were present at all managerial levels in the workplace and across different industries - a claim that was also supported in subsequent

Given these findings, for the purposes of this research study, only transformational leadership will be discussed and measured using the Multifactor Leadership Questionnaire Form 5X developed by Bass and Avolio (1999).

**Predictive Ability of Transformational Leadership**

In this section, the relationship between transformational leadership and employee work engagement is discussed.

Modern day organizations are in a constant state of flux and often experience large-scale change; hence the guidance of visionary leadership is vital to the success of any business. According to Jones and Harter (2005), “engagement leads to human benefits for the individual experiencing it,” (p. 79) and since supervisors are most likely to have daily contact and influence over the subordinate, they are also most important to the discussion of leadership because of their ability to influence employees to stay motivated and engaged at work. Furthermore, “there is a widespread bias to perceive leaders as causal agents who shape events, rather than as being shaped by them” (Dvir & Shamir, 2003, p. 327). Most often, standing at the helm driving these organizational changes and events are highly transformational leaders (Lim & Ployhart, 2004).

Miles (2001) believed that it was the responsibility of management to keep employees engaged. He also described employees as being potential “superchargers” (p. 316) in their ability to demonstrate high levels of engagement at work, and in their ability to go beyond their call of duty to meet organizational goals when directed by a transformational leader. Bass (1985) found that employees were more likely to devote
additional effort when they reported to a transformational leader who led by influencing them and inspiring their trust. Berson and Avolio (2004), and Bass (1999) postulated that managers who adopted transformational leadership qualities in the way they lead their organizations were likely to be seen as more effective by their subordinates. Likewise, Avolio and Bass (2004) asserted that leaders who were transformational in their style of influence often engaged the whole person and helped them develop from an associate level job to a managerial/leadership position in the organization.

Transformational leadership is related to job burnout. Schulz, Greenley, and Brown (1995) believed that transformational leadership was an antecedent in determining burnout and job satisfaction. In particular, the authors noted that the lack of transformational leadership was directly responsible for job burnout. Revenson and Cassel (1991) also held similar beliefs about the nature of the relationship between leadership and burnout, and argued that if leaders were impaired in their leadership abilities due to the excessive responsibilities they were burdened with, or because of the negative impact of stressors (or, strain) they experienced at work; they would also be more likely to experience exhaustion, reduced commitment and consequently higher job burnout (or, reduced work engagement), as a result. Seltzer and Numerof (1988) found that supervisory leadership accounted for 31% of the variance in job burnout, and that the more consideration a supervisor demonstrated toward their employee, the less burnout the employee was likely to experience as a result. Price and Weiss (2000) reported similar findings in the field of sports research, with regard to the relationship between coaches and athletes. They asserted that when coaches felt exhausted (opposite of vigor or the high-energy characteristic of work engagement), they provided less social support and training to
athletes, who in turn experienced negative attitudes, anxiety, feelings of incompetence and higher levels of burnout, as a result.

*Dimensions of Transformational Leadership*

In this section the four dimensions of transformational leadership are discussed.

*Idealized influence and work engagement.* The idealized influence or charismatic influence a leader may have on their subordinates is one of the most important facets of transformational leadership (Bass, 1985). Bass described charismatic leaders as being able to “arouse emotion, animate, enliven, or even exalt” (p. 35) followers. Sosik and Godshalk (2000) described a transformational leader as one who “arouses team spirit, reframes stressful events into developmental opportunities, and inspires others to perceive difficult situations as meaningful challenges necessary for developing one’s professional and personal skills.” (p. 373). The authors also believed that transformational leaders who exhibited idealized influence were perceived by their followers as being successful and worthy of being regarded as role models or mentors.

Sosik, Godshalk, and Yammarino (2004) explained that leaders exhibited characteristics of idealized influence when they acted as role models, encouraged their followers to achieve goals, and expressed interest in furthering their protégés careers. Sosik and Godshalk (2000) also characterized these transformational leaders as “learned and trusted advisors – a source of wisdom,” (p. 381) and believed that transformational leaders who acted as mentors, reduced the amount of negative stressors experienced by employees. Sosik et al. (2004) further postulated that transformational leaders and mentors were alike, because each encouraged their subordinates or protégés to learn and develop; thereby allowing their followers to develop confidence, self-identity and well-being.
Similarly, Bycio, Hackett, and Allen (1995) demonstrated that the idealized influence dimension of transformational leadership had very strong positive relationships with the extra effort put in by subordinates at work.

The theory that charismatic leaders positively impact followers, has also found support when generalized beyond the workplace, to the school environment. Leithwood, Menzies, Jantzi, and Leithwood (1996) postulated that the likelihood of job burnout among stakeholders (leaders, management and staff) in schools would be expected to get mitigated when school leaders acted in a transformational capacity by outlining the mission, values and vision of the school to stakeholders, so that they would feel accountable for the betterment of the school's environment (and not resentful of the work involved). In working together to constantly to improve things for students and creating a collaborative environment where stakeholders were able to participate in decision making to influence outcomes, Leithwood et al. believed that reduced job burnout (or, greater job engagement) would result. This process of vision sharing was also supported by Dionne and Yammarino (2003) who believed that transformational leaders engaged employees by sharing their vision, which involved delineating group goals for greater team cohesion, thus increasing the level of collective dedication to the overall mission of the organization.

Hence, given the above research findings, it may be hypothesized that:

Hypothesis 1: Idealized influence will have a positive relationship with vigor over and above the amount of social support received from supervisors and coworkers and availability of decision latitude.
Hypothesis 1a: Idealized influence will have a positive relationship with dedication over and above the amount of social support received from supervisors and coworkers and availability of decision latitude.

Hypothesis 1b: Idealized influence will have a positive relationship with absorption over and above the amount of social support received from supervisors and coworkers and availability of decision latitude.

*Individualized consideration and work engagement.* Transformational leaders have been known to provide individualized support to employees by respecting their needs and feelings. This characteristic, also known as individualized consideration (Bass, 1999), is attributed to leaders who recognize the individual differences between subordinates, and who lead by rewarding and mentoring their subordinates accordingly. Bass believed that leaders who brought an individualistic orientation to followers also communicated expectations clearly, created relationships of trust/loyalty and helped subordinates realize their untapped potential. Bycio, Hackett, and Allen (1995) also found support for these relationships and believed that when leaders showed individualized consideration, employees were also more likely to dedicate extra effort at work. Establishing trust between leaders and followers is another hallmark of highly transformational leaders who foster work environments where employees feel safe and are encouraged to psychologically invest in the work they do (May, Gilson, & Harter, 2004).

Flade (2003) advocated that companies should focus on trust building exercises to strengthen the relationship between managers and employees. In valuing the supervisor-subordinate relationship and building strong relationships between leaders and followers, Flade believed that high levels of employee engagement would result. On the other hand,
Flade explained that disengaged employees could cause business problems for organizations, such as, increased turnover, lower profits and decreased productivity. Therkelsen and Fiebich (2003) believed that when subordinates trusted their managers or leaders, they were also likely to feel loyal towards them. They further explained that when leaders solicited and listened to inputs from subordinates, and valued the knowledge, skills and abilities contributed by them, they were also more likely to build further trust with their followers.

Transformational leaders demonstrate individualized consideration when they are able to clarify expectations with their direct reports, and thereby reduce job ambiguity (Schulz, Greenley, and Brown, 1995). By setting clear expectations of performance, followers are likely to experience reduced feelings disengagement or burnout at work (Harter, Keyes, and Schmidt, 2003). Providing individualized recognition is also a typical characteristic of transformational leaders, who demonstrate consideration. O’Driscoll and Randall (1999) believed that both intrinsic and extrinsic rewards can have a significant impact on followers, especially on their level of job involvement.

Diefendorff, Brown, Kamin, and Lord (2002) used the terms job involvement synonymously with engagement. The basis for their usage of these terms interchangeably was based on Katz and Kahn’s (1978) theory that employees demonstrated organizational citizenship behavior by engaging at work, and doing more than what was expected of them per their formal work obligations. Paullay, Alliger, and Stone-Romero (1994) also noted that job involvement was closely aligned to work engagement. They postulated that when leaders showed individualized consideration to employees, this encouraged them to psychologically identify with their work, and create work engagement among followers.
Hence, given the above research findings, it is hypothesized that:

Hypothesis 2: Individualized consideration will have a positive relationship with vigor over and above the amount of social support received from supervisors and availability of decision latitude.

Hypothesis 2a: Individualized consideration will have a positive relationship with dedication over and above the amount of social support received from supervisors and availability of decision latitude.

Hypothesis 2b: Individualized consideration will have a positive relationship with absorption over and above the amount of social support received from supervisors and availability of decision latitude.

Inspirational motivation and work engagement. The following is a discussion about the impact that transformational leaders have on their subordinates by inspiring and motivating them to stay energized, absorbed and dedicated toward meeting inspirational goals that they set for themselves. Research by Wrosch, Scheier, Carver, and Schulz (2003) suggests that the process of goal setting is a positive process that provides individuals with meaning and purpose, and also promotes their long-term development. Furthermore, that when individuals experience doubt in achieving their goals, they are likely to become distressed, disengaged and may experience a lack of commitment toward achieving their objectives, as a result. Wrosch et al. also asserted that disengagement in meeting goals was comparable to a reduction in effort/energy toward achieving results. Similarly, Leiter (1992) believed that when workplaces did not support the professional goals of employees, exhaustion, cynicism and reduced professional efficacy would result.
Setting clear inspirational objectives is the first step that transformational leaders take in motivating employees to aspire toward and achieve goals. Crabtree (2003) noted that when corporate leaders were able to delineate the vision for the future of the organization, they were also more likely to help employees understand the value of their contributions toward the collective vision of the organization. In doing this, the leaders not only allowed employees to feel more certain about the road ahead, but they also created work engagement by helping employees see how achieving their goals helped contribute to the broader mission of the organization. Haudan and MacLean (2001) believed that employees who worked in synchrony with leaders to see the bigger picture of the organization were more likely to embrace their role and better understand the larger impact of their contributions. Similarly, Podsakoff, MacKenzie, Moorman, and Fetter (1990) found that managers/leaders displayed key behaviors of transformational leaders when they motivated employees to connect with the overall vision of the organization. This also inspired them to stay engaged in accepting set goals as their own.

While acknowledging that human contribution at work was ever important Aktouf (1992) believed that the manner in which the individual engaged in the workplace as well as the role of the manager in creating that engagement was highly significant. Aktouf suggested that managers played an important part in inspiring employees to regard their role as being that of active interested agents, responsible for helping the organization achieve success. Leiter and Harvie (1997) believed that the work engagement construct had an underlying “interpersonal component, in that it (was) closely related to the social climate of the work setting,” (p. 344) due to the inspirational motivation supervisors provided to subordinates. They also believed that supervisors played a defining role in
determining whether employees would stay engaged at work, or would suffer from job burnout. Furthermore, the manner in which the supervisors engaged with their jobs was responsible in setting the stage for how employees would engage in the workplace.

Leiter and Harvie found that when supervisors were cynical (not dedicated), exhausted (lack of vigor) and expressed a lack of meaningfulness (lower absorption) at work, these feelings were in turn mirrored by their employees who also reported sharing similar negative perceptions about their work. Correlations between the negative feelings expressed by supervisors toward their work, and the reflection of those feelings on their subordinates were found between cynicism and meaningfulness. This indicated that when supervisors felt cynical toward their work, or failed to see meaning in their work, these feelings of depersonalization and lack of dedication were also experienced by their subordinates.

Given the above research findings, it is hypothesized that:

Hypothesis 3: Inspirational motivation will be predictive of vigor, over and above the amount of social support received from supervisors and availability of decision latitude.

Hypothesis 3a: Inspirational motivation will be predictive of dedication, over and above the amount of social support from supervisors and availability of decision latitude.

Hypothesis 3b: Inspirational motivation will be predictive of absorption, over and above the amount of social support received from supervisors and availability of decision latitude.

Intellectual stimulation and work engagement. According to Harter, Schmidt, and Keyes (2003), when employees are provided with the opportunities where they are encouraged to grow and progress intellectually, it results in work engagement. Encouraging employees to grow helps employees learn new things and leads to positive
emotions, which filter through the holistic organization. Walumbwa, Wang, Lawler, and Shi (2004) noted that transformational leaders influence followers to examine things critically and find novel solutions to workplace issues, and in doing so, encourages them to stay involved, motivated, and more positive about their work. Similarly, Bycio et al. (1995) found that the intellectual stimulation dimension of the transformational leadership scale had very strong positive relationships with the extra effort put in by subordinates. Avolio and Bass (2004) described an intellectually stimulating leader as one who “can discern, comprehend, conceptualize, and articulate to their associates the opportunities and threats facing their organization and its strengths, weaknesses, and comparative advantages.” Furthermore, they opined that in allowing followers to seek intellectual ways to solve problems, analyze situations, critically question long held beliefs/assumptions/values, transformational leaders were actually developing their followers to seek innovative and creative ways to solve traditional problems. Furthermore, in intellectually empowering workers, Avolio and Bass (2004) suggested that employees would be able to remain self-sufficient in decision making, in the absence of the leader. This theory was supported by several other researchers. For example, Seltzer and Bass (1990) found that subordinates who were put in jobs with significant autonomy/decision making power, experienced less job burnout. Similarly, and Price and Weiss (2000) reported similar findings between coaches and athletes, where athletes claimed to experience less burnout when they were allowed to participate in group decisions and set their own goals.

Given the above research findings, it may be hypothesized that:
Hypothesis 4: Intellectual stimulation will be predictive of vigor, over and above the amount of social support received from supervisors and availability of decision latitude.
Hypothesis 4a: Intellectual stimulation will be predictive of dedication, over and above the amount of social support from supervisors and availability of decision latitude.
Hypothesis 4b: Intellectual stimulation will be predictive of absorption, over and above the amount of social support received from supervisors and availability of decision latitude.

Method

A paper and pencil survey methodology was used for this study, and survey questionnaires were administered to respondents in a field setting. Prior Human Subjects-Institutional Review Board (HS-IRB) permission was also obtained to administer the surveys to participants.

Participants

For the purposes of this study, the sample of respondents being considered were required to be employed in a professional work setting. Hence, mostly graduate students from the College of Business, Department of Psychology, and School of Nursing at a large Northern California University were eligible to participate in the study. One hundred and fifty college level students were selected to participate in the present study.

Table 1 describes the demographic information of the respondents. Of the 150 students, 41% were full time students and 57% were part-time. As seen in the table, 59% of the respondents were females and 40% were males. The age of participants ranged from 18 years to 45 years and above. Specifically, 29% of participants fell between the ages of 18 – 25, 58% fell between the ages of 25 – 35 years, 9% fell between the ages of 35 – 45 years, and 11% of participants were above the age of 45 years.
Of particular relevance to this study was the average work experience of the students. Students for the most part had more than two years of work experience. Ten percent of the participants had worked between 6 – 12 months, 9% had worked 1 year, 11% had worked between 1 – 2 years and 67% had worked more than 2 years.

Of the 150 respondents, 23% had a reporting relationship with their managers ranging from 6 – 12 months, 7% had a reporting relationship with their manager of 1 year, 17% had reported to their managers between 1 – 2 years, and 25% had relationships of more than 2 years.
Table 1

*Frequencies and Percentages of Demographic Variables in the Sample*

<table>
<thead>
<tr>
<th>Participant Demographics (N = 150)</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 18</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>18 - 25 yrs</td>
<td>43</td>
<td>29%</td>
</tr>
<tr>
<td>25 - 35 yrs</td>
<td>87</td>
<td>58%</td>
</tr>
<tr>
<td>35 - 45 yrs</td>
<td>13</td>
<td>9%</td>
</tr>
<tr>
<td>45 and above</td>
<td>17</td>
<td>11%</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>89</td>
<td>59%</td>
</tr>
<tr>
<td>Female</td>
<td>60</td>
<td>40%</td>
</tr>
<tr>
<td>Enrollment Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full Time Students</td>
<td>62</td>
<td>41%</td>
</tr>
<tr>
<td>Part Time Students</td>
<td>86</td>
<td>57%</td>
</tr>
<tr>
<td>Student Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelors Program</td>
<td>43</td>
<td>29%</td>
</tr>
<tr>
<td>Masters Program</td>
<td>101</td>
<td>67%</td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
<td>3%</td>
</tr>
<tr>
<td>Internship Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job part of Internship</td>
<td>14</td>
<td>9%</td>
</tr>
<tr>
<td>Job not part of Internship</td>
<td>128</td>
<td>85%</td>
</tr>
<tr>
<td>Employment Tenure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-12 months</td>
<td>15</td>
<td>10%</td>
</tr>
<tr>
<td>1 year</td>
<td>13</td>
<td>9%</td>
</tr>
<tr>
<td>1-2 years</td>
<td>17</td>
<td>11%</td>
</tr>
<tr>
<td>more than 2 years</td>
<td>100</td>
<td>67%</td>
</tr>
<tr>
<td>Tenure with Manager</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-12 months</td>
<td>35</td>
<td>23%</td>
</tr>
<tr>
<td>1 year</td>
<td>11</td>
<td>7%</td>
</tr>
<tr>
<td>1-2 years</td>
<td>26</td>
<td>17%</td>
</tr>
<tr>
<td>more than 2 years</td>
<td>37</td>
<td>25%</td>
</tr>
</tbody>
</table>
Procedure

The data collection for this study was done in several sessions over a two month time frame. The strategy for data collection involved contacting faculty from the College of Business, School of Nursing, and the Department of Psychology at a large Northern California University, and seeking their permission to solicit student participation during part of the faculty's lecture time in the classroom setting. Faculty were randomly selected and contacted via email to request a class time during which students could fill in the surveys. A request was also made to faculty to offer extra credit to students who participate in the study. This set up was pre-arranged with faculty before survey administration. During the survey administration, the principal investigator advised students that their participation in the survey was voluntary, and that their responses would remain confidential. The students who agreed to take the survey were provided with a photocopied version of the questionnaire to fill in. The students were required to fill in the questionnaires in the presence of the principle investigator, who not only proctored participation at a reasonable distance from the respondents, but was also responsible to answer any questions students brought up about the survey. On completion of survey, the questionnaires were handed in to the principle investigator, who collated the surveys and secured them for data analysis.

Measures

Both literature reviews and validated quantitative scales were used to develop the survey, which comprised five different sections, each described in detail below.

Social support. Social support in the work environment in the form of supervisory and coworker support was measured using the Job Content Questionnaire (JCQ) developed
by Karasek (1985). Though the overall JCQ scale comprised of five underlying dimensions, for this study, only the social support dimension was utilized. Permission to use and reproduce the JCQ questionnaire was granted from the JCQ Center at the Department of Work Environment (for more information on using the JCQ questionnaire, go to http://www.uml.edu/dept/we/index.htm) at the University of Massachusetts (Lowell), an educational institution that the author of the JCQ, Robert Karasek, is affiliated. Prior permission was granted by the Department of Work Environment to administer the JCQ freely to survey respondents for the purposes of this research thesis. The Social Support scale, which was part of the overall JCQ scale, comprised of eight items, and was subdivided into two subscales measuring coworker support and supervisor support. Based on a study by Baruch-Feldman, Brondolo, Ben-Dayan, and Schwartz (2002) the reliability reported for the social support scale of the JCQ at the overall level was .86, and the reliabilities reported for each of the dimensions of the social support scale, namely, coworker support and supervisor support, were .87 and .91, respectively. A sample supervisory support item is “My supervisor appreciates me” and coworker support item is “My coworkers care about me.” A 4-point response scale ranging from 1 (Strongly Disagree) to 4 (Strongly Agree), was used to measure the responses on the social support subscale of the JCQ.

**Decision latitude.** The availability of physical resources for employees to carry out their tasks was also measured using the JCQ. The decision latitude scale comprised of nine items, and was further divided into subscales measuring decision authority and skill discretion. Based on a study by Kawakami, Kobayashi, Araki, Haratani, and Fruri (1995), the reliability reported for the decision latitude subscale of the JCQ at the overall level was
.68, and the reliabilities reported for each of the dimensions of the decision latitude scale, namely, decision authority and skill discretion were .59 and .66, respectively. A sample decision authority item is “My job allows me to make a lot of decisions on my own”, and a sample skill discretion item is “I get to do a variety of different things on my job.” A 4-point response scale ranging from 1 (Strongly Disagree) to 4 (Strongly Agree), was used to measure the responses on the decision latitude subscale of the JCQ.

Transformational leadership. Transformational leadership was measured using the Multifactor Leadership Questionnaire-Form 5X, henceforth referred to as MLQ, which was developed by Avolio, Bass, & Jung (1999). Permission for usage and reproduction of copies of the MLQ questionnaire was granted from Mind Garden, Inc., (for more information on using the MLQ questionnaire, go to www.mindgardenc.com) a psychological publishing company that independently allows researchers to purchase leadership instruments. Permission was granted by Mind Garden to administer the MLQ survey to 150 respondents.

The MLQ scale comprised of 45 items measuring leadership, however only twenty of those were taken into consideration as they were related to the main predictor in this study, namely, transformational leadership. The overall transformational leadership scale was subdivided into four subscales measuring the underlying dimensions of transformational leadership, namely: idealized influence (behavior and attributed), inspirational motivation, intellectual stimulation, and individualized consideration. Each of these four subscales of transformational leadership was comprised of four items. A sample idealized influence item is “Talks about his/her most important values and beliefs”, inspirational motivation item is “Talks optimistically about the future”, intellectual
stimulation item is “Seeks differing perspectives when solving problems” and a sample individualized consideration item is “Spends time teaching and coaching.”

Based on a study by Berson and Avolio (2004), a confirmatory factor analysis was done and the reliabilities of the subscales making up the MLQ were computed. Coefficient alphas of the MLQ scale ranged from .65 to .85. Specifically, the coefficient alpha for idealized influence and inspirational motivation was .86, individualized consideration was .82, and intellectual stimulation was .75. A 5-point frequency scale ranging from 0 (Not at All) to 4 (Frequently, if not Always) was used to measure the presence of transformational leadership. Since a mean score of the participant’s responses for each leadership dimension was calculated, higher scores on the MLQ scale indicated that the participant had worked under a transformational manager, and lower scores indicated that they had not worked under a transformational leader.

Work engagement. While acknowledging the conceptual similarities between work engagement and job burnout, however, as previously stated, this study was based on Schaufeli, Salanova, Gonzalez-Roma, and Bakker’s (2002) definition and measure of work engagement. The rational for choosing Schaufeli et al.’s theoretical and operational definition of work engagement was based on the factorial validity of the UWES scale as established by Schaufeli and his colleagues. Support for the factorial validity of the UWES scale (using confirmatory factor analysis) as being predictive in measuring employee work engagement was also established by other researchers (Schaufeli, Martinez, Pinto, Salanova, & Bakker, 2002). Finally, Schaufeli et al.’s measure of work engagement was determined as being the most appropriate measure for this study based on the body of evidence gathered from previous research studies, which suggested that the MBI-GS,
which measured burnout and work engagement at opposing constructs measured on the MBI-GS scale, suffered from inherent weaknesses. For example, Demerouti et al. (2001) argued that the MBI-GS scale was subject to rater bias due to poor item wording (each subscale of the MBI-GS either contained only positively worded items or negatively worded items).

Work engagement was measured using Schaufeli et al.'s (2002) Utrecht Work Engagement Scale (UWES). The UWES comprised of 17 items at the overall level, but was subdivided into three subscales measuring the underlying dimensions of work engagement, namely, vigor, dedication, and absorption. A sample vigor item is "When I get up in the morning, I feel like going to work," a sample dedication item is "To me my job is challenging," and a sample absorption item from the UWES scale is "Time flies when I am working."

The subscale vigor comprised of nine items, dedication comprised of eight items and absorption comprised of seven items. A 5-point response scale ranging from 1 (Never) to 5 (Always) was used to measure the UWES. Since a mean score of the participant's responses for each work engagement dimension was calculated, higher scores on the items were indicative of engaged employees, and lower scores of disengaged ones. Based on the landmark study on work engagement by Schaufeli et al. (2002) the following reliability alphas were reported for the subscales of the work engagement scale, namely: vigor, .79, dedication, .89, and absorption, .72.
Results

As a first step, data were cleaned and variables were screened for normality, homogeneity of variance and the detection of outliers. No outliers were found during the analysis. Next, to assess the hypothesis in this study, several multivariate and univariate analysis of variance were conducted and are described below.

Factor Analysis

To test whether the data supported a two factor solution for social support, as described by Karasek (1985), a forced two factor analysis was carried out to assess whether the coworker items loaded on one factor and the supervisor items loaded on the second factor. Results from this test demonstrated that the factor analysis did not support Karasek’s two factor structure, where supervisor support items were able to distinguish themselves from the coworker support items in two separate subscales. Hence, for the purposes of the current study, the use of a one factor model of social support was proposed over a two-dimensional one.

Using a forced factor solution to fit the results into one factor, a Principal Components analysis with a Varimax rotation was carried out for data extraction into the one factor demonstrating characteristics encompassing both supervisory and coworker support. The total variance explained was 36% and all thirteen variables loaded on the one factor that was extracted. The component factor matrix loadings for each item on their corresponding factors were sufficiently high ranging from .44 to .73 as shown in Table 2.
Table 2

Principal Components Factor Analysis of Social Support

<table>
<thead>
<tr>
<th>Items</th>
<th>Component 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Support</td>
<td></td>
</tr>
<tr>
<td>People I work with are helpful in getting the job done</td>
<td>.73</td>
</tr>
<tr>
<td>My immediate manager pays attention to what I'm saying</td>
<td>.72</td>
</tr>
<tr>
<td>The people I work with encourage each other to work together</td>
<td>.66</td>
</tr>
<tr>
<td>My immediate manager is successful in getting people to work together</td>
<td>.66</td>
</tr>
<tr>
<td>My immediate manager is concerned about the welfare of those under</td>
<td></td>
</tr>
<tr>
<td>him or her</td>
<td>.65</td>
</tr>
<tr>
<td>I get information/feedback from my supervisor</td>
<td>.64</td>
</tr>
<tr>
<td>People I work with are friendly</td>
<td>.63</td>
</tr>
<tr>
<td>My immediate manager is helpful in getting the job done</td>
<td>.63</td>
</tr>
<tr>
<td>People I work with are competent in doing their jobs</td>
<td>.54</td>
</tr>
<tr>
<td>People I work with take a personal interest in me</td>
<td>.52</td>
</tr>
<tr>
<td>I get information/feedback from my co-workers about how well I do my</td>
<td></td>
</tr>
<tr>
<td>job</td>
<td>.49</td>
</tr>
<tr>
<td>I am exposed to hostility and conflict from the people I work with</td>
<td>.47</td>
</tr>
<tr>
<td>My immediate manager exposes me to hostility and conflict</td>
<td>.44</td>
</tr>
</tbody>
</table>

Next, to test whether the data supported a two factor solution for decision latitude as described by Karasek (1985), again a forced two factor analysis was carried out to assess whether the skill discretion items loaded on one factor and the decision authority items load on the second factor. Here also, results from this test demonstrated that the factor analysis did not support Karasek’s two factor structure, where skill discretion items were able to distinguish themselves from the decision authority items in two separate subscales. Hence, for the purposes of the current study, the use of a one factor model of decision latitude was proposed.
Again, using a forced factor solution in order to fit the results into one factor, a Principal Components analysis with a Varimax rotation was used for data extraction into the one factor demonstrating characteristics of both skill discretion and decision authority. As expected, all of the decision latitude items loaded on one factor, which accounted for 48% of the total variance. The component factor matrix loadings for each item were sufficiently high ranging from .51 to .80, and can be seen in Table 3.

Table 3

Principal Components Factor Analysis of Decision Latitude

<table>
<thead>
<tr>
<th>Component</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Items</td>
<td>1</td>
</tr>
<tr>
<td>Decision Latitude</td>
<td></td>
</tr>
<tr>
<td>My job requires me to be creative</td>
<td>.80</td>
</tr>
<tr>
<td>I have an opportunity to develop my own special abilities</td>
<td>.77</td>
</tr>
<tr>
<td>My job requires a high level of skill</td>
<td>.75</td>
</tr>
<tr>
<td>I get to do a variety of different things on my job</td>
<td>.71</td>
</tr>
<tr>
<td>My job requires that I learn new things</td>
<td>.68</td>
</tr>
<tr>
<td>I have a lot of say about what happens on my job</td>
<td>.66</td>
</tr>
<tr>
<td>My job involves a lot of repetitive work</td>
<td>.65</td>
</tr>
<tr>
<td>My job allows me to make a lot of decisions on my own</td>
<td>.64</td>
</tr>
<tr>
<td>On my job, I have very little freedom to decide how I do my work</td>
<td>.51</td>
</tr>
</tbody>
</table>

To test the factor structure of transformational leadership, a forced factor solution was implemented to fit the results into four factors based on the model of transformational leadership as measured by Avolio et al.'s (1999) MLQ scale. A Principal Components analysis with a Varimax rotation was used, for data extraction into the four factors, as hypothesized. Though four factors were extracted, most of the transformational leadership
items loaded predominantly on the first two factors. The total explained variance by the first factor was 5.74%. This was followed by the second factor at 6.45%, the third factor at 5.04%, and the fourth factor at 4.51%. Twenty items loaded on four factors that were extracted. The rotated component factor matrix loadings for each item on their corresponding factors were also sufficiently high, ranging from .51 to .77.

Though results from the above analysis demonstrated that even though the twenty transformational leadership items were distributed among the four factors as previously hypothesized by Avolio et al. (1999), the individualized items did not divide themselves in such a way that they distinguished the idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration dimensions separately, as previously demonstrated by the authors of the scale. In other words, the items did not parse out in such a way that the idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration items resulted in being distinct from one another. Instead, the items loaded on four factors in such a way that the first set of items that loaded on factor one demonstrated the managers’ responsibility toward employees and decision making, the second set of items that loaded on factor two demonstrated the managers’ ability to develop employees, the third set of items that loaded on factor three demonstrated the managers’ vision for the future, and the final set of factors that loaded on factor four demonstrated the manager’s ability to communicate with employees. The results of this analysis can be seen in Table 4.

Consequently, for the purposes of the current study, further analysis was carried out using the new four factor structure as described above.
<table>
<thead>
<tr>
<th>Items</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manager Responsibility &amp; Decision Making</td>
<td>1</td>
</tr>
<tr>
<td>My manager treats me as an individual rather than just as a member of a group</td>
<td>.77</td>
</tr>
<tr>
<td>My manager acts in ways that builds my respect</td>
<td>.74</td>
</tr>
<tr>
<td>My manager considers the moral and ethical consequences of decisions</td>
<td>.71</td>
</tr>
<tr>
<td>My manager considers me as having differing needs and aspirations from others</td>
<td>.64</td>
</tr>
<tr>
<td>My manager gets me to look at problems from many different angles</td>
<td>.53</td>
</tr>
<tr>
<td>My manager goes beyond self-interest for the good of the group</td>
<td>.53</td>
</tr>
<tr>
<td>My manager displays a sense of power and confidence</td>
<td>.51</td>
</tr>
<tr>
<td>Manager Ability to Develop Employees</td>
<td>1</td>
</tr>
<tr>
<td>My manager suggests new ways of looking at how to complete assignments</td>
<td>.75</td>
</tr>
<tr>
<td>My manager emphasizes the importance of having a collective sense of mission</td>
<td>.75</td>
</tr>
<tr>
<td>My manager helps me to develop my strengths</td>
<td>.66</td>
</tr>
<tr>
<td>My manager spends time teaching and coaching</td>
<td>.65</td>
</tr>
<tr>
<td>My manager specifies the importance of having a strong sense of purpose</td>
<td>.63</td>
</tr>
<tr>
<td>My manager expresses confidence that goals will be achieved</td>
<td>.55</td>
</tr>
<tr>
<td>Manager Vision for the Future</td>
<td>1</td>
</tr>
<tr>
<td>My manager talks enthusiastically about what needs to be accomplished</td>
<td>.77</td>
</tr>
<tr>
<td>My manager talks optimistically about the future</td>
<td>.75</td>
</tr>
<tr>
<td>My manager articulates a compelling vision of the future</td>
<td>.73</td>
</tr>
<tr>
<td>My manager instills pride in others for being associated with him/her</td>
<td>.62</td>
</tr>
<tr>
<td>Manager Communication with Employees</td>
<td>1</td>
</tr>
<tr>
<td>My manager re-examines critical assumptions to question whether appropriate</td>
<td>.77</td>
</tr>
<tr>
<td>My manager seeks differing perspectives when solving problems</td>
<td>.66</td>
</tr>
<tr>
<td>My manager talks about their most important values and beliefs</td>
<td>.58</td>
</tr>
</tbody>
</table>
Next, to test the factor structure of work engagement, a forced factor solution was implemented to fit the results into three factors based on the model of employee engagement as measured by Schaufeli et al. (2002). A Principal Components analysis with a Varimax rotation was used for data extraction into the three factors as hypothesized. Though three factors were extracted, most of the work engagement items loaded predominantly in the first factor followed by much fewer items loading on the second and third factor, respectively. The total explained variance by the first factor was 45.19%, by the second factor was 7.41% and by the third factor was 6.17%. Seventeen variables loaded on the three factors that were extracted. The rotated component factor matrix loadings for each item on their corresponding factors were sufficiently high ranging from .56 to .80. The lowest item loading on the first factor was .56, on the second factor was .60, and the lowest item loading on the third factor was .60. As seen previously, here also, the results demonstrated that even though the seventeen employee job engagement items were distributed among the three factors as modeled by Schaufeli et al.'s (2002) UWES scale, the individualized items did not divide themselves in such a way that they distinguished the vigor, dedication, and absorption dimensions of the work engagement scale as being distinct. Instead, the items loaded on three factors in such a way that the first set of items that loaded on factor one demonstrated enthusiasm at work, the second set of items that loaded on factor two demonstrated immersion in work, and the third set of items that loaded on factor three demonstrated perseverance on the job. The results of this analysis can be seen in Table 5.

Consequently, for the purposes of the current study, further analysis was carried out with this new factor structure as described above.
Table 5

*Principal Components Factor Analysis of Employee Work Engagement*

<table>
<thead>
<tr>
<th>Items</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enthusiasm at Work</td>
<td>1</td>
</tr>
<tr>
<td>My job inspires me</td>
<td>.80</td>
</tr>
<tr>
<td>Time flies when I am working</td>
<td>.70</td>
</tr>
<tr>
<td>At my job I feel strong and vigorous</td>
<td>.70</td>
</tr>
<tr>
<td>I find the work that I do full of meaning and purpose</td>
<td>.68</td>
</tr>
<tr>
<td>At my work, I feel bursting with energy</td>
<td>.66</td>
</tr>
<tr>
<td>I am enthusiastic about my job</td>
<td>.66</td>
</tr>
<tr>
<td>To me, my job is challenging</td>
<td>.66</td>
</tr>
<tr>
<td>When I get up in the morning, I feel like going to work</td>
<td>.61</td>
</tr>
<tr>
<td>I am proud of the work that I do</td>
<td>.56</td>
</tr>
<tr>
<td>Immersion in Work</td>
<td></td>
</tr>
<tr>
<td>It is difficult to detach myself from my job</td>
<td>.72</td>
</tr>
<tr>
<td>When I am working, I forget everything else around me</td>
<td>.71</td>
</tr>
<tr>
<td>I am immersed in my work</td>
<td>.65</td>
</tr>
<tr>
<td>I get carried away when I am working</td>
<td>.62</td>
</tr>
<tr>
<td>I can continue working for very long periods of time</td>
<td>.60</td>
</tr>
<tr>
<td>Perseverance at Work</td>
<td></td>
</tr>
<tr>
<td>At my job, I am very mentally resilient</td>
<td>.73</td>
</tr>
<tr>
<td>I feel happy when I am working intensely</td>
<td>.66</td>
</tr>
<tr>
<td>At my work I always persevere, even when things do not go well</td>
<td>.60</td>
</tr>
</tbody>
</table>

*Reliability*

Reliability estimates were calculated using Cronbach’s alpha and the average inter item correlation (calculated for the perseverance at work dimension of work engagement) was computed and can be reviewed in Table 7. Reliabilities ranged from $\alpha = .82$ to $\alpha = .92$. The overall estimates of internal consistency for the social support (13 items) scale was $\alpha = .85$ and the overall reliability estimates for the decision latitude scale (9 items) was $\alpha = .86$. 

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Specifically, the internal consistency for the manager’s responsibility toward employees and decision making subscale (7 items) was $\alpha = .89$; for the manager’s ability to develop employees dimension subscale (6 items) was $\alpha = .92$; for the manager’s ability to develop employees subscale (4 items) was $\alpha = .90$; and for the manager’s communication with employees subscale (5 items) was $\alpha = .82$.

The reliability estimates for the enthusiasm at work dimension (10 items) was $\alpha = .92$, and the immersion in work dimension (6 items) was $\alpha = .85$. In the case of the subscale, perseverance on the job (3 items), due to the small number of items making up this subscale, the average interitem correlation was computed, and was found to be reliable at $.33$.

**Descriptive Statistics**

The means and standard deviations of the transformational leadership, employee work engagement, social support and decision latitude scales were calculated and are displayed in Table 6.

The mean score for the control variable of social support was $(M = 2.98)$, as measured on a 4-point scale. Participants generally agreed that their coworkers and supervisors were involved and provided support to each other. Likewise, the mean score for the control variable of decision latitude was $(M = 2.88)$ as measured on a 4-point scale, from which it was inferred that in general respondents were provided with the opportunity for self development at work, and that they had the freedom to make their own decisions.

Transformational leadership items were measured on a 5-point scale and mean scores ranged from $(M = 2.33)$ to $(M = 2.64)$. Since ratings fell between 2.00 and 3.00 on the 5-point scale associated with the MLQ, this indicated that on average, managers felt
somewhat responsible about the decisions they made with regard to their employees only some of the time. It also indicated that managers spent time developing their employees, creating a vision for their future and communicated with them in a transformational manner, only once in a while.

Employee engagement items were also measured on a 5-point scale and mean scores ranged from \( M = 3.16 \) to \( M = 3.65 \). Since scores fell between 3.00 and 4.00, it was inferred that employees felt enthusiastic and immersed at work sometimes or most of the time.

The means of the transformational leadership, employee work engagement, social support and decision latitude scales can be seen in Table 6.
Table 6

*Means and Standard Deviations for the Measured Variables*

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Support</td>
<td>144</td>
<td>2.98</td>
<td>.44</td>
</tr>
<tr>
<td>Decision Latitude</td>
<td>144</td>
<td>2.88</td>
<td>.57</td>
</tr>
<tr>
<td>Transformational Leadership</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manager Responsibility and Decision Making</td>
<td>144</td>
<td>2.64</td>
<td>.88</td>
</tr>
<tr>
<td>Manager Ability to Develop Employees</td>
<td>144</td>
<td>2.31</td>
<td>1.01</td>
</tr>
<tr>
<td>Manager Vision for the Future</td>
<td>144</td>
<td>2.57</td>
<td>.99</td>
</tr>
<tr>
<td>Manager Communication with Employees</td>
<td>144</td>
<td>2.33</td>
<td>.94</td>
</tr>
<tr>
<td>Employee Work Engagement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enthusiasm at Work</td>
<td>144</td>
<td>3.38</td>
<td>.74</td>
</tr>
<tr>
<td>Immersion in Work</td>
<td>144</td>
<td>3.16</td>
<td>.77</td>
</tr>
<tr>
<td>Perseverance at Work</td>
<td>144</td>
<td>3.65</td>
<td>.64</td>
</tr>
</tbody>
</table>

*Note.* Transformational Leadership measured on 5-point scale

Employee Work Engagement measured on 5-point scale

Social Support and Decision Latitude measured on 4-point scale
*Pearson correlation coefficients*. Intercorrelations using Pearson’s correlation coefficients among the transformational leadership, employee work engagement, social support and decision latitude scales were computed, and they ranged from .15 to .82. All correlations were found to be positive and most others were significantly correlated at the .001 level, as can be seen in Table 7.
Table 7

Pearson’s Correlation Matrix for the Measured Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Social Support</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.85</td>
</tr>
<tr>
<td>2. Decision Latitude</td>
<td>.45</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.86</td>
</tr>
<tr>
<td>3. Manager Responsibility and Decision Making</td>
<td>.60</td>
<td>.46</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.89</td>
</tr>
<tr>
<td>4. Manager Ability to Develop Employees</td>
<td>.49</td>
<td>.38</td>
<td>.82</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.92</td>
</tr>
<tr>
<td>5. Manager Vision for the Future</td>
<td>.42</td>
<td>.31</td>
<td>.75</td>
<td>.76</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.90</td>
</tr>
<tr>
<td>6. Manager Communication with Employees</td>
<td>.28</td>
<td>.31</td>
<td>.66</td>
<td>.70</td>
<td>.72</td>
<td></td>
<td></td>
<td></td>
<td>.82</td>
</tr>
<tr>
<td>7. Enthusiasm at Work</td>
<td>.42</td>
<td>.69</td>
<td>.50</td>
<td>.51</td>
<td>.47</td>
<td>.49</td>
<td></td>
<td></td>
<td>.92</td>
</tr>
<tr>
<td>8. Immersion in Work</td>
<td>.17</td>
<td>.53</td>
<td>.30</td>
<td>.34</td>
<td>.27</td>
<td>.33</td>
<td>.72</td>
<td></td>
<td>.85</td>
</tr>
<tr>
<td>9. Perseverance at Work</td>
<td>.20</td>
<td>.40</td>
<td>.23</td>
<td>.15</td>
<td>.22</td>
<td>.26</td>
<td>.54</td>
<td>.55</td>
<td>.33</td>
</tr>
</tbody>
</table>

*Correlation is significant at p<.05

**Correlation is significant at p<.001

Reliability coefficient in Bold
Among the transformational leadership subscales, strong correlations were found between how responsible managers felt toward employees and the interest they took in developing them ($r = .82$, $p < .001$), and in developing a vision for their future ($r = .75$, $p < .001$), indicating that the more involved and responsible managers felt for their employees, the more likely they were to develop them and plan for their future in the organization. Strong significant correlations were also found between manager communications and their interest in developing their employees, ($r = .70$, $p < .001$), indicating that when managers spent time communicating with subordinates, employees felt like they were being primed to be successful on the job. In contrast, relatively low correlations were found between decision latitude and manager vision for the future ($r = .31$, $p < .001$), indicating a weak relationship between the manager’s ability to articulate the vision for the future, and the amount of freedom in decision making that the employee experienced at work.

In terms of employee work engagement, the highest correlations were found between the level of employee enthusiasm at work and the ability for employee’s to exert latitude in decision making ($r = .69$, $p < .001$), indicating that the more freedom employees had in making responsible decisions, the more engaged they felt on the job. Similarly, correlations were high between enthusiasm at work and immersion at work, ($r = .72$, $p < .001$), indicating that when employees felt more enthusiastic at work, this resulted in them also getting more immersed in how they carried out their tasks. On the other hand, no strong correlations were found between the transformational leadership and employee work engagement items. Furthermore, only weak relationships were found between employee perseverance on the job and the manager’s responsibility to employees and in making
decisions \((r = .23, p < .001)\), the ability of managers to show employees a vision for the future \((r = .22, p < .001)\), manager ability to develop employees \((r = .15)\), and manager communication with employees \((r = .26, p < .001)\).

**Hierarchical Linear Regression**

Since the study was based on an a priori predictor, transformational leadership, and its impact on work engagement, a hierarchical multiple regression analysis was carried out to test the hypotheses that transformational leadership would predict employee job engagement. Furthermore, it was hypothesized that transformational leadership would be most predictive of employee work engagement, over and above the control variables, social support received and the amount of decision latitude available to employees at work.

Tables 8, 9 and 10 show the results from the regression analyses. Regression analyses were carried out such that the work engagement dimensions were criterion variables; social support and decision latitude were entered in the first step as the control variables, and the four dimensions of leadership were entered in the second step, as predictor variables.

Hypotheses 1, 2, 3, and 4 predicted that after controlling for social support and decision latitude, there would be a significant relationship between the four aspects of transformational leadership (i.e., managers’ responsibility toward employees and decision making, their ability to develop employees, their vision for the future, and their ability to communicate with employees) and the enthusiasm at work dimension of work engagement. To test this hypothesis, a hierarchical multiple regression analysis was conducted and Table 8 shows the variables entered and the results for each step of this analysis.
Table 8

Hierarchical Regression Analysis Predicting the Enthusiasm at Work Dimension of Employee Work Engagement

<table>
<thead>
<tr>
<th>Predicting Enthusiasm at Work Predictors</th>
<th>β</th>
<th>ΔR²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Support</td>
<td>.07</td>
<td>.49**</td>
</tr>
<tr>
<td>Decision Latitude</td>
<td>.57**</td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manager Responsibility to Employees and Decision Making</td>
<td>-.14</td>
<td>.09**</td>
</tr>
<tr>
<td>Manager Ability to Develop Employees</td>
<td>.17</td>
<td></td>
</tr>
<tr>
<td>Manager Vision for the Future</td>
<td>.11</td>
<td></td>
</tr>
<tr>
<td>Manager Communication with Employees</td>
<td>.19*</td>
<td></td>
</tr>
</tbody>
</table>

Note. **p<.01, *p<.05

βs are reported after all main effects have been entered

In Step one of the hierarchical regression, the control variables, social support and decision latitude, accounted for a significant proportion (49%) of variance in the enthusiasm at work dimension of work engagement, \( R = .70, R^2 = .49 \) and \( R_{adj}^2 = .49, F(2, 141) = 68.61, p < .01 \). Of the control variables, both decision latitude, \( \beta = .63, p < .01 \) and social support, \( \beta = .14, p < .05 \), were significantly related to enthusiasm at work, indicating that the amount of freedom in decision making given to employees, followed by the presence of a supportive work environment, were both predictive of the level of enthusiasm with which employees worked on the job.

In step two of the hierarchical regression, after controlling for decision latitude and social support, a significant relationship was found between the four aspects of
transformational leadership and the enthusiasm at work dimension of work engagement, $R = .76$, $R^2 = .58$ and $R_{adj}^2 = .56$, $F(6, 137) = 31.58$, $p < .01$. This step of the regression analysis showed that the four dimensions of transformational leadership accounted for an additional 9% variance in the enthusiasm at work dimension of work engagement, above and beyond the amount of variance accounted for by the control variables, $\Delta R^2 = .09$, $F_{cha}(4, 137) = 7.12$, $p < .01$. The control variable decision latitude continued to be the most significant predictor of enthusiasm at work, $\beta = .57$, $p < .01$, followed by the subscale of transformational leadership dealing with the communication abilities of the manager, as the next most predictive of enthusiasm at work, $\beta = .19$, $p < .05$.

Social support and the remaining three other dimensions of transformational leadership, namely, manager responsibility to employees and decision making, their ability to develop employees and articulate a vision for the future, did not emerge as being statistically significant and were therefore not predictive of the level of employee enthusiasm at work. Hence, Hypotheses 1, 2, 3 and 4 were only partially supported.

Hypotheses 1a, 2a, 3a, and 4a predicted that after controlling for social support and decision latitude, there would be a significant relationship between the four aspects of transformational leadership (i.e., managers responsibility toward employees and decision making; their ability to develop employees, their vision for the future, and their ability to communicate with employees) and the immersion in work dimension of work engagement.

Table 9 shows the variables entered and the results for each step of this analysis.
Table 9

Hierarchical Regression Analysis Predicting the Immersion in Work Dimension of Employee Work Engagement

<table>
<thead>
<tr>
<th>Predictors</th>
<th>β</th>
<th>ΔR²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Support</td>
<td>-.13</td>
<td>.29**</td>
</tr>
<tr>
<td>Decision Latitude</td>
<td>.52**</td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manager Responsibility to Employees and Decision Making</td>
<td>-.13</td>
<td>.05*</td>
</tr>
<tr>
<td>Manager Ability to Develop Employees</td>
<td>.23</td>
<td></td>
</tr>
<tr>
<td>Manager Vision for the Future</td>
<td>-.01</td>
<td></td>
</tr>
<tr>
<td>Manager Communication with Employees</td>
<td>.13</td>
<td></td>
</tr>
</tbody>
</table>

Note. ** p<.01, *p<.05

βs are reported after all main effects have been entered

In Step one of the hierarchical regression, the control variables, social support and decision latitude, accounted for a small, but significant proportion (29%) of variance in the immersion in work dimension of work engagement, $R = .54$, $R^2 = .29$ and $R_{adj}^2 = .28$, $F (2, 141) = 28.36, p < .01$. Of the control variables, only decision latitude, $\beta = .57, p < .01$, emerged as being significantly predictive of the employee's level of immersion in work, indicating that the more freedom employees were given to make decisions, the more likely they were to stay immersed in their work.

In step two of the hierarchical regression, after controlling for decision latitude and social support, a significant relationship was found between the four aspects of transformational leadership and the immersion in work dimension of work engagement, $R$
= .58, $R^2 = .34$ and $R_{adj}^2 = .31$, $F(6, 137) = 11.50, p < .01$. This step of the regression analysis showed that the four dimensions of transformational leadership accounted for only an additional variance of 5% in the immersion in work dimension of work engagement, over and above the amount of variance accounted for by the control variables, $\Delta R^2 = .05$, $F_{cha}(4, 137) = 2.48, p < .05$. Here, only the control variable, decision latitude, $\beta = .52, p < .01$, was significantly predictive of immersion in work.

Both, the amount of social support received from supervisors and coworkers, and the transformational abilities of leadership were not predictive, because they did not emerge as being statistically significant. Hence, Hypotheses 1a, 2a, 3a and 4a were not supported.

Hypotheses 1b, 2b, 3b, and 4b predicted that after controlling for social support and decision latitude, there would be a significant relationship between the four aspects of transformational leadership (i.e., managers responsibility toward employees and decision making, their ability to develop employees, their vision for the future, and the ability to communicate with employees) and the level of employee perseverance at work dimension of work engagement.

Table 10 shows the variables entered and the results for each step of this analysis.
Table 10

Hierarchical Regression Analysis Predicting the Perseverance at Work Dimension of Employee Work Engagement

<table>
<thead>
<tr>
<th>Predictors</th>
<th>β</th>
<th>ΔR²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Support</td>
<td>.04</td>
<td></td>
</tr>
<tr>
<td>Decision Latitude</td>
<td>.36**</td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manager Responsibility to Employees and Decision Making</td>
<td>.04</td>
<td>.04</td>
</tr>
<tr>
<td>Manager Ability to Develop Employees</td>
<td>-.27</td>
<td></td>
</tr>
<tr>
<td>Manager Vision for the Future</td>
<td>.11</td>
<td></td>
</tr>
<tr>
<td>Manager Communication with Employees</td>
<td>.22</td>
<td></td>
</tr>
</tbody>
</table>

Note: ** p<.01, * p<.05

βs are reported after all main effects have been entered

In step one of the hierarchical regression, the control variables, social support and decision latitude, accounted for a significant, but small proportion (15%) of variance in the perseverance at work dimension of work engagement, \( R = .40, R^2 = .16 \) and \( R_{adj}^2 = .15, F (2, 141) = 13.10, p < .01 \). Of the control variables, only one control variable, decision latitude, \( \beta = .39, p < .01 \) was significantly predictive of perseverance at work, indicating that the amount of freedom in decision making given to employees was most predictive in determining how persevering the employee would be in engaging in tasks assigned at work.

In step two of the hierarchical regression, after controlling for decision latitude and social support, a significant relationship was found between the four aspects of
transformational leadership and the enthusiasm at work dimension of work engagement, \( R = .45, R^2 = .20 \) and \( R_{adj}^2 = .16, F(6, 137) = 5.67, p < .01 \). This step of the regression analysis showed that the four dimensions of transformational leadership did not account for any additional variance in the perseverance at work dimension of work engagement \( \Delta R^2 = .04, F_{cha}(4, 137) = 1.80, \rho > .05 \), above and beyond the amount of variance accounted for by the control variables, social support and decision latitude. Furthermore, again, only decision latitude \( \beta = .36, p < .01 \), was predictive of perseverance at work, and that both the amount of social support received from supervisors and coworkers and the transformational abilities of leadership were not as predictive, because they did not emerge as being statistically significant. Hence, Hypotheses 1b, 2b, 3b and 4b were not supported.

Discussion

The main purpose of this research study was to examine the relationship between transformational leadership and employee job engagement. Bernard Bass’s conceptualizations of leadership and the measures developed to quantify leadership were based on the premise that leadership could either be transactional or transformational. However, for the purposes of this study, only transformational leadership was researched, and it was suggested that transformational leadership would likely be the most predictive characteristic of an optimal leader. Avolio et al. (1999) noted that transformational leaders embodied characteristics of being charismatic and influential in their ability to make employees do more than what was expected of them at work. Similarly, Bass (1985) suggested that employees were more likely to devote additional extra effort at work, if they reported to a transformational leader who guided their employees by motivating them and inspiring their trust.
In contrast to the above research studies, Maslach et al. (2001) argued that prolonged exposure to stressors, specifically in relation to employees having tense interactions with managers, or lack of support from supervisors, would result in exhaustion, and would ultimately lead to feelings of being burnt-out (or less engaged) at work. Similarly, Schufeli and Bakker (2002) found that the plentiful availability of job resources created work engagement and the lack of resources available, lead to disengagement. Demerouti et al. (2001) asserted that a lack of engagement would be experienced if there were limitations on the resources being provided to employees when carrying out tasks at work.

Due to the availability of this vast body of prior research discussing the interplay between the subjects of leadership, burnout, and employee work engagement, the question that arose was as to whether leadership, and in particular transformational leadership, would predict the level of employee engagement at work. Moreover, the second aim of the present study was to determine whether the relationship between the two would supersede the impact of control variables of social support and freedom in decision making. Hence, it was hypothesized that transformational leadership would be predictive of employee job engagement and that transformational leadership would be most predictive of employee job engagement, over and above the control variables suggested, namely, social support received and the decision latitude available to employees at work.

Hypotheses 1, 2, 3, and 4 stated that the four dimensions of transformational leadership would have a positive relationship with enthusiasm at work (previously stated as vigor), over and above the amount of social support received from supervisors and coworkers, and the availability of decision latitude they were allowed at work. Results
showed that these hypotheses were only partially supported. Moderate correlations between the four dimensions of transformational leadership, in relation to the enthusiasm dimension of work engagement, were also indicative of only a moderate relationship between the leadership and engagement items. Only the 'manager communication with employees' dimension of transformational leadership emerged as being predictive of employee enthusiasm at work, indicating that when managers spent time communicating with employees about their most important values and beliefs, or sought differing perspectives from workers when solving problems, it resulted in employees demonstrating high levels of energy and enthusiasm in achieving work objectives.

Hypotheses 1a, 2a 3a, and 4a stated that the four dimensions of transformational leadership would be predictive with the employees level of immersion in work (previously stated as dedication), over and above the amount of social support received from supervisors and coworkers, and the availability of decision latitude they were allowed at work. Results showed that none of these hypotheses were supported. First, all of the subscales of transformational leadership did not show even moderately significant correlations with the level of employee immersion in work dimension of the employee job engagement scale. On the contrary, only the decision latitude dimension emerged as having a significantly strong positive correlation with the level of employee immersion in work, and more interestingly, also emerged as being most predictive of work engagement, providing evidence that when employees were given freedom to make their own decisions and were empowered in determining what happens on the job, they felt inspired, experience pride, stayed immersed and attributed renewed meaning and purpose to their work.
Hypotheses 2a, 2b, 2c, and 2d stated that four dimensions of transformational leadership would have a positive relationship with the amount of employee perseverance at work (previously stated as absorption), over and above the amount of social support received from supervisors and coworkers, and the availability of decision latitude they were allowed at work. Results show that these hypotheses were not supported. In this regression analysis, it was also found that none of the subscales of transformational leadership showed even moderately significant correlations with the level of employee perseverance at work. Furthermore, only the decision latitude dimension emerged as having a significantly strong positive correlation with the level of employee perseverance in work. Interestingly, it was the control measure, decision latitude, which emerged as being most predictive of work engagement, providing evidence that when employees were given freedom to make their own decisions and were empowered in what happens on the job, they felt inspired, experience pride, stayed immersed and attributed renewed meaning and purpose to their work.

In summary, the results of the present study demonstrated the importance of decision making as being most the most crucial elements in determining employee engagement, over and above the impact of leadership, specifically, the various dimensions of transformational leadership previously discusses as being potential predictors of job engagement.

Practical Implications

The present study has important implications in the field of employee work engagement and leadership because it is one of the few studies examining the predictive relationship between manager/leader attitude/behavior and the relationship it can have on
driving employee energy, dedication, and engagement levels at work. Since there is little previous literature directly measuring the relationship of these two variables, this study adds to the growing body of knowledge on the subject. This study also serves as a model to encourage future researchers to look at other employee level variables, when they do similar analyses. Some variables that could be considered are freedom given to employees to learn and grow on the job, latitude in making educated decisions about their jobs and instilling psychological ownership over tasks assigned, all of which may be more likely to predict of employee job engagement. Furthermore, studies might also consider modification of the MLQ and UWES scales that failed to parse into the desired subdimensions as demonstrated by the authors of these scales, implying that perhaps the variables themselves, though validated by researchers, need to be re-examined. For example, while philosophically it has been suggested that transformational leadership is most likely to significantly and positively impact employee work engagement, statistically, none but one of the leadership items contributed to the level of employee engagement at work. Future research could also explore how giving more skill discretion and decision authority to employees could be more empowering than assigning them a transformational leader.

In the case of transformational leadership research, while previous literature discusses the presence of relationships between transformational managers and job engagement, however, research is clearly lacking in its ability to specifically delineate the nature of this relationship between the various subscales of transformational leadership with the subscales of employee job engagement. Hence, it is suggested that future research try to shed light upon the relationship between transformational leadership and work
engagement, and in particular between the subscales of transformational leadership (individualized consideration, intellectual stimulation, inspirational motivation and idealized influence), as conceptualized by Avolio et al. (1999) and the subscales of work engagement (vigor, dedication and absorption), as conceptualized by Schaufeli et al. (2002).

Finally, it is suggested that managers and leaders realize their potential and the power they hold to motivate, inspire and influence individuals to stay engaged, enthused and absorbed at work. Furthermore, it is necessary for manager’s and leaders to realize that they have the means to help employees buffer any feelings of burnout, just by being more sensitive in their behavior and attitude toward employees. Finally, through this research study, it is suggested that there is the possibility that employees could be engaged in their jobs without the presence of transformational leaders, and that the availability of decision latitude might act as a substitute to leadership.

Limitations

The major issue with transformational leadership research is that it is very rare to find managers in the workplace, who truly embody the characteristics of transformational leaders in their ability to inspire, motivate, influence, intellectually stimulate and provide individual consideration to employees. More often, transformational leaders are typically more visionary in nature and have been found in corporate leadership roles in executive or C-level positions where they drive organizations at the highest strategic levels. In addition, there is also a paucity of studies examining the relationship between transformational leadership and its impact on the level of employee job engagement. While some literature is available, it is not as well researched, suggesting the need for further investigation.
Limitations of this research study were also related to data collection, where data were collected as of a point in time, and therefore were not longitudinal in nature, for the results to get replicated over time. In addition, respondents who were invited to be part of this study were college students whose participation was limited to one large Northern-Californian university. For a more robust analysis, it is suggested that this research study be replicated where there is more variation in the types of respondents. For example, it is suggested that participants be selected from a pool of individuals who work in companies and organizations. Likewise, if those participants are invited who actually work in a corporate setting and have legitimate reporting relationships to managers on a more dedicated basis, they would also be more likely to offer a richer perspective and a more realistic view of the relationship between leaders and employees. Finally, it may be likely that due to the nature of the self report methodology adopted in the study, the resulting data could have been fraught with judgment errors and response bias.

Statistical results from the correlation analysis showed that the transformational leadership sub scales examined as part of the MLQ scale were highly inter-correlated. Generally, it is believed that strong relationships between the sub scales of leadership could be due to the nature of the study where the participants were college students and were asked to self report their responses on the survey questionnaire, as described above. However, the strong correlations among the items on the MLQ scale may also be suggestive of the lack of four distinct dimensions within the transformational leadership scale due to the high redundancy among the items. Furthermore, due to the strength of the relationships between several items, it could be inferred that while the MLQ scale suggested good internal consistency, it could also be argued that most of the items were
measuring the same dimension of transformational leadership and hence failed in their ability to differentiate themselves from one another.

**Directions for Future Research**

There is a growing amount of research and interest in understanding how leaders can motivate employees to feel engaged in the work they do, take psychological ownership and stay committed at work. While more research is needed, this study aims at advancing the current state of knowledge of transformational leadership and employee engagement in the workplace. Based on theoretical literature and results from this study, it is theorized that leadership can significantly impact the level of engagement of employees in organizations. In providing employees with freedom to make responsible decisions, and empowering them to take ownership for the how they successfully achieve work tasks, leaders are more likely to create an engaged workforce. Consequently, to eliminate feelings of disengagement, lack of energy, diminishing dedication and poor absorption, it is suggested that leadership should endeavor to create a compelling collective mission, provide a work atmosphere that inspires employees to take pride in their jobs, and encourage employees to contribute their perspective about work issues on a more consistent basis.
References


Schaufeli, W. B., Salanova, M., Gonzalez-Roma, V., & Bakker, A. B. (2002). The


Appendix – A
Survey Materials

Please read the following instructions carefully.

☐ We would like to know how you think and feel about some of the different aspects of your job, your coworkers, managers/managers, and your organization.
We ask that you respond to all of the statements to the best of your ability, being as honest and as accurate as possible.
There are no right or wrong answers.
Your answers are completely confidential.
Do not sign your name; we would like to keep your responses anonymous.
Please respond to each of the statements drawing only from your experiences during the past year.
You can choose to skip answering a question; however, we do encourage you to answer all the questions so we can gain a clear picture of your perceptions.

Section A. Involvement in Your Job

Please circle the number that corresponds with how involved you are in your job using the response options below. Please respond to each of the statements drawing from your experiences during the past year.

<table>
<thead>
<tr>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Most of the time</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

1. When I get up in the morning, I feel like going to work.
2. At my work, I feel bursting with energy.
3. At my work I always persevere, even when things do not go well.
4. I can continue working for very long periods of time.
5. At my job, I am very mentally resilient.
6. At my job I feel strong and vigorous.
7. To me, my job is challenging.
8. My job inspires me.
9. I am enthusiastic about my job.
10. I am proud of the work that I do.
11. I find the work that I do full of meaning and purpose.
12. When I am working, I forget everything else around me.
13. Time flies when I am working.
14. I get carried away when I am working.
15. It is difficult to detach myself from my job.
16. I am immersed in my work.
17. I feel happy when I am working intensely.
Section B. Your Manager (Responsible for your performance review)

This section is to describe the leadership style of your manager as you have perceived it during the past year. Please circle all items on the survey. If an item is irrelevant, or if you are unaware or do not know the answer, leave the answer blank. Please use the following response options when answering the statements.

<table>
<thead>
<tr>
<th>Not at All</th>
<th>Once in a While</th>
<th>Sometimes</th>
<th>Fairly Often</th>
<th>Frequently, if not Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

My manager ........

1. re-examine critical assumptions to question whether they are appropriate. 0 1 2 3 4
2. talks about their most important values and beliefs. 0 1 2 3 4
3. seeks differing perspectives when solving problems. 0 1 2 3 4
4. talks optimistically about the future. 0 1 2 3 4
5. instills pride in others for being associated with him/her. 0 1 2 3 4
6. talks enthusiastically about what needs to be accomplished. 0 1 2 3 4
7. specifies the importance of having a strong sense of purpose. 0 1 2 3 4
8. spends time teaching and coaching. 0 1 2 3 4
9. goes beyond self-interest for the good of the group. 0 1 2 3 4
10. treats me as an individual rather than just as a member of a group. 0 1 2 3 4
11. acts in ways that builds my respect. 0 1 2 3 4
12. considers the moral and ethical consequences of decisions. 0 1 2 3 4
13. displays a sense of power and confidence. 0 1 2 3 4
14. articulates a compelling vision of the future. 0 1 2 3 4
15. considers me as having different needs, abilities, and aspirations from others. 0 1 2 3 4
16. gets me to look at problems from many different angles. 0 1 2 3 4
17. helps me to develop my strengths. 0 1 2 3 4
18. suggests new ways of looking at how to complete assignments. 0 1 2 3 4
19. emphasizes the importance of having a collective sense of mission. 0 1 2 3 4
20. expresses confidence that goals will be achieved. 0 1 2 3 4
Section C. Your Work Environment

Please circle the number that indicates the extent to which you agree or disagree with the following statements. Please respond to each of the statements drawing from your experiences during the past year. Please use the following response options when answering the statements.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

1. When something goes wrong at work, I can talk it over with my friends or family.
2. My friends/family care about how I feel about my job.
3. My friends/family help me feel better when I’ve had a hard day at work.
4. My friends/family are interested and proud when something good happens at work.
5. My coworkers care about me.
6. People I work with are competent in doing their jobs.
7. People I work with take a personal interest in me.
8. I am exposed to hostility and conflict from the people I work with.
9. People I work with are friendly.
10. The people I work with encourage each other to work together.
11. People I work with are helpful in getting the job done.
12. My immediate manager is concerned about the welfare of those under him or her.
13. My immediate manager pays attention to what I’m saying.
14. My immediate manager exposes me to hostility and conflict.
15. My immediate manager is helpful in getting the job done.
16. My immediate manager is successful in getting people to work together.
17. My immediate manager gives me credit for things I do well.
18. My immediate manager criticizes me for small things.
19. My immediate manager backs me up if there is a problem.
20. My immediate manager cares about me.
21. My immediate manager appreciates me.
22. My unit manager is concerned about the welfare of those under him or her.
Section D: About You

1. How old are you? Please indicate your age:
   - under 18 years
   - 18 – 25 years
   - 25 – 35 years
   - 35 – 45 years
   - 45 and above

2. Please indicate your gender:
   - Male
   - Female

3. What is your enrollment status at San Jose State University?
   - Full-time
   - Part-time

4. What is current student status at San Jose State University?
   - Bachelor’s student
   - Masters student
   - Other

5. Are you a graduate student at San Jose State University?
   - Yes
   - No
   If "Yes", please indicate your department:
     - Department of Psychology
     - Department of Nursing
     - Department of Business
     - Other

6. What is your Job Title (e.g. Research Assistant)

7. Do you oversee the work of others?
   - Yes
   - No

8. Have you been employed in your current job for ≥ 1 year?
   - Yes
   - No
   If "Yes", please indicate how long you have worked in your current job:
     - Department of Nursing
     - Department of Business
     - Other

9. Have you reported into your current manager/manager for ≥ 1 year?
   - Yes
   - No
   If "Yes", please indicate how long you have worked in your current:
     - Department of Nursing
     - Department of Business
     - Other
Section E: Your Opinion

The following section is your opportunity to provide feedback in your own words.

1. Things I like about my manager that help me stay engaged in my job

2. Things that need to be improved by my manager/manager that will help me stay engaged in my job.

Thank you for your participation!

Please hand in the survey to the survey administrator.
Appendix – B

Human Subjects – Institutional Review Board Approval Letter
To: Ritu Koppula

From: Pamela Stacks, Ph.D.
Associate Vice President
Graduate Studies and Research

Date: July 6, 2006

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

"A Study Examining the Relationship between Transformation Leadership and Employee Job 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 Dr. Pamela 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 subject's portion of your project is in effect for one year, and data collection beyond July 6, 2007 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: Nancy Da Silva DMD #320-0120