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Trust in Functional and Dysfunctional Organizational Leaders: The Role of Leadership Style, Employees' Emotions and Trustworthiness Perceptions

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Graduate Program in Psychology
A thesis submitted in partial fulfillment of the requirements for the degree in Doctor of Philosophy
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TRUST IN FUNCTIONAL AND DYSFUNCTIONAL ORGANIZATIONAL LEADERS:
THE ROLE OF LEADERSHIP STYLE, EMPLOYEES' EMOTIONS AND
TRUSTWORTHINESS PERCEPTIONS

(Thesis format: Monograph)

by

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Graduate Program in Psychology

A thesis submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy

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Abstract

Trust in leaders is increasingly recognized as a crucial organizational variable; meta-analytic evidence suggests that trust is associated with important outcomes of job performance, organizational citizenship behaviors, job satisfaction, organizational commitment, turnover, and counterproductive behavior (Colquitt, Scott & LePine, 2007; Dirks & Ferrin, 2002). In this research, I investigated how various functional and dysfunctional leadership styles influence employees' emotions, perceptions of leader trustworthiness, and trust in leader and explored the mediating roles of employees' emotions and trustworthiness perceptions in the relationships between leadership styles and trust. The overarching goal was to develop and test an integrated model of leadership, emotions, trustworthiness, and trust in leader.

Three studies were conducted. The first two were questionnaire-based studies with part-time working students and full-time employees from various organizations; the third was an experiment in which students assessed a simulated applicant for a leadership position. All three studies demonstrated that transformational and contingent reward leadership had a positive impact on how people feel, how they perceive their leaders' trustworthiness, and how much they trust their leaders, while passive-avoidant, Machiavellian and pseudo-transformational leadership styles tended to negatively influence people's feelings, their perceptions of leader trustworthiness, and their trust in leaders. MBE-active leadership had either no effect or a weak negative effect on emotions, trustworthiness perceptions, and trust in leaders. Trustworthiness perceptions mediated the links between leadership styles and trust. Only positive (but not negative) emotions mediated the links of transformational and contingent reward leadership with trust, whereas both positive and negative emotions mediated the relationships between leadership and trustworthiness perceptions. The proposed integrated model received strong support from the three studies, thus contributing to our understanding of the mechanisms through which leaders influence followers' emotions, trustworthiness perceptions, and trust. Findings also supported the extension of Christie and colleagues' (2011) model of pseudo-transformational leadership through the addition of perceived Machiavellian leadership. Strong reliability and validity evidence was obtained for the newly-developed Perceived Machiavellian Leadership Scale. The results of this project have important implications for leadership theory and organizational practices

involving leadership development, selection, succession planning, and other human resource programs.

Keywords: Organizational leadership, Full Range of Leadership model, transformational leadership, transactional leadership, contingent reward leadership, management by exception leadership, laissez-faire leadership, pseudo-transformational leadership, perceived Machiavellian leadership, Machiavellianism, trust in leader, trustworthiness, ability, benevolence, integrity, emotions, positive emotions, negative emotions.

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CHAPTER 1: GENERAL INTRODUCTION

Although there have been several decades of research on trust in organizational settings, organizational researchers and practitioners have made the most significant progress on this topic within the past two decades. It has become increasingly clear that followers' trust in their leaders is a crucial variable with the potential for altering important organizational and other outcomes. Burke, Sims, Lazzara, and Salas (2007) argued that followers who trust their leaders are willing to make ultimate sacrifices and try to achieve seemingly unattainable goals for their leaders. For example, the followers of the great political and military leaders, such as Alexander the Great, trusted their leaders so much that they were willing to march into fierce battles and give their lives for the leaders' visions (Burke et al., 2007). Talented organizational leaders, who have garnered people's trust, have also helped to bring about some significant organizational successes. For example, Chrysler's turnaround was facilitated by Lee Iacocca's reputation and stakeholders' trust in him (Burke et al., 2007). Evidence demonstrating the value of followers' trust in leaders, however, goes beyond anecdotes and large-profile corporate and historical cases. Findings of two influential meta-analyses, one by Colquitt, Scott and LePine (2007) and the other by Dirks and Ferrin (2002), have indicated that trust in organizational leaders is positively associated with employees' task performance, risk taking, organizational citizenship behaviors, job satisfaction, and organizational commitment and negatively associated with intent to turnover and counterproductive behavior. Given its potential for serious consequences, it is important to understand the mechanisms through which trust in organizational leaders develops.

Within the past two decades, organizational researchers have taken important strides toward elucidating the mechanisms through which trust in leaders develops. First, Mayer, Davis, and Schoorman (1995) proposed an influential model according to which trust in one's leader (and other individuals) is determined by one's general propensity to trust people as well as one's perceptions of the leader's ability, benevolence, and integrity (i.e., the perceptions of the trustworthiness factors). Since 1995, this model has received considerable scientific attention. The recent meta-analysis by Colquitt and colleagues

(2007) provided strong support for the mechanisms proposed in the original model by Mayer et al. (1995). Additionally, in their 2002 meta-analysis, Dirks and Ferrin provided strong evidence that transformational and contingent reward leadership styles have a strong positive relationship with trust in leaders. However, other less effective leadership styles have not been examined extensively, resulting in the lack of clarity as to how these styles may affect followers' trust in their organizational leaders. Moreover, although followers' emotional reactions have been said to be important for the development of trust (Jones & George, 1998; McAllister, 1995), very few studies have been conducted to explore how followers' emotions fit into the mechanism describing the development of trust in leaders. Thus, this research project had four major goals or objectives.

The first goal of this research project was to explore how the various components of the Full Range of Leadership Model (Avolio, 1999; Avolio & Bass, 2004; Bass, 1998) influence employees' perceptions of leader trustworthiness and their trust in leaders. A second aim was to examine the relationships of the relatively-unexplored pseudo-transformational and Machiavellian leadership styles with perceived leader trustworthiness and trust. The third major goal was to explore how employees' emotional reactions to their leaders relate to various leadership styles, the employees' perceptions of leader trustworthiness, and their trust in leaders. Finally, this project examined whether perceived leader trustworthiness and employees' emotions play a mediating role in the relationships between leadership styles and trust, and whether emotions mediate the relationships between leadership styles and trustworthiness perceptions.

In the following sections, I first review the relevant literature on trust in general and trust in organizational leaders. Next, I examine the literature on antecedents of trust with a special focus on the model by Mayer and colleagues (1995). Following that, I review the relevant literature on the leadership styles and behaviors that are related to the employees' trust in leaders. I continue by discussing employees' emotions and the reasons why they are important for the development of trust. Then, I review the literature on the relationship between leadership styles and employees' emotional reactions and discuss the gaps in this literature. Next, I consider the specific emotions that may be associated with leadership styles and trust in leader, as well as how and why these

emotions could relate to leadership and trust. Then, I describe the proposed model of antecedents of trust in leader including all the proposed associations among leadership styles, followers' emotions, trustworthiness factors, trust propensity, and trust in leader. Lastly, I advance a number of general hypotheses that were tested in this project.

Trust in General and Trust in Leaders

Trust Defined

Arguably the most widely accepted definition of trust among organizational researchers is that of Mayer and colleagues (1995) according to whom trust is viewed as “the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party” (p. 712). Indeed, this definition is very similar to that proposed by Rousseau, Sitkin, Burt, and Camerer (1998) based on their review of trust literatures from various different disciplines, such as psychology, organizational behavior, and economics. In their view, trust can be defined as “a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behavior of another” (p. 395). As suggested by Colquitt and colleagues (2007), the two elements that are common to these (and other) trust definitions are the intention to accept vulnerability in risky situations and the positive expectations with regards to the behavior of the party that is being trusted. Hence, although trust is likely to result in risk taking, it is not synonymous with risk taking.

The Role of Risk and Interdependence

One variable that is important to discuss in relation to trust is risk. Rousseau and colleagues (1998) argued that, across various disciplines, there seems to be agreement that risk is a necessary condition for trust. Defined as the perceived probability of a negative outcome, risk was suggested to have a reciprocal relationship with trust. The reason for this is that risk tends to create opportunities for trusting another person, which, in turn, tends to enhance risk taking. Conversely, if a person does not trust another, then

that person is unlikely to engage in risk taking to help the other individual. Rousseau and his colleagues (1998) also asserted that the second necessary condition for trust is interdependence between a trustee and a trustor. More specifically, trust becomes particularly salient when the trustor must rely on the trustee (and vice versa) in order to achieve some important goals or interests. Indeed, in work organizations, employees rely on their immediate supervisors and managers to achieve a variety of important goals such as obtaining proper recognition and monetary rewards for good performance or being assigned to work on interesting projects. Likewise, employees often need to take various risks for their leaders, such as finding an innovative way of serving customers or helping the leader with some task that is outside the scope of employee's job. Furthermore, organizational leaders are in control of various outcomes which employees typically deem valuable such as raises, bonuses, promotions, task or project assignments, and recommendations. In all these situations, employees must trust their organizational leaders to recognize good task and extra-role performance as well as to distribute the above-mentioned outcomes appropriately. In a similar manner, managers must rely on their employees to provide services or create products which are important for organizational functioning and success, and they must take risks by assigning important tasks to the employees (Mayer, Davis, & Schoorman, 1995). Thus, given that both risk and interdependence exist between managers and their employees, it is clear that issues related to trust are both present and paramount in the context of subordinate-superior relationships at work.

Types of Trust

There are several perspectives on whether more than one kind of trust exists in the context of professional relationships. For example, Dirks and Ferrin (2002) and Dirks and Skarlicki (2004) proposed a model that distinguishes between the relationship-based trust, that has to do with the quality of leader-follower relationships, and the character-based trust, that focuses on the perceptions of leader's character. In fact, this perspective was initiated by McAllister (1995) who distinguished between cognition-based and affect-based trust. McAllister (1995) argued that, as a part of the cognition-based trust judgments, we decide whom to trust, to what extent, in which respects and under what

circumstances based on our knowledge and impressions of the trustee's competence, responsibility, reliability, dependability and other trustworthiness factors. In addition, McAllister (1995) asserted that we make trust-related judgments based on the emotional bonds with particular trustees as a part of which we feel genuine care and concern for these trustees and make emotional investments in relationships with these trustees.

Indeed, it is reasonable to suggest that trust has various different bases or antecedents. Specifically, if we adopt the view of Whitener, Brodt, Korsgaard, and Werner (1998) that trust is an attitude held by an individual (i.e., trustor) toward another (i.e., trustee), then ample evidence from social psychological literature suggests that trust could be said to have various cognitive, emotional and behavioral antecedents (Eagly & Chaiken, 1993). However, this literature also suggests that an attitude is best viewed as "a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor" (Eagly and Chaiken, 1993, p. 1) and thus deemed to be a latent unitary construct. Accordingly, although trust can have different bases or antecedents, it is still best conceptualized as a unitary judgment of the degree of willingness to be vulnerable to the actions of another party based on the positive expectations that these actions will not be harmful to the trustor. In light of these arguments, it may be neither logical nor practical to distinguish between cognitive- or character-based trust and affective- or relationship-based trust.

Lewicki and Bunker (1996) provided another possibly more promising way of conceptualizing trust, although their perspective can be said to include some of the ideas that are similar to those advanced by McAllister (1995) and Dirks and Ferrin (2002). According to Lewicki and Bunker (1996), there exist three types of trust, namely calculus-based, knowledge-based, and identification-based trust. Lewicki and Bunker (1996) argued that the calculus-based trust is an ongoing, economic calculation of the outcomes that can be gained from initiating and maintaining a relationship with another party in comparison to the costs of maintaining or severing this relationship. Thus, the compliance with this type of trust is ensured both by rewards for acting in a trustworthy manner and by the punishments for failing to do so (e.g., loss of reputation). For knowledge-based trust, Lewicki and Bunker (1996) asserted that this form of trust is

based on the information about the other party that is collected over time and after numerous interactions with that party. Hence, this type of trust stems from the accumulated knowledge of the trustee which leads to the predictability of his or her behavior. Lastly, the identification-based trust was said to be founded on a deep understanding and appreciation of the other party's needs, choices and preferences, and the mutual sharing of some of the same needs, choices and preferences. Lewicki and Bunker (1996) further argued that this understanding of and identification with the other party permits the two parties to act as each other's agents and substitutes in the interpersonal interactions because of their confidence that their interests will be represented faithfully.

In addition to their elaboration on the three forms of trust, Lewicki and Bunker (1996) also argued that trust develops gradually and in stages. Indeed, it is this part of Lewicki and Bunker's (1996) theorizing that truly distinguishes their perspective from that of Dirks and Ferrin (2002) and McAllister (1995). Specifically, Lewicki and Bunker asserted that, in the initial stage, trust between two parties is predominantly calculus-based. As the knowledge about the other party accumulates and the relationship between the parties develops, transition to the knowledge-based trust typically follows (unless there is no interest in or necessity for further relationship or trust development). As parties get to know each other better, they may start identifying more strongly with each others' needs, preferences and priorities thus leading to the development of the identification-based trust. Lewicki and Bunker (1996) cautioned, however, that professional relationships often remain as knowledge-based trust relationships for a variety of reasons, such as lack of time, energy, or desire to build a deeper level of trust.

Thus, it can be concluded that it is reasonable to regard trust as an attitude (as per Whitener et al., 1998), the foundation of which may well evolve over time – as suggested by Lewicki and Bunker (1996). For present purposes, I assume that the participants from the first two (cross-sectional) studies were at various stages of trust development. The third study, which is experimental in nature and introduces the participants to an unfamiliar (hypothetical) leader, focused on the initial stages of trust development.

Trust in Leaders

In the recent years, the topic of trust in leaders has gained considerable attention by organizational researchers. Rather than solely theorizing about its importance, researchers have provided solid empirical evidence demonstrating the positive relationship between trust in leaders and important organizational outcome variables. More notably, Dirks and Ferrin (2002) provided meta-analytic evidence that trust in direct leader is positively associated with one's job performance ($r = .17$), the organizational citizenship behavior (OCB) of altruism ($r = .22$), job satisfaction ($r = .55$), and organizational commitment ($r = .44$), and negatively associated with one's intent to turnover ($r = -.38$). More recently, Liu, Siu and Shi (2010) found that trust in leader was linked to employees' work stress and stress symptoms. Similarly, Kelloway, Turner, Barling and Loughlin (2012) found that reduced trust in employees' organizational leaders had a negative impact on employees' psychological well-being. In fact, both Liu et al. (2010) and Kelloway et al. (2012) found that trust in leader actually mediated the relationships between leadership style and the aforementioned outcomes of employees' stress, stress symptoms and well-being. In so far as individual-level outcomes (e.g., job performance, OCB, job satisfaction, commitment, turnover, well-being and stress) contribute to the achievement of the organizational goals, trust in leaders can be said to be an important factor for ensuring that the organization is functioning effectively.

Unfortunately, evidence from organizational surveys seems to indicate that trust in direct leaders and in organizational management may be on a decline (Connell, Ferrer, & Travaglione, 2003; Dirks & Skarlicki, 2004). Specifically, Connell and colleagues (2003) reported that not only did their own survey of employees of a large Australian public sector organization indicate that the workers' trust in managers was very low, but these authors also reviewed other large-scale surveys which indicated declining or low levels of trust in management as reported by thousands of Canadians and Australians. Similarly, Dirks and Skarlicki's (2004) summary of findings from a number of noteworthy surveys suggested that more than 50% of American employees reported having little or no trust in their organizational managers. If indeed these findings reflect the true state of affairs for many of today's work organizations and businesses, these

organizations will likely encounter problems, such as decreased worker commitment and increased turnover, which may prevent them from succeeding in the long run. Moreover, a breakdown of trust may lead to disastrous short-term consequences for the organizations and their employees, as evidenced by the disaster of Mann Gulch in which 13 smokejumpers died because of disobeying orders of their crew chief (Burke et al., 2007). Thus, an important question to consider is how might organizational leaders go about building and maintaining trust in the eyes of their followers.

Antecedents of Trust

Before Mayer, Davis and Schoorman (1995), there were a number of researchers who made concerted efforts to isolate the characteristics or factors that lead to trust in a particular individual. One of the most notable contributors was Butler (1991). After reviewing the extant literature on determinants of trust, Butler (1991) conducted semi-structured interviews with 84 managers from various U.S. firms to learn more about the personal characteristics and critical incidents that lead to building and deterioration of trust. From content analysis of these interviews, Butler (1991) identified 10 determinants of trust including availability, competence, consistency, discreetness, fairness, integrity, loyalty, openness, promise fulfillment, and receptivity. This author then constructed 10 scales assessing these conditions of trust as well as a scale assessing the overall trust. However, although Butler's (1991) approach to identifying determinants of trust was certainly comprehensive, his set of determinants was not necessarily the most parsimonious.

Mayer, Davis & Schoorman (1995) made strong arguments in favor of subsuming all the previously-identified factors into three trust determinants. They hypothesized that trust is a function of the trustor's perceptions of the trustee's ability or competence, integrity, and benevolence. Mayer and colleagues (1995) also argued that trustor's own propensity to trust would both contribute to trust prior to having much information about the trustee and would moderate the relationships between the above-mentioned trustworthiness factors and trust.

With respect to the Mayer and colleagues' (1995) model, it is important to understand what is meant by the trust propensity, ability, integrity, and benevolence. Mayer et al. suggested that a trustor's *propensity to trust* can be conceptualized as a stable within-party factor or personality trait that reflects a "general willingness to trust others" (p. 715). *Ability* was defined as a set of domain-specific knowledge, skills, abilities, and other characteristics that enable an individual to be helpful and influential within the particular domain (Colquitt et al., 2007; Mayer et al., 1995). *Integrity* not only has to do with the consistency and predictability of an individual's actions but also with promise fulfillment and justice or fairness (Colquitt et al., 2007; Mayer et al., 1995). Thus, Mayer and colleagues (1995) asserted that the perceptions of trustee's integrity have to do with the trustor's impressions regarding the "extent to which the trustee adheres to a set of principles that the trustor finds acceptable" (p. 719). Lastly, Mayer et al. (1995) suggested that *benevolence* has to do with loyalty, supportiveness and caring, and can be defined as "the extent to which a trustee is believed to want to do good to the trustor, aside from an egocentric profit motive" (p. 718).

Colquitt, Scott and LePine (2007) conducted a meta-analysis to assess the contributions of ability, integrity, benevolence and trust propensity along with testing a number of other interesting predictions and research questions. Based on data from 132 samples totaling more than 1,200 participants, these authors found that the perceptions of ability, integrity, and benevolence were significantly positively related to trust. Trust propensity also demonstrated a significant positive relationship with trust, albeit a substantially weaker one than those with the trustworthiness factors.

In their review of research involving their 1995 model of trust, Schoorman, Mayer and Davis (2007) concluded that the extant research generally supports the robustness of their 1995 framework. Indeed, it is so strong that it holds at different levels of analysis.

Thus, it can be concluded that there is substantial support for the direct relationships of trustworthiness factors with trust. Nevertheless, there are certain relationships from the original model that have not yet been examined in depth. Specifically, although Schoorman and colleagues (2007) have agreed with Williams

(2001) and other researchers on the importance of emotions and the need to incorporate them into the model of trust, there have been no empirical investigations examining the role of emotional reactions to the trustee in relation to the perceptions of trustworthiness and trust. The present research addressed this important gap in the literature.

Leadership Style and Trust in Leader

Leader-Member Exchange and Trust

Some leadership theories incorporate trust as one of the key variables. A prominent example of such a theory is that of leader-member exchange (LMX; Graen & Uhl-Bien, 1995). According to this theory, organizational leaders tend to form two types of relationships with their subordinates. With some followers, they form high-quality leader-member exchange relationships which are based on mutual trust, respect, and obligation, and with others, they tend to form low-quality exchange relationships which are superficial in nature and are based on personal interest. Not surprisingly, the research on this theory has found that the high-quality leader-member exchange relationships are related to many important organizational outcome variables (Graen & Uhl-Bien, 1995). However, the theory has been subject to many criticisms. The most obvious criticism has been that favoring some subordinates over others clearly contradicts the basic premise of fair or just treatment whereby everyone is to be treated equally (Northouse, 2013). This criticism is related to the fact that this theory started out as more of a description of the reality of organizational leaders than a prescription of effective leadership styles and behaviors. The theory has also been criticized for failure to explain how high-quality dyadic relationships develop (Yukl, 2010). Moreover, some research has found inconsistencies between how leaders and subordinates rate relationship quality (Yukl, 2010) thus suggesting that trust may indeed be in the eye of the beholder (as argued by Schoorman, Mayer & Davis, 2007). Because of these criticisms, I decided not to examine the LMX theory of leadership in the present research project.

Leadership theories that identify specific leadership styles and behaviors which contribute to trust building are the focus of the proposed research because they allow us to gain knowledge of how trust can be enhanced and its benefits maximized in

organizations. Fortunately, there are other leadership styles which have been both hypothesized and found to be related to trust in organizational leaders. This is particularly true of the transformational and transactional leadership styles (Avolio, 1999; Dirks & Ferrin, 2002) that are a part of a larger Full Range of Leadership Model.

Full Range of Leadership Model

The Full Range of Leadership Model (Bass, 1990, 1998; Avolio, 1999; Avolio & Bass, 2004) has been recognized as one of the most widely researched and supported leadership paradigms (Yukl, 2010). The full model has received substantial support and has occupied a prominent place in the organizational leadership literature in the past decade or so (Avolio, 1999; Bass & Riggio, 2006). According to the Full Range of Leadership Model, three styles of leadership can be distinguished, namely transformational, transactional, and laissez-faire (Bass, 1990, 1998; Avolio, 1999; Avolio & Bass, 2004; Bass & Riggio, 2006). The model includes four components of transformational leadership, three components of transactional leadership, and the single component laissez-faire or non-leadership. The four components of transformational leadership include idealized influence (attributed and behavioral), inspirational motivation, intellectual stimulation, and individualized consideration. *Idealized influence* is best described through the followers' positive reactions to attributes and behaviors of their leader. Specifically, followers see the leader as their role model who is trusted, admired, and perceived as having challenging but attainable goals and visions. As a part of *inspirational motivation*, a transformational leader enthusiastically articulates a shared vision, provides meaning and challenge to the work, and displays optimism in the followers' capabilities to attain the goals. By means of *intellectual stimulation*, the leader encourages his or her followers to question their old and outdated beliefs, assumptions, values, and practices, and to come up with new and creative ways to solve current problems. As a consequence, the followers become capable of predicting and solving new and unforeseen problems. Lastly, using *individualized consideration*, the leader pays attention to each person's needs for achievement and growth, as well as coaches, supports, provides encouragement, and helps each individual develop the means for more effectively addressing his or her goals and challenges. As a consequence, the followers

continuously grow and develop to higher levels of potential (Avolio, 1999; Avolio & Bass, 2004). The four components of transformational leadership interact to produce changes in followers (Yukl, 2010).

In comparison to transformational leadership, transactional leadership consists of laying out the rules and the agreements which followers need to respect, and either rewarding or disciplining the followers depending on whether they achieve the agreed-upon level of performance (Avolio, 1999). The three components of transactional leadership, as described within the Full Range of Leadership Model, include contingent reward, active management-by-exception, and passive management-by-exception (Avolio, 1999; Avolio & Bass, 2004). The first component, *contingent reward*, emphasizes the positive exchange between the leader and his or her followers. Specifically, the leader provides rewards for the satisfactory completion of tasks and assignments. The second and third components, namely *active and passive management-by-exception*, represent the more negative side of contingent reinforcement. A leader who uses *active management-by-exception (MBE-A)*, actively monitors followers' performance to make sure that there are no mistakes, errors, or departures from standards; this leader also applies corrective action when necessary. In *passive management-by-exception (MBE-P)*, the leader waits for mistakes or errors to occur and applies corrective action only after mistakes have been reported. The last leadership style, namely *laissez-faire leadership* or non-leadership, is the most inactive, as well as the most ineffective type of leadership (Avolio, 1999). Leader who displays this type of leadership tends to avoid his or her leadership responsibilities. Thus, this leader typically fails to specify the followers' duties, fails to provide feedback and rewards to followers, and fails to recognize or motivate the followers (Avolio, 1999; Avolio & Bass, 2004).

Avolio and Bass (2004) proposed that all leaders use each of the components of transformational, transactional, and laissez-faire leadership to some extent. However, according to these researchers, leaders who are performing at an optimal level tend to use the components of transformational leadership with greater frequency, whereas leaders who perform poorly are likely to use laissez-faire leadership and some components of transactional leadership more frequently. For example, numerous studies that have

assessed the satisfaction with the leaders displaying one of the Full Range Leadership styles have demonstrated that the transformational leadership was on average more highly positively correlated with leader satisfaction than were contingent reward, management-by-exception, and laissez-faire leadership styles (see Avolio & Bass, 2004; Judge & Piccolo, 2004). Additionally, while the contingent reward was on average positively correlated with the satisfaction, management-by-exception and laissez-faire leadership styles were either not correlated or were negatively correlated with the leader satisfaction scores (Avolio & Bass, 2004; Judge & Piccolo, 2004). Moreover, evidence from a meta-analysis by Judge and Piccolo (2004) suggested that transformational leadership tends to be more highly associated with leader effectiveness than does contingent reward leadership (although both of these leadership styles were highly related to leader effectiveness). Judge and Piccolo (2004) also found that while MBE-active had a low positive correlation with leader effectiveness, MBE-passive and laissez-faire were negatively associated with leader effectiveness.

Lastly, a recent meta-analysis by Wang, Oh, Courtright, and Colbert (2011) examined the relationships of transformational and transactional leadership styles with follower job performance across a number of criterion types and at several levels of analysis. Based on the evidence from over 113 primary studies, Wang and colleagues' (2011) found that transformational leadership had a moderately-sized positive relationship with individual-level subordinate job performance across various criterion types – with a stronger relationship with contextual than with task performance. Transformational leadership was also positively related to team and organizational performance. Contingent reward leadership had a moderate positive relationship with both individual-level and team level performance – displaying a higher correlation with individual task performance than did transformational leadership. Interestingly, MBE-active had a moderately-sized negative relationship with individual-level contextual performance and a low negative relationship with team performance. MBE-passive displayed a moderate negative relationship with organizational performance, while it was not significantly related to either the individual-level or the team-level performance. Overall, the findings of the meta-analysis by Wang and colleagues (2011) provided additional evidence of the effectiveness of the Full Range leadership styles.

Authentic Versus Pseudo-Transformational Leaders

Personalized versus socialized charismatic leaders. Despite of all the evidence of effectiveness, transformational and similar leadership styles, such as charismatic leadership (Conger & Kanungo, 1998), have been criticized in relation to their morality (Bass & Steidlmeier, 1999). Specifically, according to Bass (1998) and his colleagues (Bass & Steidlmeier, 1999), a number of organizational researchers had recognized that some leaders with transformational and charismatic qualities could be self-serving, manipulative, and exploitative with the potential of causing more damage than good for their employees, organizations, and society. Based on McClelland's work on personalized and socialized power, Howell (1988) called these self-serving, exploitative leaders *personalized charismatic leaders*. Howell (1988) argued that personalized charismatic leaders are driven by the motive to exert dominance and influence over others. Furthermore, she suggested that personalized leaders articulate visions and goals that serve the leader's interests but do not necessarily incorporate the needs and values of their followers. Nevertheless, these leaders are skilled at displacing their personal motives onto followers and rationalizing them in terms of followers' interests. Thus, personalized leaders were said to see their followers as objects to be manipulated and to recognize followers' needs and wants only to the extent necessary to advance the leader's purposes. Moreover, Howell (1988) argued that rather than allowing followers to think critically about leader's ideas, these personalized leaders foster unquestioning loyalty and obedience in their followers. This unquestioning obedience creates the potential for deleterious consequences for organizations.

In contrast to these personalized charismatic leaders, *socialized charismatic leaders* utilize their power to communicate "higher-order values" such as "understanding of others, tolerance, and serving the common good" (Howell, 1988, p. 221). Accordingly, these socialized leaders articulate visions and goals that incorporate the needs and values of followers, leaders, and their organizations thus uniting everyone in the pursuit of a common purpose. Furthermore, Howell (1988) argued that these leaders not only recognize the needs and aspirations of their followers but also attend to these needs and help to develop the followers to their full potential. Lastly, in contrast to the

personalized charismatic leaders, socialized charismatic leaders encourage their followers not only to think critically about and question the established views, but also to question the views and the ideas of the leader in order to come up with the best possible solution for everyone (Howell, 1988).

Based on the results from an interview study with working managers and some assertions from the popular management literature, Howell and Avolio (1992) further delineated the characteristics that distinguish personalized or unethical charismatic leaders from socialized or ethical charismatic leaders. First, these researchers provided some evidence to suggest that unethical charismatic leaders exercise power in dominant and authoritarian ways in order to serve leader's interests and allow him or her to win at all costs, whereas ethical charismatic leaders utilize power in socially constructive ways in order to serve others. Next, Howell and Avolio (1992) argued that while ethical charismatic leaders develop visions based at least in part on their follower's needs and suggestions, unethical charismatic leaders come up with vision and goals on their own. Thus, these leaders promote their personal agendas often to the disadvantage of their followers and organizations. In addition, Howell and Avolio provided some evidence to suggest that ethical charismatic leaders encourage two-way communication with followers, and they consider critical feedback from followers and learn from it. Conversely, unethical charismatic leaders were argued to be one-way communicators who discourage others' input and suggestions for improvement. Moreover, given their "inflated sense of self-importance" and belief that their ideas are the best, they tend to shun any opposing views and "gravitate towards loyal and uncritical followers" (Howell & Avolio, 1992, p. 47). Like Howell (1988), these researchers recognized that while unethical charismatic leaders are insensitive to followers' needs and take all the credit for positive results, ethical charismatic leaders share recognition with their followers as well as coach, support and develop them into future leaders. Finally, Howell and Avolio argued that ethical and unethical charismatic leaders differ in moral standards. They found that ethical or socialized charismatic leaders possess a strong sense of justice, integrity, and courage to do what is right. Thus, they consider and balance the interests of different stakeholders, respect others' rights and wishes, and act in concert with strong moral and ethical standards. Conversely, personalized or unethical charismatic leaders

are not very concerned with moral and ethical standards, and they follow these standards only when it is beneficial for them to do so. Moreover, these leaders are highly skilled at managing others' impressions so that they think that these leaders are indeed doing what is right.

Bass (1998) and his colleagues (Bass & Steidlmeier, 1999) agreed with Howell (1988) and Howell and Avolio (1992) in this distinction between personalized and socialized charismatic leaders. Bass (1998) and Bass and Steidlmeier (1999) referred to the personalized charismatics as *pseudo-transformational leaders* (as opposed to *true or authentic transformational leaders*). Bass (1998) argued that, while on the surface pseudo-transformational may seem much like the true transformational leaders for the kinds of behaviors that they display, on the 'inside' pseudo-transformational leaders are self-concerned, self-aggrandizing, exploitative, and self-serving in the long run. According to Bass (1998), one of the main differences between true and pseudo-transformational leaders is that pseudo-transformational leaders believe in "distorted utilitarian and warped moral principles" (p. 15), whereas true transformational leaders are guided by the principles of morality, responsibility, and sense of discipline to transcend their own interests and serve to benefit their organizations, society, and their followers. As Den Hartog and Belschak (2012) recognized, many of the outwardly focused pseudo-transformational leader behaviors may be quite similar to those of the true transformational leaders; nonetheless, Bass and Steidlmeier (1999) asserted that it is the moral foundation that distinguishes authentic transformational from pseudo-transformational leaders. In their elaborate discussion of morality of true transformational and pseudo-transformational leaders, Bass and Steidlmeier (1999) largely agreed with Howell and Avolio's (1992) assessment of characteristics that distinguish these two types of leaders. Bass and Steidlmeier (1999) added that there might be some behaviors that might "betray" the pseudo-transformational leader's carefully constructed social image, such as inconsistent nonverbal behavior and their tendencies to promote competition among subordinates, scapegoating, and dependence on the leader.

Barling and colleagues' MLQ approach to pseudo-transformational leadership. Barling, Christie and Turner (2008) recognized that although morality and immorality of transformational leadership has been an actively debated topic, there has been very little empirical attention dedicated to this topic. Thus, based on the previous theoretical work (i.e., by Bass & Steidlmeier, 1999; Conger & Kanungo, 1998; Howell and Avolio, 1992), Barling and colleagues (2008) proposed a model of pseudo-transformational leadership and conducted a preliminary test of this model in a questionnaire study. These authors theorized that pseudo-transformational leaders can be distinguished from true transformational leaders based on their levels of idealized influence and inspirational motivation (i.e., two components of Bass and Avolio's transformational leadership). Specifically, these authors argued that while true transformational leaders are high on both idealized influence and inspirational motivation, the pseudo-transformational leaders tend to be low on idealized influence and high on inspirational motivation. Given their personalized agendas and lack of concern with ethical principles, pseudo-transformational leaders are unlikely to act as positive role models for their followers or to be admired by their followers; hence the argument that these leaders would be low on idealized influence. Conversely, like true transformational leaders, the pseudo-transformational leaders were theorized to have a high level of inspirational motivation as they tend to be equally as skilled at communicating passionately about their visions and promoting these visions to their followers in an inspiring way.

Barling and colleagues (2008) proceeded to conduct a survey-based test of the model with over 600 senior organizational managers attending executive development courses at a business school. In this study, the authors measured transformational and pseudo-transformational leadership styles as conceived in their model using the idealized influence and inspirational motivation subscales from Multifactor Leadership Questionnaire (MLQ; Avolio & Bass, 2004) along with an interaction between idealized influence and inspirational motivation scores; the scores on these transformational leadership subscales were assessed in relation to various outcomes. These authors found that the leadership style characterized by low idealized influence and high inspirational motivation scores - which Barling et al. conceived to be the pseudo-transformational

leadership pattern - was indeed associated with higher ratings of fear, obedience, dependence, abusive supervision and job insecurity by the followers. Conversely, the transformational leadership pattern - with high idealized influence and high inspirational motivation- was associated with the lowest ratings on obedience, dependence, and job insecurity. Thus, the findings of the study provided preliminary support for the model. However, because pseudo-transformational leadership was not manipulated in any way, it could not be ascertained directly that the proposed pattern of low scores on idealized influence and high ratings of inspirational motivation are indeed reflective of this type of leadership; the only conclusion that could be made based on the study is that this pattern of idealized influence and inspirational motivation scores tends to be associated with certain predicted outcomes of pseudo-transformational leadership as well as of other toxic leadership styles.

Subsequently, Christie, Barling and Turner (2011) extended Barling et al.'s (2008) model of pseudo-transformational leadership by incorporating the remaining two components of transformational leadership as conceived by Bass and Avolio (Avolio, 1999; Avolio & Bass, 2004; Bass & Riggio, 2006). According to the extended model, pseudo-transformational leaders would be perceived to be low on both intellectual stimulation and individualized consideration – in contrast to the transformational leaders who would be scored high on these two transformational components. According to Christie et al. (2011), this pattern would be expected because pseudo-transformational leaders would be expected to discourage creative and independent thought in followers, and they would be expected not to consider followers' needs. Therefore, Christie and colleagues (2011) predicted that while pseudo-transformational leaders would be high on inspirational motivation and low on idealized influence, intellectual stimulation and individualized consideration, the true transformational leaders would be high on all four of these transformational components. Finally, these authors also theorized that laissez-faire leaders would be expected to be low on these four transformational components.

This extended model of pseudo-transformational leadership was tested by Christie and colleagues (2011) in four experiments. In the first experiment conducted with 167 students, the authors manipulated transformational, pseudo-transformational and laissez-

laissez-faire leadership styles using vignettes describing a hypothetical CEO facing economic uncertainty and administered a survey to assess the outcomes of fear of leader, job insecurity, affective trust (using McAllister's 1995 measure), satisfaction with leader and reverence for leader. In the second experiment, conducted to replicate the same model, 179 students watched the movie *12 Angry Men* and responded to behaviors of three leaders in the movie who displayed transformational, pseudo-transformational and laissez-faire leadership styles; the outcome variables of fear, affective trust, satisfaction with the leader, reverence for the leader, as well as obedience to the leader were assessed. The results of the first two studies demonstrated that true transformational leaders indeed differed from pseudo-transformational leaders on fear, affective trust, satisfaction with leader, reverence, and obedience – in expected directions. Experiment 3, conducted with 120 business school students, utilized the same stimuli as in Study 1 and assessed the same outcomes of fear of the leader, perceptions of job insecurity, satisfaction with the leader, reverence for the leader, and trust in leader; however, trust was assessed using a 4-item measure of global trust by Kirkpatrick and Locke (1996). Moreover, several variables were controlled, including leader affect (both positive and negative) as well as prototypical and antitypical leader behaviors (which assessed leader characteristics which are congruent with followers' prototype of an ideal leader and poor leader). Study 3 findings indicated that transformational leader was indeed higher than pseudo-transformational leader on trust, satisfaction with the leader, and reverence for the leader, as well as lower than the pseudo-transformational leader on fear of the leader (although there were no differences on job insecurity). In the final experiment, conducted with another 127 business school students, leadership styles were manipulated through behaviors of trained actors who facilitated an idea-generation activity with groups of participants. Participants' reactions to the simulated leaders were assessed on the outcomes of trust, satisfaction with leader, reverence for the leader, and obedience, and idea generation – while controlling for prototypical and antitypical leadership behaviors, leadership leader affect (positive and negative – as assessed by PANAS, Watson et al., 1988), and followers' affect. The fourth experiment had less robust results, as there were no significant differences between transformational and pseudo-transformational leaders on satisfaction with leader or on reverence for the leader; nonetheless, significant effects

were found on obedience, idea generation and global trust. Thus, across the first four experiments, pseudo-transformational leadership largely predicted negative outcomes (e.g., fear, obedience) and was negatively associated with positive outcomes (e.g., trust) – with some inconsistencies in terms of the findings pertaining to satisfaction with the leader, reverence for the leader, and job insecurity.

Christie and colleagues (2011) reported support for their conception of pseudo-transformational leadership by showing that leaders who are inspiring and charismatic but who are low in idealized influence, intellectual stimulation, and individualized consideration for subordinates tended to be obeyed but distrusted and feared by their subordinates. Thus, they were able to distinguish between authentic and pseudo-transformational leaders based on the pattern of their scores on the MLQ transformational leadership subscales. However, there may be other qualities or characteristics that also distinguish between true and pseudo-transformational leaders. Identifying additional elements of pseudo-transformational leadership could potentially enrich understanding of this construct.

Machiavellianism. Dasborough and Ashkanasy (2002) proposed that the primary characteristic distinguishing true transformational from pseudo-transformational leaders is Machiavellianism. They based this assertion on the previous literature (Bass & Steidlmeier, 1999; Howell, 1988; Howell & Avolio, 1992). Even before Dasborough and Ashkanasy's (2002) theorizing, House and Howell (1992) reviewed previous theory and empirical evidence of personality characteristics that differentiate charismatic from non-charismatic leaders as well as personalized from socialized charismatic leaders and concluded that Machiavellianism is an important personality trait that differentiates these two types of charismatic leaders. They argued that because personalized charismatic leaders tend to manipulate and dominate people in pursuit of their own self-interest, it is likely that these leaders would exhibit Machiavellian behavior when it is in their interest to do so; in contrast, the socialized charismatic leaders who tend to exercise power in non-manipulative and non-exploitative manner could be expected to exhibit low levels of Machiavellian behavior. Moreover, to parallel the distinction made between authentic and inauthentic transformational leaders, Den Hartog and Belschak (2012) both theorized

and found support for the assertion that Machiavellian personality trait is an important characteristic that distinguishes the authentic ethical leaders from the inauthentic ones.

It is easy to see why Machiavellian behavior might be another important characteristic to differentiate between true transformational and pseudo-transformational leaders given that the qualities of high Machiavellians (or Machs) closely resemble the above-mentioned qualities of pseudo-transformational or personalized charismatic leaders. Specifically, according to the foremost researchers of Machiavellianism, Geis and Christie (1970), evidence from the experimental and field studies suggest that high Machs, as measured by their Mach IV scale, manipulate and persuade others more frequently, while at the same time being persuaded by others less frequently than low Machs. These and other behaviors were perceived by Geis and Christie (1970) to be the related consequences of high Machs' cool detachment from others (in contrast to low Machs' openness to emotional involvement). Based on the evidence from experiments, Geis and Christie (1970) proposed that the basic process underlying high Machs' cool detachment is a tendency for them to focus on the cognitive (rather than emotional) meaning of the situation and to emphasize the strategies that will lead to their success. This focus on the cognitive and potentially beneficial elements, in addition to their detachment from any ideological positions, makes them more effective in exploiting any resources that might help them succeed. Geis and Christie (1970) aptly summarized the differences between high and low Machs on their approach to others' needs and concerns:

Low Machs lose by opening themselves emotionally to others, by taking others' needs and concerns as their own. Highs win by being politic. Although they are aware of what the other wants, they do not take his needs personally, but rather use them impersonally, for example, to strike a bargain to their own advantage (p. 304).

O'Boyle, Forsyth, Banks and McDaniel (2012) further specified that Machiavellian personality is defined by three sets of related beliefs, including "an avowed belief in the effectiveness of manipulative tactics in dealing with other people....,

a cynical view of human nature... , and a moral outlook that puts expediency above principle” (p. 558). Rather than simply being highly power-oriented, Machiavellians have been described as having a strong tendency toward amoral, unethical and manipulative behavior in the pursuit of their self-interest (House & Howell, 1992). Similarly, in their discussion of ethical and unethical leadership, Brown and Trevino (2006, p. 604) argued that: “In contrast to ethical leaders, Machiavellian leaders are motivated to manipulate others in order to accomplish their own goals.” Furthermore, these authors asserted that Machiavellian leaders “have little trust in people and, in turn, tend not to be trusted by others” (Brown & Trevino, 2006, p. 604). Building on the previous literature on Machiavellianism in leaders, Judge, Piccolo and Kosalka (2009, p. 867) argued that Machiavellian leaders tend to be “politically oriented, seek control over followers... use tactics of impression management, and avoid motives of organizational concern and pro-social values.” Consistent with this description, Den Hartog and Belschak (2012) asserted that for Machiavellian leaders, the public displays of ethical leadership behaviors can be contrasted with “the privately held unethical Machiavellian norms” (p. 35). Furthermore, Den Hartog and Belschak (2012) argued that Machiavellian personality involves privately espousing a “deceitful and unethical value system which opposes moral values of ethical leaders”– thus finding acceptable the “conduct that involves manipulating others for personal gain” (p. 39).

Judge et al. (2009) further underscored that Machiavellian leaders are skilled at persuading others to do things for the leader’s own personal benefit and, in doing so, abuse power and their formal authority for personal gain. Nonetheless, these researchers also recognized that Machiavellian leaders also tend to display the capability to utilize a variety of “leadership and influence tactics, attending carefully to the subtle idiosyncratic psychological preferences of their targets” (Judge et al., 2009, p. 871); thus, they were described as being strategic in their thinking, demonstrating ability to navigate power dynamics in today’s organizations. As a result of these capabilities, it was recognized that past political leaders who were high in Machiavellianism also tended to be successful in terms of being elected into national offices, passing legislation, and winning a variety of political victories.

In one of the rare studies on this topic, Deluga (2001) examined the relationships among American presidential Machiavellianism, charismatic leadership and rated performance. Specifically, using a historiometric method, Deluga (2001) asked 117 student raters to examine and rate Machiavellianism in unidentified profiles describing 39 American presidents. Archival data were used to assess charismatic leadership and performance of the same 39 presidents. Interestingly, Deluga (2001) found that rated presidential Machiavellianism was positively associated with charismatic leadership and rated presidential performance – thus demonstrating the importance of this leader trait in the context of charismatic leadership.

In a more recent historiometric study of 120 business, political, military and religious leaders, Bedell, Hunter, Angie and Vert (2006) examined Machiavellianism in relation to a new taxonomy of effective leadership consisting of pragmatic, charismatic and ideological leadership styles. The study also examined the relationship between Machiavellianism and performance – which was assessed by an independent panel of trained psychologists on 12 different performance criteria (e.g., the numbers of positive and negative contributions, number of institutions established, how long the contributions lasted, how much the leader contributed to the society, etc.). Bedell and colleagues (2006) found that while pragmatic leaders exhibited the highest level of Machiavellianism, charismatic and ideological leaders demonstrated more moderate levels of Machiavellian characteristics. Interestingly, in contrast to Deluga's (2001) findings, Bedell et al. (2006) found that leader Machiavellianism was negatively related to leader's performance - with higher Machiavellianism ratings being associated with poorer performance outcomes. Not surprisingly, however, the personalized types of charismatic, pragmatic and ideological leaders exhibited higher levels of Machiavellianism than did the socialized charismatic, pragmatic and ideological leaders.

In spite of the potential importance of such manipulative, self-interested Machiavellian leadership behaviors for pseudo-transformational and personalized charismatic leadership, these leadership behaviors have not been included in the current models of pseudo-transformational leadership. Specifically, Barling et al.'s (2008) and Christie et al.'s (2011) models of pseudo-transformational leadership do not appear to

include the manipulative and self-focused Machiavellian leadership behaviors; moreover, these behaviors are not captured by any of the MLQ subscales measuring transformational leadership components (in either low or the high ranges of these subscales). The present research project therefore elaborates the concept and measurement of pseudo-transformational leadership from previous research (by Barling et al., 2008 and Christie et al., 2011) by incorporating both the inspirational communication of leaders' vision (accompanied by low stimulation of followers' ideas, low consideration of others' needs and infrequent positive role modeling) as well as the manipulative self-focused Machiavellian leadership behaviors, suggested by Dasborough and Ashkanasy (2002) and House and Howell (1992).

Measurement of Pseudo-Transformational and Machiavellian Leadership

A thorough literature review yielded very few studies that actually measured these manipulative, self-focused Machiavellian leadership behaviors. Popper (2002) was one of the few researchers who attempted to capture these behaviors in the context of personalized charismatic leadership. In fact, Popper (2002) created two scales to assess both personalized and socialized charismatic leadership styles. Although Popper started with broad descriptions of personalized and socialized charismatic leadership based on the previous literature (e.g., House & Howell, 1992; Howell & Avolio, 1992), Popper's (2002) measures of personalized and socialized charismatic leadership were narrow in focus. For example, the personalized charismatic leadership scale seemed to emphasize personal success at the expense of one's team, self-reliance and neglect of one's friends, with a quick mention of using influence for personal gain (in a single item out of the total of five scale items). Given this narrow focus and unclear nature of items focusing on one's friends (rather than perhaps work colleagues or direct reports), Popper's (2002) measure of personalized charismatic leadership was not considered sufficient for present purposes.

The only other potentially suitable option to assess these manipulative, exploitative and self-focused leadership behaviors was the personality trait of Machiavellianism. Despite some recent efforts to construct more up-to-date measures of

Machiavellianism (e.g., Dahling, Whitaker & Levy, 2009; Kessler, Bandelli, Spector, Borman, Nelson & Penney, 2010), at this time, Christie and Geis's (1970) Mach IV scale is still the most utilized and well-established measure of Machiavellianism as a personality trait (Den Hartog & Belschak, 2012). Therefore, the Mach IV measure was examined for its relevance to the goals of the present research. For several reasons, however, this measure was not found to be entirely suitable for the assessment of manipulative, self-focused leader behaviors. First, because this measure was designed to be a self-assessment of the personality trait of Machiavellianism, it tended to measure one's Machiavellianism-related beliefs rather than leadership behaviors. Moreover, because self-report nature of the instrument, certain socially undesirable aspects of Machiavellianism had to be presented in somewhat ambiguous or covert (rather than explicit) fashion – so as not to directly signal the intention behind the Mach IV items. Third, because Mach IV scale was developed around the 1960s and 1970s, some of the language utilized in the scale's items was somewhat outdated.

The focus of this research project was on assessing Machiavellian leadership behaviors of organizational managers as rated by their subordinates. While the Mach IV measure was a useful starting point for the assessment of manipulative leader behaviors, it was necessary to make adjustments to a number of Mach IV items and develop additional items to assess the behaviors of interest in this research project. Therefore, the first two studies from the present research project focused (in part) on developing and testing a new measure of perceived Machiavellian leadership. This new measure was tested against the scales assessing similar and dissimilar constructs, to obtain evidence of validity. By necessity, therefore, the first two studies focused on the relationships of the new construct of perceived Machiavellian leadership with other study variables including trust and trustworthiness. Study 3, however, focused on the expanded concept of pseudo-transformational leadership which includes visionary and inspirational charismatic leadership behaviors accompanied by low concern for others, a personalized agenda and the use of amoral manipulative behaviors for personal gain. As pseudo-transformational leadership was manipulated and then assessed through MLQ's transformational components and the newly designed perceived Machiavellian leadership scale, one (albeit

secondary) aim of Study 3 was to test the new conceptualization of pseudo-transformational leadership.

Relationships Between Full-Range Leadership Styles and Trust

In the past two decades, there has been a proliferation of theorizing and research on the association between transformational leadership and trust. Indeed, Bass (1998), the primary researcher responsible for developing the theory of transformational leadership and the Full Range of Leadership Model, argued that transformational leaders are perceived as role models and are admired, respected and trusted by their followers. Additionally, Avolio (1999), the other prominent researcher responsible for the development of the Full Range of Leadership Model, argued that transformational leaders build tremendous trust in their followers due to their “willingness to be vulnerable and to self-sacrifice” (p. 34). Moreover, he asserted that these leaders “exhibit the moral perspective to warrant such trust” (p. 34).

Organizational researchers have gone beyond theorizing to discover the relationships that transformational and transactional leadership styles have with trust in leaders. In fact, in their 2002 meta-analysis, Dirks and Ferrin obtained strong evidence suggesting that the transformational leadership style is highly positively associated with followers’ trust in leaders ($r = .72$). Although not quite as strong, the correlation between transactional leadership and trust that was obtained by these researchers was sizeable ($r = .59$). Accordingly, Dirks and Ferrin (2002) concluded that these two leadership styles may indeed be highly useful for building trust in leaders.

Despite the importance of these findings, there was a concern with the meta-analysis results pertaining to transactional leadership because what Dirks and Ferrin (2002) termed “transactional leadership” may not fully reflect this leadership style as conceptualized by Bass and Avolio (2004; Avolio, 1999; Bass, 1998). Specifically, many studies included in the meta-analysis conceptualized transactional leadership in terms of contingent reward only (e.g., Jung & Avolio, 2000; Pillai, Schriesheim, & Williams, 1999; Podsakoff, MacKenzie, Moorman, & Fetter, 1990). Given this conceptualization of transactional leadership, perhaps it is not so surprising that the correlation between this

leadership style and trust was positive and fairly sizeable. The literature has consistently found contingent reward to be more highly correlated with the transformational leadership components than with the rest of the transactional leadership components (Yukl, 2010). Nevertheless, due to this focus on contingent reward, it is unclear if and how active and passive management-by-exception as well as laissez-faire leadership relate to trust in leader.

Jung and Avolio (2000) argued that transactional leadership styles are inadequate for building deep trust in followers and helping them reach their full potential. In the only study discovered thus far that specially examined the relationship between trust and all three of the less effective leadership styles from the Full Range Model, Gillespie and Mann (2004) found that active management-by-exception was not associated with trust in leader, whereas passive management-by-exception and laissez-faire leadership had moderately negative relationships with trust in leader. MacKenzie et al. (2001) were among the only other researchers who examined management-by-exception (MBE) in relation to trust. However, rather than using Bass and Avolio's items from the active and passive MBE scales, these researchers utilized their own items to target a construct related to MBE which they called "contingent punishment". Although it was not completely clear which of the two components of MBE were tapped by this measure of contingent punishment, close inspection of the measurement items suggests that they resemble the MLQ's MBE-active items more closely than those that are part of MLQ's MBE-passive scale. MacKenzie and colleagues (2001) found that their "contingent punishment" was unrelated to the trust in manager - a finding which was consistent with the Gillespie and Mann's (2004) finding that MBE-active is not associated with trust. In contrast, however, Kelloway, Turner, Barling and Loughlin (2012) reported that MBE-active was moderately negatively associated with trust. It may be that these contradictory results are due to differences in trust measures. Kelloway et al. (2012) assessed affective trust, whereas MacKenzie et al. (2001) and Gillespie and Mann (2004) measured global trust. Nonetheless, consistent with Gillespie and Mann (2004), Kelloway and colleagues (2012) found that laissez-faire leadership was moderately negatively associated with (affective) trust. Therefore, although there is some evidence to suggest that MBE-active is not related and that MBE-passive and laissez-faire leadership styles are negatively

related to trust, the differences in measures, the small number of studies as well as certain contradictory findings make it difficult to draw any firm conclusions. Accordingly, these relationships between the less effective Full Range leadership styles and global trust in leaders are further examined in the present research project.

Relationship Between Pseudo-Transformational Leadership and Trust

Although very few studies have been conducted to investigate how either pseudo-transformational or Machiavellian leaders may influence followers' trust, the experiments conducted by Christie and colleagues (2011) consistently found that leaders described in transformational condition were rated higher on trust than those described in the pseudo-transformational condition. However, concerns about their measures of trust suggest that further study of these relationships would be desirable. Specifically, in their first two of these experiments, trust was assessed using McAllister's (1995) affective trust subscale – which is not a measure of global trust. As discussed previously, this scale appears to assume a conceptualization of trust (in terms of affective and cognitive trust) which has not been as well supported by existing empirical and theoretical work as has Mayer and colleagues' (1995) model of trust. While the third and fourth experiments conducted by Christie et al. (2011) did assess global trust, the trust measure (which is a 4-item scale by Kirkpatrick and Locke, 1996) has not been used extensively in research on global trust and it does not reflect the currently-accepted conceptualizations of trust – such as those advanced by Mayer et al. (1995) and Rousseau and colleagues (1998).

To develop hypotheses about dysfunctional leadership styles and trust, it is important to review the theoretical assertions connected to this relationship. Interestingly, Howell (1988) suggested that the personalized charismatic or pseudo-transformational leaders tend to build unquestioning trust and loyalty in their followers. Similarly, Bass and Steidlmeier (1999) suggested that pseudo-transformational leaders ask for or command followers' trust. However, Bass and Steidlmeier (1999) also recognized that these leaders cannot be trusted given that they manipulate and exploit others to achieve their own purposes. Thus, a way of reconciling these seemingly contradictory arguments regarding the relationship between pseudo-transformational

leadership and trust is to suggest that followers would be likely to trust these types of leaders so long as they would not have any reason to suspect their true motives.

However, as soon as the followers would have some indication that these leaders are only interested in promoting their personal interests, the followers' trust in these leaders would be likely to start eroding. Furthermore, it is also reasonable to suggest that as soon as the followers had some concrete evidence showing that they have been manipulated by these leaders in order to achieve leaders' goals, the followers would be expected to react negatively, perhaps with anger, and to stop trusting these pseudo-transformational leaders in entirety.

Outstanding Questions on Leadership and Trust

To summarize, given the scarcity of the empirical investigations of the association of trust with management-by-exception, laissez-faire, pseudo-transformational, and Machiavellian leadership styles, few reliable conclusions can be made with regard to these relationships. Nevertheless, it is important to understand how these leadership styles may affect followers' trust in leaders because these styles are utilized frequently in organizational settings (Bass & Avolio, 2004). Therefore, the first two studies from the present research program assessed the relationships of all Full Range of Leadership components and the new perceived Machiavellian leadership scale with employees' trust in leader using cross-sectional study design and questionnaire methodology.

Furthermore, there have been very few experimental studies that have manipulated the Full Range leadership styles and related behaviors to assess their influence on trust. A notable exception is the study by Kirkpatrick and Locke (1996) in which it was found that simulated leaders with a quality vision inspired more trust in their followers than did those with no vision. Another noteworthy exception was the recent set of experiments by Christie and colleagues (2011) who manipulated transformational, pseudo-transformational, and laissez-faire leadership and examined their effects on a number of outcomes including affective trust (McAllister, 1995). These experiments open up a discussion on the causal links between the less effective leadership styles and trust. However, no empirical studies have been found that focus on the links between

these less effective leadership styles and global trust as conceptualized by Mayer et al. (1995). Given this paucity of experimental research, the Full Range and the pseudo-transformational leadership styles were manipulated in the third study in order to elucidate their effects on trust.

Lastly, no research has been conducted to investigate how the above-mentioned leadership styles relate to Mayer, Davis and Schoorman's (1995) perceived leader trustworthiness factors of ability, integrity and benevolence. Although it would be reasonable to predict based on extant theory that the transformational components and contingent reward would have positive relationships and that passive management-by-exception leadership, laissez-faire leadership, and pseudo-transformational and Machiavellian leadership styles would have negative relationships with employees' perceptions of leader's trustworthiness, these relationships should nonetheless be investigated empirically.

Emotions and Trust

Although emotions have traditionally been regarded as less than important by managers (Vince & Broussine, 1996), they are an integral part of everyday life in work organizations (Ashforth & Humphrey, 1995). People bring their feelings with them when they go to work. They also experience various emotions in the workplace which are elicited and shaped by people and events at work (Pinder, 1997). Although Mayer and colleagues (1995) did not include emotion or affect in their model of trust development, a number of organizational researchers have made strong arguments that emotions influence trust and should thus be included in trust frameworks and models (Jones & George, 1998; Williams, 2001, 2007). Therefore, an important question to consider is how and why emotions may relate to trust.

According to Jones and George (1998), there are at least three reasons why emotions may be fundamental for the experience of trust. First, these authors argued that, in the initial stages of relationship and trust formation, people often examine their initial feelings about a person to decide if they might be able to trust that person. Thus, if they experience positive emotions such as enthusiasm in relation to the person, they may be

inclined to trust the person. Conversely, if they experience negative emotions such as anxiety or fear, then they may be inclined to distrust the person. Second, Jones and George (1998) suggested that one's current affective state may color his or her opinions and judgments of trustworthiness of others and one's trust in the others. For example, if a manager is in a negative mood or angry about something that happened outside work, he or she may assess the trustworthiness of an employee more negatively than if he or she was in a neutral mood or happy about something. Thirdly, Jones and George (1998) suggested that trust is based on expectations with regards to the behavior of trustee. These expectations are relevant because they have an emotional component. Jones and George (1998) made a strong argument for the importance of emotions by asserting that "when these expectations are broken, an individual often experiences strong emotions, which signal the individual about the violation of trust and the need to attend to the relationship" (p. 534). Thus, the emotions resulting from the broken expectations may indicate that there are changes in the trust-related experiences that may, in turn, require a change in trust for a particular trustee.

Williams (2001) also made strong arguments with regards to the importance of emotion in relation to trust and incorporated emotions into her affective-cognitive account of trust development. In fact, Williams (2001) proposed that affective states influence people's perceptions of others' trustworthiness, their motivation to trust others, and their inclination to cooperate with and help others. Although this author examined affect in relation to ingroup and outgroup members, she made a number of important arguments in relation to affect, trustworthiness and trust that can be applied in the context of followers' affective reactions to their organizational leaders. First, Williams suggested that positive affect for an outgroup member would be positively associated with the perceptions of trustworthiness of that member. Conversely, this author hypothesized that the perceptions of the outgroup member trustworthiness would decrease as the negative affect for that member increases. Beside this relationship with trustworthiness, Williams also proposed that there is a relationship between affect and motivation to trust an individual. Defined as the desire to see another as trustworthy enough to justify relying upon this individual, motivation to trust an outgroup member was suggested to be positively associated with the positive affect for this member. Conversely, Williams

proposed that, as the negative affect for an outgroup member increases, the motivation to trust this member will decrease.

Although these hypotheses were made in relation to group members who are most likely to be viewed as peers, it is conceivable that these relationships would hold within the superior-subordinate relationships. Thus, it is reasonable to suggest that followers' positive affect would be positively associated with their perceptions of leader trustworthiness, whereas followers' negative affect would be negatively associated with perceived leader trustworthiness. Furthermore, it is conceivable that employees' affective reactions may also be related to their trust in leaders in a more direct fashion (in addition to their association with trust through the trustworthiness factors).

In her 2007 theoretical piece on a threat regulation model of trust and collaboration across boundaries, Williams argued that when collaborating with others on a project, individuals face risks of opportunism, neglect of one's interests, and identity damage because their valued self-image may be denied or their self-esteem may be undermined. These risks are likely to present significant obstacles for trust building and cooperation for several reasons. First, these risks are likely to be viewed as threats and thus are also likely to result in negative emotions such as anxiety or fear. These negative emotions may inhibit the development of trust directly and increase the use of defensive behaviors. Furthermore, given that trustworthy individuals may be expected to take others' needs and interests into consideration rather than letting them be threatened and harmed, the above-mentioned threats to cooperation may also result in negative beliefs about others' trustworthiness. These negative perceptions of one's trustworthiness are also likely to decrease trust and increase the frequency of defensive behaviors (Williams, 2007).

More recently, Dirks, Lewicki and Zaheer (2009) recognized based on the previously literature that trust has both cognitive and affective components that ultimately influence behavioral intentions. Furthermore, these researchers proposed that after a transgression by a trustee, not only would people experience negative affect or emotions, but also a drop in trust in the transgressor. Indeed, Barclay, Skarlicki and Pugh

(2005) found that individuals tend to experience strong outward-focused negative emotions (e.g., anger, disappointment, frustration) following a transgression. Furthermore, based on their review of the literature on trust formation and violation, Kim, Ferrin, Cooper and Dirks (2004), argued that infractions and transgressions – real or occasionally even unsubstantiated ones - can violate trust. For example, if people exploit dependencies or neglect to fulfill expectations, trust can be damaged. Thus, Dirks and colleagues (2009) argued that in this context, trust and affect are closely tied to one another.

Although Williams (2007) advanced the above-mentioned propositions in the context of interorganizational collaborations and Dirks et al. (2009) discussed the links between affect and trust in business context in general, the proposed relationships are likely to hold in the context of employees collaborating with their supervisors to complete a project. Given that supervisors and managers typically enjoy considerable advantages over their employees in terms of power and control, the employees who occupy lower-status positions are likely to experience fear of exploitation and suspicions of unfair treatment by their supervisors or managers to an even greater degree than are those who are collaborating with people in similar positions (Kramer, 1996). Kramer (1996) conducted a study that lent some support to this proposition. He examined the “arithmetic of trust” (p. 220) in the relationships between doctoral students and their faculty advisers. Kramer (1996) pointed out that graduate students depend on the faculty members for a variety of valued outcomes, such as letters of recommendation and opportunities for co-authorship on papers, and that the students’ intellectual, personal and social performance is scrutinized by the faculty members on regular basis. Therefore, Kramer (1996) hypothesized that graduate students would be particularly likely to be concerned with trust-related factors, especially benevolence and fair treatment by the faculty members. As hypothesized, the students recalled significantly more behaviors and incidents that were believed to influence the level of perceived trust than did the faculty members. Both parties recalled more behaviors that entailed violations of trust committed by the other than by oneself, thus supporting the presence of self-serving bias. However, the students recalled significantly more of these negative behaviors that faculty had done compared to the number of negative behaviors of students that were recalled by

the faculty. Thus, findings of this study lend some support for the present argument that trust is particularly salient to subordinates working within hierarchical relationship context.

Dunn and Schweitzer's (2005) experiments are among the few empirical investigations of the relationship between emotions and trust to date. However, rather than examining how emotions related to a specific person influence trust in that person, these authors examined the impact of incidental emotions (i.e., those that are produced by an unrelated event or person) on the judgments of trust for unfamiliar acquaintances, coworkers and familiar trustees, such as friends. Dunn and Schweitzer (2005) found that incidental emotions did influence trust significantly. For example, happy participants demonstrated significantly more trust in unfamiliar coworkers than did sad participants, and sad participants demonstrated significantly more trust than did angry participants. Moreover, Dunn and Schweitzer (2005) hypothesized and found that the emotions which are outwardly focused (i.e., emotions focused on other people - such as gratitude and anger) influenced trust more strongly than did the emotions which are inwardly focused (i.e., emotions focused on self - such as pride and guilt). Indeed, it is logical to expect that the emotions related to a particular individual would influence judgments of trust for that individual.

In summary, researchers have made some strong arguments in favor of the relationship between emotions and trust. Williams (2001) proposed an entire model to describe how and why positive and negative emotions may influence trust. Jones and George (1998) also advanced a number of theoretical propositions whereby emotions were proposed to relate to trust both directly and indirectly through trustworthiness. However, empirical investigations of the relationship of emotions with trust remain few and far between. In fact, one of the few investigations to date (i.e., Dunn & Schweitzer, 2005) has examined the influence of *incidental emotions* rather than related emotions. Given that the incidental emotions were found to influence judgments of trust, it is reasonable to expect that the emotions related to a particular individual would influence judgments of trust for that individual. It is also likely that emotions would influence judgments of trust indirectly – through their impact on the cognitive perceptions of

trustworthiness. Nevertheless, these hypotheses must be examined empirically to ascertain how or through which direct and/or indirect paths emotions influence trust.

Emotions in General

Given the potentially significant implications of emotions for individuals' trust and work behavior (Jones & George, 1998; Williams, 2001, 2007), it is important to examine what emotions are and how they are aroused. According to Weiss and Cropanzano (1996), all definitions of emotion seem to agree that an emotion is "a reaction to an event" (p. 18). In other words, emotions are tied to specific objects or occurrences unlike moods that lack specificity with respect to an object. Lazarus and Lazarus (1994) further suggested that emotions are "complex reactions that engage both our minds and our bodies" and that include "a subjective mental state, such as the feeling of anger, anxiety, or love, an impulse to act, such as fleeing or attacking" as well as "profound changes in the body, such as increased heart rate or blood pressure" (p. 151). Similarly, Salovey and Mayer (1990) defined emotions as "organized responses, crossing the boundaries of many psychological subsystems, including the physiological, cognitive, motivational and experiential systems" which "typically arise in response to an event, either internal or external, that has a positively or negatively valenced meaning for the individual" (p. 186). From these definitions it can be deduced that rather than being irrational or inexplicable, emotions are perfectly natural responses to outside events.

The issue of particular interest to organizational researchers, however, is how emotions are elicited and in which situations. Lazarus (1991) and his colleagues (e.g., Lazarus & Lazarus, 1994) as well as other prominent emotions researchers (see the review by Weiss & Cropanzano, 1996) argued that emotions are associated with the fate of our personal goals. In other words, emotions are aroused when a goal that we are motivated to attain is facilitated, threatened or frustrated by an outside event. The personal significance of the goal plays a role in determining the intensity of the experienced emotion such that the greater the personal significance, the stronger the emotion will be. One of the important goals that all people have is the goal of "protecting and enhancing our self or ego" (Lazarus & Lazarus, 1994, p. 142). This suggests that we

are likely to experience various negative emotions (e.g., fear, anger) when our self or ego is either threatened or under attack. The issue of threatened or frustrated goals is especially likely to be salient in relation to trust development and adjustment, and will thus be discussed in more detail below.

The next issue of interest concerns the manner in which emotions are experienced. According to Ashforth and Humphrey (1995), there seem to be two schools of thought in the general emotions literature with respect to this issue. The first is the naturalistic or positivist perspective according to which specific situational stimuli elicit specific emotions in an automatic, biologically predetermined manner. The second perspective is that of social constructionists and symbolic interactionists who argue that various emotions may be experienced depending on how the focal situation is interpreted. In other words, the way an event is appraised will determine the emotion that is elicited; the same event may produce different emotions in different people as a result of different interpretations. Several prominent emotions researchers have argued in favor of the second perspective, asserting that individuals engage in an appraisal of situational variables in order to assess the implications of an event for the well-being of the individual (Lazarus, 1991, 1993; Lazarus & Lazarus, 1994; Smith & Pope, 1992; Weiss & Cropanzano, 1996). Ashforth and Humphrey (1995) take a middle-ground approach by suggesting that the meaning of a particular environmental stimulus will at times be ambiguous, and the resultant emotion will then depend on the way the stimulus is interpreted. For the purposes of the present project, I adopted Ashforth and Humphrey's (1995) approach. Thus, I assume that while certain events may provoke particular emotional reactions in the majority of people, emotional responses will at times depend on people's individual interpretations of events.

Leadership Styles and Followers' Emotions

In the past decade, there has been a considerable increase in interest in how emotions relate to leadership. Researchers have advanced theoretical propositions about how leaders, especially transformational leaders, affect followers' feelings (Bono, Foldes, Vinson, & Muros, 2007; Brief & Weiss, 2002). Some empirical investigations have also

been conducted to examine the links between leadership styles and followers' emotions (Bono et al., 2007). These theoretical and empirical contributions are discussed in more detail in this section along with some important gaps in the extant literature on leadership and emotions.

Theoretical Contributions

Much of the theorizing regarding leadership and emotions has focused on how transformational leaders may influence their followers' feelings. For example, Koh, Steers, and Terborg (1995) suggested that the transformational approaches to leadership seem to be more effective than the other approaches previously described in the organizational literature because the transformational approaches emphasize both "the rational and emotional bases of subordinate motivation and behavior" (p. 319). According to Koh and colleagues (1995), transformational leaders tend to have a powerful influence on their followers largely because they use both rational means, such as communicating a need for change and innovation, and emotional means, such as enthusiastically articulating visions of desirable future states.

Several prominent transformational and charismatic leadership researchers agreed that the transformational leaders influence their followers by arousing positive emotions in them (Avolio, 1999; Conger & Kanungo, 1998). Avolio (1999) argued that transformational leaders enhance "team spirit" and "display enthusiasm and optimism" when getting their followers to think and get excited about various attractive future states or scenarios (p. 45). Similarly, Brief and Weiss (2002) suggested that transformational leaders use strong positive emotions to arouse the same feelings in their followers. For example, by communicating their vision in an energetic and enthusiastic manner, they tend to promote enthusiasm among their followers. In addition, Ashforth and Humphrey (1995) argued that the process of transformational leadership "is largely dependent upon the evocation, framing, and mobilization of emotions" in the followers in contrast to the transactional leadership which focuses on followers' cognitions (p. 116).

Ashkanasy and Tse (2000) went a step further by proposing a large-scale model to capture the emotional underpinnings of the transformational leadership style. The model

includes the emotional qualities of transformational leaders which are linked to the resultant effects of this leadership style. In their model, Ashkanasy and Tse (2000) argued, first, that transformational leaders are more able than other leaders to use emotional language and communication style to engage their followers on an emotional level. This skillful use of emotional language was said to energize the followers with respect to the communicated vision. Second, Ashkanasy and Tse (2000) posited that transformational leaders have an overarching positive outlook and tend to communicate their vision in a positive manner and display positive expectations of outcomes. Additionally, transformational leaders are believed to have closer relationships with their followers than do other leaders, and the followers tend to describe them in more positive terms than other leaders. They display higher sensitivity to the followers' needs (i.e., empathy) and are better able to align themselves with the followers' thoughts and expectations. Consequently, transformational leaders are posited to have higher quality leader-member exchanges with followers which, in turn, allow them to provide more emotional support, engender higher trust in followers, and reduce the negative effects of unfulfilled expectations among followers in comparison to other leaders. As a result of trust, emotional support, and lower level of unfulfilled expectations, transformational leaders are posited to be able to generate higher affective commitment among followers in comparison to other leaders. Transformational leaders are also believed to be more emotionally intelligent than other leaders. Given their ability to generate affective commitment among followers, groups that are led by these leaders will tend to be more effective and productive than those led by other leaders.

Connelly, Gaddis and Helton-Fauth (2002) theorized about the specific transformational and charismatic leader behaviors that could be expected to produce particular positive and negative emotions in followers. First, these authors argued that the transformational behaviors that have the potential to elicit emotions in followers include "communicating vision, inspiring movement towards shared goals, stimulating intellectual thought and development, and attending to different follower needs and raising those needs to higher levels" (p. 272). According to Connelly and colleagues (2002), these leader behaviors are likely to produce a set of activating positive emotions in followers that have to do with desirable current and future possibilities, personal

agency, and accountability or responsibility. The reason why these emotions are deemed to be activating is that they are more likely to produce active responses in followers than passive ones, such as contentment. Accordingly, communication of a promising new vision was said to be likely to produce excitement, optimism, and hope for the future, which are the emotions that tend to result in perseverance in relation to goal achievement. Additionally, Connelly et al. (2002) suggested that these leaders may initially deemphasize the passive positive emotions such as the contentment with the status quo primarily in order to stimulate followers to think about better solutions for the future. Furthermore, by setting a positive example and expressing confidence in followers' ability to achieve goals, transformational leaders were also said to be likely to stimulate positive emotions related to personal agency, such as pride, confidence, self-assurance, and challenge. Connelly and his colleagues (2002) also suggested that transformational leaders may induce negative emotions such as frustration or anger by pointing out the events and circumstances that may stand in the way of achieving the goals related to the vision. Additionally, the authors argued that these leaders may occasionally induce guilt or regret in order to invoke self-reflection and greater alignment with the new goals. Nevertheless, based on Connelly and colleagues' (2002) discussion, it seems that the true transformational leaders would emphasize the use and the evocation of positive emotions culminating in the feelings of responsibility, caring, and compassion which were said to encourage trust and transcendence of self-interests.

Conversely, Connelly et al. (2002) suggested that personalized charismatic leaders tend to influence their followers predominantly by evoking negative emotions. Specifically, although they were said to be expected to generate hope and optimism in their followers as a result of communicating an attractive vision, these leaders were also suggested to emphasize followers' sense of loss and threat thus evoking the accompanying emotions of anxiety, fear, disappointment, distress, sadness and despair. Given these feelings of fear and despair, it was argued that followers would, in a way, be induced to accept the leader's vision and to depend upon him or her for a better future.

Dasborough and Ashkanasy (2002) also theorized about leadership, emotions, leader-follower interactions, and some pertinent outcomes. First, these scholars

recognized that “leadership is an intrinsically emotional process, where leaders display emotion and attempt to evoke emotion in their members” (p. 1). Furthermore, these researchers discussed the emotional and other reactions that followers may have in response to true versus pseudo-transformational leaders. Although it was recognized that both authentic and pseudo-transformational leaders may display exactly the same behaviors, they are distinguished by their motives. Specifically, while pseudo-transformational leaders tend to be high on Machiavellianism and be motivated by personal gain and self-interests, true transformational leaders work toward common goals and common good. Thus an important question that was raised was the one of how followers can distinguish true transformational from pseudo-transformational leaders.

Dasborough and Ashkanasy (2002) recognized that followers need to have some experience with their leaders in terms of leader-member interactions and consequences for followers in order to be able to make this distinction. Moreover, followers must be emotionally intelligent and aware of situationally-appropriate behavioral norms so as to be able to make the attributions necessary for them to be able to evaluate, interpret, and label leader’s influence attempts as either true or pseudo-transformational. Followers’ emotions were said to play an important role in this process because they were argued to both influence these attributions of leader’s behavior and be influenced by them. Specifically, Dasborough and Ashkanasy (2002) proposed that when followers have positive emotional reactions to the previous interactions with leader, they are more likely to attribute the leader’s behavior to sincere organizational motives and intentions and to deem the leader to be authentic transformational. Conversely, when followers experience negative emotions based on the previous interactions with their leader, they are more likely to attribute the leader’s behavior to “manipulative self-serving intentions” and thus label the leader as pseudo-transformational (Dasborough & Ashkanasy, 2002, p. 622). Lastly, Dasborough and Ashkanasy (2002) also posited that the act of labeling a leader’s influence attempts and consequences as true transformational or pseudo-transformational would, in turn, affect the followers’ affective, attitudinal and behavioral reactions to the leader, thus creating a feedback loop. Specifically, positive perceptions of leadership attempts and beneficial consequences for the follower would result in improved leader-follower relationship characterized by positive emotions and enhanced acceptance and

respect for the leader. Conversely, negative perceptions of leadership attempts along with the negative consequences for the follower would result in the deterioration of leader-follower relationship, negative emotional reactions to the leader, and distrust.

Empirical Investigations of the Link between Leadership and Emotions

Although the empirical research examining the link between leadership and emotions is not extensive (Bono et al., 2007; Brief & Weiss, 2002), several prominent studies provide some encouraging results. Specifically, in a study with students using interviews and questionnaires, Fitness (2000) examined laypeople's ideas regarding causes, characteristics, and consequences of workplace anger episodes and the differences in superiors', peers', and subordinates' anger experiences. Interestingly, the most frequent anger-eliciting events at work involved unjust treatment by another, including being unjustly criticized, having a reasonable request denied, being given an "onerous workload", and being falsely accused of lying, stealing or poor performance (Fitness, 2000, p. 152). Furthermore, out of the three parties, superiors were the ones who instigated these unjust treatments by far the most frequently, while subordinates were the party that was the most angered by these unjust treatments.

In a study with 121 sales representatives from a global pharmaceutical company, McColl-Kennedy and Anderson (2002) examined whether transformational leadership is related to followers' feelings of frustration and optimism. The researchers also investigated whether the emotions of frustration and optimism mediate the relationship between transformational leadership and subordinates' performance. As predicted, transformational leadership was found to be positively associated with optimism and negatively associated with frustration in subordinates. Additionally, these researchers found that followers' frustration was negatively related to their performance, whereas the optimism was positively related to performance. Lastly, the authors found that optimism and frustration fully mediated the relationship between transformational leadership and subordinates' performance.

In another study with 54 Research and Development teams from a large Australian company, Pirola-Merlo, Hartel, Mann and Hirst (2002) examined the effects

of obstacles and negative events on team affective climate and performance. They also examined the capability of transformational leaders to help team members cope with frustration from obstacles and negative events. The results indicated that the leadership had an effect on teams' affective climate (i.e., overall affective tone of team members). As hypothesized, transformational leaders indeed helped team members cope because they suppressed the effect of obstacles on team affective climate. Consistent with prediction, team affective climate was positively associated with team performance.

Dasborough and Ashkanasy (2004) conducted an experimental study to investigate antecedents and covariates of follower attributions of leader's manipulative versus sincere intentions in a sample of 137 students with previous work experience. As a part of the experimental manipulations, a video of a transformational leader was first shown to the participants and then followed up by a simulated personal e-mail indicating either leader's self-focused intentions or those that serve the organization (i.e., the common good). The aim here was to portray a personalized or pseudo-transformational leader through the self-focused intentions and to portray a true transformational leader through the organizationally-focused intentions. As predicted, when the participants were exposed to the leader's organizationally-focused behavior, they were more likely to attribute the behaviors to sincere intentions; conversely, the leader's self-focused behavior was attributed to manipulative leader intentions. Most importantly, however, the participants' attributions of leader's self-focused intentions and insincerity appeared to evoke strong negative emotions in them. Indeed, the leader's self-focused behavior and the participants' attributions of leader's manipulative intentions had moderately strong positive correlations with negative emotional responses, whereas the attributions of leader's positive intentions had a moderately strong positive relationship with positive emotional reactions. With these findings in mind, Dasborough, Ashkanasy, Tee and Tse (2009) advanced a theoretical proposition that individuals who attribute leader's behavior to insincere intentions will experience strong negative emotions in response to the leader.

In a set of four studies, Bono and Ilies (2006) examined the role of leaders' positive emotions and followers' mood in the charismatic leadership process. They found that the ratings of leaders' charisma (obtained by combining idealized influence

and inspirational motivation ratings from MLQ) were associated with the leaders' expressions of positive emotions in applied settings. Leaders' positive emotions were associated with their followers' more positive moods. In addition to those findings, the results also indicated that leaders' positive emotional expressions and followers' mood are associated with the ratings of leader effectiveness and attraction to the leader.

De Cremer (2006) examined the effects of transformational leadership and procedural justice on emotions in three studies using experimental and survey designs. In the two experimental studies with students, he found that the participants in the low transformational leadership condition and low procedural justice (i.e., no voice) condition exhibited higher negative emotions of anger and disappointment than the participants in high transformational and high procedural justice conditions. Additionally, the interaction between transformational leadership and procedural justice was significant; the effect of voice was significantly stronger in high transformational than in low transformational condition. In addition to these results, the results of the survey-based study indicated that transformational leadership and procedural justice were positively associated with organization-based self-esteem.

In a study using experience sampling and questionnaires, Bono, Foldes, Vinson, and Muros (2007) examined the role of regular day-to-day supervision and that of transformational leadership style in employees' emotional experiences and emotional regulation. Emotional regulation was defined in terms of faking of the positive emotions and hiding of the negative emotions. One interesting and important finding of this study was that employees reported experiencing significantly less optimism, happiness, and enthusiasm when interacting with their supervisors than when interacting with their customers, clients, and coworkers. Conversely, there were no differences in the extent of the experience of negative emotions based on the person with whom one was interacting. Another relevant finding was that employees with supervisors who were rated high on transformational leadership experienced significantly more optimism, happiness, and enthusiasm throughout the day than did those whose supervisors were low on transformational leadership. However, the benefits of transformational leadership style did not end there. Bono and colleagues (2007) also found that supervisors who were

rated high on transformational behaviors seemed to lower the negative effects of employees' emotion regulation on their job satisfaction.

Outstanding Questions About Leadership and Emotion

To summarize, researchers are increasingly recognizing the link between leadership and followers' emotions. Organizational scholars have put forth elaborate theoretical propositions describing how positive emotions are evoked by transformational leaders and negative emotions are evoked by pseudo-transformational and personalized charismatic leaders. There have also been a few empirical investigations providing evidence in favor of the positive relationships between transformational leadership and positive emotions. Conversely, little empirical work has dealt with the question of the relationships that pseudo-transformational, management by exception, laissez-faire and other dysfunctional leadership styles may have with negative emotions. The few empirical investigations involving negative emotions have only provided evidence for negative relationships between transformational leadership and negative emotions, and have made some indications that every-day supervisors and managers do indeed elicit some negative emotions, such as anger and frustration, in their employees. However, it is unclear if supervisors and managers who evoke negative emotions in their employees are pseudo-transformational, transactional, or laissez-faire leaders. Moreover, only a few positive emotions (e.g., optimism, enthusiasm, happiness) have been examined in relation to transformational leadership. This leaves a gap in the literature as to how other positive emotions such as self-assurance or pride and relief or contentment relate to this and other leadership styles. Thus, to rectify these problems, I examined how transformational leadership and the components of transactional leadership (i.e., contingent reward, active and passive management-by-exception) as well as laissez-faire, pseudo-transformational, and Machiavellian leadership relate to the followers' emotional and cognitive reactions to leaders.

How Trust and Leadership May Relate to Positive and Negative Emotions

Although emotions have been argued to be important for the development of trust, there have been only a few suggestions as to which specific emotions may be relevant in

this context. For example, Dunn and Schweitzer (2005) hypothesized that and found that positively valenced emotions would be positively related to trust and negatively valenced emotions would be negatively related to trust. Indeed, they reported that incidental happiness (i.e., happiness that is produced by an unrelated event or person) resulted in higher trust judgments than incidental sadness and anger. Williams (2007) suggested that anxiety and fear are particularly relevant for trust. Specifically, she suggested that when we are collaborating with people, particularly those from outgroups, there are risks of opportunism, neglect of one's interests, and identity damage, which may be perceived as threatening and result in anxiety or fear. This, in turn, may pose significant obstacles to trust and cooperation as it may lead people to perceive others as untrustworthy and engage in defensive as opposed to cooperative behavior.

Additionally, Dunn and Schweitzer (2005) hypothesized and found that emotions that are outwardly-focused (i.e., emotions focused toward others - such as gratitude and anger) tended to influence judgments of trust substantially more than did the inwardly-focused emotions (e.g., pride and guilt) or emotions characterized by situational control (e.g., sadness). Based on the sparse literature on trust and emotions, it can be argued that positive emotions (e.g., pride, happiness and optimism) could be expected to influence trust in leader positively, while negative emotions (e.g., anger, anxiety, fear, sadness) could be expected to influence trust negatively. More importantly, however, out of all the positive and negative emotions, the emotions that are elicited by and thus focused on other people would be expected to have the largest effect on trust (whether positive or negative).

The literature on the relationship between leadership and emotions also yields some suggestions as to which specific emotions may be relevant for the development or deterioration of trust in leader. Indeed, it is reasonable to suggest that the emotions which are evoked by different leadership styles or behaviors may also influence followers' trust in leaders. Accordingly, this literature is considered in some detail here.

Connelly, Gaddis, and Helton-Fauth (2002) proposed an entire framework of emotions that may be influenced by various leader behaviors and work events. The

framework that Connelly et al. (2002) advanced is based on the key assumption that although the experience of specific emotions is based on both individual difference factors and situations, certain situations are more likely than others to evoke certain types of emotions. Thus, the events that resolve problems and increase individuals' personal gain were suggested to result in positive flow emotions, such as relief, contentment, and happiness – the emotions which were theorized to be evoked by socialized charismatic leaders their efforts to promote followers' sense of well-being. Next, Connelly and colleagues (2002) proposed that novel and extraordinary events, people and ideas are likely to elicit interest, excitement and other emotions related to current possibilities, whereas the potential for future opportunities is likely to evoke optimism, hope and other emotions related to future possibilities. They theorized that transformational and charismatic leaders should evoke these emotions upon communicating vision and goals to the followers. Additionally, people and events that are empowering and promote personal growth were suggested to elicit feelings related to personal agency, such as self-assurance, pride and challenge – which were postulated to be evoked by transformational leaders when displaying confidence in followers' abilities to attain common goals. Lastly, Connelly et al. (2002) theorized that transformational leaders evoke feelings of accountability, responsibility, and caring which foster acceptance of common goals and transcendence of personal interests.

Connelly and colleagues (2002) also made propositions involving a number of negative emotions. These authors suggested that the perceived loss of control over events, situations, or people is likely to lead to pessimism, powerlessness and other emotions associated with loss of agency; these emotions were theorized to be evoked by personalized charismatic leaders when withholding important information from followers and keeping them guessing about their status in the organization. Next, Connelly et al. (2002) asserted that people's perceptions that certain events may threaten their well-being or lead to personal harm or loss are likely to elicit anxiety, fear, distress and other emotions related to anticipated or actual threat; these emotions were said to be evoked by personalized charismatic leaders when using various subtle forms of coercion on their followers' and intentionally withholding crucial information from them. Next, Connelly and associates proposed that personalized charismatic leaders tend to evoke

disappointment when withholding important information from followers and promoting followers' reliance and dependence upon these leaders. Lastly, people – such as pseudo-transformational or Machiavellian leaders – who stand in the way or thwart one's efforts or goals were argued to evoke intense negative emotions such as anger, dislike, or frustration (Connelly et al., 2002).

Based on the literature on trust, leadership and emotions, the following predictions were advanced. Transformational leaders – who communicate a promising new vision, display confidence in their followers, attend to followers' needs and empower them – should evoke positive emotions, such as enthusiasm, relief, gratitude, and self-assurance in their followers. Next, to the extent that the leaders who employ contingent reward tend to recognize followers for their work, these leaders could be predicted to enhance followers' positive emotions, such as pride or self-assurance and gratitude.

On the less effective side, MBE-passive and laissez-faire leadership styles would be expected to be positively associated with negative emotions, such as fear or anxiety, frustration, hostility or anger, and disappointment; this is because these leaders tend to be unavailable for feedback and coaching and thus create suspicions and possibly bitterness in followers' minds. Indeed, Skogstad, Einarsen, Torsheim, Aasland and Hetland (2007) found that laissez-faire leadership is positively associated with role conflict, role ambiguity, and conflicts with coworkers, which, in turn, relate directly to employees' distress. Lastly, pseudo-transformational and Machiavellian leaders could be expected to evoke negative emotions (e.g., anger, disappointment) in their followers – as long as the followers realize that they have been manipulated or used for the leaders' purposes. Indeed, Dasborough and Ashkanasy (2004) found that the seemingly transformational leaders whose selfish intentions were discovered appeared to evoke strong negative emotions in people. Leaders who evoke negative emotions in their followers would be less likely to be trusted by the followers than would those who elicit positive emotions.

Ultimately, it would be desirable to empirically examine how specific positive and negative emotions relate to various leadership styles, trustworthiness factors and

trust. However, as the initial step in examining these relationships, this thesis primarily focused on the links with the composite of several positive emotions and the composite consisting of several different negative emotions. That is, for the purposes of Study 1 and Study 2 model testing, all positive emotions were combined into one bundle and all negative emotions were combined into another bundle.

Finally, as discussed previously, Jones and George (1998) argued that emotions relate to trust both directly and indirectly through the cognitive perceptions of trustworthiness. Therefore, in the present context, emotions should mediate the relationships between both leadership styles and trust as well as between leadership styles and trustworthiness. These relationships were explored in the present project.

Putting It All Together: The Proposed Model of Relationships Among Leadership Styles, Emotions, Trustworthiness Perceptions, and Trust

To summarize, previous research suggests that transformational and contingent reward leadership styles are positively associated with trust. Some empirical evidence exists to support the positive associations between transformational leader behaviors and certain positive emotions, such as optimism and enthusiasm. Furthermore, a few theoretical propositions have been advanced to describe the relationship between emotions and trust. However, less is known about how less effective or ineffective transactional, laissez-faire and pseudo-transformational and Machiavellian leaders influence followers' trustworthiness perceptions and positive and negative emotions, and how these emotions, in turn, influence trust. Thus, three studies were conducted as a part of the present research project to address these important gaps in the literature. The proposed relationships among all the variables of interest are portrayed in an integrated model of leadership, emotions, trustworthiness and trust (see Figure 1).

The first study examined the integrated model consisting of the relationships among the above-mentioned leadership styles, employees' positive and negative emotions, employees' perceptions of leader trustworthiness, and employees' trust in

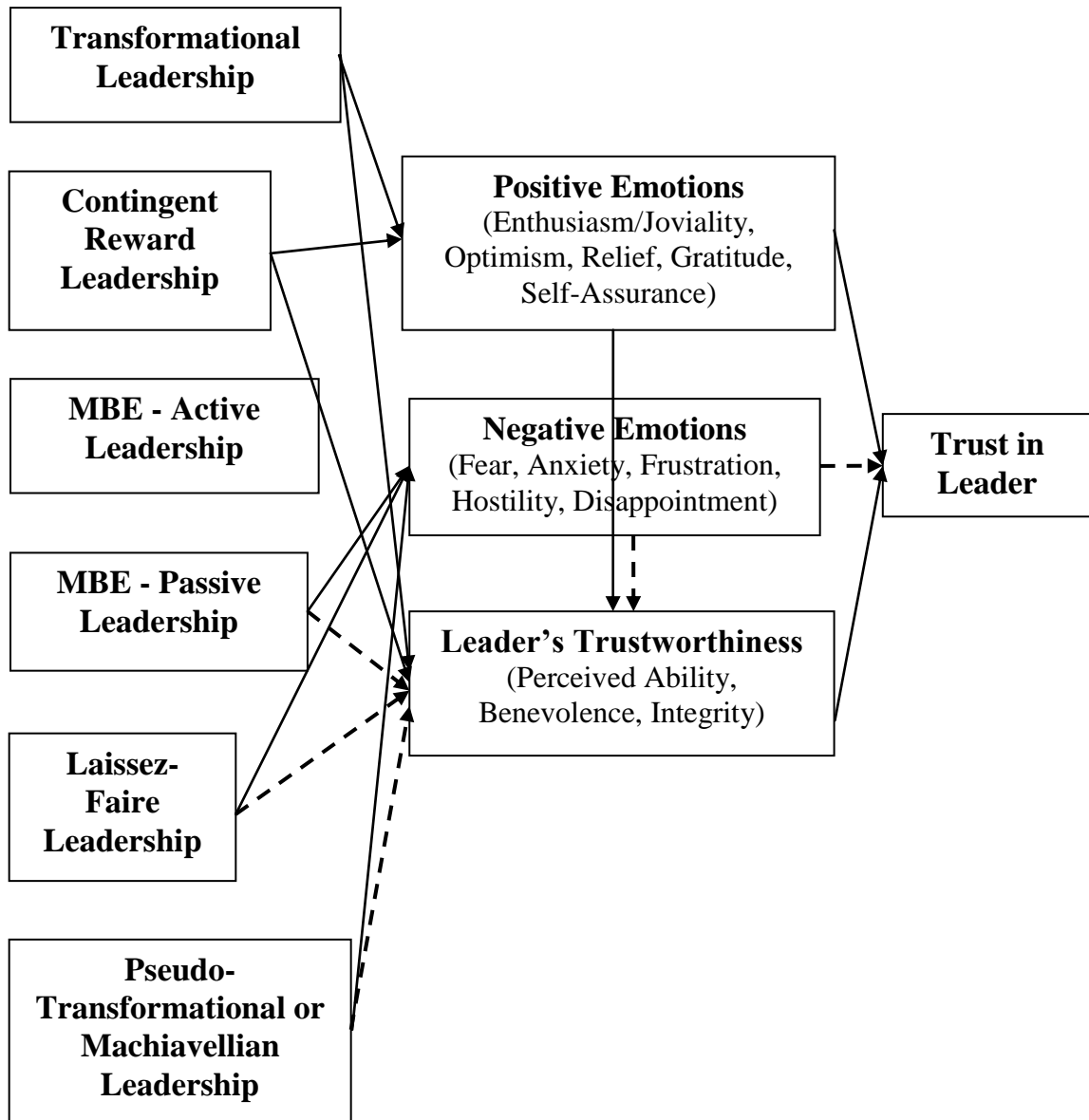


Figure 1. An integrated model of functional and dysfunctional leadership, followers' emotions, perceptions of leader trustworthiness and trust in leader. Solid lines denote positive relationships; dashed lines denote negative relationships.

leader in a cross-sectional questionnaire study with students. The second study re-examined the model to attempt to replicate the relationships among the above-mentioned variables in another questionnaire study with full-time employees from various North American organizations. Finally, the third study investigated the causal relationships between the above-mentioned leadership styles and the rest of the variables in an experimental simulation with undergraduate students. The primary and overarching goal of all three studies was to test the integrated model of leadership, emotions, trustworthiness and trust.

General Hypotheses

Hypothesis 1. Transformational leadership will positively influence employees' positive emotions, their perceptions of leader's trustworthiness and their trust in their leader.

Hypothesis 2. Contingent reward leadership will positively influence employees' positive emotions, perceptions of leader's trustworthiness and their trust in their leader.

Hypothesis 3. Active management-by-exception will not influence employees' emotions, their perceptions of leader's trustworthiness or their trust in their leader.

Hypothesis 4. Passive management-by-exception leadership will positively influence employees' negative emotions and negatively influence their perceptions of leader's trustworthiness and their trust in their leader.

Hypothesis 5. Laissez-faire leadership will positively influence employees' negative emotions and negatively influence their perceptions of leader's trustworthiness and their trust in their leader.

Hypothesis 6. Pseudo-transformational and perceived Machiavellian leadership will positively influence employees' negative emotions and negatively influence their perceptions of leader's trustworthiness and their trust in their leader.

Hypothesis 7. Employees' perceptions of leader's trustworthiness will mediate the relationships between all the leadership styles (except active management-by-exception) and trust.

Hypothesis 8. Employees' emotions will act as mediators of the relationships between all the leadership styles (except active management-by-exception) and trust. Specifically, employees' positive emotions will mediate the relationships of transformational and contingent reward leadership styles with trust in leader, and employees' negative emotions will mediate the relationships of passive management-by-exception, laissez-faire and Machiavellian leadership styles with trust in leader.

Hypothesis 9. Employees' emotions will act as mediators of the relationships between all the leadership styles (except active management-by-exception) and trustworthiness. Employees' positive emotions will mediate the relationships of transformational and contingent reward leadership styles with trustworthiness, and employees' negative emotions will mediate relationships of passive-management-by-exception, laissez-faire and Machiavellian leadership styles with trust in leader.

CHAPTER 2: STUDY ONE

Introduction

Overview

This study had four objectives. First, I examined how the Full Range leadership styles including transformational, transactional and laissez-faire leadership (Avolio, 1999; Avolio & Bass, 2004; Bass, 1998) relate to followers' perceptions of leader trustworthiness (i.e., leader's ability, integrity and benevolence) and their trust in leaders. The second aim was to examine the relationship between relatively-unexplored Machiavellian leadership and both trust and these trustworthiness factors. The third major goal of this study was to explore the role of employees' emotional reactions to leaders, both in terms of the relationship of leadership style to employees' emotional reactions and how these emotional reactions relate to employees' trust in leaders and their perceptions of leaders' trustworthiness. Lastly, the fourth aim of the study was to explore several mediation effects. Specifically, I examined the extent to which (a) trustworthiness perceptions mediated the relationships between leadership styles and trust, (b) employees' emotions mediated the relationships between leadership styles and trustworthiness perceptions, and (c) employees' emotions mediated the relationships between leadership styles and trust. The overarching aim of the study was to test the integrated model that encompassed the aforementioned relationships amongst leadership styles, emotions, trustworthiness perceptions and trust in leader.

In this study, these questions were examined in a sample of university students. The primary analysis used to examine the relationships among the variables in this study was Structural Equation Modeling (SEM) which allows simultaneous testing of many relationships. As a part of conducting this analysis, a number of crucial decisions need to be made. One such decision pertains to the indicators of the latent constructs in structural equation models. There are three different options for selecting indicators. Specifically, researchers using SEM analysis can use items as indicators, entire scale scores as indicators, or the so-called *parcels* as indicators.

Little, Cunningham, Shahar and Widaman (2002) defined a parcel as “an aggregate-level indicator comprised of the sum (or average) of two or more items, responses, or behaviors” (p. 152). In their 2008 CARMA webcast, Williams and O’Boyle defined parceling as a method for relating latent variables to indicators whereby combinations of items are used as latent variable indicators. Although parceling has garnered much controversy (Little et al., 2002), there are several strong reasons why parcels should be considered above the other two methods for linking latent variables to indicators. The primary reason for utilizing parcels instead of either items or scale scores is that parcels are more reliable and have a lower likelihood of “distributional violations” in comparison to individual items, while still allowing researchers to assess the quality of measurement models (Little et al., 2002, p. 154). In this way, parcels share some of the key advantages associated with individual items as well as scale scores. Thus, for the purposes of Study 1, each of the latent variables from the hypothesized structural equation model was assessed using parcels made out of items measuring the variables in question.

In their 2008 CARMA webcast, Williams and O’Boyle provided some recommendations for parceling given certain research goals. Little and colleagues (2002) also provided helpful suggestions with regards to parceling decisions. These two sets of recommendations were followed when making parceling decisions for the current study.

Williams and O’Boyle (2008) discussed eight different approaches to parceling, six for unidimensional constructs and two for multidimensional constructs (i.e., constructs with multiple facets). The two parceling techniques discussed in relation to multidimensional constructs are the internal consistency approach and the domain-representative approach (Little et al., 2002; Williams & O’Boyle, 2008). The *internal consistency approach* entails combining those items that measure the same facet of a construct – such as when generating subscale or facet scores; hence, item parcels that are formed in this way tend to diverge from each other. In contrast, the *domain-representative approach* to parceling entails grouping together items that assess different but related facets of the same construct so that each parcel has roughly equal representation from each relevant domain or facet.

Although there are a number of parceling techniques for unidimensional constructs, some of them (e.g., *correlational algorithm technique*) tend to emphasize grouping together items that are measuring the same or similar concepts (as in the internal consistency approach), while others (e.g., *item-to-construct balance approach*) emphasize grouping more dissimilar items so as to have a balanced representation from multiple domains (as in the domain-representative approach). In order to assess which items from a unidimensional construct are more similar versus dissimilar to one another, Williams recommends conducting exploratory and confirmatory factor analyses.

When creating Study 1 parcels, I initially employed the internal consistency and related unidimensional approaches. Upon employing these parcels for the Study 1 confirmatory factor analyses, I discovered that the measurement models performed poorly (as indicated by the overall fit indices). Indeed, Williams and O'Boyle (2008) and Little and colleagues (2002) cautioned about the potential for these problems with measurement models when using the internal consistency approach to parceling. Therefore, these researchers suggested that the domain-representative approach and related unidimensional approaches to parceling may result in a better measurement model fit. Moreover, these researchers argued the domain-representative approach may be appropriate in the cases when one's research is focused on the latent variable overall and the ways in which it relates to other latent variables as opposed to assessing the quality of a measurement scale or the dimensionality of the individual latent variables. Because the primary focus of the current study was on examining the relationships among latent variables, the domain-representative approach to parceling was considered appropriate.

Following Williams and O'Boyle's (2008) recommendations, exploratory factor analyses (EFA) were first performed to assess the dimensionality of each latent variable, and the findings of these analyses were then compared to the theory and empirical findings from the previous literature; in other words, items measuring each latent variable were factor analyzed to determine whether each variable's unidimensionality or multidimensionality suggested by the previous literature can be replicated in the present sample. For constructs which were expected to be multidimensional (based on the previous literature) and which had factor analyses supporting multidimensionality (e.g.,

transformational leadership, trustworthiness), I decided to adopt a domain-representative approach - whereby equal number of items from each dimension was assigned to each parcel (see Little et al., 2002; Williams & O'Boyle, 2008). For the unidimensional constructs that indeed turned out to be unidimensional based on the EFA results (i.e., contingent reward, MBE-active, passive-avoidant, Machiavellian leadership, positive emotions, trust), I used the item-to-construct balance approach (see Williams & O'Boyle, 2008, second parceling technique) which can be described as a unidimensional version of the domain-representative approach. This approach requires running confirmatory factor analyses (CFAs) for each variable or scale separately in order to obtain standardized factor loadings for items; the loadings are then used to decide on parcels such that the item with the highest loading is assigned to the first parcel, the item with next largest loading to the second parcel, etc. (see Williams & O'Boyle, 2008 for additional details).

After creating parcels of latent variables according to the techniques outlined above, I employed structural equation modeling to test the theoretical model presented in Figure 1.

Hypotheses

The specific hypotheses for this study were as follows:

Hypothesis 1. Transformational leadership will be positively associated with employees' positive emotions, their perceptions of leader's trustworthiness and their trust in their leader.

Hypothesis 2. Contingent reward leadership will be positively related to employees' positive emotions, perceptions of leader's trustworthiness and their trust in their leader.

Hypothesis 3. Active management-by-exception will not be related to employees' emotions, their perceptions of leader's trustworthiness or their trust in their leader.

Hypothesis 4. Passive-avoidant leadership (composed of MBE-passive and laissez-faire) will be positively related to employees' negative emotions and negatively related to their perceptions of leader's trustworthiness and their trust in their leader.

Hypothesis 5. Perceived Machiavellian leadership will be positively associated with employees' negative emotions and negatively associated with their perceptions of leader's trustworthiness and their trust in their leader.

Hypothesis 6. Employees' perceptions of leader's trustworthiness will mediate the relationships between all the leadership styles (except MBE-active) and trust.

Hypothesis 7. Employees' emotions will act as mediators of the relationships between all the leadership styles (except MBE-active) and trust. Specifically, employees' positive emotions will mediate the relationship between transformational and contingent reward leadership styles and trust in leader, and employees' negative emotions will mediate the relationships of passive-avoidant and Machiavellian leadership styles with trust in leader.

Hypothesis 8. Employees' emotions will act as mediators of the relationships between all the leadership styles (except MBE-A) and trustworthiness. Specifically, employees' positive emotions will mediate the relationship between transformational and contingent reward leadership styles and the trustworthiness factors, and employees' negative emotions will mediate the relationships of passive-avoidant and Machiavellian leadership styles and the trustworthiness factors.

Method

Participants

Altogether, 346 participants took part in this study. However, there were 8 participants who had not completed approximately 50% or more of the questionnaire items for this study. The data for these participants were excluded from the analyses, leaving a total of 338 participants whose data were utilized in the analyses for this study.

Participants were undergraduate students recruited from the Psychology Department Participant Pool at The University of Western Ontario. Each student received one psychology credit for participation in the study. It was stipulated that each participant had to hold at least a part-time job at the time of the survey in order to be able to report current feelings about and perceptions of his or her supervisor. By restricting the participation to the students holding a job at the time of the study, I expected to enhance the accuracy of the emotion ratings because students would be able to refer to their memory of recent interactions with the supervisors.

Out of the total of 338 participants, 87 were men and 249 were women (with two individuals who did not report their gender). Although most of the participants were between 17 and 19 years of age, the age range for Study 1 participants was quite wide – ranging from 17 to 54 ($M = 20.21$, $SD = 6.13$). Participants' organizational tenure ranged from one month to 17 years, but most participants were with their organizations between 2 months and 4 years). Participants worked in a variety of industries, including hospitality, food, childcare, finance and banking, call centres, restaurants, coffee shops, sales and customer service, engineering, fast food, golf courses, and gyms. Similarly, participants held a range of job titles, including cashier, office clerk, sales representative, cook, customer service representative, dance instructor, host/hostess, HR professional, and instructor.

Procedure

On the UWO Psychology Participant Pool web site, students were first directed to the letter of information about the study (see Appendix B) - which asked them to indicate their agreement to participate in the study. Those who agreed were then directed to the first page of the questionnaire (see the second page of Appendix B). On the bottom of each survey page, a button allowed the participants to go the “Next” section. Clicking on the “Proceed to feedback” button on the last page of the survey took the participants to the page with participant feedback or debriefing page (see the last page of Appendix B). A button there allowed them to “Submit survey”. Alternatively, by closing the

questionnaire window, participants were able to cease their participation and have their responses discarded.

Although participants were asked to provide their student ID numbers and e-mail addresses for the purposes of receiving their research credits, this information was stored separately from their survey responses. Thus, there is no way of linking the data to the participants' personal information.

Measures

Multifactor Leadership Questionnaire (MLQ; Avolio & Bass, 2004). The leadership style of the participant's immediate supervisor was assessed using the MLQ (Avolio & Bass, 2004). This is a well-established questionnaire assessing components of transformational, transactional, and laissez-faire leadership styles. Transformational leadership style consists of idealized influence (attributes and behaviors), inspirational motivation, individualized consideration and intellectual stimulation. Transactional leadership style consists of contingent reward, active management-by-exception (MBE-active), and passive management-by-exception (MBE-passive). Laissez-faire leadership or non-leadership implies lack of involvement by the leader. In addition to these leadership styles, the questionnaire assesses outcomes of leadership including perceived leader effectiveness, as well as subordinates' extra effort and satisfaction with leader. Sample items from MLQ include "Talks optimistically about the future," "Spends time teaching and coaching," and "Avoids making decisions." All the items are completed using a 5-point Likert-type scale (1 = *Not at all* and 4 = *Frequently, if not always*). MLQ is a well-validated instrument which also has high reliability (Antonakis, Avolio, & Sivasubramaniam, 2003; Bass & Avolio, 2004).

Perceived Machiavellian Leadership Scale I (PMLS I). Nineteen of the original Machiavellianism IV items (by Christie & Geis, 1970) were reworded to create 19 Machiavellian leadership items that utilized updated vocabulary and expressions and could be completed by subordinates or direct reports of the leaders in question rather than the leaders themselves. Like the original Mach IV Scale, the revised set of 19 items assessed Machiavellian tactics and views. The revised Machiavellian leadership items

include “My supervisor tends to handle people by telling them what they want to hear,” “When asking me to do something, my supervisor gives the real reason for wanting it instead of reasons that might sound better” (reverse keyed) and “My supervisor assumes that all people have a vicious streak that will come out at the first opportunity.”

In addition, I created another 7 explicit items to assess perceived Machiavellian leadership in a more direct and less ambiguous manner. Sample explicit items include: “My supervisor often manipulates and exploits people for personal gain,” “My supervisor believes in winning at all costs” and “My supervisor only cares about employees’ needs and preferences when they are consistent with his or her own goals”. Thus, the complete Perceived Machiavellian Leadership Scale I (PMLS I) had 26 items in total (see Appendix C). Participants rated the extent of their agreement with each item on a 5-point Likert type scale (1 = *disagree strongly* and 5 = *agree strongly*).

Prior to the present study, no psychometric information was available on the newly-created PMLS I. However, Deluga (2001) reported obtaining high internal consistency reliability ($\alpha = .85$) and evidence of convergent validity for the Christie and Geis’ (1970) original Machiavellianism IV scale.

Personalized and socialized charismatic leadership scales (Popper, 2002). For the purposes of validating the new Perceived Machiavellian Leadership Scale I, Popper’s (2002) personalized and socialized charismatic leadership scales were included in the study survey. Personalized charismatic leadership is closely related to Machiavellian leadership, whereas socialized charismatic leadership shares many characteristics with transformational leadership style. The personalized charismatic leadership scale consists of five items, and a sample item from this scale is: “Uses the team to promote his personal success.” The socialized charismatic leadership scale contains four items, and a sample item from the scale is: “Goes beyond self-interest for the good of the team”. The extent to which the items from the two scales were characteristic of participants’ supervisor or manager was judged on a 6-point Likert-type scale (1 = *not at all characteristic* and 6 = *highly characteristic*). Popper (2002) reported acceptable internal consistency reliabilities for the two scales with alpha coefficients of .81 for the

personalized charismatic leadership scale and .75 for the socialized charismatic leadership scale. Additionally, Popper (2002) provided some evidence of convergent and discriminant validity for the two scales. Specifically, he found that the correlation between the personalized charismatic leadership scores and the Narcissistic Personality Inventory scores was .23, whereas the socialized charismatic leadership scores correlated with the Narcissism scores at -.31 (consistent with the predictions).

Leader-related emotions. In order to assess emotions toward one's direct supervisor, I used four PANAS-X scales to measure fear, hostility, joviality (i.e., enthusiasm) and self-assurance (Watson & Clark, 1994). Sample items from these four scales include "afraid," "nervous," "angry," "hostile," "excited," "enthusiastic," "confident," "bold," "fearless." PANAS-X is the expanded version of the PANAS scale by Watson, Clark and Tellegen (1988). In addition to the PANAS-X scales, I added 6 items to represent frustration and optimism (based on the measures by McColl-Kennedy & Anderson, 2002), including "frustrated," "irritated," and "optimistic." Lastly, several emotion-related items were created to measure disappointment, relief, gratitude, and anxiety, the emotions that Connelly, Gaddis, and Whitney (2002) suggested that followers of the transformational and other types of leaders would experience. Sample items from those four categories include "disappointed", "disillusioned," "relieved," "calmed," "grateful to him/her," "appreciative," "anxious," and "worried." As an introduction to all the emotions items, participants were asked to indicate to what extent their immediate supervisor has made them feel this way during the past several weeks. The 44 emotion items were then rated on a 5-point Likert scale (1 = *Very slightly or not at all* and 5 = *Extremely*).

PANAS-X has been validated using other instruments measuring emotions (Watson & Clark, 1994). Watson and Clark (1994) also reported obtaining acceptable reliability coefficients.

Measures of trust, propensity to trust, and trustworthiness factors of ability, integrity, and benevolence. Trust in supervisor, propensity to trust people in general, and perceptions of supervisor's ability, integrity and benevolence were assessed using

Mayer and Davis' (1999) instrument. This instrument consists of five scales including a four-item measure of trust, eight-item measure of propensity to trust, six-item measure of ability perceptions, five-item measure of benevolence perceptions, and a six-item measure of integrity perceptions. A sample item from the trust scale is "I would be willing to let my supervisor have complete control over my future in this company." Sample items from the measure of propensity to trust include "One should be very cautious with strangers" (reverse keyed) and "Most people can be counted on to do what they say they will do." Sample items from the measure of perceptions of supervisor's ability include "My supervisor is very capable of performing his/her job" and "I feel very confident about my supervisor's skills." The measure of perceptions of supervisor's benevolence includes the following item: "My supervisor really looks out for what is important to me." Lastly, a sample item from the measure of perceived integrity is "I never have to wonder whether my supervisor will stick to his/her word." Consistent with Mayer and Davis (1999), participants used 5-point Likert-type scales (1 = *Disagree strongly* and 5 = *Agree strongly*) to rate their own trust propensity, their supervisor's trustworthiness, and their trust in their supervisor.

Mayer and Davis (1999) reported high internal consistency reliabilities for all of the above-mentioned scales except for the one measuring propensity to trust. Specifically, while the alpha coefficients for the ability, integrity and benevolence scales from the second wave of data collection were .85, .82, and .87, respectively, alphas for the propensity scale from the second and third waves of data collection were .55 and .66, respectively. Aside from the evidence of discriminant validity provided for the trustworthiness factors by Mayer and Davis (1999), numerous studies that examined the trustworthiness factors and trust propensity in relation to other variables provided additional evidence of construct and criterion-related validity of Mayer and Davis' scales measuring these variables (see Colquitt et al., 2007).

Behavioral Trust Inventory (BTI; Gillespie, 2003). The Behavioral Trust Inventory consists of 10 items designed to assess willingness on the part of trustor to be vulnerable to the actions of a trustee (i.e., leader or peer). This willingness to be vulnerable is actually measured in terms of the willingness of the trustor to engage in two

types of trusting behaviors, namely those of relying on the trustee and disclosing sensitive information to him or her. As a part of completing this inventory, participants were asked to indicate how willing they are to do various things with or for their manager; the responses were rated on a 7-point Likert-type scale (1 = *Not at all willing* to 7 = *Completely willing*). Sample items from the instrument are “Rely on your manager’s task related skills and abilities” and “Depend on your manager to back you up in difficult situations.” For exploratory purposes, an additional 13 new items were included at the end of the BTI. Since neither these items nor the dependence on supervisor measure presented at the end of the questionnaire were analyzed for the present study, they will not be discussed further.

Based on the data from various samples of leaders and team members, Gillespie (2003) reported obtaining high internal consistency reliabilities for the Behavioral Trust Inventory (BTI); alphas ranged from .89 to .95. Furthermore, Gillespie (2003) presented strong content, criterion-related, and construct validity evidence. The validity of the BTI was supported by qualitative interview and survey data, as well as cross-sectional, longitudinal, and matched-dyad quantitative data from four samples of managers and their employees (Gillespie, 2003).

Overall trust. In order to assess trust in leader directly, the first of Earley’s (1986) two overall trust items was employed in its original form. The item is “How much trust do you place in your superior?” Given the similarity of the second item from this scale (i.e., “How willing are you to rely on the person who supervises you?”) with a number of Gillespie’s (2003) items asking the respondents to judge how willing they are to rely on their leaders in various specific situations, the second item from Earley’s (1986) scale was modified slightly. The adjusted item read, “How willing are you to rely on your supervisor in general?” Although Earley (1986) used a 5-point Likert-type scale for the two overall trust items, in the present study, a 7-point Likert-type scale (1 = *Do not trust or rely on him/her at all* and 7 = *Trust or rely on him/her greatly*) was used for these two items so as to be consistent with the BTI items (which were rated on a 7-point scale and positioned immediately before the two overall trust items). Earley (1986) obtained the correlation of .86 ($p < .01$) between the two items.

Order of presentation. The measures were presented to all the participants in the same sequence (see Appendix B for the questionnaire). Specifically, the participants were asked to answer several demographic questions as well as questions pertaining to their work history. Then, they were asked to complete the newly-created Perceived Machiavellian Leadership Scale I. Next, the participants completed the items from the MLQ, followed by the personalized and socialized charismatic leadership items. After that, the items regarding participants' general propensity to trust appeared, followed by the emotion items. Participants were then presented with Mayer and Davis' (1999) items regarding their perceptions of supervisor's ability, integrity, and benevolence (mixed together), followed by the BTI and overall trust in supervisor measures. The final scale, concerning subordinates' dependence on supervisor, was included for another project and will not be discussed further here.

Results

Data Treatment

Assessment of missing data and inaccurate values. Prior to conducting the main analyses for this study, data on all the questionnaire items were examined using various SPSS preliminary analyses to assess accuracy of data entry and the extent of missing values. Upon examining the results of the SPSS Missing Values Analysis (MVA), it was noted that there were only eight cases (i.e., participants) with over 50% of questionnaire data points missing. Because these cases were deemed unusable for the purposes of the primary study analyses, they were deleted – thus leaving a total of 338 cases or participants for the study analyses. Every questionnaire item and variable was examined to assess the extent of missing data. The two variables with the greatest percentage of missing data points were organizational tenure and the time during which participant has known his or her supervisor. All the remaining items and variables were missing less than 5% of the data.

Distributions of all item scores were examined using SPSS Frequencies in order to check for univariate outliers and any incorrectly entered values. Most of the study variables were measured on 5- or 7-point Likert-type scales, and, for most of the items

from these scales, participants were asked to select one out of the five or seven possible responses by clicking on the appropriate choice. Because of this and the fact that the study variables were not truly continuous in nature, all scores within the 5 or 7 points of the Likert-type scale were considered acceptable – even when they were slightly separated from the majority of item scores. Emotion items, however, were somewhat different; specifically, although they were also assessed on a 5-point Likert-type scale, participants actually entered the values corresponding to their responses beside each of the emotion items (rather than clicking on the appropriate choice). Because of this difference in the response set-up, it was found that participants occasionally entered incorrect values. Specifically, although emotion items were measured on 5-point Likert scale, participants on rare occasions chose ratings of “0,” “6,” “8,” “10,” “11,” as well as several other two-digit values. Because “0” was the lowest rating on MLQ, it was assumed that participants choosing this rating simply wanted to assign the lowest possible rating on a particular emotion; thus, all “0” ratings were changed to “1.” Similarly, ratings “6” and “8” were close to the rating of “5” on the typing keyboard; therefore, they were considered typographical errors and were changed to “5.” The rating of “11” was considered to be a typographical error for those who were planning to choose the rating of “1”; thus, all ratings of “11” were changed to “1.” Finally, all other erroneous ratings (e.g., “32,” “51,” etc.) were deleted – as it was unclear which Likert scale entries were intended by the participants selecting those ratings.

Separate Variance *t*-tests from the SPSS MVA indicated that missingness was not related to the dependent variable of trust – thus supporting the conclusion that data were missing at random (MAR; Tabachnik & Fidell, 2007). Hence it was deemed appropriate to utilize the Expectation Maximization (EM) method to impute the missing values (Tabachnik & Fidell, 2007). The imputation technique was employed in order to be able to utilize a complete data set for the purposes of SEM analyses; maximizing the usable sample was important given the large sample size requirements for this statistical analysis.

Analysis plan. Four sets of analyses were conducted. First, descriptive statistics, alpha coefficients and zero-order correlations among study variables were computed in

order to describe the sample, variables and their distributions, as well as to provide an initial idea of the relationships among the study variables. Second, a number of analyses were conducted using SPSS and EQS in order to evaluate assumptions of multivariate normality, multicollinearity, and linearity. Third, to assess the psychometric properties of the Perceived Machiavellian Leadership Scale I, several analyses were conducted using SPSS and EQS. Lastly, confirmatory factor analyses (CFA) and structural equation modeling (SEM) analyses were conducted using EQS to test the Study 1 hypotheses.

Descriptive Statistics

Descriptive statistics and alpha coefficients for all the study variables are presented in Table 1. In terms of leadership styles, students were asked to rate their leaders on Machiavellian leadership as well as on each of the five MLQ-assessed leadership styles. The means for the first three MLQ-assessed leadership styles were above the scale midpoint (as was the mean for Popper's, 2002 socialized charismatic leadership), whereas the means for the remaining two MLQ-assessed leadership styles were below the scale midpoint. The means for the Perceived Machiavellian Leadership Scale I and for the Popper's (2002) personalized charisma scale were also below the midpoints of the two ratings scales (used for these two measures). This pattern of findings suggested that students on average rated their work supervisors as displaying behaviors of the more favorable transformational, contingent reward, MBE-active and socialized charismatic leaders to a greater degree than the behaviors of less desirable laissez-faire, MBE-passive, Machiavellian, and personalized charismatic leaders. Participants also rated their leaders above the mean on MLQ-assessed effectiveness, followers' extra effort (for leader), and satisfaction with the leader. Similarly, as indicated by means above the scale midpoint, participants on average perceived their supervisors to have above-moderate levels of the trustworthiness factors of ability, integrity and benevolence; consistent with these findings, students also indicated higher-than-moderate levels of trust in their work supervisors. This slight tendency toward positive ratings of supervisors seemed to continue with the ratings of positive and negative emotional reactions to the leaders; specifically, on average, the participants' positive emotion ratings were around or just below the scale midpoint, whereas the

Table 1: Descriptive Statistics for Study 1 Variables

Descriptive Statistics for Study 1 Variables

Variable	α	M	SD	Skew	SE of Skew	Kurtosis	SE of Kurtosis
PMLS I (26 items)	0.90	2.58	0.59	0.26	0.13	-0.46	0.27
PMLS I (20 items)	0.91	2.51	0.68	0.25	0.13	-0.56	0.27
Transformational	0.93	2.39	0.75	-0.49	0.13	-0.24	0.27
Contingent reward	0.75	2.56	0.85	-0.66	0.13	0.31	0.27
MBE-active	0.69	2.20	0.83	-0.14	0.13	-0.49	0.27
MBE-passive	0.78	1.46	0.91	0.29	0.13	-0.73	0.27
Laissez-faire	0.80	1.15	0.91	0.60	0.13	-0.36	0.27
Effectiveness (MLQ)	0.81	2.61	0.87	-0.46	0.13	-0.01	0.27
Extra Effort (MLQ)	0.76	2.34	0.98	-0.39	0.13	-0.34	0.27
Satisfaction (MLQ)	0.72	2.57	1.00	-0.51	0.13	-0.13	0.27
Person. Charisma	0.80	3.16	1.06	0.24	0.13	-0.10	0.27
Social. Charisma	0.76	4.04	1.04	-0.44	0.13	-0.31	0.27
Trust Propensity	0.63	2.70	0.52	-0.22	0.13	0.16	0.27
Ability	0.91	3.82	0.87	-0.87	0.13	0.78	0.27
Integrity	0.83	3.52	0.80	-0.39	0.13	-0.03	0.27
Benevolence	0.88	3.49	0.91	-0.41	0.13	-0.16	0.27
Trust (M&D)	0.64	3.41	0.81	-0.07	0.13	-0.28	0.27
Trust (BTI)	0.92	4.58	1.31	-0.24	0.13	-0.33	0.27
Trust Overall	0.93	5.07	1.51	-0.77	0.13	-0.00	0.27
Positive Emotions	0.97	2.76	0.94	-0.03	0.13	-0.81	0.27
Relief	0.85	2.72	0.97	0.01	0.13	-0.66	0.27
Optimism	0.81	2.83	1.16	0.06	0.13	-0.93	0.27
Joviality/Enthus.	0.95	2.84	1.06	0.03	0.13	-0.91	0.27
Self Assurance	0.85	2.55	0.89	0.21	0.13	-0.59	0.27
Gratitude	0.88	2.99	1.20	-0.01	0.13	-1.07	0.27
Negative Emotions	0.95	1.78	0.77	1.34	0.13	1.61	0.27
Fear	0.89	1.59	0.76	1.53	0.13	2.01	0.27
Anxiety	0.78	1.88	0.87	1.06	0.13	0.61	0.27
Hostility	0.91	1.77	0.92	1.54	0.13	1.86	0.27
Disappointment	0.76	1.75	0.88	1.27	0.13	0.98	0.27
Frustration	0.84	2.14	1.08	0.87	0.13	-0.03	0.27

Note. All variables were rated on 1-5 Likert-type scales – except the MLQ (0-4), personalized and socialized charisma (1-6) and trust BTI & overall trust (1-7). PMLS I = Perceived Machiavellian Leadership Scale I; Trust (M&D) = Trust scale by Mayer and Davis (1999); Trust (BTI) = Behavioral Trust Inventory.

negative emotions scores were tended to be substantially below the scale midpoint (i.e., between 1 and 2 on a 5-point rating scale).

As indicated by the alpha coefficients presented in Table 1, the measures for most of the study variables were highly internally consistent. The lowest two alpha coefficients were those for the trust propensity scale ($\alpha = .63$) and for the trust scale by Mayer and Davis ($\alpha = .64$); these marginal alpha coefficients indicated that these two scales contain items that assess somewhat inconsistent concepts. The next lowest alpha coefficient was the one for the MBE-active leadership subscale of the MLQ; the alpha of .69 for the MBE-active subscale indicated that the four items measuring this leadership style were only moderately consistent with one another and may thus be assessing somewhat different aspects of the MBE-active leadership construct. More is said about this later.

Pearson's correlation coefficients were computed to provide a preliminary assessment of relationships among all study variables and to allow for a preliminary test of the hypothesized relationships. The correlation coefficients are presented in Table 2. As demonstrated by the correlation coefficients, the more effective leadership styles of transformational and contingent reward were indeed positively related to positive emotions, the trustworthiness factors of ability, benevolence and integrity, and trust; these more effective leadership styles were also negatively associated with negative emotions, although these correlations were not as strong as those with positive emotions. Additionally, consistent with predictions, the less effective leadership styles were positively associated with negative emotions and negatively associated with trustworthiness factors and trust. Interestingly and contrary to predictions, MBE-active leadership style had slight positive correlations with negative emotions; nonetheless, the remaining correlations were consistent with MBE-active predictions as this leadership style was not significantly associated with any of the positive emotions, trustworthiness factors or with trust (except on Mayer & Davis', 1999 trust scale, $r = -.14$).

The correlations of the leadership styles with the MLQ-assessed effectiveness, extra effort and satisfaction were also in the expected direction. Specifically,

Table 2: Correlations among Study 1 Variables

Correlations among Study 1 Variables

	1	2	3	4	5	6	7	8
1. PMLS I - 26 item	-	.99**	-.58**	-.47**	.21**	.48**	.56**	-.54**
2. PMLS I - 20 item	.99**	-	-.58**	-.48**	.23**	.48**	.57**	-.55**
3. Transformation.	-.58**	-.58**	-	.79**	.08	-.15**	-.27**	.77**
4. Cont. Reward	-.47**	-.48**	.79**	-	.13*	-.18**	-.31**	.70**
5. MBE-active	.21**	.23**	.08	.13*	-	.11	.10	.07
6. MBE-passive	.48**	.48**	-.15**	-.18**	.11	-	.73**	-.28**
7. Laissez-faire	.56**	.57**	-.27**	-.31**	.10	.73**	-	-.41**
8. Effectiveness	-.54**	-.55**	.77**	.70**	.07	-.28**	-.41**	-
9. Extra Effort	-.42**	-.42**	.74**	.62**	.13*	-.18**	-.28**	.78**
10. Satisfaction	-.56**	-.56**	.73**	.63**	-.01	-.25**	-.41**	.82**
11. Pers. Charisma	.57**	.58**	-.19**	-.16**	.27**	.42**	.44**	-.23**
12. Soc. Charisma	-.54**	-.53**	.75**	.66**	.06	-.21**	-.36**	.73**
13. Trust Propensity	-.03	-.02	.06	-.03	-.06	.12*	.16**	.02
14. Ability	-.53**	-.52**	.53**	.52**	.07	-.42**	-.55**	.66**
15. Integrity	-.65**	-.63**	.68**	.57**	-.01	-.39**	-.47**	.71**
16. Benevolence	-.63**	-.62**	.74**	.63**	-.02	-.28**	-.35**	.70**
17. Trust M&D	-.64**	-.65**	.59**	.50**	-.14*	-.43**	-.51**	.60**
18. Trust BTI	-.53**	-.52**	.66**	.56**	.03	-.24**	-.34**	.65**
19. Trust Overall	-.58**	-.57**	.64**	.56**	.03	-.28**	-.34**	.68**
20. Pos. Emotion	-.42**	-.43**	.71**	.58**	-.05	-.14**	-.2**	.63**
21. Relief	-.41**	-.41**	.65**	.53**	-.06	-.13*	-.19**	.60**
22. Optimism	-.36**	-.37**	.60**	.49**	-.09	-.10	-.17**	.50**
23. Joviality/Enthus.	-.41**	-.42**	.69**	.56**	-.06	-.14*	-.22**	.61**
24. Self Assurance	-.29**	-.29**	.61**	.48**	.02	-.07	-.14*	.49**
25. Gratitude	-.47**	-.48**	.67**	.57**	-.10	-.22**	-.28**	.65**
26. Neg. Emotion	.62**	.63**	-.41**	-.38**	.20**	.31**	.45**	-.46**
27. Anxiety	.43**	.43**	-.26**	-.26**	.17**	.22**	.30**	-.27**
28. Fear	.47**	.49**	-.28**	-.27**	.18**	.27**	.38**	-.29**
29. Hostility	.63**	.64**	-.42**	-.40**	.19**	.29**	.45**	-.49**
30. Disappointment	.49**	.49**	-.32**	-.32**	.13*	.28**	.37**	-.39**
31. Frustration	.59**	.59**	-.45**	-.38**	.18**	.24**	.37**	-.51**

Note. The Negative Emotion aggregate is the mean of the items for all 5 negative emotions. * $p < .05$. ** $p < .01$.

Table 2 continued

Correlations among Study 1 Variables

	9	10	11	12	13	14	15	16
1. PMLS I - 26 item	-.42**	-.56**	.57**	-.54**	-.03	-.53**	-.65**	-.63**
2. PMLS I - 20 item	-.42**	-.56**	.58**	-.53**	-.02	-.52**	-.63**	-.62**
3. Transformation.	.74**	.73**	-.19**	.75**	.06	.53**	.68**	.74**
4. Cont. Reward	.62**	.63**	-.16**	.66**	-.03	.52**	.57**	.63**
5. MBE-active	.13*	-.01	.27**	.06	-.06	.07	-.01	-.02
6. MBE-passive	-.18**	-.25**	.42**	-.21**	.12*	-.42**	-.39**	-.28**
7. Laissez-faire	-.28**	-.41**	.44**	-.36**	.16**	-.55**	-.47**	-.35**
8. Effectiveness	.78**	.82**	-.23**	.73**	.02	.66**	.71**	.70**
9. Extra Effort	-	.71**	-.14**	.62**	-.03	.56**	.58**	.64**
10. Satisfaction	.71**	-	-.31**	.72**	.04	.60**	.69**	.70**
11. Pers. Charisma	-.14**	-.31**	-	-.15**	.02	-.21**	-.37**	-.31**
12. Soc. Charisma	.62**	.72**	-.15**	-	.05	.60**	.71**	.69**
13. Trust Propensity	-.03	.04	.02	.05	-	-.01	.07	.05
14. Ability	.56**	.60**	-.21**	.60**	-.01	-	.74**	.67**
15. Integrity	.58**	.69**	-.37**	.71**	.07	.74**	-	.80**
16. Benevolence	.64**	.70**	-.31**	.69**	.05	.67**	.80**	-
17. Trust M&D	.52**	.63**	-.44**	.59**	.05	.65**	.73**	.69**
18. Trust BTI	.62**	.63**	-.24**	.61**	.08	.65**	.71**	.77**
19. Trust Overall	.62**	.69**	-.31**	.69**	.07	.70**	.74**	.78**
20. Pos. Emotion	.63**	.62**	-.21**	.63**	.07	.51**	.59**	.71**
21. Relief	.58**	.61**	-.23**	.59**	.10	.48**	.57**	.67**
22. Optimism	.51**	.48**	-.15**	.52**	.07	.45**	.50**	.58**
23. Joviality/Enthus.	.61**	.59**	-.21**	.61**	.06	.50**	.57**	.68**
24. Self Assurance	.52**	.47**	-.09	.50**	.06	.38**	.45**	.55**
25. Gratitude	.63**	.63**	-.27**	.62**	.06	.54**	.62**	.72**
26. Neg. Emotion	-.35**	-.50**	.42**	-.45**	.05	-.48**	-.51**	-.53**
27. Anxiety	-.16**	-.26**	.27**	-.26**	.00	-.24**	-.29**	-.33**
28. Fear	-.17**	-.29**	.35**	-.29**	.07	-.32**	-.33**	-.34**
29. Hostility	-.41**	-.55**	.40**	-.48**	.04	-.53**	-.55**	-.55**
30. Disappointment	-.31**	-.41**	.35**	-.34**	.07	-.44**	-.44**	-.46**
31. Frustration	-.40**	-.56**	.41**	-.49**	-.01	-.46**	-.54**	-.56**

Note. The Negative Emotion aggregate is the mean of the items for all 5 negative emotions. * $p < .05$. ** $p < .01$.

Table 2 continued

Correlations among Study 1 Variables

	17	18	19	20	21	22	23	24
1. PMLS I - 26 item	-.64**	-.53**	-.58**	-.42**	-.41**	-.36**	-.41**	-.29**
2. PMLS I - 20 item	-.65**	-.52**	-.57**	-.43**	-.41**	-.37**	-.42**	-.29**
3. Transformation.	.59**	.66**	.64**	.71**	.65**	.60**	.69**	.61**
4. Cont. Reward	.50**	.56**	.56**	.58**	.53**	.49**	.56**	.48**
5. MBE-active	-.14*	.03	.03	-.05	-.06	-.09	-.06	.02
6. MBE-passive	-.43**	-.24**	-.28**	-.14**	-.13*	-.10	-.14*	-.07
7. Laissez-faire	-.51**	-.34**	-.34**	-.22**	-.19**	-.17**	-.22**	-.14*
8. Effectiveness	.60**	.65**	.68**	.63**	.60**	.50**	.61**	.49**
9. Extra Effort	.52**	.62**	.62**	.63**	.58**	.51**	.61**	.52**
10. Satisfaction	.63**	.63**	.69**	.62**	.61**	.48**	.59**	.47**
11. Pers. Charisma	-.44**	-.24**	-.31**	-.21**	-.23**	-.15**	-.21**	-.09
12. Soc. Charisma	.59**	.61**	.69**	.63**	.59**	.52**	.61**	.50**
13. Trust Propensity	.05	.08	.07	.07	.10	.07	.06	.06
14. Ability	.65**	.65**	.70**	.51**	.48**	.45**	.50**	.38**
15. Integrity	.73**	.71**	.74**	.59**	.57**	.50**	.57**	.45**
16. Benevolence	.69**	.77**	.78**	.71**	.67**	.58**	.68**	.55**
17. Trust M&D	-	.70**	.69**	.56**	.52**	.46**	.54**	.42**
18. Trust BTI	.70**	-	.78**	.70**	.65**	.58**	.67**	.59**
19. Trust Overall	.69**	.78**	-	.65**	.60**	.50**	.63**	.50**
20. Pos. Emotion	.56**	.70**	.65**	-	.91**	.87**	.96**	.90**
21. Relief	.52**	.65**	.60**	.91**	-	.75**	.82**	.75**
22. Optimism	.46**	.58**	.50**	.87**	.75**	-	.83**	.74**
23. Joviality/Enthus.	.54**	.67**	.63**	.96**	.82**	.83**	-	.83**
24. Self Assurance	.42**	.59**	.50**	.90**	.75**	.74**	.83**	-
25. Gratitude	.60**	.69**	.69**	.87**	.80**	.72**	.80**	.69**
26. Neg. Emotion	-.50**	-.47**	-.56**	-.28**	-.26**	-.20**	-.29**	-.11*
27. Anxiety	-.31**	-.31**	-.33**	-.14**	-.12*	-.07	-.16**	-.07
28. Fear	-.34**	-.31**	-.35**	-.14*	-.10	-.08	-.15**	-.06
29. Hostility	-.51**	-.50**	-.60**	-.32**	-.32**	-.26**	-.33**	-.12*
30. Disappointment	-.43**	-.37**	-.46**	-.20**	-.19**	-.14*	-.21**	-.07
31. Frustration	-.51**	-.48**	-.57**	-.36**	-.36**	-.28**	-.38**	-.16**

Note. The Negative Emotion aggregate is the mean of the items for all 5 negative emotions. * $p < .05$. ** $p < .01$.

Table 2 continued

Correlations among Study 1 Variables

	25	26	27	28	29	30	31
1. Mach - 26 item	-.47**	.62**	.43**	.47**	.63**	.49**	.59**
2. Mach - 20 item	-.48**	.63**	.43**	.49**	.64**	.49**	.59**
3. Transformation.	.67**	-.41**	-.26**	-.28**	-.42**	-.32**	-.45**
4. Cont. Reward	.57**	-.38**	-.26**	-.27**	-.40**	-.32**	-.38**
5. MBE-active	-.10	.20**	.17**	.18**	.19**	.13*	.18**
6. MBE-passive	-.22**	.31**	.22**	.27**	.29**	.28**	.24**
7. Laissez-faire	-.28**	.45**	.30**	.38**	.45**	.37**	.37**
8. Effectiveness	.65**	-.46**	-.27**	-.29**	-.49**	-.39**	-.51**
9. Extra Effort	.63**	-.35**	-.16**	-.17**	-.41**	-.31**	-.40**
10. Satisfaction	.63**	-.50**	-.26**	-.29**	-.55**	-.41**	-.56**
11. Pers. Charisma	-.27**	.42**	.27**	.35**	.40**	.35**	.41**
12. Soc. Charisma	.62**	-.45**	-.26**	-.29**	-.48**	-.34**	-.49**
13. Trust Propensity	.06	.05	.00	.07	.04	.07	-.01
14. Ability	.54**	-.48**	-.24**	-.32**	-.53**	-.44**	-.46**
15. Integrity	.62**	-.51**	-.29**	-.33**	-.55**	-.44**	-.54**
16. Benevolence	.72**	-.53**	-.33**	-.34**	-.55**	-.46**	-.56**
17. Trust M&D	.60**	-.50**	-.31**	-.34**	-.53**	-.43**	-.51**
18. Trust BTI	.69**	-.47**	-.31**	-.31**	-.50**	-.37**	-.48**
19. Trust Overall	.69**	-.56**	-.33**	-.35**	-.60**	-.46**	-.57**
20. Pos. Emotion	.87**	-.28**	-.14**	-.14*	-.32**	-.20**	-.36**
21. Relief	.80**	-.26**	-.12*	-.10	-.32**	-.19**	-.36**
22. Optimism	.72**	-.20**	-.07	-.08	-.26**	-.14*	-.28**
23. Joviality/Enthus.	.80**	-.29**	-.16**	-.15**	-.33**	-.21**	-.38**
24. Self Assurance	.69**	-.11*	-.07	-.06	-.12*	-.07	-.16**
25. Gratitude	-	-.38**	-.23**	-.21**	-.42**	-.31**	-.44**
26. Neg. Emotion	-.38**	-	.82**	.84**	.92**	.84**	.88**
27. Anxiety	-.23**	.82**	-	.82**	.61**	.63**	.64**
28. Fear	-.21**	.84**	.82**	-	.65**	.61**	.60**
29. Hostility	-.42**	.93**	.61**	.65**	-	.74**	.85**
30. Disappointment	-.31**	.84**	.63**	.61**	.74**	-	.71**
31. Frustration	-.44**	.88**	.64**	.60**	.85**	.70**	-

Note. The Negative Emotion aggregate is the mean of the items for all 5 negative emotions. * $p < .05$. ** $p < .01$.

transformational leadership style had the highest positive correlations (i.e., $r > .70$) with effectiveness, extra effort and satisfaction, followed by contingent reward leadership (i.e., $r > .60$). MBE-active had near-zero correlations with effectiveness and satisfaction, and a low positive correlation with extra effort. Interestingly, Machiavellian leadership displayed the highest negative correlations with effectiveness, extra effort and satisfaction of all leadership styles. Next was laissez-faire leadership with moderate negative correlations with MLQ-assessed effectiveness, extra effort and satisfaction, followed by MBE-passive with low but significant negative correlations with the three MLQ-assessed outcome variables.

The examined leadership styles were correlated with one another in largely predictable ways. First, transformational and contingent reward leadership styles were negatively correlated with Machiavellian leadership as well as with MBE-passive and laissez-faire leadership styles. Next, transformational leadership was found to be highly correlated with contingent reward leadership ($r = .79, p < .001$). This finding was consistent with those from other empirical studies; Den Hartog, Van Muijen, and Koopman (1997), for example, found moderately-high correlations ($r = .40$ to $.50$) between contingent reward leadership and the components of transformational leadership. Several authors have noted a conceptual overlap between contingent reward and transformational leadership styles (e.g., Bass & Riggio, 2006; Yukl, 1999). Because the substantial overlap between these two styles (in Study 1) hinted at potential problems with multicollinearity, the possibility of combining these two leadership styles was considered for the purposes of structural equation modeling (SEM) analyses. MBE-passive was also found to be highly correlated with laissez-faire leadership ($r = .73, p < .001$). As this relationship was found repeatedly in the previous literature (e.g., Den Hartog et al., 1997; Yukl, 1999) and in the present item-level CFA analyses, it was considered appropriate to combine these two leadership styles for the SEM analyses.

Lastly, it is important to compare the descriptive statistics and correlations for the three trust measures employed in this study. The means for all three trust measures were above their respective scale midpoints, with roughly similar distributions. The three trust measures also had very similar patterns of correlations with the other study variables.

However, it is worth noting that the BTI trust scores were more highly correlated with the overall trust scores than with the Mayer and Davis (1999) trust scale scores; not surprisingly, the correlations of the BTI scores with other study variables were more similar to those of the overall trust scale scores than to those associated with the Mayer and Davis trust measure. It is also important to note that the trust measure by Mayer and Davis had a considerably lower alpha coefficient than did the overall trust scale (with only two items) and the BTI trust measure; this finding suggested that the items from the Mayer and Davis trust measure tended to be somewhat inconsistent with one another. Therefore, the trust measure by Mayer and Davis was not utilized in the Study 1 SEM analyses. In fact, given its completeness and its well-assessed construct validity, the BTI measure of trust was the only trust measure to be employed in the SEM analyses for Study 1. The overall trust measure with two general trust items was used to provide further validity evidence for the BTI measure.

Evaluation of Assumptions

The assumptions of multivariate normality, multicollinearity, and linearity were evaluated using SPSS and EQS. As an initial assessment of normality, the distributions for individual variables were produced through SPSS Frequencies and examined for departures from univariate normality. For most variables, the distributions were not significantly skewed or kurtotic, thus demonstrating no departures from univariate normality. Nonetheless, this was not the case for certain emotion variables which displayed some univariate non-normality. As Table 1 shows, several positive emotions displayed noteworthy negative kurtosis; this finding, however, was not considered very problematic because the univariate kurtosis of positive emotions was not accompanied by problematic skewness values. Conversely, for certain negative emotions, both skewness and kurtosis values were considerably outside of appropriate ranges for normally-distributed variables. The most noteworthy were the emotions of fear and hostility – both of which had statistically and practically significant skewness and kurtosis indices. These distributions of responses to the fear and hostility items may simply reflect the lower base rates for these emotions; most participants (close to 250 out of the total of 338) responded to the fear and hostility emotion items by indicating that they experienced

these emotions toward their supervisors very slightly or not at all in the past several weeks. Nonetheless, because of the potential of non-normally distributed variables to create problems in SEM analyses (Tabachnick & Fidell, 2007), these two negative emotions of fear and hostility were removed from the structural equation modeling (SEM) analyses. Hence, frustration, anxiety, and disappointment were the only negative emotions that were used in the SEM analyses.

Multivariate normality was evaluated using EQS 6.1 statistical software for structural equation modeling analyses. For each structural equation model, EQS produced several indicators of multivariate normality which were examined to evaluate departures from multivariate normality. First, Mardia's Normalized coefficient was examined to get some indication of whether multivariate normality assumption was violated. With regards to Mardia's Normalized estimate of multivariate kurtosis, Bentler (2004) suggested that "values larger than 3 provide evidence of nontrivial positive kurtosis, though modeling statistics may not be affected until values are 5, 6 or beyond" (p. 110). In Study 1, Mardia's Normalized coefficients for the SEM models ranged from 5.53 to 14.01, indicating some departures from multivariate normality. Therefore, it was necessary to examine both the normal theory ML fit indices and the robust fit indices in order to evaluate the overall fit of the SEM models.

For further assessment of multivariate normality, the residuals and the multivariate outliers produced through EQS were also examined. For most of the SEM models, the residuals indicated slight departures from normality, thus re-confirming the need to examine robust fit indices in judging the overall fit of the models. Occasional multivariate outlier cases that were found through EQS were inspected closely for any unusual variable ratings. Since none of the multivariate outlier cases were found to have unusual variable ratings, they were retained for the SEM analyses so as to minimize adjustments to the original data set.

Bivariate correlation coefficients produced through SPSS were inspected to check for the presence of multicollinearity. As mentioned, because transformational and contingent reward leadership styles were highly positively correlated, they were

combined into a single effective leadership variable – referred to hereafter as the *combined transformational-contingent reward* leadership style. Similarly, as MBE-passive and laissez-faire leadership styles were significantly positively correlated, they were also combined into a single ineffective leadership variable – referred to as *passive-avoidant* leadership.

Lastly, pairwise linearity was checked using bivariate scatterplots generated through SPSS for all relevant pairs of variables. The scatterplots indicated no significant departures from bivariate linearity.

Psychometric Properties of Perceived Machiavellian Leadership Scale I

Three primary analyses were conducted in order to assess the quality of the new Perceived Machiavellian Leadership Scale I (PMLS I). First, Cronbach's alpha coefficient was computed to assess the internal consistency reliability of the scale; as a part of this reliability analysis, item-total correlations were also computed for each individual item in order to assess the relationship of each item to the entire PMLS I. Second, factor analyses were conducted using EQS programs in order to assess the dimensionality and factor structure for the PMLS I. Third, zero-order correlations were computed to assess how perceived Machiavellian leadership relates to other constructs, thus providing preliminary evidence of the PMLS I.

Reliability. A reliability analysis was conducted using the IBM SPSS 19 statistical package. The obtained Cronbach's alpha coefficient of .90 was reasonably high – thus suggesting that the 26 PMLS I items are largely consistent with one another. Item-total correlations from the reliability analysis, however, indicated that a number of items did not relate closely with the rest of the scale. Specifically, although the coefficient alpha for the entire 26-item scale was quite high, six items were found to have item-total correlations below .40, indicating some inconsistency between the constructs measured by these individual items versus that assessed by the entire scale. The six items with low item-total correlations were item 1 ($r = .20$), item 8* ($r = .14$), item 9 ($r = .36$), item 14* ($r = .34$), item 16* ($r = .11$), and item 19* ($r = .29$); as can be seen, most of these inconsistent items were reverse-keyed (as indicated by asterisks).

Dimensionality and factor structure of Perceived Machiavellian Leadership

Scale I. Because PMLS I was expected to be unidimensional (as was the original Mach IV scale), a confirmatory factor analysis (CFA) was performed using EQS 6.1 to determine the overall fit and the standardized loadings of the individual items on the latent construct of Machiavellian leadership. The findings from this CFA are presented in Table 3. Individual PMLS I items - marked V1 through V26 in the model - served as indicators of the Machiavellian leadership latent variable.

This initial model with 26 indicators had a somewhat inadequate overall fit, as indicated by the Satorra-Bentler χ^2 (299, N = 338) = 615.56, $p < .0001$, Robust CFI = .86, Robust RMSEA = .06, and CFI = .84. It is worth also noting that the normal-theory ML GFI was .84, indicating that a sizeable portion of total variance in the indicators was not explained by this CFA model. Consistent with item-total correlations from the reliability analysis and the EFA findings, the standardized factor loadings for this CFA model were reasonably high for all but six PMLS I items; the same six items that had low item-total correlations and loaded on secondary factors from EFA also had standardized factor loadings below .40. Thus, these six items were excluded from all the remaining Study 1 analyses, including the structural equation modeling analyses.

An additional CFA was conducted using the reduced, 20-item Perceived Machiavellian Leadership Scale I (excluding the six low-quality items) to reassess the model fit and standardized loadings (see Table 3 for the findings of the test of CFA Model 2). This second CFA model with 20 Machiavellian leadership indicators demonstrated an improved overall fit, as indicated by the Satorra-Bentler χ^2 (170, N = 338) = 376.49, $p < .0001$, Robust CFI = .90, Robust RMSEA = .06, and normal ML GFI=.88. Moreover, the standardized loadings for all 20 indicators (i.e., Machiavellian leadership items) were above .40, as can be seen from Table 3.

The descriptive statistics for the reduced Perceived Machiavellian Leadership Scale I were quite similar to those for the 26-item version of the scale. The mean for the reduced scale was slightly lower, whereas the standard deviation was slightly higher than that for the 26-item version of the scale (see Table 1). Most importantly, the new alpha

Table 3

Study 1 PMLS I CFAs for 26- and 20-Item Scales with Standardized Factor Loadings

Item from PMLS I 26-Item Version	Standardized Factor Loading	Error	Item from PMLS I 20-Item Version	Standardized Factor Loading	Error
Item 1	.21	.98	Item 2	.51	.86
Item 2	.51	.86	Item 3	.56	.83
Item 3	.56	.83	Item 4	.53	.85
Item 4	.53	.85	Item 5	.49	.87
Item 5	.50	.87	Item 6	.52	.85
Item 6	.52	.85	Item 7	.62	.78
Item 7	.62	.78	Item 10	.58	.82
Item 8	.15	.99	Item 11	.67	.74
Item 9	.38	.92	Item 12	.62	.78
Item 10	.59	.81	Item 13	.45	.89
Item 11	.67	.74	Item 15	.64	.77
Item 12	.62	.78	Item 17	.55	.83
Item 13	.46	.89	Item 18	.51	.86
Item 14	.34	.94	Item 20	.78	.63
Item 15	.63	.77	Item 21	.64	.77
Item 16	.09	1.00	Item 22	.68	.73
Item 17	.55	.83	Item 23	.62	.78
Item 18	.51	.86	Item 24	.64	.77
Item 19	.29	.96	Item 25	.52	.85
Item 20	.77	.63	Item 26	.60	.80
Item 21	.64	.77			
Item 22	.68	.74			
Item 23	.63	.78			
Item 24	.64	.77			
Item 25	.52	.85			
Item 26	.60	.80			

of .91 for the reduced version of the scale indicated that, despite fewer items, this 20-item scale has even higher internal consistency reliability than the 26-item version. Thus, the 20-item Perceived Machiavellian Leadership Scale I was retained for the SEM analyses.

Validity evidence for Perceived Machiavellian Leadership Scale I (PMLS I).

Bivariate or zero-order correlations were computed between Machiavellian leadership and several other constructs in order to provide preliminary evidence of the validity of the Perceived Machiavellian Leadership Scale I (PMLS I); for comparison purposes, the correlations were computed for both the 26- and the 20-item versions of MLS (see Table 2). First, to provide evidence of convergent and discriminant validity, perceived Machiavellian leadership was correlated with Popper's Personalized and Socialized Charisma. The zero-order correlations indicated that both the 26- and the 20-item versions PMLS I are moderately positively correlated with Popper's Personalized Charisma ($r_{Mach26} = .57$; $r_{Mach20} = .58$) and moderately negatively correlated with MLQ-assessed transformational leadership ($r = -.58$ for both scale versions) and with Popper's Socialized Charisma ($r_{Mach26} = -.54$; $r_{Mach20} = -.53$) – thus providing preliminary evidence of the scale's convergent validity. The non-significant correlations of supervisor's perceived Machiavellian leadership with participants' own trust propensity ($r_{Mach26} = -.03$, $p > .05$; $r_{Mach20} = -.02$, $p > .05$) provided preliminary evidence of discriminant validity.

To provide a preliminary assessment of concurrent validity, zero-order correlations were computed between perceived Machiavellian leadership and negative emotions as well as trustworthiness factors. As expected, perceived Machiavellian leadership was significantly positively associated with negative emotional reactions to leadership (e.g., frustration $r_{Mach26} = .59$, $p < .01$; $r_{Mach20} = .59$, $p < .01$) and significantly negatively associated with the trustworthiness factors of ability ($r_{Mach26} = -.53$, $p < .01$; $r_{Mach20} = -.52$, $p < .01$), benevolence ($r_{Mach26} = -.63$, $p < .01$; $r_{Mach20} = -.62$, $p < .01$), and integrity ($r_{Mach26} = -.65$, $p < .01$; $r_{Mach20} = -.63$, $p < .01$).

Finally, perceived Machiavellian leadership demonstrated a predictable pattern of correlations with the MLQ-assessed outcomes. Specifically, both the 26- and the 20-item versions of PMLS I demonstrated moderate negative correlations with the MLQ-assessed

effectiveness, extra effort and satisfaction (see Table 2). These correlations provide additional evidence of the scale's construct validity.

Testing Relationships Among Leadership, Emotions, Trustworthiness and Trust

The hypothesized model from Figure 1 was tested using structural equation modeling (SEM) analyses using EQS 6.1. Kline (2011), Byrne (2006), and other structural equation modeling researchers recommend assessing the measurement models before examining complete structural models so as to verify that the latent variable measures are psychometrically sound and that their dimensionality is as expected. Thus, before examining the fit of the complete structural equation model, confirmatory factor analysis was conducted to assess the measurement model for this study.

Parceling. As explained previously, it was decided that parceling would be used to link the latent variables (from the hypothesized structural model) to indicators. The recommendations of Little and colleagues (2002) and Williams (2008) were followed when making parceling decisions. Thus, for the multidimensional constructs (i.e., transformational leadership, trustworthiness), I adopted the domain-representative approach – which entailed assigning equal number of items from each component or dimension to each parcel (Williams & O'Boyle, 2008). Hence, each of the four transformational leadership parcels contained one item from each transformational component subscale (with 5 items per parcel); similarly, each of the 3 Trustworthiness parcels contained roughly two items from each of the three subscales (i.e., ability, benevolence, integrity subscales).

For the unidimensional constructs (i.e., contingent reward, MBE-active, passive-avoidant, Machiavellian leadership, positive emotions, trust), I used the item-to-construct balance approach. Specifically, confirmatory factor analyses were first conducted (for each scale separately) in order to obtain standardized factor loadings; the loadings were then used to decide on parcels such that the item with the highest loading is assigned to the first parcel, the item with next largest loading to the second parcel, etc. So, for example, the factor loadings for the contingent reward items indicated the following order (from largest to smallest): 4, 3, 1, 2; thus, parcel 1 for contingent reward contained

items 4 and 2, whereas parcel 2 contained items 3 and 1. The parcels for the remaining unidimensional variables were constructed in the same way. Thus, MBE-active leadership had 2 parcels (with 2 items per parcel); passive-avoidant leadership also had 2 parcels (with 4 items per parcel); perceived Machiavellian leadership had 4 parcels (with 5 items each); positive emotions were measured using 3 parcels (with 7 items per parcel); lastly, trust was measured using 3 parcels (with 3-4 items per parcel).

Lastly, three out of five negative emotions, frustration, anxiety, and disappointment, were retained for the main CFA and SEM analyses due to their less extreme univariate skewness and kurtosis values. Although initially I attempted to conduct the emotion-trustworthiness-trust CFA with all nine negative emotion items representing the emotions of frustration, anxiety, and disappointment, one item, “disillusioned” (from the disappointment sub-scale), had to be excluded in the end due to its low standardized loading and problems with aborted CFA analyses when it was included. Therefore, eight negative emotion items were retained for the CFA and SEM analyses; these items were frustrated, irritated, tense, nervous, anxious, worried, disappointment, and let down.

Confirmatory factor analyses (CFAs). To test the measurement model, two separate confirmatory factor analyses were conducted – one for the exogenous variables from the proposed model (i.e., the leadership styles) and the other for endogenous variables, including emotions, trustworthiness, and trust (A. Klein, personal communication, January 8, 2011). This strategy of dividing structural model variables into separate measurement models and assessing each with CFA before testing the full structural model was followed by Byrne in her 2006 book on SEM with EQS. Given the size of the structural model and the number of latent variables, the approach of separating the model variables into two distinct measurement models was considered less cumbersome and more effective for identifying specific issues pertaining to the measurement of exogenous and endogenous variables (R. C. Gardner, personal communication, November 26, 2012; A. Klein, personal communication, December 4, 2012; P. Tremblay, personal communication, November 25, 2012). Thus, the first CFA

examined the quality of the leadership measurement model, and the second CFA assessed the quality of emotions-trust-trustworthiness measurement model.

Leadership CFA. A confirmatory factor analysis was first performed to assess the measurement model related to the five leadership styles of transformational, contingent reward, MBE-A, passive-avoidant, and perceived Machiavellian leadership. The hypothesized model is presented in Table 4. A five-factor model of leadership was hypothesized initially – with the five leadership styles representing five latent leadership factors. Once again, the above-mentioned parcels served as indicators for the five leadership latent variables.

The initial leadership measurement model had a barely adequate fit, with the Satorra-Bentler χ^2 (67, N = 338) = 247.03, $p < .0001$, Robust CFI = .93, Robust RMSEA = .09 (see Table 5 for all ML fit indices). Some of the standardized residuals (primarily with the first MBE-active indicator) were higher than recommended (e.g., over .20), indicating some unique variability not captured by the hypothesized measurement model. Additionally, the correlation between transformational and contingent reward leadership styles was quite substantial (over .80), indicating some problems with multicollinearity in this measurement model.

Because structural equation modeling and related techniques are quite sensitive to multicollinearity (because necessary matrices cannot be inverted; Ullman, 2007), it is generally recommended to either eliminate one of the highly-correlated variables or to combine the highly-correlated variables into one (Kline, 2011; Ullman, 2007). Therefore, these two variables were combined into one. Thus, new parcels were created that included the MLQ contingent reward items as well as the MLQ transformational leadership items; as per domain representative parceling approach, each of the four transformational-contingent reward parcels contained one item from the MLQ CR subscale and one item from each of the individual MLQ transformational sub-scales (with six items per parcel).

A second CFA was conducted with a slightly adjusted measurement model with four leadership styles (combined transformational-contingent reward, MBE-active,

Table 4

Study 1 Leadership CFA Model 1 with Standardized Factor Loadings and Correlations

Leadership Style Indicator	Standardized Factor Loading	Error	Latent Variables	Latent Variable Correlations
Transformational – Indicator 1	.85	.52	Transformational and Contingent Reward	.91
Transformational – Indicator 2	.89	.45	Transformational and MBE-Active	-.05
Transformational – Indicator 3	.88	.47	Transformational and Passive-Avoidant	-.25
Transformational – Indicator 4	.87	.49	Transformational and Machiavellian	-.62
Contingent Reward – Indicator 5	.80	.60	Contingent Reward and MBE-Active	.02
Contingent Reward – Indicator 6	.83	.56	Contingent Reward and Passive-Avoidant	-.30
MBE-Active – Indicator 11	.53	.85	Contingent Reward and Machiavellian	-.56
MBE-Active – Indicator 12	1.00	.00	MBE-Active and Passive-Avoidant	.22
Passive-Avoidant – Indicator 13	.88	.48	MBE-Active and Machiavellian	.36
Passive-Avoidant – Indicator 14	.92	.39	Passive-Avoidant and Machiavellian	.62
PMLS I – Indicator 15	.86	.51		
PMLS I – Indicator 16	.83	.56		
PMLS I – Indicator 17	.83	.55		
PMLS I – Indicator 18	.86	.51		

Note. PMLS I = Perceived Machiavellian Leadership Scale I; MBE-Active = management-by-exception-active.

Table 5

Fit Indices for Study 1 Leadership CFA Models and for Emotions-Trust-Trustworthiness CFA Model

Model	ML Solution – Normal Distribution Theory Estimation					ML Solution – Non-normal Correction – Robust Method		
	χ^2	CFI	GFI	SRMR	RMSEA	Satorra Bentler χ^2	CFI	RMSEA
Model 1 – with all 5 leadership styles	270.02***	.94	.90	.08	.10	247.03***	.93	.09
Model 2 – with TFL and CR combined	210.83***	.95	.91	.08	.10	194.23***	.94	.10
Model 3 – TFL & CR combined without MBE- active	136.82***	.96	.93	.05	.10	127.56***	.96	.09
Emotions, trustworthi- ness, & trust Model 1	132.38***	.98	.93	.03	.09	115.62***	.98	.08

*** $p < .001$.

passive-avoidant, and perceived Machiavellian leadership; see Table 6). This second model demonstrated little improvement in the fit, with the Satorra-Bentler χ^2 (48, N = 338) = 194.23, $p < .0001$, Robust CFI = .94, Robust RMSEA = .10 (see Table 5 for all ML fit indices). Nonetheless, because the second model was more parsimonious than the first one and the highly-correlated factors were combined (thus removing some of the multicollinearity), this model was deemed preferable.

Lastly, for exploratory purposes, I analyzed one more leadership measurement model that excluded the MBE-active leadership style (see Table 7). Because in the CFAs with previous two models the first MBE-active indicator had a substantially lower standardized loading than any of the other indicators in the model and because there were a number of higher-than-acceptable residuals (e.g., over .20) tied to this indicator, it was deemed worthwhile to re-explore the model without the MBE-active leadership style. This third model demonstrated a visibly better fit to the data than did Models 1 and 2, with the Satorra-Bentler χ^2 (32, N = 338) = 127.56, $p < .0001$, Robust CFI = .96, Robust RMSEA = .09. (see Table 5 for all relevant fit indices). The residuals were lower in this model than in the previous two models – as indicated by an improved SRMR of .05 (ML normal theory estimation) as compared to the SRMR of .08 for the previous two models. Nevertheless, as the fit of Model 2 was not inadequate, both Models 2 and 3 were considered for the purposes of testing the full structural model.

Emotions-trustworthiness-trust CFA. A confirmatory factor analysis was also conducted in order to assess the measurement model related to positive and negative emotions, perceived leader trustworthiness, and trust in leader. The findings from the model test are presented in Table 8. Individual items measuring latent factors were combined into parcels which served as indicators for the factors.

Although negative emotion indicators demonstrated a slightly higher univariate skewness (in a positive direction) than did the indicators for the remaining latent factors in this model, univariate skewness or kurtosis were deemed not to be a problem for any of the indicators used to assess the latent factors from this model. Because Mardia's Normalized coefficient of 10.56 indicated some violation of the multivariate normality

Table 6

Study 1 Leadership CFA Model 2 with Standardized Factor Loadings and Correlations

Leadership Style Indicator	Standardized Factor Loading	Error	Latent Variables	Latent Variable Correlations
Transformational + Contingent Reward – Indicator 7	.87	.50	TFL+CR and MBE-Active	-.03
Transformational + Contingent Reward – Indicator 8	.91	.42	TFL+CR and Passive-Avoidant	-.25
Transformational + Contingent Reward – Indicator 9	.92	.40	TFL+CR and Machiavellian	-.61
Transformational + Contingent Reward – Indicator 10	.88	.48	MBE-Active and Passive-Avoidant	.22
MBE-Active – Indicator 11	.53	.85	MBE-Active and Machiavellian	.36
MBE-Active – Indicator 12	1.00	.00	Passive-Avoidant and Machiavellian	.62
Passive-Avoidant – Indicator 13	.88	.48		
Passive-Avoidant – Indicator 14	.92	.39		
PMLS I – Indicator 15	.86	.51		
PMLS I – Indicator 16	.83	.56		
PMLS I – Indicator 17	.83	.55		
PMLS I – Indicator 18	.86	.51		

Note. PMLS I = Perceived Machiavellian Leadership Scale I; MBE-Active = management-by-exception-active leadership; TFL+CR = combined transformational-contingent reward leadership.

Table 7

Study 1 Leadership CFA Model 3 with Standardized Factor Loadings and Correlations

Leadership Style Indicator	Standardized Factor Loading	Error	Latent Variables	Latent Variable Correlations
Transformational + Contingent Reward – Indicator 7	.87	.50	TFL+CR and Passive-Avoidant	-.25
Transformational + Contingent Reward – Indicator 8	.91	.42	TFL+CR and Machiavellian	-.61
Transformational + Contingent Reward – Indicator 9	.92	.40	Passive-Avoidant and Machiavellian	.63
Transformational + Contingent Reward – Indicator 10	.88	.48		
Passive-Avoidant – Indicator 13	.88	.48		
Passive-Avoidant – Indicator 14	.92	.39		
PMLS I – Indicator 15	.87	.50		
PMLS I – Indicator 16	.82	.57		
PMLS I – Indicator 17	.84	.54		
PMLS I – Indicator 18	.86	.52		

Note. PMLS I = Perceived Machiavellian Leadership Scale I; MBE-Active = management-by-exception-active leadership; TFL+CR = combined transformational-contingent reward leadership.

Table 8

Study 1 Emotions-Trustworthiness-Trust CFA Model 1 with Standardized Factor Loadings and Correlations

Emotion / Trust / Trustworthiness Indicator	Standardized Factor Loading	Error	Latent Variables	Latent Variable Correlations
Positive Emotion – Indicator 1	.97	.26	Positive Emotion and Negative Emotion	-.35
Positive Emotion – Indicator 2	.96	.28	Positive Emotion and Trustworthiness	.73
Positive Emotion – Indicator 3	.97	.25	Positive Emotion and Trust	.74
Negative Emotion – Indicator 4	.91	.41	Negative Emotion and Trustworthiness	-.58
Negative Emotion – Indicator 5	.93	.38	Negative Emotion and Trust	-.49
Trustworthiness – Indicator 6	.92	.40	Trustworthiness and Trust	.84
Trustworthiness – Indicator 7	.92	.38		
Trustworthiness – Indicator 8	.87	.49		
Trust – Indicator 9	.91	.42		
Trust – Indicator 10	.94	.35		
Trust – Indicator 12	.92	.39		

assumption, both the normal theory ML estimate and the robust ML estimates were examined when judging model fit.

The emotions-trustworthiness-trust model demonstrated a very good fit to the data, with the Satorra-Bentler χ^2 (38, N = 338) = 115.62, $p < .0001$, Robust CFI = .98, Robust RMSEA = .08. The standard ML estimates (normal theory) were as high as the robust estimates (see Table 5 for all fit indices); it is worth noting that the normal ML estimate for GFI was .93 and for SRMR was .03 – thus indicating that the amount of total variance accounted for by the hypothesized model was 93% and that the average standardized residual was about .03. As this CFA model fit the data very well and the standardized loading and factor covariances were well within the acceptable range, no model modifications were deemed necessary.

Full structural equation model analyses. Structural equation modeling analysis was conducted using EQS 6.1 to test all the hypotheses for this study simultaneously. Thus, the structural model examined how several more effective and ineffective leadership styles relate to positive and negative emotional reactions to leaders, perceptions of leader trustworthiness, and trust in leaders; positive and negative emotions and perceived trustworthiness were hypothesized to serve as intervening variables between the leadership styles and trust in leaders.

Model estimation. Although the originally proposed model contained five leadership styles (i.e., transformational, contingent reward, MBE-active, passive-avoidant, and Machiavellian), transformational and contingent reward leadership styles were combined into a single latent variable due to their substantial zero-order correlation. This decision was further justified by the fact that EQS statistical program repeatedly aborted the analysis involving the originally-proposed model with five leadership styles. Thus, the model with four leadership styles (including the combined transformational-contingent reward leadership) was used as the initial structural model.

Although there appeared to be no issues with univariate normality – as demonstrated by the low values for univariate skewness and kurtosis of the indicators (i.e., parcels assessing latent variables in the model), there was some evidence of

multivariate non-normality. Therefore, both the normal ML and the robust fit indices were examined to judge how well model fit the data (Ullman, 2007).

The initial structural model fit the data reasonably well, as indicated by the Satorra-Bentler χ^2 (212, N = 338) = 542.67, $p < .0001$, Robust CFI = .95, Robust RMSEA = .07 (see Table 9 for all the relevant fit indices). Nonetheless, the normal ML GFI of .86 was below the recommended level of .90; moreover, the SRMR of .07 indicated some issues with residuals. Indeed, upon examining standardized residuals for the model, the same issue was found as with the leadership CFA whereby the first MBE-active indicator seemed to relate uniquely to a number of other indicators in the model (with the standardized residuals of up to .26).

Given these issues with the indicators for MBE-active, it was deemed appropriate to run a second structural model that excluded MBE-active leadership style in order to assess whether fit would be improved. This model is presented in Figure 2.

In comparison to the initial model (i.e., SEM 1), most of the fit indices for Structural Model 2 demonstrated an improved overall fit to the data, with the Satorra-Bentler χ^2 (175, N = 338) = 432.28, $p < .0001$, Robust CFI = .96, Robust RMSEA = .07 (see Table 9 for all the normal and robust fit indices). The normal ML SRMR demonstrated a noteworthy drop to .045 (in comparison to the SRMR of .07 for Model 1), thus indicating substantially lower standardized residuals for Structural Model 2 as compared to Structural Model 1.

For exploratory purposes, one more structural model was analyzed – due to the special interest in the relatively-unexplored Machiavellian leadership style. Because some of the hypothesized paths for perceived Machiavellian leadership (e.g., path with trustworthiness) were not statistically significant and because there was a moderately high correlation between perceived Machiavellian and passive-avoidant leadership styles, it was considered of potential interest to assess the fit of another structural model that excluded passive-avoidant leadership. Thus, the fit of a third structural model was examined to assess the effects of perceived Machiavellian and combined transformational-contingent reward leadership styles on intervening variables and

Table 9

Fit Indices for Study 1 Structural Models 1, 2 and 3

Model	ML Solution – Normal Distribution Theory Estimation					ML Solution – Non-normal Correction – Robust Method		
	χ^2	CFI	GFI	SRMR	RMSEA	Satorra Bentler χ^2	CFI	RMSEA
Structural Model 1 – with 4 leadership styles	595.58***	.95	.86	.07	.07	542.67***	.95	.07
Structural Model 2 – with 3 lead. styles – without MBE-A	478.78***	.96	.87	.05	.07	432.28***	.96	.07
Structural Model 3 – with TFL and perceived Mach leadership only	374.14***	.97	.88	.04	.07	338.21***	.97	.06

Note. TFL = transformational leadership; MBE-A = active management-by-exception; Mach = Machiavellian.

*** $p < .001$.

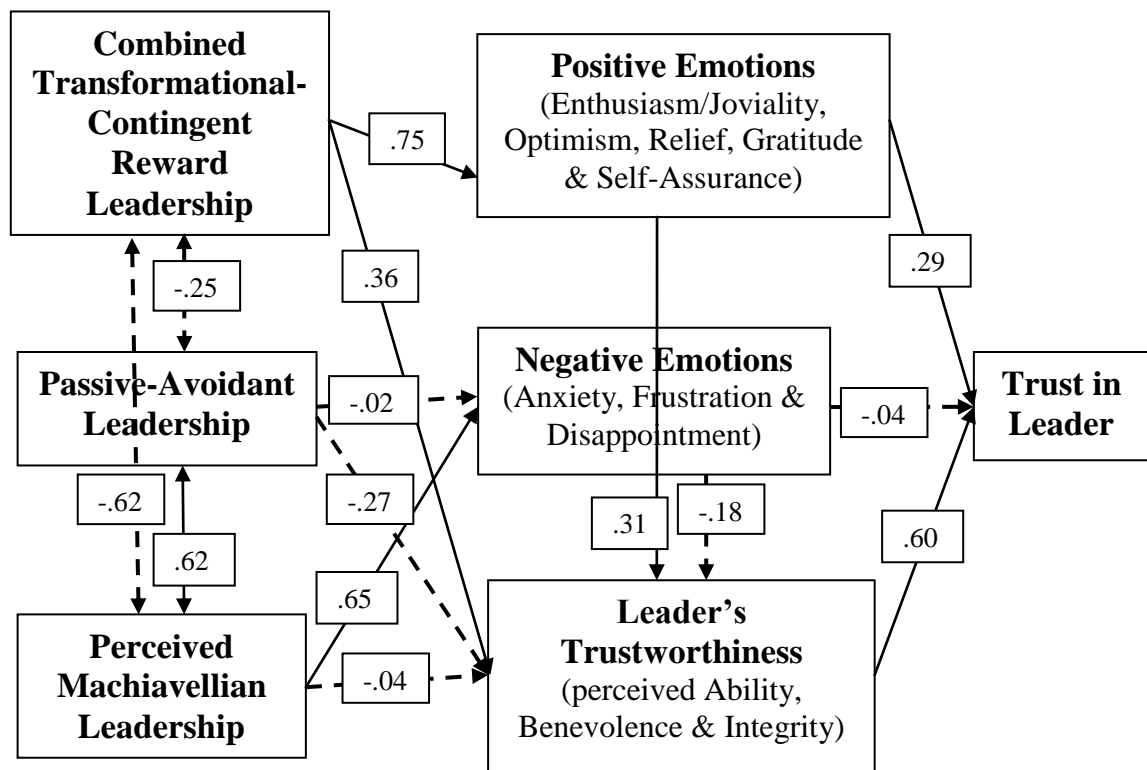


Figure 2. Study 1 integrated structural model 2 with three leadership styles, emotions, trustworthiness and trust. The model depicts only the links between latent variables (in terms of standardized path coefficients). Solid lines denote positive relationships; dashed lines denote negative relationships. All path coefficients with absolute values of .18 and higher were significant at $p < .05$.

outcomes.

Structural Model 3 fit the data very well, with similar though somewhat improved robust fit indices (in comparison to Structural Model 2) of Satorra-Bentler χ^2 (142, N = 338) = 338.21, $p < .0001$, Robust CFI = .97, Robust RMSEA = .06 (see Table 9 for all the normal and robust fit indices). The normal theory ML-estimated GFI of .88 was slightly higher than that for previous models. Without passive-avoidant leadership in the equation, perceived Machiavellian leadership was, in fact, directly related to trustworthiness (as discussed in more detail below).

Because the three tested structural models demonstrated good overall fit, it was deemed unnecessary to do any additional model modifications or to assess the fit for any additional models.

Direct effects. Tests of path coefficients for Structural Models 1 and 2 were examined to assess which exogenous variables significantly predicted the endogenous variables of interest (i.e., positive emotions, negative emotions, trustworthiness, and trust). Because Model 2 (without MBE-active) fit the data somewhat better, the results for that model are reported here in some detail. Although the results of the first model are not reported here, a very similar pattern of results was obtained in the tests of both models.

As expected, positive emotional reactions to organizational leaders were significantly predicted by combined transformational-contingent reward leadership style (standardized path coefficient $\beta = .75$, unstandardized path coefficient $b = 1.09$, $p < .05$). Interestingly, although perceived Machiavellian leadership predicted negative emotional reactions to leaders (standardized path coefficient $\beta = .65$, unstandardized path coefficient $b = .77$, $p < .05$), passive-avoidant leadership style did not significantly predict negative emotional reactions (standardized path coefficient $\beta = -.02$, unstandardized path coefficient $b = -.02$, $p > .05$). Findings for trustworthiness indicated that an increase in this variable was significantly predicted by combined transformational-contingent reward leadership styles (standardized path coefficient $\beta = .36$, unstandardized path coefficient $b = .41$, $p < .05$), passive-avoidant leadership (standardized path coefficient $\beta = -.27$,

unstandardized path coefficient $b = -.27$, $p < .05$), positive emotions (standardized path coefficient $\beta = .31$, unstandardized path coefficient $b = .25$, $p < .05$), and negative emotions (standardized path coefficient $\beta = -.18$, unstandardized path coefficient $b = -.17$, $p < .05$); nonetheless, perceived Machiavellian leadership was not a significant predictor of trustworthiness (standardized path coefficient $\beta = -.04$, unstandardized path coefficient $b = -.05$, $p > .05$). Finally, increased trust was significantly predicted by both positive emotions (standardized path coefficient $\beta = .29$, unstandardized path coefficient $b = .39$, $p < .05$) and trustworthiness (standardized path coefficient $\beta = .60$, unstandardized path coefficient $b = 1.04$, $p < .05$), but not by negative emotions (standardized path coefficient $\beta = -.04$, unstandardized path coefficient $b = -.07$, $p > .05$).

Tests of path coefficients for the Structural Model 3 were largely consistent to those of Model 2 – with one noteworthy difference. Specifically, when passive-avoidant was excluded from the model, perceived Machiavellian leadership was a significant predictor of trustworthiness (standardized path coefficient $\beta = -.23$, unstandardized path coefficient $b = -.26$, $p < .05$).

Indirect effects. The last set of analyses tested the indirect effects predicted in Hypotheses 6, 7 and 8. The indirect effects were derived through a product of the coefficients for the constituent direct paths from independent variable to intervening variable and from intervening variable to dependent variable (MacKinnon, 2008). The significance of intervening variables was evaluated using Sobel test of indirect effects (Sobel, 1982, 1986, 1987) – through EQS 6.1 (Ullman, 2007). As a part of this test, the estimate of the indirect effect (i.e., the product of the coefficients for the constituent paths) is divided by its standard error – as specified by a formula provided by Sobel (1982, 1986, 1987); the resulting test statistic is then compared to tabled values of the normal distribution – which is typically the absolute value of 1.96 at the .05 level of significance (MacKinnon, 2008). MacKinnon, Lockwood, Hoffman, West and Sheets (2002) demonstrated that this test has more power than the mediating variable approach by Baron and Kenny (1986).

As with direct effects, the indirect effects were tested for both Structural Models 1 and 2. Because Model 2 performed better than did Model 1, only the results for the second model are reported here. Nonetheless, the results from the tests of these two models yielded the same patterns of indirect effect results.

Hypothesis 6 specified that trustworthiness would act as an intervening variable between all investigated leadership styles (except MBE-active) and trust. Upon testing the second structural model (see Figure 2), it was found that perceived trustworthiness indeed acted as an intervening variable but between only two leadership styles and trust; these leadership styles were the combined transformational-contingent reward style and passive-avoidant leadership style. Specifically, the combined transformational-contingent reward leadership predicted increased trustworthiness, which, in turn predicted greater trust (unstandardized indirect effect coefficient = 0.43, Sobel test statistic = 4.36, $p < .001$, standardized path coefficient = .22). Additionally, increased passive-avoidant leadership predicted lower trustworthiness, which, in turn, predicted decreased trust (unstandardized indirect effect coefficient = -.28, Sobel test statistic = -4.93, $p < .001$, standardized path coefficient = -.16). The same did not hold for perceived Machiavellian leadership style (unstandardized indirect effect coefficient = -.05, Sobel test statistic = -.55, $p > .05$, standardized path coefficient = .02).

Additionally, partial support was also found for Hypothesis 7. Specifically, consistent with Hypothesis 7, positive emotions served as an intervening variable between the combined transformational-contingent reward leadership and trust (unstandardized indirect effect coefficient = .43, Sobel test statistic = 5.41, $p < .001$, standardized path coefficient = .22). Conversely, negative emotions did not act as an intervening variable between any of the examined leadership styles and trust (e.g., for passive-avoidant leadership, unstandardized indirect effect coefficient = .001, Sobel test statistic = .21, $p > .05$, standardized path coefficient = .001).

Hypothesis 8 also received partial support in the analysis of the second structural model as positive and negative emotions each served as intervening variables between only one relevant leadership style and perceived leader trustworthiness. Specifically, an

increase in the combined transformational-contingent reward leadership predicted increase positive emotional reactions to leaders which, in turn, predicted perceptions of leaders' trustworthiness (unstandardized indirect effect coefficient = .27, Sobel test statistic = 5.67, $p < .001$, standardized path coefficient = .23). Additionally, an increase in perceived Machiavellian leadership predicted increased negative emotional reactions to leaders which, in turn, predicted lower perceived leader trustworthiness (unstandardized indirect effect coefficient = -.13, Sobel test statistic = -3.38, $p < .001$, standardized path coefficient = -.12). However, the same did not hold for passive-avoidant leadership; specifically, the indirect effect of passive-avoidant leadership style on trustworthiness through negative emotions was not statistically significant (unstandardized indirect effect coefficient = .003, Sobel test statistic = -.21, $p > .05$, standardized path coefficient = .004).

Univariate and multivariate Lagrange Multiplier Tests (LM Tests) were also conducted as a part of the SEM analyses of Models 1 and 2 (using EQS 6.1) in order to assess whether the direct paths between leadership styles and trust would lead to significantly better-fitting models (if these paths were freely estimated; Byrne, 2006). If any of the LM Tests of direct coefficients between leadership styles and trust were found to be significant, then that would suggest that either the partial mediation or the direct effects model may fit the data better than the full mediation model. The results of the LM Tests of direct paths between individual leadership styles and trust indicated that none of these direct paths seemed to contribute to significantly better-fitting structural models for either of the tested models. Therefore, the findings of the LM Tests suggested that the full mediation models were supported over direct effects and partial mediation models.

Analyses of the exploratory third model yielded the same set of findings as those for the first two models – with one noteworthy exception. Specifically, in the third structural model, trustworthiness served as an intervening variable between perceived Machiavellian leadership and trust, whereas in the first and second structural models, it did not. When passive-avoidant leadership was taken out of the equation (in Model 3), the direct path between perceived Machiavellian leadership and trustworthiness became significant (unstandardized path coefficient $b = -.26$, $p < .05$), and thus the indirect effect

of perceived Machiavellian leadership on trust through trustworthiness also became significant. As a part of this indirect effect, a greater degree of perceived Machiavellian leadership predicted worse perceptions of leader's trustworthiness which, in turn, predicted lower trust in leader (unstandardized indirect effect coefficient = $-.28$, Sobel test statistic = -3.44 , $p < .001$, standardized path coefficient = $-.14$).

Discussion

This study examined how the Full-Range leadership styles (Avolio, 1999; Avolio & Bass, 2004; Bass, 1998) and perceived Machiavellian leadership relate to employees' emotional reactions to leaders, their perceptions of leaders' trustworthiness, and their trust in leaders. This study extended the previous research on leadership, trustworthiness and trust by examining how a number of leadership styles with varying degrees of effectiveness and desirability relate to perceptions of leader trustworthiness and trust in organizational leaders. While previous literature has examined how positive leadership styles relate to trust (e.g., Dirks & Ferrin, 2002), the less favorable leadership styles, particularly Machiavellian leadership, have not received much attention. Another important goal of this study was to extend the previous research on leadership and trust by investigating how employees react emotionally to various leadership styles, and how employees' emotional reactions to leaders relate to their perceptions of leader trustworthiness and their trust in leaders. The last aim of this study was to explore potential mediating roles of trustworthiness perceptions and emotional reactions to leaders in the relationships between leadership styles and trust, as well as a possible mediating role of emotional reactions in the relationships between leadership styles and trustworthiness perceptions.

Tests of Hypotheses

In general, most of the hypothesized relationships were supported by the results of this study. In fact, the model which incorporated all the hypothesized relationships for this study (i.e., structural model 1) demonstrated a reasonably good fit to the data, thus providing overall support for the model and its pattern of relationships among variables. With regards to the specific predictions, they were all supported either fully or partially.

First, as predicted in Hypotheses 1 and 2, employees working under leaders who utilized transformational and contingent reward styles to a greater extent tended to experience higher levels of positive emotional reactions (e.g., greater enthusiasm and optimism); transformational and contingent reward leaders were also perceived to be higher on trustworthiness factors (i.e., ability, benevolence and integrity). These findings are in line with the previous literature on transformational and contingent reward leadership and trust (e.g., Dirks & Ferrin, 2002; Gillespie & Mann, 2004) as well as earlier findings on Transformational leadership and emotions (McColl-Kennedy & Anderson, 2002). As such, these findings simultaneously provide further support for the previously-investigated relationships while also extending the previous work by demonstrating how transformational and contingent reward leadership styles may relate to followers' emotions. These results also increase our understanding of the role played by these leadership styles within Mayer, Davis and Shoorman's (1995) model of trustworthiness and trust in leaders. Specifically, it appears that transformational and contingent reward leadership likely elicit both positive emotional reactions (e.g., optimism, enthusiasm, gratitude, self-assurance) in their followers and increased perceptions of leaders' trustworthiness.

Second, consistent with Hypothesis 3, MBE-active leadership did not significantly predict negative emotions above and beyond passive-avoidant and Machiavellian leadership; nonetheless, it is worth keeping in mind that the zero-order correlations between MBE-active and negative emotions were significant, albeit low – thus suggesting that some weak relationships of MBE-active with negative emotions may indeed be present. As shown by zero-order correlations, MBE-active was not related to the trustworthiness factors of ability, benevolence and integrity, thus providing further support for Hypothesis 3; because these zero-order correlations were not significant, the corresponding SEM path between MBE-active and trustworthiness was not tested at all. These results pertaining to MBE-active leadership are consistent with Gillespie and Mann's (2004) finding that MBE-active leadership was not related to trust. Additionally, these findings also extend the previous research by providing preliminary evidence that while MBE-active leadership may generate some weak negative emotional reactions, this leadership style is likely not to have an effect on perceived trustworthiness of the leaders.

Next, Hypothesis 4 received partial support in that leaders using passive-avoidant leadership style frequently were perceived to be low on trustworthiness, as predicted. The negative link between passive-avoidant leadership style and trustworthiness is consistent with findings from the study by Gillespie and Mann (2004) – thus providing further support for this link which has not received much attention in the previous literature. On the other hand, contrary to the hypothesis, the passive-avoidant leadership style did not predict negative emotions above and beyond Machiavellian leadership and MBE-active leadership. Nonetheless, it is worth keeping in mind that the zero-order correlations between passive-avoidant leadership and negative emotions were significant – thus suggesting that this relationship may warrant further exploration.

Hypothesis 5 was also partially supported, but the pattern of relationships related to perceived Machiavellian leadership was opposite of that for passive-avoidant leadership style. Specifically, as predicted, leaders perceived to be using Machiavellian style of leadership appeared to elicit negative emotions (e.g., hostility, frustration, anxiety, disappointment) in their followers. However, although zero-order correlations between this leadership style and trustworthiness were moderate and significant, the analyses of the first two SEM models indicated that perceived Machiavellian leaders were not rated as significantly lower (or higher) on perceived trustworthiness over and above the other leadership styles. Interestingly, however, in the third SEM model when passive-avoidant leadership was removed, perceived Machiavellian leadership was a significant predictor of trustworthiness; specifically, leaders perceived to be using Machiavellian leadership style to a greater extent were perceived as lower on trustworthiness. Given that the correlation between perceived Machiavellian and passive-avoidant leadership styles was moderately strong, it is possible that passive-avoidant leadership was suppressing the effect of perceived Machiavellian leadership on trustworthiness (and vice versa with the effect of passive-avoidant leadership style on negative emotions) in the first two structural models. Certainly, additional research should be conducted to examine the overlap between these two leadership styles and perhaps to try to distinguish them from one another. Also, because this is one of the only studies to examine relationships of perceived Machiavellian leadership with emotions, trustworthiness and trust, further empirical investigation is required to attempt to replicate

the study's findings pertaining to perceived Machiavellian leadership. Nonetheless, it worth noting that the findings of the present study provide initial support for a positive relationship between perceived Machiavellian leadership and employees' negative emotions as well as initial evidence for a negative relationship between this leadership style and perceived leader trustworthiness.

The remaining hypotheses – all of which pertained to mediation – received partial support. First, consistent with Hypothesis 6, trustworthiness indeed mediated relationships between the combined transformational-contingent reward leadership and trust as well as between passive-avoidant leadership and trust. This finding provides preliminary support for the antecedent role and indirect effects of these leadership styles in the development of trust through perceptions of leader trustworthiness. Contrary to this hypothesis, however, trustworthiness did not mediate the relationship between perceived Machiavellian leadership and trust. In fact, in the analyses of Structural Models 1 and 2, perceived Machiavellian leadership did not have a significant direct relationship with trustworthiness over and above other leadership styles – although the zero-order correlation between these two variables was statistically significant and moderately high. As discussed before, there was a moderately high correlation between perceived Machiavellian and passive-avoidant leadership styles. When passive-avoidant leadership was taken out of the equation, the direct relationship between perceived Machiavellian leadership and trustworthiness became significant, and trustworthiness served as an intervening or mediator variable between perceived Machiavellian leadership and trust. This indirect effect warrants further empirical investigation to clarify the relationships with perceived Machiavellian leadership and attempt to replicate the relationships with combined transformational-contingent reward and passive-avoidant leadership styles.

Hypothesis 7 also received partial support given that only positive emotions served as mediators or intervening variables between a leadership style and trust (while this did not hold for the negative emotions). Interestingly, positive emotions seemed to have both a direct and an indirect relationship with trust, whereas negative emotions demonstrated only an indirect relationship with trust (through their effect on

trustworthiness perceptions). The specific reasons why positive and negative emotions may relate differently to trust have not been investigated directly in this study; therefore, it is unclear what the precise explanations are for these differences. However, one might speculate that because both positive emotions and trust are favorable or desirable constructs, positive emotions may be more highly related to trust than negative emotions. Indeed, the bivariate correlations from the present study seem to suggest that, despite the variations of the relationships with individual emotions, globally, positive emotions appear to be more strongly related to trust than are negative emotions. This will be discussed further in Chapter 5.

Lastly, Hypothesis 8 also received partial support in Study 1. Consistent with this hypothesis, positive emotions mediated the relationship between the combined transformational-contingent reward leadership and perceived leader trustworthiness; also, negative emotions mediated the relationship between Machiavellian leadership and trustworthiness. These findings provided preliminary support for the additional indirect effect of leadership styles on trustworthiness through emotions. However, negative emotions did not act as mediators or intervening variables between passive-avoidant leadership styles and trustworthiness. The reason for this inconsistency between the effects of passive-avoidant and perceived Machiavellian leadership styles may also have been due to the mutual suppression. Further investigation of these indirect effects is warranted to clarify the relationships and resolve inconsistencies. Nonetheless, it is worth noting that, in concert, the findings of this study suggest that all of the examined leadership styles, except for the somewhat neutral MBE-active style, may impact employees' trust in leaders through their emotional reactions to leaders and their perceptions of leaders' trustworthiness.

Perceived Machiavellian Leadership Scale I

Study 1 also yielded interesting and important findings pertaining to the new Perceived Machiavellian Leadership Scale I (PMLS I). The scale's high alpha coefficient suggested that the items are largely internally consistent and tend to assess similar concepts – thus providing some initial evidence of the scale's reliability. Moreover,

findings of this study provided solid preliminary evidence of the scale's validity. First, a moderately high positive correlation with Popper's (2002) personalized charismatic leadership, an established measure of a closely related construct, provided solid preliminary evidence of Perceived Machiavellian Leadership Scale's convergent validity. Similarly, the scores on the new Perceived Machiavellian Leadership Scale I were negatively related to the scores on the established measures of opposing constructs (e.g., socialized charisma, transformational leadership). Moreover, the non-significant correlation with the construct of trust propensity, which was expected to be unrelated to Machiavellian leadership, provided preliminary evidence of discriminant validity.

A number of findings provided additional evidence of construct validity. As predicted, the scores on PMLS I were found to be correlated with scores on measures of other constructs to which they were related conceptually. For example, there were significant bivariate correlations between perceived Machiavellian leadership and both employees' negative emotions and their perceptions of leader trustworthiness. Moreover, the correlations between scores on the PMLS I and other leadership styles were generally consistent with theoretical predictions.

Collectively, these findings suggest that the new Perceived Machiavellian Leadership Scale I may be a valuable addition to other measures of leadership – especially those assessing dysfunctional leadership styles. Indeed, this may be one of the few measures assessing Machiavellian leadership and certain aspects of pseudo-transformational leadership. The encouraging preliminary evidence of reliability and validity further attests to the scale's quality and potential value as an addition to the existing leadership literature.

Limitations

Despite its promise, the new Perceived Machiavellian Leadership Scale (PMLS I) had a number of issues associated with it. First, PMLS I had a number of items that did not perform well; specifically, these items did not have adequate loadings in factor analyses, and they appeared to measure concepts that are distinct from those measured by the majority of the scale's items. Second, because a large number of items from the new

PMLS I scale were inspired by Christie and Geis' (1970) Mach IV scale which largely assessed views and beliefs, many of the new PMLS I items also measured leaders' views and beliefs which, being unobservable to others, may be difficult for employees to rate accurately. Ideally, when reporting on their supervisors' Machiavellian leadership, employees should be asked to report on supervisors' behaviors rather than beliefs because behaviors are observable. Third, when re-examining the construct of Machiavellian leadership and the related pseudo-transformational leadership, it appeared there were certain aspects of these leadership styles which were not captured by the first version of PMLS. For instance, an important aspect of Machiavellian leadership which was not captured by any of the items from the original PMLS scale is impression management (Bass & Bass, 2008; Judge, Piccolo & Kosalka, 2009) whereby Machiavellian leaders create the impression of caring about the needs and opinions of their subordinates, although, in reality, they do not. Another important aspect of Machiavellian leadership which was not tapped by the original PMLS items is taking credit for accomplishments regardless of one's actual contribution (Howell, 1988; Howell & Avolio, 1992). Therefore, it is important to address the limitations of the original PMLS scale by making adjustments to it and testing the adjusted PMLS scale in a study with a new sample.

Apart from the problems with PMLS I, this study had a number of other limitations that warrant attention. First, although most of the measures utilized in this study were highly reliable, there were a few for which reliability was a concern. For example, MBE-active subscale of MLQ had lower-than-desirable internal consistency reliability; in fact, its items had some unexpected correlations with measures of other, conceptually distinct leadership styles – which contributed to some moderate residuals in the analysis of the first SEM model. For this reason, it was thought prudent to try to re-analyze the model without MBE-active leadership. Indeed, the adjusted model (without MBE-active) had a better overall fit to the data. Thus, these findings suggest that the measurement of MBE-active leadership style warrants further attention.

Mayer and Davis' (1999) measure of trust also had low internal-consistency reliability. In addition, it correlated less well with the overall trust than did BTI (Gillespie, 2003). For those reasons, BTI was adopted as a primary measure of trust in

this study. Indeed, if one had to choose between BTI and Mayer and Davis' trust measure, then the BTI would appear to be the better measure of trust in leaders.

Several issues were also encountered with measures of negative emotions. Specifically, scores on several negative emotions demonstrated significant univariate skewness and kurtosis which may be due to low base rates for these emotions. Because structural equation modeling analyses are sensitive to non-normality, it was necessary to remove the emotions of hostility and fear from these analyses due to their extreme skewness and kurtosis. Nevertheless, it is important to mention that these two negative emotions had significant, moderately-high bivariate correlations with perceived Machiavellian and passive-avoidant leadership styles as well as with trust and perceived leader trustworthiness. Thus, subject to further examination, it appears that supervisors whose leadership style is perceived to be Machiavellian or passive-avoidant engender a range of negative emotional responses in their subordinates.

Lastly, another important limitation of the study is that it was conducted with students who were employed part-time. It is possible that student part-time workers may react to their work supervisors differently than permanent and full-time workers. First, given that students spend less time with their part-time work supervisors, they may not know them very well; therefore, their impressions of their supervisors' trustworthiness may not be as reflective of their supervisors' true behavior. Additionally, because of the non-permanent nature of typical student jobs, perceived trustworthiness of and trust in work supervisors may not be as important to student part-time workers as to permanent, full-time workers. Because of this potentially lower importance of trust and trustworthiness, the relationships among variables that were observed in this study with student part-time workers may not generalize to the population of permanent full-time workers. Therefore, it is necessary to re-examine the same relationships in a sample of full-time workers who have known their supervisors longer and to whom trust in and trustworthiness of their supervisor is likely to be of greater importance for predicting job performance, satisfaction at work, organizational commitment and other outcomes.

To address many of the limitations and to attempt to replicate the relationships observed among the variables in Study 1, a second cross-sectional study was undertaken using full-time employees as participants. Following that, a third, experimental study was conducted.

CHAPTER 3: STUDY TWO

Introduction

Overview

The primary goal of Study 2 was to replicate Study 1 with some noteworthy differences. First, participants were full-time workers with permanent jobs rather than post-secondary students with temporary, part-time jobs. While psychological reactions to different types of organizational leaders may be similar in the two groups, this cannot be assumed. For example, more experienced full-time workers with permanent positions may have learned to tolerate and work well with various types of leaders, including the less effective ones. Conversely, supervisors' trustworthiness and employees' trust in these supervisors may be of greater consequence to full-time workers with permanent jobs because they must interact with these supervisors over longer periods. Therefore, it was necessary to examine whether the hypothesized relationships from the integrated model of leadership, emotions, trustworthiness and trust would hold in a sample of more experienced workers holding permanent, full-time positions. Indeed, the primary goal of this study, was to re-examine the integrated model of leadership, emotions, trustworthiness perceptions and trust in leader in order to assess if it would hold in the population of permanent full-time employees from various North American firms.

Next, the Perceived Machiavellian Leadership Scale (PMLS I) was revised. The PMLS I items that did not perform well in factor analyses and item-total correlations were removed from the scale. Also, several of the PMLS I items that assessed leaders' beliefs were replaced by more behavioral items which should be easier for employees to observe and report on accurately. Moreover, new items were created to tap several aspects of Machiavellian leadership that were not adequately covered by the first version of Perceived Machiavellian Leadership Scale. For instance, Machiavellian leaders create the impression of caring about the needs and opinions of their subordinates (although, in reality, they do not; Bass & Bass, 2008; Howell & Avolio, 1992) and tend to take credit

for success regardless of who truly contributed to that success (Howell, 1988; Howell & Avolio, 1992).

The second version of Perceived Machiavellian Leadership Scale (PMLS II) used in Study 2 contained 13 items from Perceived Machiavellian Leadership Scale I and 7 newly-created items which were more behavioral in nature, some of which explicitly tapped aspects of Machiavellian leadership not covered adequately in PMLS I. Thus, an important goal of Study 2 was to evaluate the psychometric properties of PMLS II.

Next, in Study 2, the primary trust measure used in analyses was Behavioral Trust Inventory (BTI). As in Study 1, the two overall trust items were also included to compare their relationships with other study variables against those with the BTI-assessed trust. Because Mayer and Davis' (1999) trust scale had poor internal consistency reliability and lower correlations with other variables than did the BTI measure and the overall trust items in Study 1 and the time limit for completing Study 2 was more stringent, I excluded Mayer and Davis' trust measure from the Study 2 questionnaire. Lastly, trust propensity was excluded from this study because it did not demonstrate adequate reliability and was not related to other variables (although it was expected to relate to trust according to the original theory by Mayer et al., 1995).

Hypotheses

The hypotheses for this study were the same as those for Study 1. Specifically, the Study 2 hypotheses were:

Hypothesis 1. Transformational leadership will be positively associated with employees' positive emotions, their perceptions of leader's trustworthiness and their trust in their leader.

Hypothesis 2. Contingent reward leadership will be positively related to employees' positive emotions, perceptions of leader's trustworthiness and their trust in their leader.

Hypothesis 3. Active management-by-exception will not be related to employees' emotions, their perceptions of leader's trustworthiness or their trust in their leader.

Hypothesis 4. Passive-avoidant leadership (composed of MBE-passive and laissez-faire) will be positively related to employees' negative emotions and negatively related to their perceptions of leader's trustworthiness and their trust in their leader.

Hypothesis 5. Perceived Machiavellian leadership will be positively associated with employees' negative emotions and negatively associated with their perceptions of leader's trustworthiness and their trust in their leader.

Hypothesis 6. Employees' perceptions of leader's trustworthiness will mediate the relationships between all the leadership styles (except MBE-active) and trust.

Hypothesis 7. Employees' emotions will act as mediators of the relationships between all the leadership styles (except MBE-active) and trust. Specifically, employees' positive emotions will mediate the relationships of transformational and contingent reward leadership styles with trust in leader, and employees' negative emotions will mediate the relationships of passive-avoidant and perceived Machiavellian leadership styles with trust in leader.

Hypothesis 8. Employees' emotions will act as mediators of the relationships between all the leadership styles (except MBE-active) and trustworthiness. Specifically, employees' positive emotions will mediate the relationships of transformational and contingent reward leadership styles with the trustworthiness factors, and employees' negative emotions will mediate the relationships of passive-avoidant and perceived Machiavellian leadership styles with the trustworthiness factors.

Method

Participants

Study 2 participants were primarily full-time employees from the United States who were recruited using the StudyResponse project – an online social science research resource hosted by the School of Information Studies at Syracuse University. This study

was registered with StudyResponse as a direct payment study with all participants receiving remuneration upon completing the questionnaire. The StudyResponse representatives sent an initial e-mail message about the study to panelists (i.e., potential participants) from their pool who met the requirement of working outside of home full-time or part-time. The StudyResponse representatives oversampled by more than 10% in order to increase the likelihood of receiving a minimum of 250 participants that I requested. One week after the initial e-mail, the StudyResponse system sent a reminder e-mail to the panelists who had been sampled initially. Because all studies conducted through StudyResponse are anonymous, the panelists recruited for this study were identified only through their unique StudyResponse ID numbers. Each participating panelist received an electronic gift certificate (usually to Amazon.com) for US \$6.00 through StudyResponse.

Although 292 StudyResponse registrants took part in Study 2, the data for six individuals who had not completed approximately 50% or more of the questionnaire items were excluded from the analyses. The remaining 286 participants included 143 men and 140 women (with three individuals who did not report their gender). Participants' ages varied widely – ranging from 21 to 73 years – but most were between the ages of 29 and 47 ($M = 40.89$ years, $SD = 10.63$ years). Participants' organizational tenure ranged from under one month to 36 years, but most participants were with their organizations between 2 months and 12 years. Although some of the Study 2 participants were part-time employees (primarily due to certain difficulties with requesting only full-time employee participants through the StudyResponse), the large majority of participants in this study indicated working either full-time or close to full-time hours in an average week. Specifically, approximately 78% of the participants indicated working 35 or more hours during an average work week, whereas fewer than 19% of the participants indicated working 30 or less hours per week. Approximately 62.5% of the participants indicated working 40 or more hours during an average week.

Study 2 participants indicated working in a variety of industries, including automotive, business services, computer/information technology, retail, construction, consulting, education, engineering, financial services, food services, healthcare,

government, legal, manufacturing, and not-for-profit. Participants also held a range of positions or roles, including accountant, administrative assistant, cashier, CEO, customer service representative, general manager, sales representative, IT specialist, teacher, researcher, engineer, software developer, nurse, and legal secretary.

Procedure

A group of 300 panelists (randomly sampled from employed individuals in the StudyResponse panelist database) were sent an e-mail by the StudyResponse associates inviting them to participate in the online survey study on leadership and emotions at work, and a reminder message was sent one week later. These e-mail messages included a link to access the study online. The survey took approximately 20 minutes to complete. Following the study completion, the participants were given an electronic gift certificate for the value of US \$6.00.

When the participants clicked on the study link, the Letter of Information about the study appeared. At the end of the page with the Letter of Information, there was a button with the words “I agree to participate” – which took the participants to the first page of the questionnaire. On the bottom of each survey page (with the exception of the last page), there was a button allowing the participants to go the “Next” section. The sections of the survey were presented in the order in which they appear in Appendix E. When the participants clicked on the “Proceed to feedback” button appearing on the last page of the survey, they were taken to the page with participant feedback about the study.

The surveys were completed anonymously; that is, participants were not asked to provide their names, e-mails, mailing addresses, or any other personal information. Identification numbers (generated by the StudyResponse) were used to distinguish among participants.

Measures

Study 2 used the same measures as Study 1 except that the Perceived Machiavellian Leadership Scale II was utilized in place of the original PMLS I scale;

also, Mayer and Davis' (1999) measures of propensity to trust and trust in leader were removed.

Perceived Machiavellian Leadership Scale II (PMLS II). From the Perceived Machiavellian Leadership Scale I (PMLS I), I retained 13 out of the 26 original items. Six items from PMLS I scale were removed because they did not perform well in factor analyses. Another seven items assessed leaders' views rather than behaviors (thus being difficult to observe) and did not add value due to the redundant content and overly complex wording; these items were also eliminated. Seven new PMLS II items were created to address the previously-described concerns. Altogether, the 13 items from the original PMLS and the seven new items made up the new Perceived Machiavellian Leadership Scale II (PMLS II; see Appendix F). Participants rated the extent of their agreement with each item on a 5-point Likert type scale (1 = *Disagree strongly* and 5 = *Agree strongly*).

Sample items from the original PMLS I which were retained for Study 2 include, "My supervisor often manipulates and exploits people for personal gain" and "My supervisor only cares about employees' needs and preferences when they are consistent with his or her own goals." These 13 retained items had very good internal consistency reliability (Cronbach's alpha = .87) and high loadings (i.e., over .50) in exploratory and confirmatory factor analyses.

Seven new items were designed to be more behavioral in nature and to tap the previously-neglected aspects of Machiavellian leadership. For example, to capture the impression management aspect of Machiavellian leadership, I added the item "Pretends to care about others' needs and opinions." Similarly, I added "Often takes credit for other people's ideas" to tap Machiavellian leaders' tendency to claim responsibility for successes regardless of their actual contributions.

Order of presentation. All participants received the same questionnaire order: Perceived Machiavellian Leadership Scale II, Multifactor Leadership Questionnaire, Popper's (2002) personalized and socialized charismatic leadership scales, leader-related emotion items, Meyer and Davis' (1999) measure of supervisors' ability, integrity and

benevolence (mixed together), measures of trust in their supervisor, and demographic questions (see Appendix F for the Study 2 Questionnaire).

Results

Data Treatment

Assessment of missing data and inaccurate values. As in Study 1, before conducting the main analyses for Study 2, questionnaire data were examined using various SPSS preliminary analyses to assess accuracy of data entry and the extent of missing values. SPSS Missing Values Analysis (MVA) indicated that there were only six cases or participants who had not completed approximately 50% or more of the questionnaire items for this study. As before, these six cases were deleted – thus leaving a total of 286 cases or participants for the Study 2 analyses.

All questionnaire items and variables were examined to assess the extent of missing data. The variable with the greatest percentage of missing data points was the amount of time during which the participant had known his or her supervisor. While certain emotion items (e.g., scornful, content, relieved, scared, tense) had just over 5% missing data, all the remaining items and variables were missing less than 5% of the data. Univariate outliers and typographical errors were identified and treated as in Study 1.

Unlike in Study 1, Separate Variance *t*-tests from the SPSS MVA for Study 2 data indicated that missingness on certain emotion items only (e.g., appreciative, bold, proud, delighted, comforted, thankful, content, worried, energetic, hopeful, confident, grateful) was related to the dependent variable of trust – thus rejecting the conclusion that the Study 2 emotion data were missing at random (MAR; Tabachnik & Fidell, 2007). However, because this issue pertained to certain emotion data only and because the number of missing data points for each emotion item was quite low (i.e., between 10 and 16 data points out the total of 286 or about 5% of the data points), these findings were not considered particularly problematic. Hence, to be consistent with Study 1 approach, it was again deemed appropriate to utilize the Expectation Maximization (EM) method to impute the missing values (Tabachnik & Fidell, 2007).

Analysis plan. The same analyses were conducted as in Study 1, except where noted. First, descriptive statistics, alpha coefficients and correlations among study variables were computed. Second, assumptions of multivariate normality, multicollinearity, and linearity were evaluated. Third, the psychometric properties of the Perceived Machiavellian Leadership Scale II (PMLS II) were assessed. Fourth, confirmatory factor analyses and structural equation modeling analyses were conducted using EQS.

Descriptive Statistics

Descriptive statistics and alpha coefficients for all Study 2 variables are presented in Table 10. The means and measures of distributions were very similar to those from Study 1 and consistent with expectations. For example, as in Study 1, the means above the MLQ scale midpoint for transformational and contingent reward leadership styles and means below scale midpoint for MBE-passive, laissez-faire, and Machiavellian leadership styles indicated that full-time employees who participated in Study 2 on average rated their supervisors as displaying the more effective transformational and contingent reward leadership styles to a greater degree than the less effective MBE-passive, laissez-faire and Machiavellian leadership styles.

The alpha coefficients presented in the first column of Table 10 indicate that the measures for most of the Study 2 variables displayed high internal consistency reliability. In fact, all alpha coefficients exceeded .80 except the MBE-Active subscale of MLQ (alpha = .78). Although higher than Study 1 (MBE-A alpha = .69), the Study 2 alpha coefficient and the associated inter-item correlations still indicated that there were some inconsistencies among the four items measuring MBE-Active leadership style.

Pearson's correlation coefficients, presented in Table 11, support Hypotheses 1, 2, 4, and 5. As predicted, the transformational and contingent reward leadership styles were indeed positively correlated with positive emotions, trustworthiness factors, and trust, thus providing initial Study 2 support for Hypotheses 1 and 2. Also, consistent with Hypotheses 4 and 5, the MBE-passive, laissez-faire and perceived Machiavellian

Table 10

Descriptive Statistics for the Study 2 Variables

Variable	α	M	SD	Skew	SE of Skew	Kurtosis	SE of Kurtosis
PMLS II (20 items)	0.97	2.67	1.03	-0.01	0.14	-0.99	0.29
Transformational	0.96	2.41	0.90	-0.38	0.14	-0.20	0.29
Contingent reward	0.84	2.46	0.97	-0.50	0.14	-0.09	0.29
MBE-active	0.78	1.99	0.97	-0.11	0.14	-0.41	0.29
MBE-passive	0.83	1.79	1.07	0.13	0.14	-0.81	0.29
Laissez-faire	0.88	1.55	1.16	0.27	0.14	-0.98	0.29
Effectiveness (MLQ)	0.91	2.56	1.07	-0.58	0.14	-0.30	0.29
Extra Effort (MLQ)	0.86	2.34	1.09	-0.38	0.14	-0.44	0.29
Satisfaction (MLQ)	0.88	2.52	1.19	-0.54	0.14	-0.67	0.29
Pers. Charisma	0.89	3.30	1.36	0.00	0.14	-0.91	0.29
Soc. Charisma	0.83	4.07	1.16	-0.50	0.14	-0.13	0.29
Ability	0.94	3.78	0.97	-0.84	0.14	0.23	0.29
Integrity	0.89	3.45	1.01	-0.59	0.14	-0.16	0.29
Benevolence	0.94	3.45	1.08	-0.55	0.14	-0.37	0.29
Trust (BTI)	0.96	4.71	1.60	-0.57	0.14	-0.43	0.29
Trust Overall	0.96	5.06	1.69	-0.89	0.14	-0.04	0.29
Positive Emotion	0.98	2.80	1.08	0.00	0.14	-0.88	0.29
Relief	0.91	2.72	1.13	0.08	0.14	-0.91	0.29
Optimism	0.86	3.00	1.25	-0.19	0.14	-1.09	0.29
Joviality/Enthus.	0.95	2.79	1.16	0.06	0.14	-1.02	0.29
Self Assurance	0.91	2.72	1.08	0.18	0.14	-0.69	0.29
Gratitude	0.89	3.01	1.24	-0.06	0.14	-1.13	0.29
Negative Emotion	0.96	1.87	0.89	0.92	0.14	-0.18	0.29
Anxiety	0.82	1.96	1.04	1.01	0.14	0.21	0.29
Fear	0.92	1.67	0.90	1.41	0.14	1.26	0.29
Hostility	0.91	1.85	0.97	1.06	0.14	0.05	0.29
Disappointment	0.83	2.03	1.12	0.90	0.14	-0.21	0.29
Frustration	0.86	2.07	1.08	0.83	0.14	-0.34	0.29

Note. All variables were rated on 1-5 Likert-type scales – except the MLQ (0-4), personalized and socialized charisma (1-6), and trust BTI & overall trust (1-7). PMLS II = Perceived Machiavellian Leadership Scale II; Trust (BTI) = Behavioral Trust Inventory.

Table 11

Correlations Among Study 2 Variables

Variable	1	2	3	4	5	6	7	8	9
1. PMLS II-20 item	-	-.41**	-.40**	.55**	.74**	.75**	-.49**	-.35**	-.51**
2. Transformation.	-.41**	-	.90**	.11	-.20**	-.19**	.91**	.87**	.87**
3. Cont. Reward	-.40**	.90**	-	.10	-.22**	-.24**	.86**	.77**	.83**
4. MBE-Active	.55**	.11	.10	-	.52**	.55**	.04	.10	-.02
5. MBE-Passive	.74**	-.20**	-.22**	.52**	-	.82**	-.32**	-.16**	-.33**
6. Laissez-Faire	.75**	-.19**	-.24**	.55**	.82**	-	-.34**	-.18**	-.36**
7. Effectiveness	-.49**	.91**	.86**	.04	-.32**	-.34**	-	.83**	.92**
8. Extra Effort	-.35**	.87**	.80**	.10	-.16**	-.18**	.83**	-	.81**
9. Satisfaction	-.51**	.87**	.83**	-.02	-.33**	-.36**	.92**	.81**	-
10. Pers. Charisma	.82**	-.20**	-.21**	.57**	.73**	.73**	-.31**	-.15*	-.34**
11. Soc. Charisma	-.45**	.85**	.80**	-.01	-.28**	-.29**	.84**	.77**	.85**
12. Neg. Emotion	.65**	-.27**	-.33**	.40**	.53**	.56**	-.35**	-.21**	-.36**
13. Anxiety	.54**	-.13*	-.19**	.39**	.41**	.44**	-.16**	-.06	-.17**
14. Fear	.51**	-.11	-.20**	.40**	.41**	.43**	-.17**	-.03	-.19**
15. Hostility	.63**	-.30**	-.33**	.35**	.52**	.54**	-.37**	-.25**	-.40**
16. Disappoint.	.63**	-.32**	-.38**	.33**	.53**	.57**	-.42**	-.31**	-.42**
17. Frustration	.59**	-.35**	-.38**	.32**	.50**	.52**	-.42**	-.30**	-.43**
18. Pos. Emotion	-.35**	.66**	.62**	-.04	-.26**	-.25**	.63**	.66**	.61**
19. Relief	-.36**	.60**	.55**	-.06	-.29**	-.26**	.56**	.58**	.56**
20. Optimism	-.32**	.62**	.58**	-.04	-.23**	-.23**	.58**	.61**	.57**
21. Joviality/Enthus	-.31**	.62**	.58**	-.02	-.23**	-.21**	.59**	.64**	.58**
22. Self Assurance	-.31**	.64**	.59**	-.02	-.22**	-.19**	.59**	.64**	.56**
23. Gratitude	-.42**	.65**	.61**	-.07	-.29**	-.30**	.65**	.63**	.64**
24. Ability	-.51**	.68**	.65**	-.04	-.38**	-.43**	.73**	.60**	.73**
25. Integrity	-.66**	.75**	.69**	-.17**	-.47**	-.50**	.80**	.70**	.80**
26. Benevolence	-.58**	.77**	.74**	-.13*	-.39**	-.40**	.81**	.73**	.82**
27. Trust BTI	-.56**	.75**	.72**	-.14*	-.38**	-.43**	.77**	.68**	.78**
28. Trust Overall	-.57**	.72**	.67**	-.11	-.40**	-.43**	.77**	.69**	.77**

Note. PMLS II = Perceived Machiavellian Leadership Scale II; Trust (BTI) = Behavioral Trust Inventory. * $p < .05$, ** $p < .01$.

Table 11 continued

Correlations Among Study 2 Variables

Variable	10	11	12	13	14	15	16	17	18
1. PMLS II	.82**	-.45**	.65**	.54**	.51**	.63**	.63**	.59**	-.35**
2. Transformat.	-.20**	.85**	-.27**	-.13*	-.11	-.30**	-.32**	-.35**	.66**
3. Cont. Reward	-.21**	.80**	-.33**	-.19**	-.20**	-.33**	-.38**	-.38**	.62**
4. MBE-active	.57**	-.01	.40**	.39**	.40**	.35**	.33**	.32**	-.04
5. MBE-passive	.73**	-.28**	.53**	.41**	.41**	.52**	.53**	.50**	-.26**
6. Laissez-faire	.73**	-.29**	.56**	.44**	.43**	.54**	.57**	.52**	-.25**
7. Effectiveness	-.31**	.84**	-.35**	-.16**	-.17**	-.37**	-.42**	-.42**	.63**
8. Extra Effort	-.15*	.77**	-.21**	-.06	-.03	-.25**	-.31**	-.30**	.66**
9. Satisfaction	-.34**	.85**	-.36**	-.17**	-.19**	-.40**	-.42**	-.43**	.61**
10. Per Charisma	-	-.26**	.58**	.49**	.47**	.54**	.55**	.54**	-.25**
11. Soc Charisma	-.26**	-	-.32**	-.18**	-.17**	-.34**	-.38**	-.39**	.59**
12. Neg Emotion	.58**	-.32**	-	.87**	.88**	.94**	.87**	.89**	-.17**
13. Anxiety	.49**	-.18**	.87**	-	.87**	.73**	.63**	.71**	-0.04
14. Fear	.47**	-.17**	.88**	.87**	-	.74**	.64**	.67**	0.00
15. Hostility	.54**	-.34**	.94**	.73**	.74**	-	.82**	.85**	-.20**
16. Disappoint.	.55**	-.38**	.87**	.63**	.64**	.82**	-	.79**	-.23**
17. Frustration	.54**	-.39**	.89**	.71**	.67**	.85**	.79**	-	-.32**
18. Pos. Emotion	-.25**	.59**	-.17**	-.04	.00	-.20**	-.23**	-.32**	-
19. Relief	-.26**	.53**	-.16**	-.04	.01	-.19**	-.22**	-.30**	.94**
20. Optimism	-.23**	.54**	-.16**	-.05	-.01	-.21**	-.17**	-.29**	.92**
21. Joviality/Enth	-.22**	.57**	-.16**	-.03	-.01	-.19**	-.21**	-.32**	.98**
22. Self Assuran.	-.20**	.55**	-.11	-.01	.03	-.14*	-.18**	-.24**	.94**
23. Gratitude	-.32**	.57**	-.25**	-.09	-.07	-.28**	-.30**	-.38**	.89**
24. Ability	-.32**	.71**	-.41**	-.22**	-.24**	-.44**	-.46**	-.47**	.54**
25. Integrity	-.48**	.78**	-.50**	-.30**	-.29**	-.52**	-.54**	-.57**	.64**
26. Benevolence	-.40**	.77**	-.44**	-.25**	-.24**	-.45**	-.50**	-.54**	.70**
27. Trust BTI	-.39**	.76**	-.42**	-.24**	-.23**	-.44**	-.48**	-.50**	.63**
28. Trust Overall	-.40**	.73**	-.46**	-.26**	-.25**	-.48**	-.53**	-.55**	.62**

Note. PMLS II = Perceived Machiavellian Leadership Scale II; Trust (BTI) = Behavioral Trust Inventory. * $p < .05$, ** $p < .01$.

Table 11 continued

Correlations Among Study 2 Variables

Variable	19	20	21	22	23	24	25	26	27	28
1. PMLS II	-.36**	-.31**	-.31**	-.31**	-.42**	-.51**	-.66**	-.58**	-.56**	-.57**
2. Transfor	.60**	.62**	.62**	.64**	.65**	.68**	.75**	.77**	.75**	.72**
3. Cont Rew	.55**	.58**	.58**	.59**	.61**	.65**	.69**	.74**	.72**	.67**
4. MBE-act	-.06	-.04	-.02	-.02	-.07	-.04	-.17**	-.13*	-.14*	-.11
5. MBE-pass	-.29**	-.23**	-.23**	-.22**	-.29**	-.38**	-.47**	-.39**	-.38**	-.40**
6. Laissez F.	-.26**	-.23**	-.21**	-.19**	-.30**	-.43**	-.50**	-.40**	-.43**	-.43**
7. Effective	.56**	.58**	.59**	.59**	.65**	.73**	.80**	.81**	.77**	.77**
8. Extra E	.58**	.61**	.64**	.64**	.63**	.60**	.70**	.73**	.68**	.69**
9. Satisfact	.56**	.57**	.58**	.56**	.64**	.73**	.80**	.82**	.78**	.77**
10. P. Charis	-.26**	-.23**	-.22**	-.20**	-.32**	-.32**	-.48**	-.40**	-.39**	-.40**
11. S. Charis	.53**	.53**	.57**	.55**	.57**	.71**	.78**	.77**	.76**	.73**
12. Neg Emot	-.16**	-.16**	-.16**	-.11	-.25**	-.41**	-.50**	-.44**	-.42**	-.46**
13. Anxiety	-.04	-.05	-.03	-.01	-.09	-.22**	-.30**	-.25**	-.24**	-.26**
14. Fear	.01	-.01	-.01	.03	-.07	-.24**	-.29**	-.24**	-.23**	-.25**
15. Hostility	-.19**	-.21**	-.19**	-.14*	-.28**	-.44**	-.52**	-.45**	-.44**	-.48**
16. Disapp	-.22**	-.17**	-.21**	-.18**	-.30**	-.46**	-.54**	-.50**	-.48**	-.53**
17. Frustrat	-.30**	-.29**	-.32**	-.24**	-.38**	-.47**	-.57**	-.54**	-.50**	-.55**
18. Pos Emot	.94**	.92**	.98**	.94**	.89**	.54**	.64**	.70**	.63**	.62**
19. Relief	-	.85**	.88**	.83**	.82**	.49**	.60**	.65**	.59**	.56**
20. Optimis	.85**	-	.89**	.86**	.79**	.52**	.59**	.64**	.59**	.58**
21. Joviality	.88**	.89**	-	.90**	.85**	.51**	.59**	.66**	.58**	.58**
22. Self A.	.83**	.86**	.90**	-	.79**	.52**	.59**	.64**	.58**	.57**
23. Gratitude	.82**	.79**	.85**	.79**	-	.56**	.64**	.70**	.64**	.64**
24. Ability	.49**	.52**	.51**	.52**	.56**	-	.81**	.77**	.79**	.79**
25. Integrity	.60**	.59**	.59**	.59**	.64**	.81**	-	.91**	.84**	.85**
26. Benevol.	.65**	.64**	.66**	.64**	.70**	.77**	.91**	-	.87**	.85**
27. TrustBTI	.59**	.59**	.58**	.58**	.64**	.79**	.84**	.87**	-	.88**
28. Trust	.56**	.58**	.58**	.57**	.64**	.79**	.85**	.85**	.88**	-

Note. PMLS II = Perceived Machiavellian Leadership Scale II; Trust (BTI) = Behavioral Trust Inventory. * $p < .05$, ** $p < .01$.

leadership styles were positively associated with negative emotions and negatively associated with trustworthiness factors and trust. Consistent with Hypothesis 3, the MBE-active leadership style was not significantly correlated with positive emotions or ability nor was it related to the MLQ-assessed outcomes of effectiveness, extra effort, and satisfaction. Contrary to predictions, MBE-active had significant positive correlations with negative emotions and small but significant negative correlations with integrity, benevolence, and trust.

The examined leadership styles correlated with one another in largely predictable ways. As in Study 1, transformational and contingent reward leadership styles were negatively correlated with Machiavellian leadership ($r = -.41$ and $r = -.40$, respectively) as well as with MBE-passive ($r = -.20$ and $r = -.22$, respectively) and laissez-faire leadership styles ($r = -.19$ and $r = -.24$, respectively). Again, transformational leadership was highly correlated with contingent reward leadership ($r = .90$, $p < .001$), and MBE-passive was highly correlated with laissez-faire leadership ($r = .82$, $p < .001$).

Evaluation of Assumptions

As in Study 1, the assumptions of multivariate normality, multicollinearity, and linearity were evaluated using SPSS and EQS. First, the distributions for individual variables were produced using SPSS Frequencies and examined for departures from univariate normality. For most variables, the distributions were not significantly skewed or kurtotic, thus demonstrating no departures from univariate normality. Nevertheless, this was not the case for certain emotion variables. As can be seen from the descriptive statistics in Table 10, most positive emotions displayed some noteworthy univariate kurtosis; however, this was not considered very problematic since the univariate kurtosis of positive emotions was not accompanied by problematic skewness values.

Within negative emotions, there were certain cases with problematic skewness and kurtosis values. For example, the negative emotion of fear had statistically significant skewness and kurtosis indices. This negative emotion was removed from the structural equation modeling (SEM) analyses because of the potential of non-normally distributed variables to create problems in SEM analyses (Tabachnick & Fidell, 2007).

Also, to be consistent with Study 1 approach, the negative emotion of hostility was also removed from the SEM analyses; readers may recall that both hostility and fear had extreme skewness and kurtosis in Study 1. Thus, consistent with Study 1, frustration, disappointment, and anxiety were the only negative emotions which were used in Study 2 SEM analyses.

Multivariate normality was evaluated using EQS 6.1 statistical software for structural equation modeling analyses. As in Study 1, Mardia's Normalized coefficient was examined to get an initial indication of whether multivariate normality assumption was violated. In Study 2, Mardia's Normalized coefficients for most of the SEM models ranged from 12.34 to 25.06, indicating some departures from multivariate normality. Thus, both the normal theory ML fit indices and the robust fit indices were examined when evaluating the overall fit of the SEM models.

Next, the residuals and the multivariate outliers produced through EQS were also examined to further assess multivariate normality. For most of the SEM models, the residuals indicated slight departures from normality – thus re-confirming the need to examine robust fit indices in judging the overall fit of the models. Occasional multivariate outlier cases that were found through EQS were inspected closely for any unusual variable ratings. None of the multivariate outlier cases were found to have unusual or unexpected combinations of variable ratings; thus, all multivariate outlier cases were retained in SEM analyses – to minimize adjustments to the original data set.

Bivariate correlation coefficients produced through SPSS were inspected to check for the presence of multicollinearity. As in Study 1, transformational and contingent reward leadership styles were highly positively correlated and thus the combined transformational-contingent reward leadership variable was formed. Similarly, MBE-passive and laissez-faire leadership styles, which were significantly positively correlated, were combined as passive-avoidant leadership.

Finally, pairwise linearity was checked using bivariate scatterplots generated through SPSS for all relevant pairs of variables. The scatterplots indicated no significant departures from bivariate linearity.

Psychometric Properties of Perceived Machiavellian Leadership Scale II (PMLS II)

As in Study 1, three primary sets of analyses were conducted in order to assess the quality of the PMLS II. First, Cronbach's alpha coefficient was computed to assess the internal consistency reliability of the scale, followed by the item-total correlations to assess how each scale item related to the entire Perceived Machiavellian Leadership Scale II. Second, factor analyses were conducted using EQS and SPSS programs in order to assess the dimensionality and factor structure of PMLS II. Third, zero-order correlations were computed to assess how Machiavellian leadership related to other constructs and to provide preliminary evidence of validity of the new PMLS II.

Reliability. Cronbach's alpha coefficient for the revised 20-item PMLS II was particularly high ($\alpha = .97$) – thus suggesting that the items from this revised scale were more consistent with one another than were those from the initial 26-item PMLS I (with alpha of .90). Nonetheless, item-total correlations and standardized loadings from CFA indicated that there were two items which did not relate closely with the rest of the scale: item 4 ($r = .35$) and item 14 ($r = .41$), both of which were reverse-keyed.

Dimensionality and factor structure of Perceived Machiavellian Leadership Scale II. A Confirmatory Factor Analysis (CFA) was performed using EQS 6.1 to determine the overall fit and the standardized loadings of the individual items on the latent unidimensional construct of perceived Machiavellian leadership. This CFA model is presented in Table 12. Individual PMLS II items – marked V1 through V20 in the model - served as indicators of the perceived Machiavellian leadership latent variable.

This Machiavellian leadership CFA model with 20 indicators had fit the data reasonably well, with the Satorra-Bentler χ^2 (170, $N = 286$) = 392.68, $p < .0001$, Robust CFI = .96, Robust RMSEA = .07. Consistent with item-total correlations, the standardized factor loadings from CFA Model 1 were high for all except for two Perceived Machiavellian Leadership Scale II (PMLS II) items; in fact, the same two items that had low item-total correlations also had the CFA standardized factor loadings below .40 (see Table 12).

Table 12

Study 2 Perceived Machiavellian Leadership Scale II CFA with Standardized Factor Loadings

Machiavellian Leadership Item	Standardized Factor Loading	Error
Item 1	.73	.68
Item 2	.71	.70
Item 3	.86	.52
Item 4	.34	.94
Item 5	.83	.56
Item 6	.87	.50
Item 7	.34	.54
Item 8	.87	.49
Item 9	.82	.57
Item 10	.79	.62
Item 11	.86	.51
Item 12	.79	.61
Item 13	.82	.57
Item 14	.39	.92
Item 15	.86	.51
Item 16	.78	.63
Item 17	.80	.60
Item 18	.80	.60
Item 19	.85	.53
Item 20	.85	.52

Validity evidence for Perceived Machiavellian Leadership Scale II. As in Study 1, Pearson's correlations were computed between PMLS II and several other constructs in order to provide preliminary evidence of validity of the Perceived Machiavellian Leadership Scale II. First, to provide evidence of convergent and discriminant validity, perceived Machiavellian leadership was correlated with Popper's (2002) measures of personalized and socialized charisma. The zero-order correlations indicated that the 20-item PMLS II was positively correlated with Popper's (2002) measure of personalized charisma ($r = .82, p < .001$) and negatively correlated with MLQ-assessed transformational leadership ($r = -.41, p < .001$) and with Popper's (2002) socialized charisma ($r = -.45, p < .001$). These correlations provided preliminary evidence of the scale's convergent validity.

Zero-order correlations were also computed between perceived Machiavellian leadership and negative emotions as well as trustworthiness factors to provide a preliminary assessment of concurrent validity. As expected, perceived Machiavellian leadership was significantly positively associated with negative emotional reactions to leadership (e.g., frustration $r = .59, p < .001$) and significantly negatively associated with the trustworthiness factors of ability ($r = -.51, p < .001$), benevolence ($r = -.58, p < .01$), and integrity ($r = -.66, p < .001$).

Testing Relationships Among Leadership, Emotions, Trustworthiness and Trust

Once again, despite the fact that the original structural model included transformational and contingent reward leadership as two separate leadership styles, they were combined here due to their high correlation ($r = .90, p < .001$). Similarly, MBE-passive and laissez-faire were combined into a single passive-avoidant style because they were closely related to each other ($r = .82, p < .001$). Most importantly, however, because the Study 1 findings suggested that the second structural model – which excluded MBE-active – had a better overall fit to the data and lower residuals than did the first model (with MBE-active), the first structural model (with MBE-active) was not tested in Study 2; that is, the Study 2 SEM analyses started with a test of the second structural model (with combined transformational-contingent reward, passive-avoidant

and perceived Machiavellian leadership styles). As in Study 1, the SEM analyses were conducted using EQS 6.1. However, before the SEM analyses, the measurement models were first assessed by testing CFA models (through EQS as well).

Parceling. In Study 2, parceling was handled in the same way as in Study 1. For all variables except negative emotions, Study 2 employed the same number of item parcels that were created in the same way as in Study 1. Initially, to parallel Study 1, nine negative emotion items representing the emotions of anxiety, disappointment, and frustration were used to form the negative emotion parcels for Study 2. In Study 1, these three negative emotions displayed the least extreme univariate skewness and kurtosis. Although this pattern of skewness and kurtosis for negative emotions in Study 2 was not as clean, the Study 1 and Study 2 patterns were similar. Specifically, of the five negative emotions, frustration, disappointment and anxiety were still the three emotions with least extreme univariate skewness and kurtosis (followed by hostility – with statistics similar to those for anxiety; see Table 10). For the sake consistency with Study 1, the same nine negative emotion items (i.e., nervous, anxious, worried, disappointed, disillusioned, let down, irritated, frustrated, tense) were initially used to construct three negative emotion parcels. When I conducted the item-level CFA with the nine items, however, the item “anxious” had a substantially lower standardized loading (i.e., around .50) than did the remaining items which were in the .70 to .90 range. Since the inclusion of this item seemed to contribute to aborted SEM analyses, it was removed. Thus, two negative emotion parcels were used – each with four negative emotion items from the subscales of anxiety, disappointment and frustration.

Confirmatory factor analyses. As in Study 1, two separate confirmatory factor analyses (CFAs) were conducted, one with leadership styles only and the other with emotions, trustworthiness and trust. Again, these CFA analyses allowed for the examination of the quality of the leadership measurement model and the emotions-trust-trustworthiness measurement model.

Leadership CFA. A CFA was first performed to assess the measurement model with combined transformational-contingent reward style, passive-avoidant leadership,

and perceived Machiavellian leadership but without the MBE-active leadership style. This CFA model demonstrated a good fit to the data, with Satorra-Bentler χ^2 (32, N = 286) = 83.57, $p < .0001$, Robust CFI = .98, Robust RMSEA = .08 (see Table 13). Residuals were low on average – as indicated by a SRMR of .03 (ML normal theory estimation). Moreover, the standardized factor loadings for all indicators in the model were quite high (see Table 14). Given the high standardized factor loadings and the model's generally strong fit to the data, this CFA model was retained for the purposes of testing the full structural model.

Emotions-trustworthiness-trust CFA. A confirmatory factor analysis was also conducted in order to assess the measurement model related to positive and negative emotions, perceived leader trustworthiness, and trust in leader (see Table 15). In this model, there were four latent factors – namely positive emotion, negative emotion, trustworthiness, and trust. Once again, parcels served as indicators for these four latent variables.

Univariate skewness or kurtosis were not deemed particularly problematic in this CFA model. Nonetheless, because the assumption of multivariate normality was violated (Mardia's Normalized coefficient = 18.14), both the normal theory ML estimate and robust ML estimates were examined.

The emotions-trustworthiness-trust model demonstrated a very good fit to the data, with the Satorra-Bentler χ^2 (38, N = 286) = 86.40, $p < .0001$, Robust CFI = .99, Robust RMSEA = .07. With the exception of the chi square, the normal theory ML estimates were quite similar to the robust estimates (see Table 13 for all fit indices pertaining to this model). It is worth highlighting the strong normal theory ML estimates of .94 for GFI and .02 for SRMR; these estimates indicate that the amount of total variance accounted for by the hypothesized model was as high as 94% and that the average standardized residual was as low as .02. Because this CFA model demonstrated an excellent fit to the data and the standardized loading and factor covariances were well within the acceptable range, no additional CFA models were tested for emotions, trustworthiness and trust.

Table 13

Fit Indices for Study 2 Leadership CFA and Emotions-Trustworthiness-Trust CFA Models

Model	ML Solution – Normal Distribution Theory Estimation					ML Solution – Non-normal Correction – Robust Method		
	χ^2	CFI	GFI	SRMR	RMSEA	Satorra Bentler χ^2	CFI	RMSEA
Leadership Model 1	99.96***	.98	.93	.03	.09	83.57***	.98	.08
Emotions- Trustworthi- ness-Trust Model 1	106.05***	.99	.94	.02	.08	86.40***	.99	.07

Note. Leadership Model 1 includes TFL+CR, passive-avoidant, and perceived Machiavellian leadership, but excludes MBE-active.

*** $p < .001$.

Table 14

Study 2 Leadership CFA Model 1 with Standardized Factor Loadings and Correlations

Leadership Indicator/ Variable	Standardized Factor Loading	Error	Latent Variables	Latent Variable Correlations
Transformational- Cont. Reward – Indicator 1	.93	.37	TFL-CR Combo & Passive-Avoid	-.23
Transformational- Cont. Reward – Indicator 2	.93	.36	TFL-CR Combo & Machiavellian	-.39
Transformational- Cont. Reward – Indicator 3	.97	.25	Passive-Avoid. & Machiavellian	.82
Transformational- Cont. Reward – Indicator 4	.94	.34		
Passive-Avoid. – Indicator 1	.94	.35		
Passive-Avoid. – Indicator 2	.93	.36		
PMLS I – Indicator 1	.96	.28		
PMLS I – Indicator 2	.96	.28		
PMLS I – Indicator 3	.94	.35		
PMLS I – Indicator 4	.95	.32		

Table 15

Study 2 Emotions-Trustworthiness-Trust CFA Model 1 with Standardized Factor Loadings and Correlations

Leadership Indicator/ Variable	Standardized Factor Loading	Error	Latent Variables	Latent Variable Correlations
Positive Emotion – Indicator 1	.97	.25	Positive Emotion & Negative Emot.	-.28
Positive Emotion – Indicator 2	.98	.21	Positive Emotion & Trustworthiness	.69
Positive Emotion – Indicator 3	.97	.26	Positive Emotion & Trust	.65
Negative Emotion – Indicator 1	.87	.50	Negative Emotion & Trustworthiness	-.56
Negative Emotion – Indicator 2	.98	.22	Negative Emotion & Trust	-.49
Trustworthiness – Indicator 1	.95	.31	Trustworthiness & Trust	.92
Trustworthiness – Indicator 2	.95	.31		
Trustworthiness – Indicator 3	.94	.34		
Trust – Indicator 1	.95	.32		
Trust – Indicator 2	.95	.30		
Trust – Indicator 3	.96	.27		

Full structural equation model analyses. To test the hypotheses for this study simultaneously, SEM analyses were conducted using EQS 6.1. Once again, the integrated structural model examined how a set of effective and ineffective leadership styles relate to positive and negative emotional reactions to leaders, perceptions of leader's trustworthiness, and trust in leaders. As in Study 1, positive and negative emotions and trustworthiness were examined to assess if they served as intervening variables between the leadership styles and trust in leaders (as per Hypotheses 6 and 7), and emotions were tested to assess if they acted as intervening variables between leadership styles and trustworthiness (as per Hypothesis 8).

Model estimation. In Study 1, the second structural model with three leadership styles (excluding MBE-active) performed better than the first model with four leadership styles (including MBE-active). To be consistent with Study 1, this three-factor model was chosen for the primary Study 2 structural model. Thus, the primary model included combined transformational-contingent reward, passive-avoidant, and perceived Machiavellian leadership styles as well as positive and negative emotions, trustworthiness, and trust (see Figure 3). For the primary structural model, the univariate skewness and kurtosis of the indicators were, for the most part, within acceptable range. Nonetheless, there was evidence of multivariate non-normality (through Mardia's Normalized coefficient) – thus making it necessary to examine both normal and robust fit indices.

The fit indices for the primary structural model demonstrated a very good overall fit to the data, with the Satorra-Bentler χ^2 (175, N = 286) = 361.48, $p < .0001$, Robust CFI = .98, Robust RMSEA = .06 (see Table 16 for all the normal and robust fit indices). The normal ML GFI was reasonable at .88, and the normal ML SRMR of .05 was considered acceptable.

As in Study 1, one additional structural model was analyzed for exploratory purposes. This structural model included only two leadership styles: the combined transformational-contingent reward and perceived Machiavellian leadership styles. Interestingly, the zero-order correlation between perceived Machiavellian and passive-

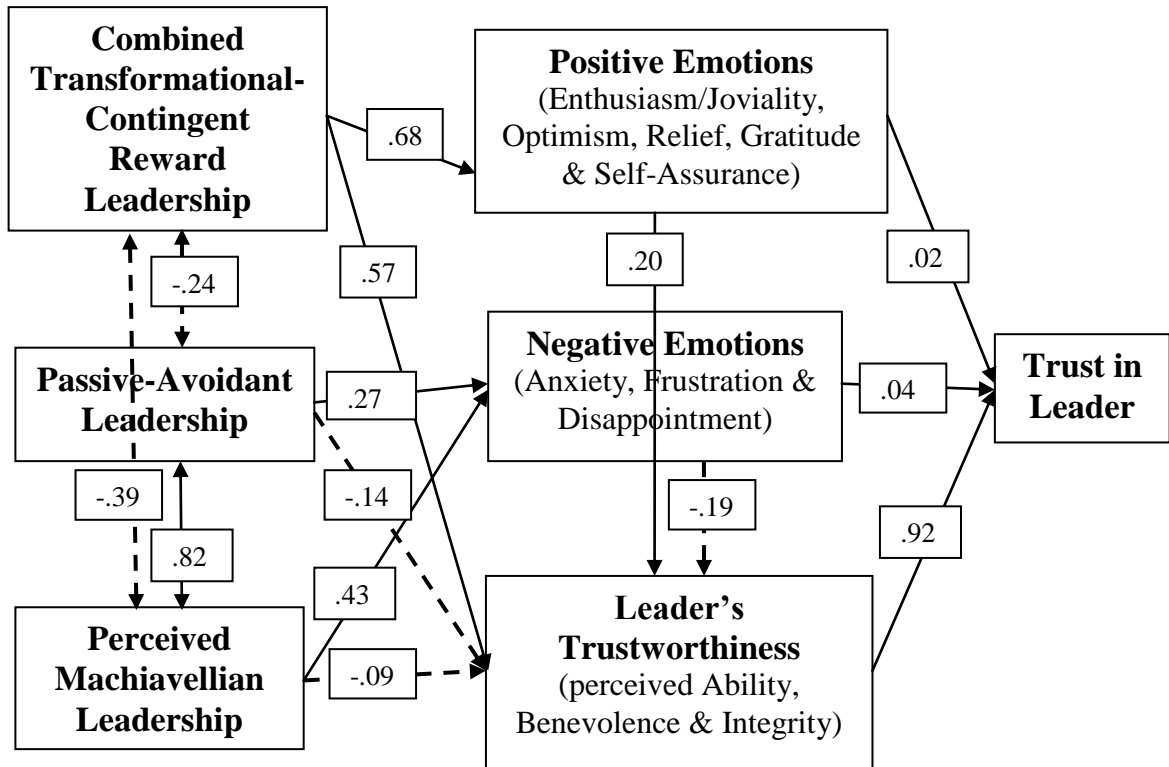


Figure 3. Study 2 integrated primary structural model with three leadership styles, emotions, trustworthiness and trust. The model shows the relationships between latent variable (in terms of standardized path coefficients). Solid lines denote positive relationships; dashed lines denote negative relationships. All path coefficients with absolute values of .14 and above were significant at $p < .05$.

Table 16

Fit Indices for Study 2 Primary and Exploratory Structural Models

Model	ML Solution – Normal Distribution Theory Estimation					ML Solution – Non-normal Correction – Robust Method		
	χ^2	CFI	GFI	SRMR	RMSEA	Satorra Bentler χ^2	CFI	RMSEA
Primary Structural Model	418.38***	.97	.88	.05	.07	361.48***	.98	.06
Exploratory Structural Model	336.46***	.98	.90	.05	.07	286.76***	.98	.06

Note. The primary structural model consisted of combined transformational-contingent reward, passive-avoidant, and Machiavellian leadership styles (but excluded MBE-active leadership); the exploratory structural model included the combined transformational-contingent reward and Machiavellian leadership styles only.

*** $p < .001$.

avoidant leadership styles was even higher in Study 2 ($r = .74$) than in Study 1 ($r = .50$). This strong relationship may have contributed to multicollinearity, which, in turn, may explain why some hypothesized paths for Machiavellian leadership (e.g., path with trustworthiness) were not statistically significant despite the significant corresponding zero-order correlations. Therefore, it was of interest to test a structural model that excluded passive-avoidant leadership and assessed the effects of perceived Machiavellian leadership and the combined transformational-contingent reward leadership style on intervening variables and outcomes.

The exploratory model with two leadership styles (i.e., perceived Machiavellian and combined transformational-contingent reward) fit the data very well, with similar although somewhat improved fit indices as compared to the primary model, with the Satorra-Bentler χ^2 (142, $N = 286$) = 286.76, $p < .0001$, Robust CFI = .98, Robust RMSEA = .06 (see Table 16 for all the normal and robust fit indices). The normal theory ML GFI of .90 was higher than that for the primary model. Without passive-avoidant leadership in the equation, perceived Machiavellian leadership was directly related to trustworthiness.

Because these structural models demonstrated good overall fit, it was deemed unnecessary to do any additional model modifications or to assess the fit for any additional models.

Direct effects. Tests of the primary model path coefficients were examined to assess which exogenous variables significantly predicted the endogenous variables of positive emotions, negative emotions, trustworthiness, and trust. As expected, positive emotional reactions were significantly predicted by the combined transformational-contingent reward style (standardized path coefficient $\beta = .68$, unstandardized path coefficient $b = .94$, $p < .05$), whereas negative emotional reactions to leaders were significantly predicted by both passive-avoidant leadership (standardized path coefficient $\beta = .27$, unstandardized path coefficient $b = .24$, $p < .05$) and perceived Machiavellian leadership (standardized path coefficient $\beta = .43$, unstandardized path coefficient $b = .36$, $p < .05$). Findings for trustworthiness indicated that an increase in this variable was

significantly predicted by the combined transformational-contingent reward leadership style (standardized path coefficient $\beta = .57$, unstandardized path coefficient $b = .61$, $p < .05$), passive-avoidant leadership (standardized path coefficient $\beta = -.14$, unstandardized path coefficient $b = -.12$, $p < .05$), positive emotions (standardized path coefficient $\beta = .20$, unstandardized path coefficient $b = .16$, $p < .05$), and negative emotions (standardized path coefficient $\beta = -.19$, unstandardized path coefficient $b = -.18$, $p < .05$); perceived Machiavellian leadership was not a significant predictor of trustworthiness (standardized path coefficient $\beta = -.09$, unstandardized path coefficient $b = -.07$, $p > .05$). Lastly, increased trust was significantly predicted by trustworthiness (standardized path coefficient $\beta = .92$, unstandardized path coefficient $b = 1.69$, $p < .05$), but not by positive emotions (standardized path coefficient $\beta = .02$, unstandardized path coefficient $b = .03$, $p > .05$) or negative emotions (standardized path coefficient $\beta = .04$, unstandardized path coefficient $b = .07$, $p > .05$).

As in Study 1, tests of path coefficients for the exploratory model with the combined transformational-contingent reward and perceived Machiavellian leadership styles were consistent with the primary model – with one noteworthy exception. Specifically, when passive-avoidant leadership was excluded from the model, perceived Machiavellian leadership was a significant predictor of trustworthiness (standardized path coefficient $\beta = -.19$, unstandardized path coefficient $b = -.15$, $p < .05$).

Indirect effects. The indirect effects for Study 2 – which were predicted in Hypotheses 6, 7 and 8 – were tested within the SEM analyses, and the significance of these indirect effects was evaluated using Sobel’s test of indirect effects (Sobel, 1982, 1986, 1987).

As in Study 1, Hypothesis 6 specified that the indirect effects from all examined leadership styles (except MBE-active) to trust through trustworthiness would be significant – thus suggesting that trustworthiness would act as an intervening variable between these leadership styles and trust. Hypothesis 6 was partially supported as trustworthiness served as an intervening variable between two leadership styles and trust. The combined transformational-contingent reward leadership predicted increased

trustworthiness, which, in turn predicted greater trust (unstandardized indirect effect coefficient = 1.03, Sobel test statistic = 6.77, $p < .001$, standardized path coefficient = .52). Also, increased passive-avoidant leadership predicted lower perceptions of trustworthiness, which, in turn, predicted decreased trust in leader (unstandardized indirect effect coefficient = -.20, Sobel test statistic = -2.29, $p < .05$, standardized path coefficient = -.13). The same did not hold for Machiavellian leadership style (unstandardized indirect effect coefficient = -.12, Sobel test statistic = -1.24, $p > .05$, standardized path coefficient = -.08).

Hypothesis 7 received no support in the analysis of the primary SEM model. Positive emotion did not serve as an intervening variable between the combined transformational-contingent reward leadership and trust (unstandardized indirect effect coefficient = .03, Sobel test statistic = .39, $p > .05$, standardized path coefficient = .01). Likewise, negative emotion did not act as an intervening variable between any of the examined leadership styles and trust (e.g., for passive-avoidant leadership, unstandardized indirect effect coefficient = .02, Sobel test statistic = .99, $p > .05$, standardized path coefficient = .01).

In contrast to Hypothesis 7, Hypothesis 8 was fully supported in the primary SEM model. Positive emotion indeed served as an intervening variable between the combined transformational-contingent reward leadership and perceived trustworthiness of leaders (unstandardized indirect effect coefficient = .15, Sobel test statistic = 3.03, $p < .005$, standardized path coefficient = .14). Furthermore, negative emotion also served as an intervening variable between passive-avoidant leadership and perceived leader trustworthiness (unstandardized indirect effect coefficient = -.04, Sobel test statistic = -2.17, $p < .05$, standardized path coefficient = -.05), as well as between perceived Machiavellian leadership and perceived leader trustworthiness (unstandardized indirect effect coefficient = -.07, Sobel test statistic = -3.07, $p < .005$, standardized path coefficient = -.08).

As in Study 1, univariate and multivariate Lagrange Multiplier Tests (LM Tests) were conducted as a part of the SEM analyses of the primary structural model; the

purpose of these tests was to assess whether the direct paths between individual leadership styles and trust would lead to a significantly better-fitting model. Once again, the results of the LM Tests indicated that none of these direct paths contributed to a significantly better-fitting structural model, thus suggesting the full mediation model was supported over direct effects and partial mediation models.

Finally, the analyses of the exploratory SEM model yielded the same findings as those for the primary model, with the one important exception that the indirect effect of perceived Machiavellian Leadership on trust through trustworthiness was significant. As in Study 1, when passive-avoidant leadership was taken out of the equation in the exploratory SEM model, the direct path between perceived Machiavellian Leadership and trustworthiness became significant (unstandardized path coefficient $b = -.15, p < .05$) – thus making the indirect effect of perceived Machiavellian Leadership on trust through trustworthiness also significant. As a part of this indirect effect, greater perceived use of Machiavellian leadership predicted worse perceptions of leader's trustworthiness which, in turn, predicted lower trust in leader (unstandardized indirect effect coefficient = $-.26$, Sobel test statistic = $-3.75, p < .001$, standardized path coefficient = $-.17$).

Discussion

The primary objective of Study 2 was to replicate the relationships among leadership styles, emotional reactions, perceptions of leader's trustworthiness and trust in leaders with a sample of experienced, full-time workers. Another important goal was to investigate the psychometric properties of Perceived Machiavellian Leadership Scale II (PMLS II) and to determine if the second version of PMLS scale performed better than the first.

Tests of Hypotheses

Study 2 findings were largely similar to those from Study 1. Interestingly, the two structural models performed somewhat better in Study 2 than in Study 1 – thus simultaneously demonstrating a very good overall fit of the models to the Study 2 data and providing support for the overall pattern of hypothesized relationships among the

variables. The fact that the primary model worked well with two independent samples of participants provides solid support for the model and the relationships that are contained within it.

With regards to specific hypotheses, most of the Study 2 findings were similar to those from Study 1. First, as in Study 1, Hypotheses 1 and 2 were supported thus replicating the finding that leaders who tend to utilize transformational and contingent reward leadership styles more extensively tend to receive increased positive emotional reactions, better trustworthiness perceptions, and higher trust from their employees.

In Study 2, Hypothesis 5 was partially supported in the same way as in Study 1. Specifically, while perceived Machiavellian leadership predicted employees' negative emotional reactions, this leadership style did not predict trustworthiness in the analyses of the primary structural model. However, in the analysis of the exploratory structural model, the direct link between perceived Machiavellian leadership and trustworthiness was significant suggesting that perceived Machiavellian leadership does predict perceptions of leader's trustworthiness when passive-avoidant leadership is not in the equation. This finding is hardly surprising given that the bivariate correlation between perceived Machiavellian and passive-avoidant leadership styles was quite substantial (i.e., around .75). As before, passive-avoidant leadership appeared to suppress the effect of perceived Machiavellian Leadership on trustworthiness. Nevertheless, it is worth also keeping in mind that the zero-order correlations between perceived Machiavellian leadership and the trustworthiness factors of ability, benevolence and integrity were significant and moderately high (i.e., ranging from -.51 to -.66); similarly, the zero-order correlations between Machiavellian leadership and employees' trust in their leaders (assessed by two different trust measures) were significant and moderately sized (i.e., ranging from -.56 to -.57). These results suggest that the relationships of perceived Machiavellian leadership with perceived trustworthiness of leaders and trust in leaders should be explored further.

Next, Hypothesis 4 was fully supported in Study 2, while it was only partially supported in Study 1. In Study 2 SEM analyses, passive-avoidant leadership predicted

both negative emotions and trustworthiness, whereas in Study 1 SEM analyses, this leadership style predicted trustworthiness but not negative emotions. Nonetheless, the zero-order correlations of passive-avoidant leadership with negative emotions, trustworthiness and trust were largely similar in both studies, thus adding support for the hypothesized pattern of relationships. What is different in Study 2 is that the correlation between passive-avoidant and perceived Machiavellian leadership styles is higher than in Study 1 (i.e., .75 versus .52 respectively). Unlike Study 1, in Study 2, passive-avoidant leadership had enough unique variance for its direct effect on negative emotions to be significant over and above the effect of perceived Machiavellian leadership. A potential reason for these differences in SEM findings relates to the revised Perceived Machiavellian Leadership Scale II (PMLS II); specifically, the more behavioral measure of perceived Machiavellian leadership may seem to be assessing concepts that are related to those measured by the MLQ-assessed MBE-passive and laissez-faire – which make up the passive-avoidant leadership. Although close examination of the PMLS II items and the MLQ items from MBE-passive and laissez-faire subscales did not seem to support the suggestion that these measures are similar (as the two sets of items are distinct), some of the MLQ items tapping unavailability of the leader for the subordinates could possibly be perceived to relate to being dedicated to one's own personal agenda and not being concerned about one's employees. Clearly, more research is required to explore why these two leadership styles are so highly related to one another and whether they are indeed suppressing each others' effects in relation to negative emotions and perceptions of leader's trustworthiness.

Hypothesis 3 was also largely supported (as before), but there were some differences between the zero-order correlations from Study 2 and those from Study 1. Specifically, the zero-order correlations between MBE-active and negative emotions were significant and moderately sized (i.e., ranging from .32 to .40). In Study 1, these correlations were substantially lower in size (i.e., ranging from .13 to .20), although they were still significant and in the same direction as those from Study 2. Moreover, while the Study 1 bivariate correlations between MBE-active and the trustworthiness factors of ability, integrity and benevolence were not significant, the Study 2 relationships of MBE-active with integrity and benevolence were significant, albeit small in size (ranging from

-.13 to -.17). A similar pattern of findings was observed for the bivariate correlation between MBE-active leadership and trust, which was not significant in Study 1, but significant albeit small ($r = -.14$) in Study 2. Perhaps Study 2 participants reacted more negatively to MBE-active supervisors because more experienced workers with relatively permanent full-time jobs may have greater dislike for micromanaging leaders who tend to focus mostly on mistakes than do less experienced part-time student workers. If experienced workers are more competent at their jobs, they may value greater autonomy and more trust from their supervisors in their ability to perform effectively. These possible explanations warrant further investigation.

With regards to the tests of Hypotheses 6 – 8, which pertained to indirect effects, some of the Study 2 findings were the same as those from Study 1, although there were some differences. First, Study 2 findings provided partial support for Hypothesis 6 – with the same pattern of findings as in Study 1. Thus, Study 2 provided further support for the indirect effects from the combined transformational-contingent reward and passive-avoidant leadership styles to trust through trustworthiness. As before, however, trustworthiness did not act as an intervening variable between perceived Machiavellian leadership and trust, except when passive-avoidant leadership was excluded from the model.

Next, the Study 2 findings pertaining to the test of Hypothesis 7 were somewhat different from those from Study 1. Specifically, while Hypothesis 7 was partially supported in Study 1, no support was obtained for this hypothesis in Study 2. In Study 2, none of the indirect effects from leadership styles to trust through emotions were significant. In fact, neither positive nor negative emotions were directly related to trust. In Study 1, however, positive emotions did serve as intervening variables between the combined transformational-contingent reward leadership and trust. Perhaps these differences in findings again stem from the different samples used in Studies 1 and 2. It may be that students with short-term jobs rely more on their positive emotional reactions to their work supervisors do than full-time permanent workers. These differences are explored further in Chapter 5.

Finally, the Study 2 findings pertaining to Hypothesis 8 were similar to the Study 1 findings – with one exception. Specifically, in Study 2, emotions acted as mediators or intervening variables between all three hypothesized leadership styles and trustworthiness, whereas in Study 1 they acted as mediators between two out of the three leadership styles (all except passive-avoidant leadership) and perceived trustworthiness. Therefore, the Study 2 findings generally support the conclusions that positive emotions mediate the relationship between the combined transformational-contingent reward leadership and trustworthiness, and negative emotions mediate the relationships of passive-avoidant and Machiavellian leadership styles with trustworthiness.

In summary, based on the results of Studies 1 and 2, it appears that employees who are lead by transformational and contingent reward leaders tend to feel positively about their leaders; they also tend to perceive their leaders as trustworthy and to trust these leaders. Conversely, those employees who are working under perceived Machiavellian leaders tend to feel negatively about their leaders and may perceive their leaders as unworthy of their trust; therefore, it is not surprising that the employees who perceived their leaders as Machiavellian also tend to have low trust in these leaders. Interestingly, employees working under passive-avoidant leaders also tend to react negatively to their leaders – in a way that is similar to the pattern for perceived Machiavellian leaders. Specifically, the employees whose leaders utilize passive-avoidant leadership style extensively tend to feel negatively about their leaders, perceive their leaders as untrustworthy, and to have low trust in these leaders. Finally, employees working under the mistake-oriented MBE-active leaders tend to have either neutral or slightly negative feelings in response to their leaders; moreover, these employees' perceptions of trustworthiness of their leaders and trust in these leaders may either be unaffected or slightly negatively affected by their leaders' leadership style.

Perceived Machiavellian Leadership Scale II

Study 2 also yielded some interesting results pertaining to the revised Perceived Machiavellian Leadership Scale II (PMLS II). The original PMLS I scale was revised to make it more behavioral, to better reflect the construct, and to increase its reliability and

validity. Indeed, the internal consistency reliability for PMLS II was substantially higher than that for PMLS I (i.e., $\alpha = .97$ versus $.90$). Furthermore, Study 2 provided preliminary validity evidence that was as strong or stronger than that from Study 1. Specifically, the high positive correlation between PMLS II scores and the scores on Popper's (2002) personalized charismatic leadership scale ($r = .82$) suggested that PMLS II may have better convergent validity than PMLS I ($r = .57$). The negative correlations of PMLS II scores with the scores on socialized charismatic and transformational leadership styles obtained in Study 2 were, however, similar to those from Study 1, demonstrating that the revised Perceived Machiavellian Leadership Scale II was also moderately negatively related to established measures of opposing constructs.

Study 2 yielded additional noteworthy evidence of construct validity of PMLS II. As with the original PMLS scale, the scores on PMLS II were found to be correlated with the scores on measures of conceptually-related constructs. For instance, the scores on PMLS II had moderately high bivariate correlations with scores on employees' negative emotions, just like the Study 1 scores on PMLS I. Also, the Study 2 bivariate correlations between PMLS II scores and the scores on the trustworthiness factors of ability, integrity, and benevolence were also moderately high and in the similar range as the corresponding Study 1 correlations with PMLS I. Interestingly, in both studies, integrity had the highest negative relationship with perceived Machiavellian leadership of all the trustworthiness factors (followed by benevolence and then ability). This finding is as expected given that Machiavellian leaders could be described as lacking most in honesty, dependability and ethics, followed by goodwill toward others, and finally their competence (which is not expected to be particularly low in Machiavellian leaders). Additionally, both studies found that leaders who utilize Machiavellian leadership style (as measured by both PMLS I and PMLS II) to a greater extent were found to be lower than other leaders in MLQ-assessed effectiveness and to generate lower satisfaction in their employees, as might be expected.

Overall, these findings suggest that the PMLS II instrument may be a valuable addition to the existing measures of dysfunctional leadership. In fact, the somewhat higher scale reliability and validity coefficients from Study 2 (in comparison to those

from Study 1) suggest that PMLS II may be a superior scale than the original PMLS tested in Study 1. Apart from the somewhat stronger reliability and validity evidence, PMLS II is also more behavioral in nature and captures some of the previously-neglected aspects of Machiavellian leadership. All these features and findings pertaining to PMLS II attest to the scale's quality and potential value as an addition to the existing leadership literature.

Limitations

Nevertheless, Study 2 findings also demonstrated some issues related to PMLS II. The biggest concern was that it had an even higher correlation with passive-avoidant leadership scores (i.e., around .75) than did the original MLS instrument (i.e., around .52). Such a high correlation between the scores on these two leadership styles was not anticipated given the clear distinction between the construct definition for Machiavellian leadership and that for passive-avoidant leadership. One possible explanation for this unexpectedly high correlation is that, despite their clearly differentiated construct definitions, some of the behavioral manifestations of these two leadership styles may be similar to one another. For example, like laissez-faire leaders, Machiavellian leaders may not get involved in their employees' work to a great extent. Thus, further research may be required to distinguish between the behavioral manifestations of Machiavellian and passive-avoidant leadership styles.

Apart from the issues with PMLS II, Study 2 has several other limitations that should be discussed. First, as in Study 1, the Study 2 scores on a number of the negative emotion items demonstrated significant univariate skewness and kurtosis. Recall that in Study 1, negative emotions with the least extreme skewness and kurtosis were frustration, disappointment and anxiety; conversely, the univariate skewness and kurtosis values for fear and hostility were in the problematic range. A similar general pattern of univariate skewness and kurtosis values was observed in Study 2 whereby frustration, disappointment and anxiety were again among the least skewed and kurtotic negative emotions. The Study 2 pattern of skewness and kurtosis values for negative emotions was, however, somewhat less clear because hostility performed considerably better on

univariate normality (i.e., had considerably less extreme skewness and kurtosis) in Study 2 than in Study 1. Nevertheless, in an effort to keep the Study 2 methodology as consistent as possible to the Study 1 methodology, only frustration, disappointment and anxiety were utilized in the Study 2 SEM analyses. However, it is important to note that the two remaining negative emotions of hostility and fear had significant moderate correlations with Machiavellian and passive-avoidant leadership styles as well as with trust and perceived leader trustworthiness. These findings suggest that these relationships with the two remaining negative emotions warrant further examination.

A related issue concerned the individual negative emotion items representing the emotions of frustration, disappointment and anxiety. Specifically, when the nine negative emotions items of frustrated, irritated, tense, disappointed, disillusioned, let down, nervous, anxious, and worried (representing the three negative emotions) were tested in a CFA, the item “anxious” had a significantly lower factor loading than the remaining items, and the inclusion of this item in the Study 2 parcels for SEM caused difficulties with the analyses of the CFA and SEM models. Therefore, the item “anxious” was removed from the Study 2 negative emotion parcels for CFA and SEM analyses. In Study 1, however, the pattern of factor loadings for the nine negative emotion items was slightly different; most importantly, the item with the lowest loading was “disillusioned” (rather than “anxious” – which was the second lowest loading item). Because the “disillusioned” item created the same problems with the Study 1 analyses of the CFA and SEM models, this item was removed from the Study 1 negative emotion parcels. Other than this one difference, the negative emotion parcels from Study 2 were identical to those from Study 1. It is unclear why a different negative emotion item performed worst in Study 2 than in Study 1. These negative emotion items and the scales of which they are a part warrant further empirical investigation to clarify which items tend to perform well and which should be discarded.

Next, the MBE-active subscale of MLQ had the lowest internal consistency reliability once again, although it was substantially larger (i.e., $\alpha = .78$) than in Study 1 (i.e., $\alpha = .69$). This finding seemed to suggest that the MBE-active scale had an improved internal consistency among more experienced workers with mostly full-time

jobs. In spite of this improved internal consistency reliability, in the leadership CFA, the MBE-active parcels again had some unexpected residuals with indicators of other conceptually distinct leadership styles. Thus, MBE-active was not included in the primary structural model. Nonetheless, it may still be advisable to further examine the measurement of MBE-active leadership – especially given that both of the present studies demonstrated certain problems with this MLQ subscale.

Finally, an important limitation that Study 2 shared with Study 1 was its cross-sectional and correlational design. Although some would argue that a degree of insight into causation could be gained from mediation and SEM analyses, the fact remains that the correlational and cross-sectional nature of Studies 1 and 2 makes it difficult to make solid conclusions about causal relationships. Because all variables from Studies 1 and 2 were assessed by questionnaire and no variables were controlled or manipulated, additional evidence of causality would be desirable in order to state with some confidence that the order of events is that leadership styles influence emotions and emotions influence trustworthiness and trust. One way to acquire this evidence of causality is through an experimental design with random assignment of participants and manipulation of independent variable conditions.

In order to address the aforementioned limitations of Studies 1 and 2 and to attempt to gain further insight into the causal relationship among leadership styles, emotions, trustworthiness and trust, a third experimental study was conducted next.

CHAPTER 4: STUDY THREE

Introduction

Overview

Studies 1 and 2 showed that employees' perceptions of the extent to which their work supervisors use various Full Range and Machiavellian leadership styles played an important role in employees' positive and negative emotional reactions to these supervisors, their perceptions of supervisors' trustworthiness (including ability, integrity and benevolence), and their willingness to trust their supervisors. Furthermore, I showed that organizational leaders who were perceived to employ different leadership styles tended to elicit different patterns of emotional reactions and trustworthiness perceptions from their employees and that these emotional reactions and trustworthiness perceptions, in turn, tended to predict different levels of trust in their work supervisors or managers. Lastly, Studies 1 and 2 supported the mediating role of trustworthiness perceptions in the relationships between several leadership styles and trust, as well as the mediating role of employees' emotional reactions in the relationships between several leadership styles and trustworthiness perceptions and trust. Overall, therefore, Studies 1 and 2 lent support to the integrated model of leadership, emotions, trustworthiness perceptions and trust.

Because Studies 1 and 2 employed a correlational and cross-sectional design, it was difficult to make solid inferences regarding causality based on the findings from these two studies. Therefore, the experimental study was undertaken to investigate the causal effects of the various leadership styles on employees' emotions, trustworthiness perceptions, and trust in leader and to compare the effects of these leadership styles on the aforementioned emotion, trustworthiness, and trust variables; the mediating effects of trustworthiness and positive and negative emotions were also re-investigated. Thus, as in Studies 1 and 2, the primary goal of Study 3 was to test the relationships that are a part of the integrated model of leadership, emotions, trustworthiness perceptions, and trust in leader. A secondary goal of this study was to reassess the Perceived Machiavellian Leadership Scale II (PMLS II) with an independent sample and to further investigate the scale's psychometric properties. Another secondary goal was to test the model of

pseudo-transformational leadership which was originally proposed by Barling and colleagues (2008) and Christie and colleagues (2011) as well as the model extension proposed here.

Study 3 was designed as an experiment in which leadership styles were manipulated while the emotions, trustworthiness perceptions, and trust were measured. Leadership style was manipulated through five between-subjects leadership conditions describing five different leadership styles, including transformational, contingent reward, MBE-active, passive-avoidant, and pseudo-transformational leadership. Participants reviewed one of five different sets of materials submitted as a simulated application for promotion to a managerial position. The application materials for the five leadership conditions were designed to display the five leadership styles and were generated based on detailed descriptions of these leadership styles from the literature on the Full Range of Leadership Model (e.g., Avolio, 1999; Bass, 1998; Bass & Avolio, 2004; Bass & Riggio, 2006) and pseudo-transformational leadership (e.g., Bass & Steidlmeier, 1999; Howell, 1988; Howell & Avolio, 1992). After reviewing the materials, Study 3 participants rated their levels of positive and negative emotions in response to the described leaders and their perceptions of the leaders' trustworthiness (i.e., ability, integrity and benevolence) as well as their willingness to trust the leaders described in their conditions.

As explained in Chapter 1, pseudo-transformational leadership was conceived as a mixture of manipulative self-absorbed leadership and certain inspirational aspects of transformational leadership. Although Barling and colleagues (2008) successfully demonstrated that pseudo-transformational leaders tend to be high on inspirational motivation and low on idealized influence and Christie and colleagues (2011) demonstrated that these leaders are also low on intellectual stimulation and individualized consideration components of transformational leadership, these researchers did not examine the manipulative self-focused side of pseudo-transformational leadership. Simultaneously, few if any measures assessing this manipulative self-focused leadership were found in the literature. One of few researchers who attempted to capture these manipulative, self-focused leadership behaviors was Popper (2002) – who investigated personalized and socialized charismatic leadership styles. However, as discussed in

Chapter 1, Popper's (2002) measures of personalized and socialized charismatic leadership were narrow in focus and were thus deemed insufficient for the purposes of the present research project.

This concept of manipulative self-focused leadership seemed to be well-described by Machiavellian leadership. However, no measures of Machiavellian leadership were found in the literature. The closest were the measures assessing the personality trait of Machiavellianism. In spite of recent efforts to develop new measures of Machiavellianism (e.g., by Dahling et al., 2009; Kessler et al., 2010), the Mach IV instrument developed by Christie and Geis (1970) is currently still the most utilized and well-established measure of Machiavellianism (Dahling et al., 2009; Deluga, 2001; Den Hartog & Belschak, 2012). However, Mach IV was found to be insufficient for the requirements of the present research project due to its self-report nature, somewhat outdated wording, and focus on an indirect assessment of Machiavellianism-related beliefs and values. Therefore, although this was not the primary goal the present project, in Studies 1 and 2, some attention was dedicated to developing the measure of Machiavellian leadership and assessing Machiavellian (rather than pseudo-transformational) leadership along with transformational and other Full Range leadership styles.

In Study 3, however, the focus shifted back to pseudo-transformational leadership, which was included in the leadership manipulation under one of the five leadership conditions. In order to verify the manipulation of pseudo-transformational leadership style, both perceived Machiavellian leadership and the components of transformational leadership were assessed following participants' exposure to the materials for pseudo-transformational leadership condition. Examination of the unique profile of scores assigned to the leader from the pseudo-transformational leadership condition on perceived Machiavellian leadership and MLQ-assessed inspirational motivation, idealized influence, intellectual stimulation and individualized consideration provided an opportunity to assess the validity of the pseudo-transformational leadership model by Christie et al. (2011) as well as the model extension proposed in this research project. Through the comparison of the profile associated with the pseudo-

transformational leadership condition and the one associated with the transformational leadership condition further insight can be gained into the validity of the proposed extended model of pseudo-transformational leadership; in addition, a better understanding could be gained into how one may be able to recognize pseudo-transformational leaders and distinguish them from true or authentic transformational leaders.

Hypotheses

The hypotheses for this experimental study were as follows:

Hypothesis 1. The leader described in the transformational condition will be rated higher on the MLQ-assessed transformational scale than will the leaders described in the remaining conditions. The leader described in the pseudo-transformational condition will be rated as higher on perceived Machiavellian leadership than the leaders in all other conditions. The leader portrayed in the contingent reward condition will be rated higher on the MLQ-assessed contingent reward scale than will the leaders in the remaining conditions. The leader described in the MBE-active condition will be rated higher on the MLQ-assessed MBE-active scale than will the leaders in all other conditions. The leader described in the passive-avoidant condition will be rated higher on the MLQ-assessed MBE-passive and laissez-faire scales than will the leaders in the remaining conditions.

Hypothesis 2. Transformational leadership will positively influence positive emotions, perceptions of leader's trustworthiness (i.e., integrity, benevolence, and ability), and trust in leader.

Hypothesis 3. The pseudo-transformational leadership style will have a positive influence on negative emotions and a negative influence on perceptions of leader's trustworthiness and trust in leader.

Hypothesis 4. The contingent reward leadership will have a positive effect on positive emotions, perceptions of leader's trustworthiness, and trust in leader.

Hypothesis 5. Active management-by-exception (MBE-active) leadership will not influence emotions, perceptions of leader's trustworthiness, or trust in leader.

Hypothesis 6. Passive-avoidant leadership will have a positive influence on negative emotions and a negative influence on perceptions of leader's trustworthiness, and trust in leader.

Hypotheses 7. Of the five types of leadership, the transformational leadership style will have the most positive effects on positive emotions, trustworthiness perceptions, and trust, followed by the contingent reward, MBE-active, passive-avoidant, and pseudo-transformational leadership styles, respectively. Conversely, of the five leadership styles, the pseudo-transformational leadership will have the most positive effects on negative emotions and the most negative effects on trustworthiness factors and trust, followed by the passive-avoidant leadership.

Hypotheses 8. Of the five leadership styles, transformational leadership will have the most positive effects on the MLQ-assessed effectiveness, extra effort exerted by employees, and satisfaction with leader, followed by the contingent reward, MBE-active, passive-avoidant, and pseudo-transformational leadership styles, respectively.

Hypothesis 9. The transformational leader will be judged as the most suitable for the position of General Sales Manager, followed by the contingent reward, and then MBE-active leaders. Passive-avoidant and pseudo-transformational leaders will be judged as the least likely to be recommended for this position.

Hypothesis 10. Employees' perceptions of leader's trustworthiness will mediate the relationships between all the leadership styles (except MBE-active) and trust.

Hypothesis 11. Employees' emotions will act as mediators of the relationships between all the leadership styles (except MBE-active) and trust. Specifically, employees' positive emotions will mediate the relationships of transformational and contingent reward leadership styles with trust in leader, and employees' negative emotions will mediate the relationships of passive-avoidant and Machiavellian leadership styles with trust in leader.

Hypothesis 12. Employees' emotions will act as mediators of the relationships between all the leadership styles (except MBE-active) and trustworthiness. Specifically, employees' positive emotions will mediate the relationships of transformational and contingent reward leadership styles with the trustworthiness factors, and employees' negative emotions will mediate the relationships of passive-avoidant and Machiavellian leadership styles with the trustworthiness factors.

Hypothesis 13. The leader from the pseudo-transformational condition will be rated high on perceived Machiavellian leadership and inspirational motivation and low on idealized influence, intellectual stimulation and individualized consideration. The leader from the transformational condition will be rated low on perceived Machiavellian leadership and high on idealized influence, inspirational motivation, intellectual stimulation and individualized consideration. Therefore, the leader from the transformational condition will be rated significantly higher than the leader from the pseudo-transformational condition on idealized influence, intellectual stimulation and individualized consideration, and significantly lower than the leader from the pseudo-transformational condition on perceived Machiavellian leadership; the leaders from these conditions will be assigned similar ratings on inspirational motivation.

Method

Participants

Of the 404 participants who took part in the third study, 12 participants had completed less than approximately 50% of the questionnaire items. The data for these participants were therefore excluded, leaving 392 participants who provided usable data for the Study 3 analyses.

Individuals who participated in Study 3 were undergraduate students recruited through the Psychology Department Participant Pool at The University of Western Ontario. For their participation in this study, each of the students received one psychology credit. The prerequisite for participating in this study was that each participant had to have paid employment in the past 3 years in order to be able to make

somewhat experienced judgments about the hypothetical candidate for promotion, Jack Harris.

Of the 392 participants, 168 were men and 215 were women (with 9 individuals who did not report their gender). Although most participants were between 18 and 21 years of age, the age range for Study 3 participants was quite wide – ranging from 17 to 46. The mean age was 19.74 ($SD = 5.93$). Participants' organizational tenure ranged from one month to 21 years, but most participants were with their organizations between 4 months and 2 years. Participants worked in a variety of industries, including retail, restaurant and food services, telecommunications, pharmacy and health services, financial/banking, call centre, travel services, fitness/recreation, teaching, administration, information technology, construction and landscaping, automotive, plumbing, summer camp, hotel and hospitality, and child care. Similarly, participants held a range of job titles, including cashier, waiter/waitress/server, cashier, administrative assistant, store clerk, sales associate, customer service representative, camp counselor, youth program staff member, cook, swimming instructor and lifeguard, tour guide, piano teacher, tutor, other instructor, store supervisor, store manager/assistant manager, computer technician, painter, crew trainer, coach, research analyst, law clerk, security guard, and custodian.

Procedure

This study was conducted online. Students from the Psychology Department Participant Pool who wished to participate were given a web link to follow in order to access the experimental materials. Participants were assigned randomly to one of five leadership conditions, namely transformational, pseudo-transformational, contingent reward, MBE-active, and passive-avoidant. Regardless of the experimental condition, the web link for the study (<http://megadepartmentshop.appspot.com/?id=10000>) took all participants to the Letter of Information page first, followed by the web page containing brief instructions for participants and links to access the rest of the study materials (see Appendix H). On this second web page, there were full-color pictures and a company logo appropriate to the scenario for this study to help the participants get into their role of a hiring committee member. Also, there was a link on this second web page leading

participants to the Sales Manager Job Advertisement. Then, on each of the next web pages, links were provided to the Mega Store's Organizational Chart, followed by the Job Application Materials for a fictitious job candidate, Jack Harris, and finally the Questionnaire about participants' impressions of Jack Harris. The candidate's Job Application Materials contained a Professional Resume for Jack Harris, his Personal Statement of managerial approach, and statements from his supervisor, subordinates and colleagues about his leadership style. The Letter of Information, Instructions for Participants, Job Advertisement, Organizational Chart, Jack's Professional Resume (all in Appendix H), the Questionnaire (see Appendix N), and the Participant Feedback (see Appendix N) were identical in all five conditions. However, Jack's personal statement of his managerial approach, and supervisory, subordinate and peer statements about Jack differed so as to reflect the characteristics of the five leadership styles that were the focus of this study (see Appendices I, J, K, L and M for all the statements).

Participants played the role of employee representatives on a hiring committee whose task it was to fill the position of General Sales Manager in a large department store. They reviewed one applicant's materials, recorded their impressions of his management potential, and rated his suitability for the position.

Below the Letter of Information page, participants clicked on a button indicating "I agree to participate", that took them to the web page with instructions and links for the remaining study materials. Participants were instructed to work through the links in order and read over all the materials carefully starting with the Job Ad, followed by the Organizational Chart, and Jack Harris's Job Application Materials. When they had reviewed these materials carefully, they were instructed to follow the last (i.e., fourth) link which lead them to answer some questions about their impression of the fictitious job candidate, Jack Harris. Despite being instructed to work through the materials and questionnaire in the order presented, the participants were permitted to go back to any of the previous materials or pages as many times and for as long as they deemed necessary in case they wished to review the materials further or change their responses. When the participants got to the last page of the questionnaire, they were able to click on the "Proceed to feedback" button that took them to the page with Participant Feedback or

debriefing (see Appendix N). The computer system recorded their participant ID number, which was used by the researcher subsequently to grant a credit to each participant. The participants' ID numbers were stored separately from their names, thus protecting participants' identity.

Stimulus Materials

Instruction web page. On the instruction page, the participants were asked to imagine that they were employee representatives on a selection committee to hire a General Sales Manager for Mega Department Store. The instruction page specified that one of Mega's Department Heads, Jack Harris, had submitted his application for the position and that the participants were tasked with reviewing Jack's job application materials in order to decide whether he would be a good candidate for the position. Participants were instructed to read the Job Advertisement for the General Sales Manager, look over Mega's Organizational Chart, and carefully review Jack's job application materials. After reviewing all the materials carefully, the participants were asked to record their impression of the candidate by answering some questions about him in an online survey (for which the link was provided on the instruction page; see Appendix H).

General sales manager job advertisement. The Job Ad was designed using several examples of job advertisements for sales managers found on the Internet. The advertisement consisted of three sections, namely position summary, duties and responsibilities, and required qualifications. The position summary contained general points about the job, such as to whom the sales manager would report and with whom he or she would work. The duties section specified a set of responsibilities that a sales manager would typically have, including supervising and motivating sales associates, liaising with customers, suppliers and other managers, setting budgets and sales targets and delivering on them, etc. Required qualifications for the General Sales Manager included 3 to 5 years of sales experience, at least 2 years of supervisory experience, strong leadership and management skills, and outstanding communication and problem-solving skills (see Appendix H).

Mega Store's organizational chart. The purpose of including the organizational chart was to give the participants a visual representation of Jack Harris's position in comparison to other people in the company. From the chart, it could be seen that Jack is one of the Department Heads (i.e., first line supervisors) with three Sales Associates reporting to him. The organizational chart also showed that there are five other Department Heads and that all Department Heads report to General Sales Manager, the position which had recently become vacant and to which Jack aspired to be promoted. Lastly, the chart showed that the General Sales Manager along with the HR Manager and Operations Manager report to the Store Manager, Homer Bradley (see Appendix H).

Jack Harris' job application materials. Regardless of the leadership condition, the application materials for the fictitious job candidate, Jack Harris, consisted of a Professional Resume, the Applicant's Personal Statement (by Jack Harris), a Report from Jack Harris' Most Recent Supervisor (i.e., supervisory statement), Extracts from Feedback from salespeople reporting to Jack Harris (i.e., statements from subordinates or direct reports), and Extracts from Feedback from Jack Harris' colleagues (i.e., peer statements) about Jack. Jack's professional resume was identical in each of the five experimental (i.e., leadership) conditions (see Appendix H), whereas the personal statements and the feedback from Jack's supervisor, subordinates and colleagues varied depending on the leadership condition (more details about each of the job application components below; see Appendices I, J, K, L and M for the statements for the five leadership conditions).

Professional resume for Jack Harris. The resume consisted of three sections, namely Highlights of Professional Qualifications, Employment History, and Education. Together, in these sections, Jack stated that he had all the technical and experience-related qualifications, as well as the interpersonal and leadership skills necessary for the job of General Sales Manager (as specified in the job ad). Thus, Jack's technical skills and experience were held constant across conditions so that his leadership and interpersonal skills could be manipulated in the personal, supervisory, peer and subordinate statements.

Jack's personal statement of leadership approach. The personal statement was included in the experimental package to provide participants with some idea of how the fictitious leader, Jack Harris, viewed his own leadership style. Given that it has been demonstrated that self-assessments are generally more lenient than supervisory, peer and subordinate assessments (Anderson, Warner, & Spencer, 1984; Bernardin, Hagan, Kane & Villanova, 1998), the personal statements were designed to reflect the leniency bias. That is, the personal statements were designed so as to create a more positive impression of the fictitious leader than did the supervisory, peer and subordinate statements.

Five versions of Jack's personal statement were created so as to reflect the five leadership styles targeted in the different experimental conditions, namely transformational, pseudo-transformational, contingent reward, MBE-active, and passive-avoidant, as described in the leadership literature (e.g., Avolio, 1999; Bass, 1998; Bass & Avolio, 2004; Bass & Riggio, 2006; Bass & Steidlmeier, 1999; Howell, 1988). As stated previously, the five versions of the personal statements were designed so that they diverged from one another solely in sections describing the leadership characteristics that vary in the five leadership styles. For example, all five versions of the statement began with some general discussion of what the fictitious leader deemed important for businesses to emphasize in today's economy, and all five versions included a discussion of Back-to-School Sale Event demonstrating the leader's typical approach of organizing and managing his direct reports or subordinates. Nonetheless, as mentioned, the statements pertaining to the transformational and pseudo-transformational leadership styles were more similar to each other than to those describing the remaining three leadership styles. For example, the transformational and pseudo-transformational statements included the discussion of a Customer-First Focus Group project which demonstrated Jack's ability to come up with a good vision and an innovative plan to improve the department store's functioning and its revenues. Because transactional and passive leaders were not described as visionaries or as being innovative, the transactional and passive leader statements (i.e., the contingent reward, MBE-active and passive-avoidant statements) did not include any discussions of the Customer-First project. Similarly, the contingent reward, MBE-active and passive-avoidant statements were more similar to each other than to the transformational and pseudo-transformational statements.

For instance, given that transactional leaders emphasize following procedures and tried-and-true ways, the transactional (and, to some degree, the passive-avoidant) leader statements were designed to reflect that focus on procedures and status quo. Conversely, transformational leaders were described as challenging the old ways and status quo, thus making it inappropriate to emphasize the tried-and-true ways of conducting business in transformational and pseudo-transformational personal statements.

Supervisory, subordinate and peer statements about Jack Harris. The supervisory, subordinate and peer statements about the fictitious leader, Jack Harris, were included in the experiment to provide participants with somewhat more accurate and objective perspectives on Jack's leadership and managerial style. More importantly, the purpose of these statements was to provide a relatively comprehensive picture of the five focal leadership styles as they were described in the literature.

As was the case with personal statements, all five versions of the supervisory statements were designed to be as similar to one another as possible. The same held for the five subordinate and five peer statements. However, as before, the transformational and pseudo-transformational statements were more similar to one another than to the transactional and passive leadership statements.

As explained above, the supervisory, subordinate, and peer statements for each condition were designed to be partly redundant as well as to convey some information unique to the perspective of each of the three sources. For instance, in transformational conditions, all sources discussed the leader's ability to come up with an innovative vision or idea for improvement of the store's functioning. Another example of redundant material was in the contingent reward condition, where all sources talked about the leader's tendency to look for ways to openly recognize his sales associates for jobs well done. Conversely, an example of an aspect that was uniquely covered by the supervisors and not by the other sources was the tendency of the pseudo-transformational leader to try to get the attention of and show off in front of his superiors. Given that supervisors are the most likely people to observe such attempts at ingratiation, it is logical that they should be the only sources to discuss such behaviors in their statements.

When leader's personal statements are compared to the supervisory, subordinate and peer statements (within each individual condition), there are some similarities and some discrepancies between them. In case of the less effective leadership styles such as pseudo-transformational and passive-avoidant leadership, there are clear discrepancies between the fictitious leader's personal statement and the statements from supervisors, subordinates and peers. That is, personal statements for these conditions paint a considerably more positive picture of the fictitious leader than do the statements from the other sources. This was especially true of the pseudo-transformational leadership which, by definition, entails the leader trying to create an overly positive impression while hiding his or her personal agenda. Although the personal statements for the remaining leadership conditions were still more positive than the supervisory, subordinate and peer statements for the same conditions, the discrepancies between them were not as pronounced as those for the pseudo-transformational and passive-avoidant conditions.

Measures

Study 3 used the same measures as Study 2, except that each questionnaire was reworded slightly so that the items referred to the fictitious leader, Jack Harris, rather than to the participants' own work supervisor, and Popper's (2002) scales were omitted. In addition, the questionnaire included factual questions about the fictitious job candidate and asked participants to make a promotion recommendation, as described below.

Factual questions about Jack Harris. The questionnaire began with eight factual questions about Jack Harris. The purpose of these questions was to assess whether participants had read the experimental materials carefully enough to acquire the knowledge of some central points about Jack Harris and Mega Store. Participants were asked to use 3-point scale (1 = *No*, 2 = *Unsure*, 3 = *Yes*) to indicate the degree of correctness of each of the factual items about Jack Harris. Sample items from this factual scale were: "Jack Harris speaks enthusiastically about his plans for the store" and "Jack Harris says that he has all the leadership skills he needs for this position."

Promotion recommendation. One questionnaire item was written to assess participants' willingness to recommend Jack Harris for promotion to the General Sales

Manager position. The item was: “Would you recommend Jack Harris for the promotion to the managerial position?” and it was rated on a 5-point Likert scale (1 = *Definitely not* and 5 = *Definitely yes*). As this item was newly-created, no prior information exists on its test-retest reliability or its validity.

Order of presentation. The sequence of measures was held constant across conditions. The questionnaire started with factual questions about the fictitious job candidate, followed by the Perceived Machiavellian Leadership Scale II (PMLS II), the Multifactor Leadership Questionnaire (MLQ), PANAS-X and other leader-related emotions items, Mayer and Davis’ (1999) ability, benevolence and integrity scales, Gillespie’s (2003) Behavioral Trust Inventory (BTI), Earley’s (1986) overall trust items, the hiring recommendation question, and several demographic questions, including participants’ organizational tenure and position.

All the leadership scales were included for the purpose of assessing the success of the leadership style manipulations. The emotions, trustworthiness and trust items were included to assess the effect of the different leadership styles on these variables. See Appendix N for the complete Study 3 questionnaire.

Results

Six sets of analyses were conducted for the purposes of Study 3. First, several preliminary analyses were conducted to check for missing data, data accuracy, distributions and assumptions, and descriptive statistics were computed in order to describe the sample and typical responses associated with different leadership conditions. Bivariate correlations were computed to provide a preliminary assessment of the hypothesized relationships. Second, a set of ANOVAs were conducted in order to assess the success of leadership style manipulations. Next, another group of ANOVA analyses was conducted in order to test hypotheses about the effects of leadership condition on trust and other outcome variables. Fourth, a set of analyses were conducted to test the hypothesized mediation or intervening variable effects of trustworthiness and positive and negative emotions. Following that, Christie and colleagues’ (2011) model of pseudo-transformational leadership and the proposed extension to the model was tested by

conducting a set of five ANOVAs. Lastly, the reliability, validity and the dimensionality of PMLS II were tested using several different analyses conducted using IBM SPSS 19 and EQS 6.1.

Data Treatment, Assumption Evaluations, Descriptive Statistics and Correlations

Prior to running the analyses, all questionnaire items and variables formed from the items were examined through a variety of SPSS analyses for accuracy of data entry, missing values, and the assessment of distributions and the assumptions of one-way ANOVAs. These analyses were performed for each condition separately (Tabachnick & Fidell, 2007).

Missing Values Analyses (MVA) were performed using SPSS on the data from all the conditions. The Missing Values Analyses indicated that out of the total of 404 cases, 12 cases were missing over 45% of the data. Out of these 12 cases, several were missing around 50% of their data, whereas the remaining cases were missing more than 75% of the data. These 12 cases were, therefore, deleted from the data set. Most of the remaining cases had few (around 2%) missing values. Therefore, the study analyses were performed using the remaining 392 cases.

Because it was deemed crucial for the participants to acquire sufficient understanding of the last three study materials (i.e., Personal Statement, Supervisory Statement, and Extracts from Peer and Subordinate Statements) before completing the questionnaire, participants' responses to the factual (knowledge) questions were examined before conducting the analyses. Given that different knowledge questions pertained to different leadership styles, the answers to the relevant knowledge questions were examined for each leadership condition separately in order to check if the response patterns indicated that people had read and understood the materials. For example, questions 1 ("Jack Harris speaks enthusiastically about his plans for the store.") and 5 ("Jack came up with the idea of using focus groups to find out customers' needs.") were important for the participants from transformational and pseudo-transformational conditions to respond to affirmatively – in order to demonstrate their understanding of the materials for these two leadership conditions. Consistent with the expectations, over 85%

of the transformational condition participants and over 90% of the pseudo-transformational condition participants responded affirmatively to the first question; also, over 73% of the participants from these conditions responded affirmatively to the fifth question. Responses to the remaining questions followed a similar pattern in that the large majority of the participants (typically over 80%) responded correctly to the knowledge items which were crucial to their own leadership conditions. Therefore, overall, the response patterns indicated that the majority of the participants from all five leadership conditions acquired sufficient understanding of the study materials to respond accurately to the questionnaire items. This conclusion was further supported by the results of the manipulation check ANOVAs – which indicated responses consistent with the materials (as discussed in more detail below). Therefore, the responses from all 392 participants were retained for the analyses.

In order to assess pairwise linearity for the study variables, bivariate scatterplots were produced for each condition separately using SPSS. The scatterplots indicated that the relationships between pairs of study variables appeared to be linear – thus providing some evidence to support for the assumption of linearity.

Descriptives, frequencies and histograms were obtained using SPSS for each of the five conditions separately to assess outliers and normality. As in Studies 1 and 2, apparent typographical errors were corrected (e.g., a scale value of “22” on a 5-point scale was replaced with a “2”). Such typographical errors were corrected in four cases in the passive-avoidant condition, and once each in the transformational and pseudo-transformational conditions. When participants’ responses were out of the scale range and did not appear to be typographical errors, as occurred twice in the passive-avoidant leadership condition, they were deleted. In the contingent reward leadership condition, one case had 24 univariate outliers on 24 emotion items; all 24 ratings were deleted (for this one case only).

Descriptive statistics for all variables for each experimental condition (i.e., transformational, contingent reward, MBE-active, passive-avoidant, and pseudo-transformational) are reported in Appendix O. Overall, participants’ ratings of the

fictitious leader's (i.e., Jack Harris') leadership style and perceived trustworthiness as well as their ratings of their work outcomes and their emotional responses to and trust in this leader were consistent with expectations for each experimental condition. For example, the fictitious leader with transformational style was rated high on the combination of MLQ transformational leadership sub-scales, while he was rated low on MBE-passive and laissez-faire leadership styles as well as perceived Machiavellian leadership. This leader was also rated moderately high on trustworthiness factors and trust in this leader, as well as on their positive emotions for the leader and the MLQ-assessed effectiveness, extra effort and satisfaction with this leader. Conversely, the pseudo-transformational leader was assigned relatively high ratings on perceived Machiavellian leadership and inspirational motivation, and low ratings on idealized influence on idealized influence, intellectual stimulation, and individualized consideration, thus providing support for Hypothesis 13. This leader was also rated moderately high on negative emotions and low on trust and the trustworthiness factors of integrity and benevolence (although moderate on ability). Among the only surprising findings were those pertaining to the fictitious leader from the MBE-active condition. First, the MBE-active leader was rated as moderate on perceived Machiavellian leadership – as was the passive-avoidant leader. Also, interestingly, while MBE-active leader was rated above the scale midpoint on the MLQ-assessed effectiveness, MLQ-assessed satisfaction and extra effort were rated below moderate (as indicated by the score below the scale midpoint). Consistent with this pattern, the MBE-active leader was also rated as moderately high on ability and integrity, but his benevolence was judged to be below moderate level. Overall, the pattern of means is consistent with Hypotheses 1, 2, 4, 6 and 7 and provides partial support for Hypotheses 3, 5 and 8.

As in Studies 1 and 2, Pearson's correlation coefficients were computed (using continuous variables only) to provide a preliminary assessment of relationships between leadership styles and all outcome variables specified in Hypotheses 2 to 8. As predicted in Hypothesis 2, the transformational leadership style was indeed positively related to positive emotions ($r = .74, p < .001$), the trustworthiness factors of ability ($r = .69, p < .001$), benevolence ($r = .75, p < .001$) and integrity ($r = .63, p < .001$), and trust ($r = .76, p < .001$). Similarly, contingent reward leadership was also positively associated with

positive emotions ($r = .63, p < .001$), the trustworthiness factors of ability ($r = .65, p < .001$), benevolence ($r = .76, p < .001$) and integrity ($r = .73, p < .001$), and trust ($r = .71, p < .001$) – as predicted in Hypothesis 4. Bivariate correlations involving active management-by-exception (MBE-active) provided support for Hypothesis 5.

Specifically, MBE-active was not related to positive emotions ($r = -.06, p > .05$), negative emotions ($r = .01, p > .05$), ability ($r = .05, p > .05$), benevolence ($r = -.05, p > .05$) or trust ($r = -.03, p > .05$); the relationship of MBE-active with integrity was significant albeit low ($r = .12, p < .05$). Next, as predicted in Hypothesis 6, the passive-avoidant leadership style was positively associated with negative emotions ($r = .51, p < .001$) and negatively associated with the trustworthiness factors of ability ($r = -.62, p < .001$), benevolence ($r = -.43, p < .001$), integrity ($r = -.54, p < .001$), and trust ($r = -.44, p < .001$). Perceived Machiavellian leadership was also positively associated with negative emotions ($r = .67, p < .001$) and negatively associated with the trustworthiness factors of ability ($r = -.53, p < .001$), benevolence ($r = -.80, p < .001$), integrity ($r = -.76, p < .001$), and trust ($r = -.71, p < .001$) – thus providing some support for the Hypothesis 2 (which pertained to pseudo-transformational leadership).

Moreover, the reviewed correlations also supported the Hypothesis 7; specifically, transformational leadership indeed appeared to have the most positive relationship with emotions, trustworthiness perceptions and trust, followed by the contingent reward, MBE-active, passive-avoidant, and perceived Machiavellian leaders. While passive-avoidant and perceived Machiavellian leadership were sometimes quite close to one another in terms of their correlations with other variables, in other cases perceived Machiavellian leadership still seemed to have a more negative impact on certain variables (e.g., integrity and benevolence). Lastly, consistent with Hypothesis 8, the transformational leadership style indeed had the highest positive correlations (i.e., $r > .70$) with effectiveness ($r = .76, p < .001$), extra effort ($r = .80, p < .001$) and satisfaction ($r = .78, p < .001$), followed by contingent reward leadership ($r = .74, p < .001$; $r = .67, p < .001$; $r = .77, p < .001$). MBE-active leadership either had low or non-significant correlations ($r = .12, p < .05$; $r = -.07, p > .05$; $r = -.04, p > .05$) with effectiveness, extra effort and satisfaction, while passive avoidant ($r = -.54, p < .001$; $r = -.37, p < .001$; $r = -.45, p < .001$) and perceived Machiavellian ($r = -.69, p < .001$; $r = -.58, p > .001$; $r = -.71,$

$p < .001$) leadership styles had negative correlations with effectiveness, extra effort and satisfaction.

Manipulation Checks

Six between-groups, single factor analyses of variance (ANOVAs) were performed using SPSS in order to check the effectiveness of experimental manipulations. Specifically, the effects of leadership condition were examined in relation to perceived Machiavellian leadership and the five MLQ-measured leadership styles from the Full-Range model in order to assess whether the effects were in the expected directions, as detailed in Hypothesis 1. When an ANOVA indicated a significant effect of leadership style on a dependent variable, Tukey's Honestly Significant Difference (HSD) post hoc tests were used to assess differences between pairs of means. The mean scores, standard deviations and the results of Tukey's HSD post hoc tests for each experimental condition on each leadership scale appear in Table 17.

First, a single factor analysis of variance (ANOVA) was performed to examine the effect of the leadership condition on the MLQ-assessed transformational leadership; the MLQ-assessed transformational leadership score was obtained by averaging the scores on MLQ items for idealized influence (both attributed and behavioral), inspirational motivation, intellectual stimulation and individualized consideration. The ANOVA indicated significant differences among the five leadership conditions on the MLQ-assessed transformational leadership, $F(4, 387) = 111.89, p < .001$. Tukey's HSD tests revealed that almost all pairs of means were significantly different from one another. More importantly, the differences were in the predicted direction; specifically, the highest MLQ transformational scores were assigned by the participants in the transformational leadership condition – with the mean scores from all the remaining conditions being significantly lower than the mean for the transformational condition. As an example, one of the post-hoc tests indicated that the participants from transformational condition on average rated their leader higher ($M = 3.04$) on the MLQ transformational composite than did the participants from the contingent reward condition ($M = 2.35$), $q(5, 387) = 10.70, p < .001$. The only exception was the contrast between MBE-active and pseudo-

Table 17

Study 3 Means, Standard Deviations, and Results of Tukey's HSD Post Hoc Tests for the Effect of Leadership Condition on MLQ and PMLS II Scores

Scale/Measure	Leadership Condition				
	Transformation. Condition	Contingent Reward Condition	MBE- Active Condition	Passive- Avoidant Condition	Pseudo- Transformation. Condition
MLQ-assessed Combination of Transformational Subscales	3.04 ^a (0.61)	2.35 ^b (0.48)	1.72 ^c (0.59)	1.20 ^d (0.72)	1.94 ^c (0.43)
MLQ-assessed Contingent Reward Subscale	2.80 ^a (0.67)	3.15 ^b (0.63)	1.98 ^c (0.77)	1.09 ^d (0.86)	1.68 ^c (0.84)
MLQ-assessed MBE-Active Subscale	1.89 ^a (0.71)	2.08 ^a (0.78)	3.07 ^b (0.78)	1.99 ^a (0.92)	1.81 ^a (0.74)
MLQ-assessed MBE-Passive Subscale	1.08 ^a (0.90)	1.71 ^b (0.80)	1.47 ^b (0.87)	2.95 ^c (0.63)	1.69 ^b (0.85)
MLQ-assessed Laissez-Faire Subscale	0.82 ^a (0.87)	1.01 ^a (0.85)	1.07 ^a (0.84)	2.71 ^b (0.77)	1.77 ^c (0.81)
Perceived Machiavellian Leadership Scale II (PMLS II)	2.04 ^a (0.70)	2.36 ^b (0.58)	3.14 ^c (0.49)	3.45 ^d (0.48)	3.99 ^c (0.42)

Note. The bracketed values are standard deviations associated with each cell mean. The condition samples sizes (n) ranged from 76 to 81, with $n_{TFL} = 77$, $n_{CR} = 81$, $n_{MBE-a} = 81$, $n_{PA} = 76$, and $n_{PMLSII} = 77$. In each row, means that do not share superscripts are significantly different from one another at $p < .05$ according to Tukey's Honestly Significant Difference (HSD) test. PMLS II = Perceived Machiavellian Leadership Scale II.

transformational conditions; specifically, the participants from these two conditions did not rate their leaders significantly differently from one another - as indicated by the means of 1.72 and 1.94 which were similar in size, $q(5, 387) = 3.33, p > .05$ (see Table 17, row 1 for the relevant group means).

Second, a single factor ANOVA was also performed to examine the effect of the leadership condition on the MLQ-assessed contingent reward leadership. The ANOVA indicated significant differences among the means for the five leadership conditions, $F(4, 387) = 96.06, p < .001$. Once again, the pattern of means was in the expected direction, with the mean ratings for the contingent reward condition being the highest of all relevant mean ratings. Similar to the results for the transformational leadership, the Tukey HSD tests revealed that the group means for all five leadership conditions were significantly different from one another - except for those from the MBE-active and pseudo-transformational conditions. As an example of a contrast, participants from the contingent reward condition perceived that the leadership style of their manager was more descriptive of MLQ-assessed contingent reward leadership ($M = 3.15$) than did the participants from the transformational condition ($M = 2.80$), $q(5, 387) = 4.18, p < .05$. The two groups that did not rate their leaders significantly differently on the MLQ-assessed contingent reward leadership are those from MBE-active ($M = 1.98$) and pseudo-transformational conditions ($M = 1.68$), $q(5, 387) = 3.51, p > .05$ (see Table 17, row 2 for the means relevant to this set of analyses).

Third, the effect of the leadership condition on the MLQ-assessed management-by-exception-active was also assessed by conducting a single factor ANOVA. The ANOVA indicated significant differences among the means for the five leadership conditions, $F(4, 387) = 34.27, p < .001$. The Tukey HSD post hoc tests revealed that the participants from the MBE-active leadership condition rated their leader significantly higher on this MLQ subscale than did the participants from all the remaining leadership conditions. For instance, the individuals from the MBE-active leadership condition perceived that the leadership style of their manager was more descriptive of MLQ-assessed MBE-active leadership ($M = 3.07$) than did the participants from the contingent reward leadership condition ($M = 2.08$), $q(5, 387) = 11.35, p < .001$. In contrast, the

participants from the remaining conditions did not assign significantly different ratings to their respective leaders on the MLQ-assessed MBE-active subscale (see Table 17, row 3 for all means pertaining to this MLQ subscale).

Fourth, a single factor ANOVA was also performed to examine the effect of the leadership condition on the MLQ-assessed passive management-by-exception. The ANOVA indicated significant differences among the means for the five leadership conditions, $F(4, 387) = 56.83, p < .001$. Once again, the pattern of means was in the expected direction. Specifically, Tukey's HSD tests revealed with the mean ratings from the passive-avoidant leadership condition were higher than those for the remaining conditions. For instance, participants from the passive-avoidant condition perceived that the leadership style of their manager was more descriptive of MLQ-assessed MBE-passive leadership ($M = 2.95$) than did the participants from the MBE-active leadership condition ($M = 1.47$), $q(5, 387) = 16.13, p < .001$. Similarly, the participants from the passive-avoidant condition also perceived that the leadership style of their manager was more descriptive of MLQ-assessed MBE-passive ($M = 2.95$) than did the individuals from pseudo-transformational leadership condition ($M = 1.69$), $q(5, 387) = 13.51, p < .001$. Several other contrasts were not statistically significant. For example, the two groups that did not rate their leaders significantly differently on the MLQ-assessed MBE-passive leadership are those from contingent reward ($M = 1.71$) and MBE-active ($M = 1.47$) conditions, $q(5, 387) = 2.73, p > .05$ (see Table 17, row 4 for the means relevant to this set of analyses).

Fifth, the impact of the leadership condition on the MLQ-measured laissez-faire leadership was also assessed using a single factor ANOVA. The ANOVA indicated significant differences among the means for the various leadership conditions, $F(4, 387) = 67.71, p < .001$. Similar to MLQ-measured MBE-passive, Tukey's HSD tests for the MLQ-assessed laissez-faire revealed that the mean rating assigned by the participants from the passive-avoidant condition was higher than the mean ratings from the remaining conditions. As an example, a post-hoc comparison between passive-avoidant and MBE-active leadership condition indicated that the participants from the passive-avoidant condition perceived that the leadership style of their manager was more descriptive of

MLQ-assessed laissez-faire leadership ($M=2.71$) than did the participants from the MBE-active leadership condition ($M = 1.07$), $q(5, 387) = 17.54, p < .001$. The participants from the passive-avoidant condition also perceived that the leadership style of their manager was more descriptive of MLQ-assessed laissez-faire leadership ($M = 2.71$) than did the individuals from pseudo-transformational leadership condition ($M = 1.77$), $q(5, 387) = 9.90, p < .001$. Several other contrasts were not statistically significant. For example, the participants from the contingent reward ($M = 1.01$) and MBE-active ($M = 1.07$) conditions did not rate their leaders significantly differently on the MLQ-measured laissez-faire leadership, $q(5, 387) = 0.64, p > .05$ (see Table 17, row 5 for the means relevant to this set of analyses).

Lastly, a single factor Analysis of Variance was conducted to assess the effect of the leadership condition on perceived Machiavellian leadership – as assessed by the newly-constructed Perceived Machiavellian Leadership Scale II (PMLS II). The ANOVA indicated significant differences among the means for the five leadership conditions $F(4, 386) = 166.54, p < .001$. Once again, the pattern of means was in the expected direction, with the mean ratings for the pseudo-transformational condition being higher than the means for the remaining leadership conditions. For example, participants from the pseudo-transformational condition perceived that the leadership style of their manager was more descriptive of Machiavellian leadership ($M = 3.99$) than did the participants from the passive-avoidant condition ($M = 3.45$), $q(5, 386) = 8.69, p < .001$, or the participants from the MBE-active condition ($M = 3.14$), $q(5, 386) = 13.94, p < .001$. Interestingly, the participants from the transformational condition assigned to their leader the lowest rating on perceived Machiavellian leadership ($M = 2.04$); specifically, even the individuals from the contingent reward leadership condition rated their leader significantly higher on perceived Machiavellian leadership ($M = 2.36$) than did the participants from the transformational leadership condition ($M = 2.04$), $q(5, 386) = 5.25, p < .005$ (see Table 17, row 6 for the means relevant to this set of analyses).

Overall, the results of these ANOVAs suggest that the leaders described in the five experimental conditions were indeed perceived to display the transformational, contingent reward, MBE-active, passive-avoidant and pseudo-transformational leadership

styles. In other words, the results supported Hypothesis 1, thus indicating that the experimental manipulation of leadership condition was successful.

Effect of Leadership Style on Outcome Variables

A series of one-way ANOVAs, using leadership condition as the independent variable and proposed outcome as the dependent variable, were conducted to test the Hypotheses 7 – 9. As before, Tukey's HSD post-hoc tests were conducted to determine which leadership conditions differed significantly from one another.

Prior to examining the results of each ANOVA, Levene's test was conducted to determine whether the assumption of homogeneity of variance was violated (Gardner, 2001). In analyses with the dependent variables of trust, leader effectiveness, ability, benevolence, and positive emotions, Levene's test of homogeneity of variance was not statistically significant, thus indicating that the assumption of homogeneity of variance was not violated. Levene's test was significant, thus indicating that the assumption of homogeneity of variance was violated, when the dependent variables were extra effort ($F(4, 387) = 4.10, p < .005$), satisfaction with leader ($F(4, 387) = 2.64, p = .03$), integrity ($F(4, 383) = 2.50, p < .05$), negative emotions ($F(4, 386) = 9.46, p < .001$), and promotion decision ($F(4, 383) = 4.45, p = .002$). Nonetheless, according to Gardner (2001), previous literature on the topic indicates that when sample sizes are equal, ANOVA is robust to the violations of this assumption. Since the five leadership conditions were roughly similar in size, these violations of the assumption of homogeneity of variance were not deemed to be problematic.

Trust. A one-way ANOVA, using leadership condition as the independent variable and trust as the dependent variable, was conducted to test the hypothesis that transformational leaders would engender more trust from their followers than would contingent reward leaders, who, in turn, would engender more trust than would MBE-active, passive-avoidant and pseudo-transformational leaders. The ANOVA revealed significant differences among the leadership conditions on BTI-assessed trust in leader, $F(4, 383) = 96.03, p < .001$. Tukey's HSD post-hoc tests showed that, as expected, transformational leader appeared to engender the highest level of trust in the participants

(see Table 18, row 1); in fact, the participants exposed to the transformational leader reported a significantly higher level of trust in leader ($M = 5.13$) than did the participants exposed to the contingent reward leader ($M = 4.55$), $q(5, 383) = 4.71, p = .008$. Similarly, the individuals exposed to the contingent reward leader reported a significantly higher level of trust ($M = 4.55$) than did those who were exposed to the MBE-active leader ($M = 3.34$), $q(5, 383) = 10.03, p < .001$. The participants who were exposed to the MBE-active leader also indicated significantly higher level of trust for their leader than did the individuals who were exposed to the passive-avoidant leader ($M = 2.38$), $q(5, 383) = 7.85, p < .001$. Lastly, there were no significant differences between the trust levels for the passive-avoidant ($M = 2.38$) and pseudo-transformational ($M = 2.57$) leaders, $q(5, 383) = 1.57, p > .05$; these two leadership styles both engendered low levels of trust in leader (as indicated by the means well below the scale midpoint). With the latter exception, the ANOVA results for trust in leader supported Hypothesis 7.

Leadership Effectiveness, Extra Effort, and Satisfaction (MLQ). One-way ANOVAs were also conducted to assess the influence of leadership condition (IV) on the participants' perceptions of leader's effectiveness, their willingness to exert extra effort for the leader, and their satisfaction with the leader, as assessed by the corresponding MLQ subscales. The prediction was that the transformational leaders would be perceived to be more effective and would evoke more subordinate effort and satisfaction than would contingent reward, MBE-active, passive-avoidant and pseudo-transformational leaders, respectively.

Leader effectiveness. The results of the one way ANOVA revealed significant differences among the leadership conditions on the MLQ-assessed effectiveness, $F(4, 387) = 95.83, p < .001$. Interestingly, all leadership conditions were significantly different from one another – except for transformational and contingent reward leadership conditions (see Table 18, row 7). Specifically, Tukey's HST tests showed that, although the mean rating for the transformational condition ($M = 3.21$) was slightly higher than that of the contingent reward condition ($M = 3.07$), the two types of leaders portrayed in these conditions were not perceived to be significantly different in terms of

Table 18

Study 3 Means, Standard Deviations, and Results of Tukey's HSD Post Hoc Tests for the Effect of Leadership Condition on All Outcome Variables

Scale/Measure	Leadership Condition				
	Transformation. Condition	Contingent Reward Condition	MBE- Active Condition	Passive- Avoidant Condition	Pseudo- Transformation. Condition
Trust (BTI; Gillespie, 2003)	5.13 ^a (1.00)	4.55 ^b (0.97)	3.34 ^c (1.16)	2.38 ^d (1.23)	2.57 ^d (1.03)
Ability (Mayer & Davis, 1999)	4.16 ^a (0.69)	3.94 ^a (0.59)	3.55 ^b (0.64)	2.57 ^c (0.78)	3.43 ^b (0.65)
Integrity (Mayer & Davis, 1999)	3.99 ^a (0.75)	4.04 ^a (0.58)	3.41 ^b (0.56)	2.42 ^c (0.69)	2.30 ^c (0.66)
Benevolence (Mayer & Davis, 1999)	4.15 ^a (0.80)	3.92 ^a (0.74)	2.62 ^b (0.73)	2.14 ^c (0.85)	1.91 ^c (0.83)
Positive Emotions	3.43 ^a (0.81)	2.99 ^b (0.74)	2.17 ^c (0.92)	1.71 ^d (0.81)	1.89 ^{cd} (0.86)
Negative Emotions	1.38 ^a (0.50)	1.58 ^a (0.63)	2.30 ^b (0.92)	2.93 ^c (0.82)	2.79 ^c (0.91)
MLQ-assessed Effectiveness	3.21 ^a (0.70)	3.07 ^a (0.66)	2.43 ^b (0.74)	1.29 ^c (0.91)	1.73 ^d (0.72)
MLQ-assessed Extra Effort	3.16 ^a (0.68)	2.81 ^a (0.72)	1.59 ^{bc} (0.98)	1.24 ^c (0.96)	1.77 ^b (0.99)
MLQ-assessed Satisfaction	3.19 ^a (0.74)	3.04 ^a (0.75)	1.85 ^b (0.90)	1.01 ^c (1.04)	1.25 ^c (0.93)
Promotion Decision	4.24 ^a (0.81)	3.89 ^a (0.80)	2.74 ^b (1.04)	1.83 ^c (1.01)	2.11 ^c (0.89)

Note. The standard deviations associated with the cell means are in parentheses. The condition samples sizes (n) ranged from 76 to 81. In each row, means that do not share superscripts are significantly different from one another at $p < .05$ according to Tukey's HSD test. BTI = Behavioral Trust Inventory.

their effectiveness, $q(5, 387) = 1.75, p > .05$. Nonetheless, the pattern of means was as predicted – with transformational and contingent reward leaders receiving higher effectiveness ratings than the leaders from the remaining conditions. First, the individuals exposed to the contingent reward leader rated their leader significantly higher on effectiveness ($M = 3.07$) than did those who were exposed to the MBE-active leader ($M = 2.43$), $q(5, 387) = 7.63, p < .001$. Interestingly, the participants from MBE-active condition assigned higher effectiveness ratings to their leader ($M = 2.43$) than did the individuals exposed to pseudo-transformational leader ($M = 1.73$), $q(5, 387) = 8.31, p < .001$; this suggested that in spite of having certain qualities of effective leaders, pseudo-transformational leaders are nonetheless viewed as ineffective. Finally, the participants who were exposed to the pseudo-transformational leader rated their leader significantly higher ($M = 3.34$) than did the individuals who were exposed to the passive-avoidant leader ($M = 1.29$), $q(5, 387) = 5.18, p < .005$.

Subordinates' extra effort. An ANOVA was also conducted to assess the effect of leadership condition on MLQ-measured extra effort. The results of the ANOVA revealed significant differences among the leadership conditions on the MLQ-assessed extra effort, $F(4, 387) = 69.52, p < .001$ (see Table 18, row 8). As before, Tukey's HSD tests revealed that, although the transformational ($M = 3.16$) and contingent reward ($M = 2.81$) leaders were not assigned significantly different ratings on MLQ-assessed extra effort ($q(5, 387) = 3.63, p > .05$), these leaders engendered significantly more willingness to exert extra effort than did the remaining leadership styles. For example, the participants exposed to the contingent reward leader reported a significantly greater willingness to exert extra effort for their leader ($M = 2.81$) than did the participants exposed to the MBE-active leader ($M = 1.59$), $q(5, 387) = 12.48, p < .001$. Interestingly, MBE-active ($M = 1.59$) and pseudo-transformational ($M = 1.77$) leaders appeared to engender about similar amounts of extra effort, $q(5, 387) = 1.76, p > .05$. The level of extra effort engendered by the MBE-active leader ($M = 1.59$) was also not significantly different from that engendered by the passive-avoidant leader ($M = 1.24$), $q(5, 387) = 3.55, p = .09$. Nonetheless, the passive-avoidant leader did appear to engender a significantly lower level of extra effort ($M = 1.24$) than did the pseudo-transformational leader ($M = 1.77$), $q(5, 387) = 5.25, p < .005$.

Satisfaction with leader. A one-way ANOVA, conducted to assess the effect of leadership condition on the MLQ-assessed satisfaction with leader, revealed significant differences among the leadership conditions on MLQ-assessed satisfaction with leader, $F(4, 387) = 101.49, p < .001$. As expected, the participants indicated the highest levels of satisfaction with transformational and contingent reward leaders. Tukey's HSD tests showed that the levels of satisfaction engendered by transformational ($M = 3.19$) and contingent reward ($M = 3.04$) leaders were not significantly different from each other, $q(5, 387) = 1.59, p > .05$. Nonetheless, the contingent reward leader appeared to engender significantly higher level of satisfaction ($M = 3.04$) than did the MBE-active leader ($M = 1.85$), $q(5, 387) = 12.18, p < .001$. The participants exposed to the MBE-active leader reported a significantly higher level of satisfaction with leader ($M = 1.85$) than did the participants exposed to the passive-avoidant leader ($M = 1.01$), $q(5, 387) = 8.44, p < .001$, as well as those exposed to the pseudo-transformational leader ($M = 1.25$), $q(5, 387) = 5.98, p < .001$. Lastly, there were no significant differences between the satisfaction levels engendered by the passive-avoidant ($M = 1.01$) and pseudo-transformational ($M = 1.25$) leaders, $q(5, 387) = 2.45, p > .05$ (see Table 18, row 9).

Data from the MLQ-assessed outcome variables supported Hypothesis 8 except that transformational and contingent reward leaders did not differ significantly from one another. Also contrary to prediction, the passive-avoidant leader was judged the least effective of all the leaders and achieved as little subordinate satisfaction and significantly less extra effort extra effort than did the pseudo-transformational leader.

Effect of Leadership Style on Trustworthiness Factors

Once again, one-way ANOVAs were conducted in order to assess the effects of leadership condition on the participants' perceptions of leader's ability, integrity and benevolence. It was predicted (as a part of Hypothesis 7) that transformational leaders would be perceived to be higher on the trustworthiness factors of ability, integrity and benevolence than would contingent reward, MBE-active, passive-avoidant, and pseudo-transformational leaders, respectively.

Ability. The ANOVA on perceived ability revealed significant differences among the leadership conditions on the perceptions of leader's ability, $F(4, 383) = 63.57, p < .001$. Tukey's HSD post-hoc tests showed that, although the transformational leader was assigned a somewhat higher mean on ability ($M = 4.16$) than that assigned to the contingent reward leader ($M = 3.94$), this difference was not statistically significant, $q(5, 383) = 2.90, p > .05$. Nonetheless, both the transformational and contingent reward leaders were rated significantly higher on ability than was the MBE-active leader. For example, the contingent reward leader was perceived to be significantly higher on ability ($M = 3.94$) than was the MBE-active leader ($M = 3.55$), $q(5, 383) = 5.26, p < .005$. The MBE-active leader was also perceived to be higher on ability ($M = 3.55$) than was the passive-avoidant leader ($M = 2.57$), $q(5, 383) = 12.87, p < .001$. Similarly, the pseudo-transformational leader was also rated higher on ability ($M = 3.43$) than was the passive-avoidant leader, ($M = 2.57$), $q(5, 383) = 11.24, p < .001$. Interestingly, the MBE-active ($M = 3.55$) and pseudo-transformational ($M = 3.43$) leaders were perceived to possess about similar levels of ability, $q(5, 383) = 1.52, p > .05$ (see Table 18, row 2).

Integrity. A one-way ANOVA on perceived integrity revealed significant differences among the leadership conditions on the perceptions of leader's integrity, $F(4, 383) = 126.70, p < .001$. As before, the transformational leader ($M = 3.99$) was not perceived to be significantly different on integrity than was the contingent reward leader ($M = 4.04$), $q(5, 383) = .69, p > .05$. Nonetheless, Tukey's HSD test showed that both the transformational and contingent reward leaders were rated significantly higher on integrity than was the MBE-active leader. For instance, the contingent reward leader was perceived to be significantly higher on integrity ($M = 4.04$) than was the MBE-active leader ($M = 3.41$), $q(5, 383) = 8.70, p < .001$. The MBE-active leader was also perceived to be higher on integrity ($M = 3.41$) than was the passive-avoidant leader ($M = 2.42$), $q(5, 383) = 13.43, p < .001$. Similarly, the MBE-active leader was also rated higher on integrity ($M = 3.41$) than was the pseudo-transformational leader ($M = 2.30$), $q(5, 383) = 15.03, p < .001$. Lastly, the passive-avoidant ($M = 2.42$) and pseudo-transformational ($M = 2.30$) leaders were perceived to possess about similar levels of integrity, $q(5, 383) = 1.53, p > .05$ (see Table 18, row 3).

Benevolence. A one-way ANOVA on perceived benevolence revealed significant differences among the leadership conditions on the perceptions of leader's benevolence, $F(4, 383) = 129.73, p < .001$. Tukey's post-hoc tests revealed that, as expected, transformational leader was perceived to be the highest on benevolence ($M = 4.15$), whereas the pseudo-transformational leader was perceived to be the lowest ($M = 1.91$; see Table 18, row 4). As before, transformational ($M = 4.15$) and contingent reward ($M = 3.92$) leaders were not rated significantly differently on benevolence, $q(5, 383) = 2.52, p > .05$. Nonetheless, both of these leaders were rated significantly higher on benevolence than was the MBE-active leader. The contingent reward leader was perceived to be significantly higher on benevolence ($M = 3.92$) than was the MBE-active leader ($M = 2.62$), $q(5, 383) = 14.72, p < .001$. The MBE-active leader was also perceived to be higher on benevolence ($M = 2.62$) than was the passive-avoidant leader ($M = 2.14$), $q(5, 383) = 5.34, p < .005$. The MBE-active leader was also rated higher on benevolence ($M = 2.62$) than was the pseudo-transformational leader ($M = 1.91$), $q(5, 383) = 7.93, p < .001$. Lastly, although the passive-avoidant leader was assigned on average a somewhat higher rating on benevolence ($M = 2.14$) than was the pseudo-transformational leader ($M = 1.91$), this difference was not statistically significant, $q(5, 383) = 2.54, p > .05$.

The pattern of results for trustworthiness factors was generally in accord with Hypothesis 7. Participants judged the transformational and contingent reward leaders to have the highest ability, benevolence and integrity. Pseudo-transformational and passive-avoidant leaders were judged lowest on integrity and benevolence, while passive-avoidant leader was rated lowest on ability.

Effects of Leadership Styles on Emotions

Positive emotions. A one-way ANOVA was conducted to test the prediction that transformational leaders would evoke more positive emotions than would the remaining leadership styles. Positive emotions was an aggregated variable which was created by combining joviality, self-assurance, relief, gratitude and optimism.

The results of the ANOVA revealed significant differences among the leadership conditions on positive emotions, $F(4, 374) = 60.63, p < .001$ (see Table 18, row 5). As

expected, Tukey's HSD tests showed that the transformational leader evoked the highest level of positive emotions in the participants, whereas the passive-avoidant and pseudo-transformational leaders evoke the lowest level of positive emotions of the examined leadership styles. The participants exposed to the transformational leader reported a significantly higher level of positive emotions ($M = 3.43$) than did the participants exposed to the contingent reward leader ($M = 2.99$), $q(5, 374) = 4.72, p = .008$. Similarly, the individuals exposed to the contingent reward leader reported a significantly higher level of positive emotions ($M = 2.99$) than did those who were exposed to the MBE-active leader ($M = 2.17$), $q(5, 374) = 8.69, p < .001$. The participants who were exposed to the MBE-active leader also indicated significantly higher level of positive emotions in response to this leader ($M = 2.17$) than did the individuals who were exposed to the passive-avoidant leader ($M = 1.71$), $q(5, 374) = 4.76, p = .008$. Interestingly, the pseudo-transformational leader did not evoke a significantly different level of positive emotions ($M = 1.89$) than that evoked by MBE-active leader ($M = 2.17$), $q(5, 374) = 2.92, p > .05$, or the passive-avoidant leader ($M = 1.71$), $q(5, 374) = 1.82, p > .05$.

The finding that transformational leaders evoked the strongest positive emotions, followed by contingent reward leader, then MBE-active leaders supported Hypothesis 7. However, the level of positive emotion toward the pseudo-transformational leader fell between but did not differ significantly from the MBE-active and passive-avoidant leaders.

Negative emotions. A one-way ANOVA was also conducted to test the prediction that pseudo-transformational and passive-avoidant leaders would evoke a higher level of negative emotions than would the remaining leadership styles. Negative emotions was an aggregated variable which was created by combining the items from the emotions of fear, anxiety, hostility, frustration, and disappointment. These negative emotions displayed less skewness and kurtosis in Study 3 than in Studies 1 and 2; therefore, unlike in Studies 1 and 2 (in which only 3 out of 5 negative emotions were included in the analyses), the items for all five negative emotions were included in the Study 3 analyses.

The ANOVA revealed significant differences among the leadership conditions on negative emotions, $F(4, 386) = 63.42, p < .001$. As expected, based on Tukey's HSD post-hoc tests, pseudo-transformational ($M = 2.79$) and passive-avoidant ($M = 2.93$) leaders evoked the highest levels of negative emotions, whereas the transformational leader ($M = 1.38$) evoked the lowest level of negative emotions in comparison to the leaders with the other examined leadership styles (see Table 18, row 6). Although the transformational leader had a somewhat lower mean rating on negative emotions ($M = 1.38$) than did the contingent reward leader ($M = 1.58$), this difference was not statistically significant, $q(5, 386) = 2.27, p > .05$. As predicted, however, MBE-active leader appeared to evoke significantly higher level of negative emotions ($M = 2.30$) than did the contingent reward leader ($M = 1.58$), $q(5, 386) = 8.46, p < .001$. The MBE-active leader was also rated significantly lower on negative emotions ($M = 2.30$) than were the pseudo-transformational ($M = 2.79$; $q(5, 386) = 5.55, p = .001$) and passive-avoidant leaders ($M = 2.93$; $q(5, 386) = 7.14, p < .001$). Lastly, there was no significant difference between the negative emotions ratings assigned to the passive-avoidant leader ($M = 2.93$) and pseudo-transformational ($M = 2.79$), $q(5, 386) = 1.60, p > .05$; these two leadership styles both engendered about medium levels of negative emotions (as indicated by the mean ratings close to the scale midpoint).

Thus, results for negative emotions were consistent with Hypothesis 7 except that negative emotion ratings were similar for pseudo-transformational and passive-avoidant leaders and for transformational and contingent reward leaders.

Effect of Leadership Style on Promotion Recommendation

Lastly, a one-way ANOVA was also conducted to test the hypothesis that the transformational leader would be judged as more suitable for the promotion to the managerial position than the leaders from the remaining leadership styles, whereas the pseudo-transformational and passive-avoidant leaders would be judged as the least suitable.

The ANOVA revealed significant differences among the leadership conditions on the promotion recommendation, $F(4, 383) = 104.18, p < .001$. Tukey's HSD tests

showed that the transformational leader was rated the highest on the recommendation for the promotion to the managerial position ($M = 4.24$), whereas the pseudo-transformational ($M = 2.11$) and passive-avoidant ($M = 1.83$) leaders were rated as the least likely to be recommended for the promotion to the managerial position (see Table 18, last row). As before, transformational ($M = 4.24$) and contingent reward ($M = 3.89$) leaders were not rated significantly differently on promotion recommendation, nor were pseudo-transformational ($M = 2.11$) and passive-avoidant leaders ($M = 1.83$). Nonetheless, all the remaining pairs of leadership styles were significantly different from one another, and the differences were all in the expected direction. Specifically, transformational leadership and contingent reward were rated the highest on the promotion recommendation, followed by MBE-active. Pseudo-transformational and passive-avoidant leaders were least recommended for promotion. Thus, the ANOVA results generally supported Hypothesis 9 with the exception of no differences between transformational and contingent reward or between passive-avoidant and pseudo-transformational leaders.

Mediation Effects of Emotions and Trustworthiness

In addition to testing the hypotheses pertaining to the direct effects of leadership styles on outcome variables, regression analyses were conducted in order to assess the mediation effects of trustworthiness and emotions (predicted in Hypotheses 10, 11, and 12). In order to conduct these regression analyses, it was necessary to transform leadership styles into distinct variables rather than keeping them as levels of a single independent variable (such as they were treated for the purposes of the ANOVAs). Moreover, although some form of coding could have been employed to convert the five leadership categorizations into several predictors for the regressions, representing the five leadership styles in terms of five continuous variables was a preferred approach because it allows one to preserve and capture the most variance and covariance among predictors and criteria in the regressions. Therefore, the data from all five leadership conditions were pooled together for the purposes of the regression analyses to get full variability on the analyzed variables.

Additionally, after the manipulation check ANOVA results demonstrated that the experimental manipulation of leadership style was indeed successful, it was considered acceptable to utilize the leadership scores obtained through MLQ and PMLS II to represent leadership variables in the regressions. Because the leadership scores used in Study 1 and Study 2 mediation analyses also came from the MLQ and PMLS I and II, using the same scores for Study 3 mediation analyses made the analyses more parallel to and easier to compare with those from Studies 1 and 2. This meant that Study 3 mediation analyses – like those from Studies 1 and 2 – focused on perceived Machiavellian (rather than pseudo-transformational) leadership. Lastly, because the transformational leadership scores were again highly related to the contingent reward scores and the MBE-passive scores were highly correlated with laissez-faire scores, transformational leadership was again combined with contingent reward leadership into a single style, and MBE-passive was combined with laissez-faire into one leadership style.

As in Studies 1 and 2, Sobel's (1982, 1986, 1987) test was also used to evaluate the significance of each indirect or mediating effect specified within the Hypotheses 10, 11 and 12. Each indirect effect was derived through a product of the regression coefficients for the constituent direct paths - from independent variable to mediator and from mediator to dependent variable (MacKinnon, 2008). Because the Study 3 coefficients for indirect effects were derived from regressions rather than from SEM analyses, another more conservative test was also conducted to verify whether the results would be consistent with those from the Sobel tests; this other test was Baron and Kenny's (1986) mediation test. Although the Sobel test has more power than the mediating variable approach by Baron and Kenny (1986; MacKinnon et al., 2002), Baron and Kenny's approach is more stringent and allows one to get an indication of whether mediation is full or partial. Thus, it was decided that if both Sobel as well as Baron and Kenny's tests demonstrated significant indirect or mediating effects, only then would the mediation findings (of both Sobel and Baron and Kenny tests) be reported here as statistically significant.

Mediating role of trustworthiness. According to Hypothesis 10, it was expected that trustworthiness would mediate the effects of all investigated leadership styles (except

for MBE-A) on trust. The Study 3 findings from regressions indicated that perceived trustworthiness indeed acted as an intervening variable between leadership style and trust but for two out of the three leadership styles – thus demonstrating partial support for Hypothesis 10. Specifically, the combined transformational-contingent reward leadership predicted increased trustworthiness, which, in turn predicted greater trust (unstandardized indirect effect coefficient = 0.47, Sobel test statistic = 7.65, $p < .001$, standardized path coefficient = .27). Also, an increase in perceived Machiavellian leadership predicted a decrease in trustworthiness, which predicted a decrease in trust (unstandardized indirect effect coefficient = -0.32, Sobel test statistic = -6.91, $p < .001$, standardized path coefficient = -.19). The Baron and Kenny (1986) mediation tests yielded the same findings. Interestingly, the regression tests following the Baron and Kenny approach to mediation seemed to indicate partial mediation for the indirect effect of the combined transformational-contingent reward leadership style on trust because the addition of trustworthiness (i.e., the mediator) to the equation decreased the effect of this leadership style on trust rather than eliminating it completely. In terms of the indirect effect of perceived Machiavellian leadership on trust, the Baron and Kenny tests supported full mediation because the effect of Machiavellian leadership on trust was non-significant when the mediator of trustworthiness was included in the regression equation.

With respect to the indirect effect of passive-avoidant leadership on trust through trustworthiness, the findings from the Sobel test were different from the findings obtained using the Baron and Kenny's approach. Specifically, according to the Sobel test, the indirect effect of passive-avoidant leadership on trust was significant as an increase in passive-avoidant leadership predicted a decrease in trustworthiness, which predicted a decrease in trust (unstandardized indirect effect coefficient = -0.09, Sobel test statistic = -3.52, $p < .001$, standardized path coefficient = -.06). However, because one of the Baron and Kenny's (1986) steps was not significant – as passive-avoidant leadership was not a significant predictor of trust before the mediator was included, the entire mediation effect was not significant. Lastly, the zero-order correlations of MBE-active with trustworthiness and trust were low and non-significant; it was, therefore, considered unnecessary to perform mediation analyses involving this leadership style.

Mediating role of emotions in relationships between leadership styles and trust. Hypothesis 11 predicted that employees' emotions would mediate the relationships between all the leadership styles (except for MBE-active) and trust; specifically, positive emotions were hypothesized to mediate the relationship between the combined transformational-contingent reward leadership and trust, whereas negative emotions were hypothesized to mediate the relationships of passive-avoidant and perceived Machiavellian leadership styles with trust. Once again, this hypothesis was tested using Sobel tests of indirect effects, and the Sobel test findings were verified using regression tests of Baron and Kenny's (1986) mediation steps. Interestingly, Hypothesis 11 was supported for only one of the three leadership styles. Specifically, positive emotions were found to serve as an intervening variable between the combined transformational-contingent reward leadership and trust (unstandardized indirect effect coefficient = .18, Sobel test statistic = 4.35, $p < .001$, standardized path coefficient = .10). In contrast, as negative emotions did not directly predict trust in leader, neither of the indirect effects of the two less desirable leadership styles on trust through negative emotions was significant (for perceived Machiavellian leadership, unstandardized indirect effect coefficient = -.05, Sobel test statistic = -1.66, $p > .05$, standardized path coefficient = -.03; for passive-avoidant leadership, unstandardized indirect effect coefficient = -.01, Sobel test statistic = -1.52, $p > .05$, standardized path coefficient = -.009).

The tests following the Baron and Kenny (1986) approach to mediation yielded the same findings as did the Sobel tests. Specifically, negative emotions were not found to mediate the relationships of passive-avoidant and perceived Machiavellian leadership styles with trust, whereas positive emotions mediated the relationship between the combined transformational-contingent reward leadership and trust. Similar to the previous hypothesis, the Baron and Kenny (1986) tests seemed to support partial mediation as the effect of the combined transformational-contingent reward leadership on trust was merely lowered when positive emotions were included in the regression equation. Finally, the zero-order correlations of MBE-active with both positive and negative emotions were low and non-significant – thus demonstrating that one of the links necessary for mediation was not found.

Thus, the results from the mediation tests provided partial support for Hypothesis 11 as only positive emotions mediated the relationship between one of the examined leadership styles and trust.

Mediating role of emotions in relationships between leadership styles and trustworthiness. Lastly, Hypothesis 12 predicted that employees' emotions would act as mediators of the relationships between all the leadership styles (except for MBE-active) and trustworthiness, with positive emotions mediating the relationship between the combined transformational-contingent reward leadership and trustworthiness and negative emotions mediating the relationships of passive-avoidant and Machiavellian leadership styles with trustworthiness. The results of both Sobel and Baron and Kenny tests indicated that this hypothesis was fully supported.

Specifically, an increase in the combined transformational-contingent reward leadership predicted increased positive emotional reactions to leaders which, in turn, predicted better perceptions of leaders' trustworthiness (unstandardized indirect effect coefficient = .10, Sobel test statistic = 4.50, $p < .001$, standardized path coefficient = .09). Additionally, an increase in perceived Machiavellian leadership predicted increased negative emotional reactions to leadership which, in turn, predicted lower perceived leader trustworthiness (unstandardized indirect effect coefficient = -.07, Sobel test statistic = -4.26, $p < .001$, standardized path coefficient = -.07). Similarly, an increase in passive-avoidant leadership predicted increased negative emotional reactions to leadership which predicted worse perceptions of leader trustworthiness (unstandardized indirect effect coefficient = -.02, Sobel test statistic = -2.80, $p < .001$, standardized path coefficient = -.02).

The Baron and Kenny (1986) mediation tests also indicated that positive emotions mediated the relationship between the combined transformational-contingent reward leadership and trustworthiness, as well as that negative emotions mediated the relationships of passive-avoidant and perceived Machiavellian leadership styles with trustworthiness. Interestingly, all three of these mediation effects seemed to be partial, and the regression coefficients for the effects of leadership styles on trustworthiness

decreased somewhat when emotions (i.e., mediator variables) were included as compared to when they were excluded from the equations. As before, the zero-order correlations of MBE-active with both positive and negative emotions were low and non-significant – thus demonstrating that the direct link necessary for mediation was not found. Therefore, overall, the results of the Sobel and Baron and Kenny tests collectively supported the hypothesis that positive and negative emotions would act as intervening or mediator variables between the three leadership styles and trustworthiness.

Tests of Pseudo-Transformational Leadership Models

Four single factor analyses of variance (ANOVAs) were performed to test the extended model of pseudo-transformational leadership – as detailed in Hypothesis 13. Specifically, these four ANOVAs examined the differences between the leaders described in the five leadership conditions on the four transformational leadership components of idealized influence, inspirational motivation, intellectual stimulation and individualized consideration; therefore, as in the previous ANOVAs, the data sets from the five leadership conditions were again compared against each other to assess their differences on the transformational leadership components. According to Barling et al.'s (2008) and Christie et al.'s (2011) models, it was expected that the leader described in the transformational condition would be rated high on all four of these transformational leadership components, whereas the leader described in the pseudo-transformational condition was expected to be rated high on inspirational motivation and low on idealized influence, intellectual stimulation and individualized consideration.

Therefore, the first ANOVA assessed the differences between the five leadership conditions on the transformational component of idealized influence. The ANOVA indicated significant differences among the five leadership conditions on the MLQ-assessed idealized influence, $F(4, 387) = 99.09, p < .001$. Tukey's HSD post hoc tests revealed that almost all pairs of means were significantly different from one another, and that the differences were in the expected directions (see Figure 4). Most importantly, the leader described in the transformational condition was indeed rated moderately high on

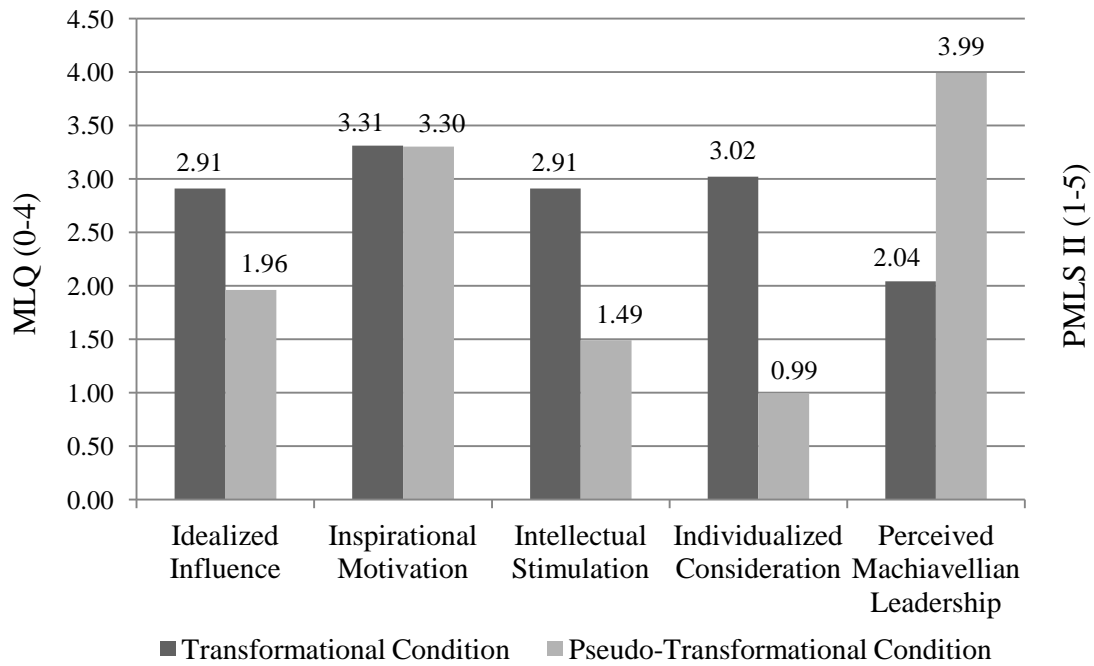


Figure 4. Mean MLQ transformational leadership subscale scores and PMLS II Scores for the transformational and pseudo-transformational leadership conditions. MLQ – scale 0-4; PMLS II – scale 1-5.

idealized influence ($M = 2.91$), whereas the leader described in the pseudo-transformational conditions was rated below the scale midpoint on idealized influence ($M = 1.96$); the Tukey HSD test comparing these two leadership conditions was significant, $q(5, 387) = 14.43, p < .001$.

The second ANOVA was conducted to assess the differences amongst the five leadership conditions on the transformational component of inspirational motivation. The ANOVA indicated significant differences among the five leadership conditions on the MLQ-assessed inspirational motivation, $F(4, 387) = 75.50, p < .001$. Tukey's HSD post hoc tests revealed that all pairs of means were statistically significantly different from one another – except for one. Specifically, as predicted, both transformational ($M = 3.31$) and pseudo-transformational leaders ($M = 3.30$) were rated high on inspirational motivation, and the difference between these two conditions on inspirational motivation was not statistically significant, $q(5, 387) = .11, p > .05$.

Next, a single factor ANOVA was conducted in order to examine the differences among the five leadership conditions on the third transformational component of intellectual stimulation. The analysis demonstrated that there were, indeed, significant differences among the leadership conditions on the MLQ-assessed intellectual stimulation, $F(4, 387) = 69.44, p < .001$. As expected from Christie et al.'s (2011) model, the leader from the transformational condition was rated moderately high ($M = 2.91$) on intellectual stimulation, whereas the leader from the pseudo-transformational condition was rated fairly low ($M = 1.49$); the Tukey's HSD post hoc test indicated that this difference was statistically significant, $q(5, 387) = 15.00, p < .001$.

The fourth single factor ANOVA was performed to examine whether the leadership conditions differed from one another on the remaining transformational leadership component of individualized consideration. Once again, the ANOVA indicated that there were, indeed, significant differences among the conditions on the MLQ-assessed individualized consideration, $F(4, 387) = 105.00, p < .001$. Consistent with Christie et al.'s (2011) model, the leader described in the transformational condition was rated high ($M = 3.02$) on individualized consideration, whereas the leader from the

pseudo-transformational condition was rated low ($M = 0.99$); Tukey's HSD post hoc test indicated that these means differed significantly, $q(5, 387) = 22.11, p < .001$.

Lastly, to extend Barling and colleagues' (2008) and Christie and colleagues' (2011) models, it was proposed that pseudo-transformational leaders could also be distinguished from true transformational leaders through manipulative, self-focused leadership – captured well through the construct of perceived Machiavellian leadership. As discussed previously (among the manipulation check analyses), an ANOVA was performed to compare the five leadership conditions on perceived Machiavellian leadership – as assessed by PMLS II scale. Once again, the ANOVA indicated significant differences among the means for the five leadership conditions on perceived Machiavellian leadership, $F(4, 386) = 166.54, p < .001$. Participants from the transformational condition assigned a low Machiavellian leadership rating to their leader ($M = 2.04$), whereas the participants from the pseudo-transformational condition assigned to their leader a fairly high rating on Machiavellian leadership ($M = 3.99$); the Tukey's HSD post hoc test indicated a statistically significant difference between these two conditions on perceived Machiavellian leadership, $q(5, 386) = 31.51, p < .001$.

Thus, Hypothesis 13 was fully supported by the ANOVA results. Specifically, while the transformational and pseudo-transformational leaders did not differ significantly on inspirational motivation, the transformational leader was rated significantly higher on idealized influence, intellectual stimulation and individualized consideration than was the pseudo-transformational leader. Also, the pseudo-transformational leader was indeed rated significantly higher on perceived Machiavellian leadership than was the leader from the transformational condition.

Perceived Machiavellian Leadership Scale II

Two primary analyses were conducted in order to assess the quality of the new Perceived Machiavellian Leadership Scale II (PMLS II). First, Cronbach's alpha coefficient was computed to assess the internal consistency reliability of the scale, followed by the item-total correlations to assess how each scale item related to the entire PMLS II. Second, a confirmatory factor analysis (CFA) was conducted using EQS

program in order to assess the factor structure for the PMLS II. In addition to the CFA, an exploratory factor analysis (EFA) was conducted for exploratory purposes using SPSS in order to assess whether one or more factors are extracted using all the items from PMLS II. Lastly, zero-order correlations were computed to assess how perceived Machiavellian leadership related to other constructs and to provide additional evidence of validity of the PMLS II.

Reliability. Once again, Cronbach's alpha coefficient was computed using IBM SPSS 19 statistical package. The value of the alpha coefficient for PMLS II was .95, indicating that the 20 PMLS II items were highly consistent with one another. This alpha coefficient value was similar to the one obtained in Study 2 – which was .97.

For most of the PMLS II items, the item-total correlations from the SPSS Reliability Analysis were moderate or high in size, ranging from .53 to .80. These correlations indicated that most of the PMLS II items relate closely to the rest of the PMLS II scale. Only one PMLS II item – item 2 – had a fairly low item-total correlation (i.e., $r = .31$), as compared to the remaining items from this scale. This finding indicated that the second item from PMLS II (i.e., “Jack Harris thinks that it is wise to flatter important people”) was not closely related to the rest of the scale. Interestingly, this item did not have such a low item-total correlation in Study 2; items 4 and 14 were the two that had lower item-total correlations than did the remaining PMLS II items in Study 2.

Dimensionality and factor structure of PMLS II. Because the Study 2 findings provided some support for the unidimensional nature of the PMLS II, a CFA was performed using EQS 6.1 to determine whether a unidimensional factor structure could be further corroborated. The item factor loadings obtained in the CFA are listed in Table 19. As before, the PMLS II items served as indicators of the perceived Machiavellian leadership latent variable.

There was evidence that the assumption of multivariate normality was violated, with Mardia's Normalized coefficient = 24.05, $p < .001$. Therefore, the model was estimated with the ML estimation and tested with the Satorra-Bentler chi square and robust fit indices. The robust fit indices indicated a marginal or somewhat inadequate fit

Table 19

Study 3 Perceived Machiavellian Leadership Scale II Item CFA with Standardized Factor Loadings

Perceived Machiavellian Leadership Scale II Item	Standardized Factor Loading	Error
Item 1	.53	.85
Item 2	.37	.93
Item 3	.83	.56
Item 4	.66	.75
Item 5	.73	.69
Item 6	.75	.67
Item 7	.66	.75
Item 8	.80	.61
Item 9	.72	.70
Item 10	.72	.70
Item 11	.81	.59
Item 12	.54	.84
Item 13	.72	.69
Item 14	.59	.81
Item 15	.69	.72
Item 16	.62	.79
Item 17	.58	.82
Item 18	.58	.82
Item 19	.77	.64
Item 20	.79	.61

of the CFA model to the data, with the Satorra-Bentler χ^2 (170, $N = 392$) = 719.748, $p < .0001$, Robust CFI = .88, Robust RMSEA = .09 (see Table 20 for all relevant fit indices).

Nonetheless, it is worth noting that the CFA indicated that all 20 items loaded significantly on a single factor (see Table 19). With one exception, all the standardized factor loadings for the PMLS II items were above .50. However, consistent with the item-total correlations, the standardized factor loading of .37 for the second PMLS II item was marginal in size compared to the loadings for the remaining items from this scale. This finding indicated that this item may be assessing concepts that are somewhat distinct from those assessed by the rest of the PMLS II scale. Given the somewhat inadequate fit of the CFA model for the PMLS II scale, an Exploratory Factor Analysis (EFA) was also conducted to explore the possibility that a different factor solution could offer a better model fit. Although several items (including Items 2 and 17) did load on a secondary factor in addition to a primary factor, the scree test indicated that the single-factor solution fit the data best. In other words, the largest proportion of variance was captured by the first extracted factor. Collectively, these findings from the exploratory and confirmatory factor analyses provided additional support for unidimensionality of PMLS II.

Validity evidence for PMLS II. As before, Pearson's zero-order correlations were computed between perceived Machiavellian leadership and several other constructs in order to provide additional evidence of validity of the Perceived Machiavellian Leadership Scale II (PMLS II). As expected, scores on PMLS II were negatively related to the MLQ-assessed transformational leadership ($r = -.60$, $p < .001$) and contingent reward leadership ($r = -.63$, $p < .001$), and not significantly correlated with scores on the MLQ-assessed MBE-active leadership ($r = .07$, $p > .05$). These correlations provided additional evidence of divergent and discriminant validity of PMLS II.

To provide an assessment of concurrent and construct validity, perceived Machiavellian leadership was correlated with positive and negative emotions, trustworthiness factors, trust, leader effectiveness, extra effort, satisfaction, and the promotion decision. All of these correlations were significant and in the expected

Table 20

Study 3 Perceived Machiavellian Leadership Scale II (PMLS II) CFA Fit Indices

Model	χ^2	NFI	CFI	GFI	SRMR	RMSEA
Single Factor Model with 20 Items – ML Method	848.33***	.82	.85	.78	.06	.10
Single Factor Model with 20 Items – Robust Method	719.74***	.85	.88	-	-	.09

*** $p < .001$.

direction. Perceived Machiavellian leadership was significantly positively associated with negative emotions ($r = .54$ to $.67, p < .001$) and significantly negatively associated with positive emotions ($r = -.46$ to $-.69, p < .001$). PMLS II scores were negatively correlated with the trustworthiness factors of ability ($r = -.53, p < .001$), benevolence ($r = -.80, p < .01$), and integrity ($r = -.76, p < .001$). PMLS II-assessed Machiavellian leadership also exhibited a significant negative relationship with BTI-assessed trust ($r = -.71, p < .001$). As expected, the MLQ-assessed outcome variables exhibited moderately high negative correlations with PMLS II-assessed Machiavellian leadership ($r = -.69, p < .001$ for effectiveness; $r = -.58, p < .001$ for extra effort; $r = -.71, p < .001$ for satisfaction). Finally, the correlation between perceived Machiavellian leadership and the participants' ratings of their promotion recommendation was negative and moderately high ($r = -.73, p < .001$), indicating that the higher the PMLS II score for the leader the lower the likelihood that the employees of this leader would recommend the leader for promotion to the managerial position. Collectively, these findings provide solid evidence of concurrent and construct validity of PMLS II.

Because in Study 2 fairly sizeable correlations were found between PMLS II scores and the scores on the MLQ-assessed MBE-passive and laissez-faire leadership (as well as with the combined passive-avoidant leadership), it was important to re-examine these correlations in Study 3 in order to assess if pattern and size of these correlations was similar as in Study 2. In Study 3, the zero-order correlations between PMLS II scores and MBE-passive ($r = .42, p < .001$) as well as between PMLS II scores and laissez-faire ($r = .54, p < .001$) were still statistically significant, albeit moderately sized. These associations are discussed in more detail below.

Discussion

The primary goal of this experimental study was to examine and compare the causal effects of five leadership styles of varying effectiveness and desirability on employees' emotional reactions to leaders, their perceptions of leaders' trustworthiness, and their trust in leaders. Secondary aims of the study were to test the extended model of pseudo-transformational leadership and to provide an additional assessment of the

psychometric properties of Perceived Machiavellian Leadership Scale II (PMLS II) using an independent sample of post-secondary students with work experience.

Tests of Hypotheses

Overall, the results of the experimental study lent support to the hypotheses. Specifically, the first hypothesis, which pertained to the manipulation checks, was supported in full. First, the fictitious leader described in the transformational leadership condition was indeed rated the highest on the combination of MLQ-assessed transformational sub-scales, and the leader described in the contingent reward condition was rated the highest on MLQ-assessed contingent reward sub-scale. Additionally, the leader described in the pseudo-transformational condition was rated as higher on PMLS II-assessed Machiavellian leadership than were the leaders from the remaining conditions. The leader described in the MBE-active condition was indeed rated higher on the MLQ-assessed MBE-active sub-scale than were the leaders from the remaining conditions. Participants rated the leader described in the passive-avoidant condition as higher on the MLQ-assessed MBE-passive and laissez-faire sub-scales than they rated the rest of the leaders examined in this study. Therefore, the leader who was described as transformational was indeed perceived to be transformational; the leader who was described as pseudo-transformational was perceived to be high on Machiavellian leadership – a style that is closely related to pseudo-transformational leadership; the leader who was described as MBE-active was indeed perceived to be an active management-by-exception leader, and so on. Collectively, these findings suggest that the leadership manipulations were successful in evoking impressions of the appropriate Full-Range leadership styles and the pseudo-transformational leadership style.

Additionally, results from ANOVAs and zero-order correlations largely supported the predictions specified under Hypotheses 2 and 7. First, the leader described in the transformational condition was indeed rated the highest on trust, trustworthiness and employees' positive emotions. Moreover, as an additional test of Hypothesis 2, the bivariate correlations demonstrated high positive relationships of transformational leadership style with trust, trustworthiness and positive emotions. Therefore, as predicted

in Hypotheses 2, transformational leadership style indeed appeared to positively influence employees' positive emotions, perceived leader trustworthiness, and trust in leader; additionally, as specified by Hypothesis 7, transformational leadership appeared to have the most positive impact on emotions, trustworthiness and trust out of the five leadership styles.

Second, as a test of Hypotheses 4 and 7, the results from the ANOVAs demonstrated that the leader described in the contingent reward condition was also rated high or moderately high on trust, trustworthiness and employees' positive emotional reactions – in a similar way as was the leader from transformational condition. In fact, the effect of contingent reward leadership style on trust and positive emotions was somewhat weaker than that of the transformational leadership style, whereas the effect of contingent reward leadership on trustworthiness was not significantly different from that of the transformational leadership style. Moreover, as an additional test of Hypothesis 4, zero-order correlations also demonstrated moderately high positive relationships of contingent reward leadership with trust, trustworthiness and positive emotions. Thus, the Hypotheses 4 was supported as contingent reward leadership indeed appeared to positively influence employees' positive emotions, perceived leader trustworthiness, and trust in leader; additionally, Hypothesis 7 was largely supported as contingent reward leadership had an effect that was either just as positive or somewhat weaker than did transformational leadership on emotions, trustworthiness and trust.

Third, as a test of Hypotheses 5 and 7, the ANOVAs indicated that the leader portrayed in the MBE-active condition was rated just below moderate level on trust, trustworthiness and employees' positive emotional reactions. In fact, in most cases, the effect of MBE-active leadership style on these variables was in between the positive effects of transformational and contingent reward and the negative effects of pseudo-transformational and passive-avoidant leadership styles. Moreover, as an additional test of Hypothesis 5, zero-order correlations indicated that MBE-active leadership was not related to trust, trustworthiness, positive or negative emotions. Therefore, the Study 3 results seemed to support Hypothesis 5 as MBE-active leadership indeed appeared to have little or no influence on employees' positive emotions, perceived leader

trustworthiness, and trust in leader; additionally, Hypothesis 7 was also supported as the effects of MBE-active leadership on emotions, trustworthiness and trust were right between the positive effects of transformational and contingent reward and the negative effects of pseudo-transformational and passive-avoidant leadership styles.

Fourth, as a test of Hypotheses 3 and 7, the results from the analyses of variance demonstrated that the leader described in the pseudo-transformational condition was rated moderately on negative emotions, below moderate level on trustworthiness perceptions, and well below moderate level on trust. In fact, the effect of pseudo-transformational leader was among the highest-rated leaders on negative emotions, whereas this leader was among the lowest-rated on trustworthiness and trust. However, contrary to the predictions, the pseudo-transformational leader was not rated differently on negative emotions, trustworthiness and trust than was the passive-avoidant leaders; the two leaders seemed to have roughly similar effects on negative emotions, trustworthiness and trust. Furthermore, as an additional test of Hypothesis 3, zero-order correlations also demonstrated moderately high positive relationship between pseudo-transformational leadership and negative emotions and moderately high negative relationships between this leadership and trustworthiness and trust. Thus, Hypothesis 3 was supported as pseudo-transformational leadership indeed appeared to positively influence employees' negative emotions and negatively influence perceived leader trustworthiness and trust in leader; Hypothesis 7 (in relation to this leadership style) was partially supported as there were no differences between the effects of pseudo-transformational and passive-avoidant leadership styles on emotions, trustworthiness and trust, whereas the pseudo-transformational leadership seemed to differ from transformational, contingent reward and MBE-active leadership styles in the predicted ways.

Fifth, the results from the ANOVAs testing Hypotheses 6 and 7 indicated that the leader portrayed in the passive-avoidant condition was rated moderately on negative emotions, below moderate level on trustworthiness perceptions, and well below moderate level on trust – similar to the leader from pseudo-transformational condition. As mentioned before, while there were few, if any, differences between the effects of pseudo-transformational and passive-avoidant leadership styles on emotions,

trustworthiness and trust, the effect of passive-avoidant leadership on these three variables were more negative than those for remaining leadership styles. Zero-order correlations again provided an additional test of Hypothesis 6, moderate positive relationship between passive-avoidant leadership and negative emotions and moderate negative relationships between this leadership style and trustworthiness and trust. Therefore, the Study 3 findings seemed to support Hypothesis 6 as passive-avoidant leadership indeed appeared to positively influence employees' negative emotions and negatively influence employees' perceptions of leader trustworthiness and trust in leader; Hypothesis 7, however, was partially supported as there were no differences between the effects of passive-avoidant and pseudo-transformational leadership styles on emotions, trustworthiness and trust, whereas passive-avoidant leadership appeared to differ from the remaining leadership styles in the ways consistent with predictions.

Interestingly, the effect of pseudo-transformational leadership was often quite similar to the effect of passive-avoidant leadership; their means for emotions, trustworthiness and trust were not significantly different from one another. This similarity between the effects of the two styles may suggest why passive-avoidant and perceived Machiavellian leadership styles were likely suppressing each others' effects in Study 1 and Study 2 SEM analyses. Interestingly, both pseudo-transformational and passive-avoidant leadership styles seemed to influence negative emotions and trustworthiness in a similar way. It may be that these two leadership styles have similar effects on trust because they are working through the same mechanism of antecedents to trust. More is said about this in the next chapter.

Collectively, these findings from Study 3 were largely consistent with the findings from Studies 1 and 2. Thus, the Study 3 findings provided additional support for the largely positive effects of transformational and contingent reward leadership styles on employees' emotional reactions, trustworthiness perceptions and trust, as well as largely negative effects of pseudo-transformational and passive-avoidant leadership styles on emotions, trustworthiness and trust. Furthermore, consistent with the results of Studies 1 and 2, Study 3 also found that MBE-active leadership had little or no effect on employees' emotional reactions, trustworthiness perceptions, and trust.

Study 3 also yielded two additional sets of noteworthy findings. In support for Hypothesis 9, the transformational and contingent reward leaders were most likely to be recommended for the promotion to the managerial position, followed by the MBE-active leader. The passive-avoidant and pseudo-transformational leaders were judged were least likely to be recommended for the promotion.

The ANOVAs for the effects of leadership on the MLQ-assessed outcomes lent support to Hypothesis 8, by demonstrating that transformational and contingent reward leaders were, indeed, perceived as the highest on effectiveness, followed by the MBE-active leader. Interestingly, pseudo-transformational leader was recognized by the participants to be more effective than passive-avoidant leader. This is consistent with Deluga's (2001) findings that presidents who were high in charisma and Machiavellianism were viewed as high performers and successful in their presidential roles. The pseudo-transformational leader, however, was still perceived as less effective than the MBE-active leader.

Next, the ANOVA on the effect of leadership condition on employees' willingness to exert extra effort at work also largely supported Hypothesis 8, demonstrating that the employees working under transformational and contingent reward leaders tend to be the most willing to exert extra effort, followed by the employees of MBE-active, pseudo-transformational, and then passive-avoidant leaders. Interestingly, MBE-active and pseudo-transformational leaders did not differ in terms of their employees' willingness to exert extra effort at work.

Finally, the ANOVA on the effect of leadership condition on MLQ-assessed satisfaction with leader indicated that transformational and contingent reward leaders seemed to have the most satisfied employees, followed by MBE-active, pseudo-transformational, and passive-avoidant leaders. Pseudo-transformational and passive-avoidant leaders did not differ on their employees' satisfaction; both were equally low.

The remaining hypotheses, pertaining to the mediating roles of trustworthiness and emotions, were supported either fully or partially. In fact, the Study 3 findings from the mediation analyses were largely consistent with the Study 1 findings pertaining to the

indirect effects. First, as predicted in Hypothesis 10, trustworthiness indeed mediated the relationship between the combined transformational-contingent reward leadership and trust. This finding was consistent across the three studies. Interestingly, however, the Study 3 findings also indicated that trustworthiness acted as a mediator of the relationship between perceived Machiavellian leadership and trust, but it did not mediate the relationship between passive-avoidant leadership and trust. This pattern was somewhat different from that obtained in Studies 1 and 2 – in which trustworthiness mediated only the relationship between passive-avoidant leadership and trust (but not the one between perceived Machiavellian leadership and trust). The potential reasons for the inconsistencies between these findings and the ones from Study 3 will be explored further in the next chapter.

Next, Hypothesis 11 received partial support in Study 3; in fact, the pattern of findings was the same as in Study 1. Specifically, as predicted, positive emotions indeed acted as mediators of the relationship between the combined transformational-contingent reward and trust. However, the same did not hold for negative emotions; negative emotions neither demonstrated a direct link with trust, nor did they mediate the relationships of perceived Machiavellian and passive-avoidant leadership with trust. This pattern of findings was identical to that from Study 1 but different from the Study 2 finding that neither positive nor negative emotions mediated the leadership style-trust relationships. There are several potential explanations why these results from Studies 1 and 3 differed from the Study 2 results, as discussed below.

Lastly, Hypothesis 12 also received full support in Study 3. Specifically, positive emotions indeed mediated the relationship between the combined transformational-contingent reward leadership and perceived leader trustworthiness; moreover, negative emotions acted as mediators of both the relationship between perceived Machiavellian leadership and trustworthiness as well as the relationship between passive-avoidant leadership and trustworthiness. These findings were identical to those from Study 2; they were also similar to those from Study 1 – in which negative emotions only mediated the relationship between perceived Machiavellian leadership and trustworthiness.

Collectively, these findings support the idea that transformational and contingent reward leaders tend to be perceived as effective, satisfying, and promotion-worthy leaders. Conversely, the finding also suggest that pseudo-transformational and passive-avoidant leaders tend to be perceived as less effective, unsatisfying, and unworthy of promotions or career progression. Lastly, MBE-active leaders tend to be perceived as somewhat effective, sometimes satisfying, and neutral in terms of their promotion potential.

Tests of the Extended Model of Pseudo-Transformational Leadership

The findings of Study 3 not only confirmed the Christie et al.'s (2011) model of pseudo-transformational leadership, but they also provided support to the proposed extension of the model – as specified by Hypothesis 13. Specifically, findings from analyses of variance with transformational leadership components indicated that, as predicted by Christie et al.'s model, pseudo-transformational leaders tended to be perceived as high on inspirational motivation and low on idealized influence, intellectual stimulation and individualized consideration. This pattern could be contrasted with that for the transformational leader – who tended to be perceived as high on all four of these transformational components. Furthermore, however, Study 3 results demonstrated that pseudo-transformational leaders could also be distinguished from true transformational leaders in terms of perceived Machiavellian leadership; specifically, pseudo-transformational leader tended to be perceived as high on Machiavellian leadership, whereas transformational leader was perceived to be low on Machiavellian leadership in Study 3. Hence, Study 3 results provided preliminary support for the extended model of pseudo-transformational leadership that was proposed within this research project. More is said about this in the next chapter.

Perceived Machiavellian Leadership Scale II

Study 3 findings related to Perceived Machiavellian Leadership Scale II (PMLS II) were largely similar to the Study 2 results pertaining to the same scale. When the scale was tested in Study 2, the results provided solid preliminary evidence of reliability and validity of PMLS II; in fact, the Study 2 findings indicated that PMLS II had

somewhat better psychometric properties than did the PMLS I scale - which was tested in Study 1. The Study 3 findings also provide solid evidence of reliability and validity of PMLS II. First, the alpha coefficient obtained in Study 3 was quite high (i.e., $\alpha = .95$), thus demonstrating that the scale was highly internally consistent. This alpha coefficient was quite similar to the one obtained in Study 2 for same scale (i.e., $\alpha = .97$) – which suggests fairly consistent and stable findings for the internal consistency reliability of PMLS II.

Second, the EFA and CFA findings from Study 3 as well as Study 2 provided support for the unidimensionality of PMLS II. Although the overall fit of the one-factor CFA model was better in Study 2 than in Study 3, most of the PMLS II items had good factor loadings (i.e., from .50 to .90) in both studies. Moreover, the exploratory factor analyses from Study 3 as well as Study 2 demonstrated that the primary extracted factor accounted for most of the variance in PMLS II items – thus providing further support for the scale's unidimensionality.

Next, Study 3 provided solid evidence of validity of PMLS II. Some of the Study 3 validity evidence was comparable to that obtained in Study 2, whereas other validity evidence from Study 3 was somewhat stronger than that obtained in Study 2. For instance, the negative correlation between PMLS II scores and the MLQ scores on transformational leadership was somewhat stronger in Study 3 ($r = -.60$) than it was in Study 2 ($r = -.41$). Nonetheless, both of these sets of findings demonstrated that PMLS II is moderately negatively associated with the established measure of an opposing construct of transformational leadership.

Moreover, Study 3 also yielded additional evidence of PMLS II's construct validity that was either comparable to or stronger than the equivalent evidence from Study 2. Specifically, the Study 3 scores on PMLS II were correlated with the scores on measures of conceptually-related constructs, as in Study 2 (with PMLS II) and in Study 1 (with PMLS I). First, the Study 3 correlations between PMLS II scores and the scores on employees' negative emotions were significant and moderately high, as in Study 2. Moreover, the Study 3 bivariate correlations between PMLS II scores and the scores on

the trustworthiness factors of integrity and benevolence were similar to those from Study 2. These findings suggested that the higher the leader is perceived to be on Machiavellian leadership, the lower he or she is perceived to be on honesty, dependability or ethics, as well as on the goodwill toward others. Additionally, these findings also suggest that the more Machiavellian a leader is perceived to be, the less competent he or she will appear. Moreover, Study 3 also seemed to support the finding from Studies 1 and 2 that leaders who utilize Machiavellian leadership style (as measured by PMLS II and PMLS I) to a greater extent tend to be perceived as lower than other leaders on MLQ-assessed effectiveness and to generate lower satisfaction in their employees as well as lower willingness of employees to exert extra effort at work. Finally, as in Study 2, a substantial negative correlation between PMLS II-assessed Machiavellian leadership and BTI-assessed trust found in Study 3 indicated that leaders who appear to utilize a Machiavellian leadership style to a greater extent tend to be trusted less by their employees as compared to other leaders.

Limitations

Apart from the encouraging Study 3 and Study 2 findings on the psychometric properties of PMLS II, Study 3 results also corroborated a previously-identified issue related to this scale. Specifically, the scores on PMLS II were again found to be correlated with the scores on passive-avoidant leadership – consisting of the MLQ-assessed MBE-passive and laissez-faire leadership styles. Interestingly, the Study 3 correlations of PMLS II scores with MBE-passive ($r = .42, p < .001$) and laissez-faire ($r = .54, p < .001$) leadership styles were substantially lower than those from Study 2 (i.e., for MBE-passive, $r = .74$; for laissez-faire, $r = .75$). A possible reason for the lower correlations in Study 3 could be the study's somewhat artificial manipulation of leadership styles whereby the experimental leadership conditions were designed to reflect the conceptual definitions and descriptions of the aforementioned leadership styles; as such, the fictitious leaders described in the experimental conditions may have been perceived to be more distinct from one another than they are in reality. Nonetheless, these correlations from Study 3 were significant and in the direction that was consistent with that of the corresponding Study 2 correlations. As mentioned previously, there are a

number of possible explanations for these unexpected correlations of perceived Machiavellian leadership with MBE-passive and laissez-faire (and thus passive-avoidant) leadership styles. For example, although Machiavellian and passive-avoidant leadership styles are distinct at the conceptual level, some of their manifestations (e.g., aloof and isolating behaviors) may be similar (as discussed in more detail in the next chapter).

Apart from the issue with PMLS II, Study 3 had several other noteworthy limitations that warrant attention. First, this study was conducted among post-secondary students who had obtained some work experience in the past three years. Given that they tend to be less experienced and younger than their full-time employees with relatively permanent jobs, it is possible that their impressions of and the reactions to the fictitious leader from this study may be different than impressions and reactions of the full-time employees. Therefore, it would be desirable to re-conduct this study in a sample of more experienced full-time workers to assess whether or not the findings of this study would generalize to the full-time working population.

Another important limitation was the somewhat artificial nature of the study's experimental manipulation. Specifically, in this study, leadership styles were manipulated through written materials that were presented online as a part of a managerial job candidate pre-screening simulation. Although efforts were made to create an engaging and realistic web site for this simulation, it is possible that the participants were not as engaged in this simulation as they might have been if they viewed videos of the fictitious leader interacting with supervisor, peers, and direct reports. It may, therefore, be desirable for future research to attempt to replicate the present study using a more-engaging video-based simulation.

CHAPTER 5: GENERAL DISCUSSION

Overview of Research Goals

In the past several decades, trust in organizational leaders has been recognized as a critical variable with the potential of influencing important organizational outcomes. Evidence from individual studies and meta-analyses suggests that trust in organizational leaders tends to negatively predict employees' intent to turnover and counterproductive behavior, and positively predict employees' job performance, risk taking, employee well-being, organizational citizenship behaviors, job satisfaction, and organizational commitment (Colquitt, Scott & LePine, 2007; Dirks & Ferrin, 2002; Kelloway, Turner, Barling & Loughlin, 2012). In spite of its importance, research conducted in the U.S., Canada and Australia suggests that trust in organizational leaders is declining (Connell, Ferres, & Travaglione, 2003; Dirks & Skarlicki, 2004). As declining trust levels may contribute to serious problems such as lowered organizational performance (as a result of lower employee performance and OCBs) and decreased retention of the workforce in an era of looming labor shortages, it was important to investigate antecedents of trust in organizational leaders and how different leadership styles influence trust. In addition to examining effective leadership styles such as transformational leadership, it was important to examine less effective and even dysfunctional leadership styles. Following recent ethics scandals and abuses of authority in business, politics and other spheres, the need for better understanding of types and outcomes of dysfunctional leadership has become clear to organizational researchers and practitioners as well as to the general public (Brown & Trevino, 2006; Padilla, Hogan & Kaiser, 2007).

Thus, the goals of the present research project were as follows. The first two goals were to investigate how and how much diverse leadership styles influence employees' trust in leaders and their perceptions of leaders' trustworthiness; the leadership styles were selected across the Full Range of Leadership model described by Avolio and Bass (2004; Bass, 1998; Avolio, 1999) as well as Bass and Steidlmeier's (1999) more recently described pseudo-transformational leadership and the related Machiavellian leadership. Thirdly, I investigated the role of employees' emotional

reactions to leaders in terms of how leaders with different leadership styles make their employees feel as well as how these feelings impact employees' trust in leaders and their cognitive perceptions of leaders' trustworthiness. Lastly, I explored whether employees' emotions help to explain the relationships between leadership styles and trustworthiness perceptions as well as between leadership styles and trust; I also investigated whether trustworthiness perceptions form part of the explanatory mechanism for the relationships between the various leadership styles and trust.

This discussion is organized as follows. In the first section, I discuss findings and contributions of the present research project including how the present findings compare with past research. What follows is a discussion of implications of the present research findings for organizational effectiveness in general and organizational leadership in particular. The third section will discuss implications of the present research findings for organizational theory, with a special focus on leadership and trust theories and my proposed model of leadership, emotions, trustworthiness and trust. Next, limitations of the present research are discussed, followed by some directions for future research based on the existing literature and the findings of the present research. The last section will present a summary of research contributions and the conclusions stemming from my findings.

Findings and Contributions

The present research project has made several important contributions to the organizational literature on leadership, emotions and trust. First, the present research project proposed an integrated model of leadership styles, emotions, trustworthiness perceptions and trust. Testing of this model was the primary purpose of all three of the present studies. The proposed model was well supported in all three studies. Aside from adding to the existing literature on leadership, emotions and trust, this model contributes to a better understanding of the mechanisms by which both effective (i.e., transformational and contingent reward) as well as less effective leadership styles (i.e., MBE-active, passive-avoidant, Machiavellian, pseudo-transformational) influence followers' perceptions of leader trustworthiness and trust in organizational leaders.

Second, the present research explored the above-mentioned leadership styles in relation to a range of both positive and negative emotions, thus going beyond the existing literature examining the links among these variables. Third, the project added to the existing literature on trust and emotions by shedding light on the mechanisms by which positive and negative emotions may impact trust (both directly and indirectly). Fourth, this research extended Christie and colleagues' (2011) model of pseudo-transformational leadership through the inclusion of the construct of perceived Machiavellian leadership. Lastly, to study the effect of Machiavellian leadership on emotions, trustworthiness, and trust, it was necessary to develop a scale to measure perceived Machiavellian leadership; thus, scale development and validation constituted another contribution of this research. Each of these contributions is discussed in more detail in the following sections. Each of these contributions is discussed in more detail in the following sections.

Effects of Leadership Styles on Emotions, Trustworthiness and Trust

Previous research on leadership and trust has largely emphasized links with desirable and effective leadership styles, such as transformational leadership and contingent reward leadership (e.g., Dirks & Ferrin, 2002). Therefore, it is not surprising that researchers (e.g., Gillespie & Mann, 2004; Kelloway et al., 2012) have recently recognized that less is known about how MBE-active, MBE-passive, laissez-faire, pseudo-transformational, and Machiavellian leadership styles affect employees' trust in leaders. Moreover, little is known about how these leadership styles influence perceptions of leaders' trustworthiness as conceptualized by Mayer, Davis and Shoorman (1995).

Additionally, although previous research had examined how some leadership styles relate to certain emotions, only a limited set of emotions was examined in relation to a small subset of primarily positive leadership styles, such as transformational leadership (e.g., Bono & Ilies, 2006; Bono et al., 2007; McColl-Kennedy and Anderson, 2002). The present project examined various effective and dysfunctional leadership styles in relation to a larger number of both positive (i.e., optimism, relief, gratitude, self-assurance, joviality) and negative emotions (i.e., hostility, anxiety, fear, frustration,

disappointment). Collectively, all three studies from the present research project largely supported the hypothesized effects of leadership styles on emotions, trustworthiness and trust as proposed in my model (see Table 21 for the summary of all hypotheses and results).

Transformational and contingent reward leadership. As can be seen from Table 21, the findings of the present research supported the first two general hypotheses presented in Chapter 1. Specifically, the results of all three studies suggested that transformational and contingent reward leaders tend to evoke positive feelings, such as self assurance, gratitude, optimism, enthusiasm and relief, in their employees. The employees working for these leaders also tend to perceive the leaders as trustworthy; that is, these leaders tend to be perceived as being high on job-related competence, integrity and goodwill toward others. Not surprisingly, then, employees also tend to experience fairly high levels of trust in these leaders, and they perceived the leaders as effective, satisfying to work for, and worthy of extra effort. These findings are consistent with previous research on trust and leadership whereby transformational and contingent reward leadership styles were found to be positively associated with trust in leaders (Dirks & Ferrin, 2002; Gillespie & Mann, 2004; Kelloway et al., 2012). Furthermore, the findings on the links between leadership and emotions are also consistent with the previous research (e.g., McColl-Kennedy and Anderson, 2002; Bono et al., 2007) which found that employees working under transformational leaders tend to experience more optimism, happiness, and enthusiasm. The present research, however, built on the existing literature by uncovering the positive causal relationships of transformational and contingent reward leadership styles with a range of positive emotions, including relief and gratitude which do not appear to have been examined before. The present research also found that these leadership styles tended to impact employees' perceptions of leader trustworthiness which does not appear to have been studied before.

Pseudo-transformational and perceived Machiavellian leadership. The findings from the present research mostly supported the sixth general hypothesis presented Chapter 1. Specifically, the employees who are working under pseudo-transformational and perceived Machiavellian leaders tend to feel negatively about their

Table 21

Summary of Hypotheses and Findings Across Three Studies

Prediction	Support in Study 1	Support in Study 2	Support in Study 3
<u>Research Goals 1 and 2: Relationships of the Five Leadership Styles with Emotions, Trustworthiness, Trust and Other Outcomes</u>			
TFL leadership will positively influence positive emotions, perceived leader trustworthiness and trust in leader.	Yes	Yes	Yes
CR leadership will positively influence positive emotions, perceived leader trustworthiness and trust in leader.	Yes	Yes	Yes
MBE-A will not influence emotions, perceived leader trustworthiness or trust in leader.	Yes	Partial (significant correlations)	Yes
PA leadership will positively influence negative emotions and negatively influence perceived leader trustworthiness and trust in leader.	Partial	Yes	Yes
PT ^a and perceived Machiavellian leadership ^a will positively influence negative emotions and negatively influence perceived leader trustworthiness and trust in leader.	Partial	Partial	Yes
Of the five leadership styles, TFL leadership will have the most positive effects on positive emotions, trustworthiness perceptions, and trust, followed by the CR, MBE-A, PA, and PT leadership styles.	Not tested	Not tested	Partial (CR often similar to TFL; PT either similar to or better than PA)
Of the five leadership styles, TFL leadership will have the most positive effects on the MLQ-assessed effectiveness, extra effort, and satisfaction with leader, followed by the CR, MBE-A, PA, and PT leadership.	Not tested	Not tested	Partial (CR often similar to TFL; PT either similar to or better than PA)

Prediction	Support in Study 1	Support in Study 2	Support in Study 3
<u>Research Goals 1 and 2: Relationships of the Five Leadership Styles with Emotions, Trustworthiness, Trust and Other Outcomes (+ Test of PT Model)</u>			
TFL leader will be judged as the most suitable for a promotion, followed by the CR, and then MBE-A, PA and PT leaders.	Not tested	Not tested	Yes
Compared to the TFL leader, the PT leader will be rated higher on perceived Machiavellian leadership, equally as high on inspirational motivation and lower on idealized influence, intellectual stimulation and individualized consideration.	Not tested	Not tested	Yes
<u>Research Goals 3 and 4: Role of Emotions in the Trust Model and Mediation Roles of Emotions and Trustworthiness Perceptions</u>			
Perceptions of leader's trustworthiness will mediate the relationships between all leadership styles (except MBE-A) and trust.	Partial (supported for TFL+CR & PA only)	Partial (supported for TFL+CR & PA only)	Partial (supported for TFL+CR & PT only)
Employees' emotions will mediate the relationships between all leadership styles (except MBE-A) and trust.	Partial (supported for positive emotions only)	No	Partial (supported for positive emotions only)
Employees' emotions will mediate the relationships between all leadership styles (except MBE-A) and trustworthiness perceptions.	Partial (PA not significant)	Yes	Yes

Note. ^aPseudo-transformational leadership was investigated in Study 3, whereas perceived Machiavellian leadership was examined in Studies 1 and 2. TFL = transformational; CR = contingent reward; TFL+CR = combined transformational-contingent reward leadership; MBE-A = management-by-exception-active; PA = passive-avoidant; PT = pseudo-transformational; Mach = perceived Machiavellian leadership; significant correlations = significant bivariate correlations.

leaders as these leaders tend to evoke emotions such as frustration, disappointment, anger, anxiety and fear. Pseudo-transformational leaders and leaders perceived to be Machiavellian also tended to be viewed as unworthy of trust – as suggested by their below-moderate ratings of perceived integrity and goodwill toward others. Therefore, it is not surprising that the employees who work under pseudo-transformational and perceived Machiavellian leaders also tend to have moderately low levels of trust in these leaders. Lastly, these leaders tend to be perceived as somewhat ineffective and dissatisfying at work, and employees tend to be unwilling to exert extra effort for these leaders. These findings are largely consistent with those of Christie and colleagues (2011) – who discovered that pseudo-transformational leadership is positively related to fear and negatively related to trust. However, the present project looked at a wider range of negative emotions, including frustration, disappointment, anger, anxiety and fear, and uncovered relationships of pseudo-transformational and perceived Machiavellian leadership with this expanded set of negative emotions. The present research also went beyond past research by investigating how both pseudo-transformational and perceived Machiavellian leadership influence trustworthiness; these relations do not appear to have been examined before. Finally, the present research provided additional evidence that these leadership styles tend to be negatively related to global trust in organizational leaders.

Passive-avoidant leadership. The present research findings also supported the fourth and fifth general hypotheses pertaining to the MBE-passive and laissez-faire leadership styles – which were combined into a single passive-avoidant leadership style. Passive-avoidant leaders, who might be described as uninvolved or absent leaders (Avolio, 1999; Bass, 1998; Bass & Riggio, 2006), also tend to affect their employees' emotions, trustworthiness perceptions and trust negatively – in a way that is somewhat similar to the pattern for perceived Machiavellian and pseudo-transformational leaders. The difference between passive-avoidant and pseudo-transformational leaders is that the latter group tends to be manipulative and exploit people for personal gain, whereas passive-avoidant leaders are simply unavailable and fail to provide direction or assistance to their employees. Nonetheless, the present research found that, like perceived Machiavellian leaders and pseudo-transformational leaders, passive-avoidant leaders tend

to evoke negative emotions, such as frustration, disappointment, anger, and anxiety, in the employees. Moreover, employees tend to perceive these leaders as somewhat untrustworthy, as indicated by the moderately low ratings on job-related competence, integrity and goodwill toward others. Not surprisingly, employees of passive-avoidant leaders tend to have low levels of trust in these leaders. Moreover, employees tend to perceive these leaders as ineffective, unsatisfying, and unworthy of employees' extra effort at work. These results are consistent with Skogstad and colleagues' (2007) finding of a link between laissez-faire leadership and psychological distress, as well as with Christie and colleagues' (2011) findings that laissez-faire leadership is associated with increased fear and decreased trust. Thus, the present research findings extend the previous literature on MBE-passive and laissez-faire leadership styles by uncovering the relationships that these leadership styles have with a wider set of negative emotions, including frustration, disappointment, anger, anxiety and fear. Moreover, the present research examined how these leadership styles tend to influence employees' perceptions of leader trustworthiness as well as global trust in leaders, thus adding to the existing literature on leadership styles and trust in leaders.

MBE-active leadership. The results of the present studies were generally supportive of the third general hypothesis presented in Chapter 1. Specifically, active management-by-exception leaders appear to have few if any effects on employees' emotions, trustworthiness perceptions, and trust. Although the correction-oriented MBE-active leaders may sometimes evoke negative emotions, such as frustration, disappointment, anger and fear, in their employees, these leaders appear to have either no effect or slight negative effects on perceptions of leader trustworthiness. Not surprisingly, MBE-active leaders also appear to have either no influence or a slightly negative influence on employees' trust. Although MBE-active leaders tend to be perceived as moderately effective, employees do not appear to be particularly satisfied with their leadership or willing to exert extra effort for them.

The present research findings on the MBE-active leadership style appear to be largely consistent with the findings from previous research. Specifically, both MacKenzie et al. (2001) as well as Gillespie and Mann (2004) found that active

management by exception (and related leadership styles – such as contingent punishment) were not related to trust. However, a recent study by Kelloway and colleagues (2012) found that MBE-active was moderately negatively correlated with affective trust as well as with employee well-being – thus suggesting that people may regard active management-by-exception leadership styles as somewhat undesirable. Interestingly, the results of the present research seem consistent with both sets of findings from previous research. Specifically, the findings from SEM analyses indicated that the MBE-active style does not tend to predict emotions, trustworthiness or trust (consistent with Gillespie & Mann, 2004, MacKenzie et al., 2001), whereas some of the bivariate correlations from the present research (especially from Study 2) appear to suggest that MBE-active leadership may have slight relationships with negative emotions, trustworthiness and occasionally even trust – consistent with Kelloway et al.'s (2012) findings. A potential reason for these discrepancies in findings may be that the effect of MBE-active in the present regressions and SEM analyses may be masked by the effects of the MBE-passive leadership style. That is, while it may be difficult to detect the slight negative effect of MBE-active in presence of other stronger leadership styles, it is plausible that the negative effect of this style may be present because employees in today's organizations may possibly dislike leaders who focus overly on mistakes and departures from standards. Further research is required to clarify the effect of MBE-active leadership vis-a-vis other full-range leadership styles as well as any boundary conditions that may impact the presence of this effect.

Overall, participants' perceptions of managers with the five leadership styles were largely consistent with the patterns found by previous researchers. However, the present findings have extended earlier work by providing a more elaborated view of subordinates' reactions to leaders with less effective or dysfunctional leadership styles. Furthermore, the present research has also demonstrated the mechanisms through which employees' emotions may help to explain how various leadership styles influence employees' trust in organizational leaders.

Mediating Role of Trustworthiness

As specified by the general Hypothesis 7, the present research project also investigated how effective and less effective leadership styles may influence the perceptions of leaders' trustworthiness as conceptualized by Mayer et al. (1995). The reader will recall that Mayer and colleagues (1995) theorized that perceived trustworthiness of a person (i.e., the trustee) would predict the trustor's trust in the trustee. Furthermore, Mayer and colleagues (1995) proposed that trustworthiness consists of three components – ability, integrity and benevolence. Colquitt et al. (2007) provided meta-analytic evidence in favor of these relationships among trustworthiness, trust propensity and trust – as postulated by Mayer and colleagues' (1995) model. The present integrative model added leadership styles as antecedents to the trustworthiness perceptions of ability, integrity and benevolence. These links between leadership styles and trustworthiness perceptions (as conceptualized by Mayer and colleagues' model) appear not to have been examined in the previous empirical research on leadership and trust. Therefore, the present research contributed to the existing literature by examining the mechanism by which trustworthiness may explain the relationships between various leadership styles and trust – as specified by the first mediation hypothesis tested here.

This mediation hypothesis was largely supported in the present research, and the results were generally consistent across the three studies – with some small exceptions. Specifically, all three studies supported the mediating role of trustworthiness perceptions in the relationship between the combined transformational-contingent reward leadership and trust. In other words, the present research supports an indirect effect of combined transformational-contingent reward leadership on trust through trustworthiness perceptions. This suggests that the effect of this leadership style on trust can, in part, be explained through the impact of the combined transformational-contingent reward leadership on perceived leader trustworthiness.

Although transformational and contingent reward leadership styles were combined in order to run the SEM and regression analyses, given their consistently high correlation, it is likely that both styles individually affect trust through their impact on perceived trustworthiness. That is, both transformational and contingent reward leaders

would tend to engender trust in part because they both increase the leader's perceived trustworthiness.

The results were somewhat inconsistent across the three studies when it came to the mediating role of trustworthiness perceptions in the relationships of passive-avoidant and Machiavellian leadership styles with trust. In Study 3, trustworthiness played a mediating role in the relationship between perceived Machiavellian leadership and trust, but the same did not hold for passive-avoidant leadership and trust. In Studies 1 and 2, however, trustworthiness mediated the relationship between passive-avoidant leadership and trust, but did not mediate the link between perceived Machiavellian leadership and trust. Nonetheless, in Studies 1 and 2, trustworthiness was, in fact, found to mediate the relationship between Machiavellian leadership and trust when passive-avoidant leadership was excluded from the analysis. Moreover, in all three studies, both perceived Machiavellian leadership and passive-avoidant leadership displayed significant negative bivariate correlations with trustworthiness.

Given the similarities between the relationships from Study 3 and those from Studies 1 and 2, the question remains as to why the findings from trustworthiness mediation analyses were not identical across the three studies; in other words, why did the Study 3 mediation findings appear to emphasize the indirect effect of perceived Machiavellian leadership on trust through trustworthiness while Studies 1 and 2 appeared to emphasize the indirect effect of passive-avoidant leadership on trust through trustworthiness? To explain these differences, first, it is important to consider that the results of all three studies suggested a sizeable correlation between perceived Machiavellian and passive-avoidant leadership styles – although the correlation was moderate in Studies 1 and 3 and high in Study 2. Moreover, similar patterns of bivariate correlations of these leadership styles with trustworthiness and trust seem to suggest that these two styles may have similar effects on these outcome variables. Given all these correlations, perhaps it is not surprising that only one of these two leadership styles was typically significant in mediation regressions and SEM analyses. Regression and SEM analyses work best when predictor variables are uncorrelated or have low correlations (Kline, 2011; Ullman, 2007); unfortunately, when predictor variables are correlated and

have similar effects on the criterion variable, they are likely to suppress or mask each other's effects (Kline, 2011). This is a plausible reason why when both perceived Machiavellian and passive-avoidant leadership are entered into the mediation regression and SEM analyses only one of these two leadership styles tended to significantly predict trustworthiness.

However, one may still ask why, in the trustworthiness mediation analyses, perceived Machiavellian leadership emerged as significant in Study 3 whereas passive-avoidant leadership was significant in Studies 1 and 2. A plausible explanation may lie in the differences between study designs. In Studies 1 and 2, participants rated their actual work supervisors while the Study 3 participants rated hypothetical leaders whose descriptions were created for the study. Perhaps, in real life, when employees are rating their actual work bosses, it may be somewhat difficult for them to distinguish passive-avoidant from Machiavellian leadership styles – especially since Machiavellian leaders may at times appear unavailable and uninvolved. Therefore, in Studies 1 and 2, both passive-avoidant and Machiavellian leaders may simply have been perceived as dysfunctional leaders who exert similar effects on trustworthiness and trust. However, in Study 3, it is possible that passive-avoidant and perceived Machiavellian leadership styles were more distinctly different because the styles were manipulated through written descriptions of passive-avoidant and pseudo-transformational leaders. Future research should further explore employees' reactions to passive-avoidant and perceived Machiavellian leaders.

Thus, it could be concluded that, although it was difficult to show the effects of both perceived Machiavellian and passive-avoidant leadership on trustworthiness and trust in the same analysis, it appears that trustworthiness may mediate the relationships of both perceived Machiavellian and passive-avoidant leadership with trust when these relationships are assessed separately.

The Role of Emotions in the Trust Model

The present research was one of the first to empirically investigate the role of emotions within Mayer and colleagues' (1995) model involving trustworthiness and trust.

Based on previous theoretical work (e.g., Jones & George, 1998), it was predicted that emotions would play a dual mediation role in the model. Specifically, it was expected that emotions would not only mediate the relationships between leadership styles and trust but also that they would mediate the relationships between leadership styles and trustworthiness perceptions.

Mediating role of emotions on the effects of leadership styles on trust.

Hypothesis 8 – which predicted that emotions would mediate the relationships between leadership styles and trust – was partially supported by the results of the present research project. First, the results of all three studies suggested that negative emotions did not mediate the relationships of perceived Machiavellian and passive-avoidant leadership styles with trust. In fact, negative emotions did not appear to directly predict trust.

Conversely, in Studies 1 and 3, positive emotions appeared to play a mediating role between the combined transformational-contingent reward leadership and trust. In other words, these findings suggest that the effect of transformational and contingent reward leadership styles on trust can, in part, be explained through the influence of these leadership styles on the employees' positive emotions. Interestingly, however, the same was not found in Study 2 – in which positive emotions did not serve as mediators or intervening variables between the combined transformational-contingent reward leadership style and trust. In fact, a direct link was found between positive emotions and trust in Studies 1 and 3, whereas such link was not found in Study 2. Therefore, the question that arises is why the Study 2 results do not demonstrate this indirect effect through positive emotions whereas the results from Studies 1 and 3 do.

The explanation may be related to the differences between samples used for these studies. Study 2 participants were employees with longer work tenure and mostly permanent full-time jobs, whereas the samples from Studies 1 and 3 were comprised of students with mostly part-time jobs and short work tenure. Therefore, one could speculate that the generally temporary and part-time nature of students' jobs may afford them only limited opportunities to observe and get to know their leaders – thus perhaps encouraging the student workers to rely on their emotional reactions to their work leaders

for clues regarding how much they should trust these leaders. Conversely, Study 2 participants, most of whom reported having full-time, permanent jobs, likely had more opportunities to observe, get to know, and form fairly accurate perceptions of their leaders, thus potentially lowering their need to rely on shorter-term emotional reactions to inform their trust in these leaders. Also, the more experienced full-time workers with permanent positions may understand the need to tolerate and even trust various types of leaders, regardless of how these leaders make them feel in the short term. These workers may even learn to disregard their short-term emotional reactions to their organizational leaders – recognizing that their leaders are likely to have both good and bad days which may make their leadership behaviors more effective at certain times than at others. Thus, these employees' trust in their leaders may be more influenced by their perceptions of leaders' trustworthiness – which are likely to form over time and be more accurate and reliable than their emotions. Hence, it is possible that there may be certain boundary conditions - such as organizational and work tenure and full-time versus part-time nature of jobs - that may moderate the indirect effect of transformational and contingent reward leadership styles on trust through emotions. Future research could explore such boundary conditions.

Another outstanding question pertains to why positive emotions mediated the relationships between leadership styles and trust whereas negative emotions did not. Perhaps trust is an inherently positive construct and, as such, may be more strongly influenced by positive emotions. Indeed, some trust researchers have suggested that trust and distrust may be distinct (although related) constructs rather than opposite ends of a single construct (e.g., Lewicki, McAllister, & Bies, 1998). Therefore, the theory on trust and distrust may support the argument that trust may be more strongly affected by positive than by negative emotions. In fact, the correlations from all three studies seem to support the assertion that positive emotions may relate to trust somewhat more strongly than do negative emotions. Moreover, the findings from two out of the three present research studies support the role of positive (but not negative) emotions as mediators between leadership styles and trust. Further empirical investigations of these effects are warranted to explore the differences between the indirect effects through positive versus negative emotions.

In conclusion, it appears that, under certain circumstances, positive emotions may mediate the relationships of transformational and contingent reward leadership styles with trust. In other words, in certain cases, the effects of transformational and contingent reward leadership styles on trust may, in part, be explained through the influence of these leadership styles on employees' positive emotional reactions to leaders. However, the links between leadership styles and employees' negative emotional reactions to leaders do not appear to explain the effects of the leadership styles on trust.

Mediating role of emotions on the effects of leadership styles on trustworthiness. Hypothesis 9, the second mediation hypothesis involving emotions, which predicted that emotions would mediate the relationships between leadership styles and trustworthiness, was supported by the results of all three studies. The results of Studies 2 and 3 fully supported the indirect effect of combined transformational-contingent reward leadership on perceived leader trustworthiness through positive emotions as well as the indirect effects of both perceived Machiavellian and passive-avoidant leadership styles on trustworthiness through negative emotions. Study 1 results largely supported this mediation hypothesis except that the indirect effect of passive-avoidant leadership on trustworthiness through negative emotions was not observed.

Therefore, it appears that emotions partially mediate and thus partly explain the links between leadership styles and perceptions of leader trustworthiness. Specifically, the effects of transformational and contingent reward leadership styles on trustworthiness perceptions can, in part, be explained through the influence that these leadership styles have on employees' positive emotions. Similarly, it also appears that the effects of perceived Machiavellian and passive-avoidant leadership styles on trustworthiness perceptions can, in part, be explained through the influence of these leadership styles on employees' negative emotions. However, given that Study 3 seemed to suggest partial (rather than full) mediation, emotions are likely to be only one part of the explanatory mechanism by which leadership styles could be expected to influence perceived leader trustworthiness.

Lastly, it is important to mention that, because this set of mediations received much more solid support in the present research than did the previous set (where emotions were predicted to mediate the effects of leadership styles on trust), it appears that this mechanism whereby emotions mediate the effects of leadership styles on trustworthiness perceptions may be more robust than the mechanism involving the direct links between emotions and trust. Hence, it appears that when leaders evoke either positive or negative emotions, these emotions tend to predict perceived leader trustworthiness which, in turn, influences trust in these leaders. Also, when transformational and contingent reward leaders evoke positive emotions, these emotions may also increase trust directly. However, the same does not appear to be true for passive-avoidant and perceived Machiavellian leaders. Although these leaders do indeed appear to evoke negative emotions, these emotions have only an indirect negative effect on trust through reduced trustworthiness.

Pseudo-Transformational Leadership

Another major focus of the present research was the conceptualization of pseudo-transformational leadership. The present research not only provided support for Christie and colleagues' (2011) model of pseudo-transformational leadership, but also proposed an extension to this model and provided empirical support for the extension – as specified in Hypothesis 13. Recall that Christie et al. (2011) showed that true transformational leaders can be distinguished from pseudo-transformational leaders through their ratings on the four transformational components of idealized influence, inspirational motivation, intellectual stimulation and individualized consideration. Specifically, these researchers argued that while the true transformational leaders would be rated high on all four of these components, the pseudo-transformational leaders would be perceived as high on inspirational motivation and low on the remaining components. The present research project lent support to this distinction as the pseudo-transformational leader was indeed perceived to be as high as the true transformational leader on motivating and inspiring employees to demonstrate effort and commitment to a compelling future vision; conversely, the true transformational leader was perceived to be significantly higher than the pseudo-transformational leader on displaying extraordinary capabilities and acting as

a role model to be emulated by employees, being considerate of employees' needs, and encouraging the employees to be innovative and question the old ways.

The present project also proposed and demonstrated that an additional aspect on which true transformational and pseudo-transformational leaders can be differentiated is perceived Machiavellian leadership. Specifically, findings from the experimental study, in which true transformational and pseudo-transformational leadership styles were manipulated and assessed for outcomes, supported the assertion that pseudo-transformational leaders tend to be seen as substantially higher on Machiavellian leadership than are true transformational leaders. By *Machiavellian leadership*, I mean a style of leadership in which a leader demonstrates a tendency to manipulate and dominate others (e.g., direct reports and colleagues) if necessary for personal gain; Machiavellian leaders pursue their own personalized agendas and interests at the expense of others, demonstrating a tendency to take credit for success even when they did not contribute to the success; finally, Machiavellian leaders do not concern themselves with ethical and moral standards, yet they use impression management tactics to paint a positive picture of themselves. This definition is based on theorizing regarding Machiavellianism, both in general (e.g., Christie & Geis, 1970) and in organizations (Kessler et al., 2010) as well as the discussion of Machiavellianism in the context of leaders in general (see Judge et al., 2009) and personalized charismatic leaders (see House & Howell, 1992).

Based on my results, I propose that the concept of Machiavellian leadership be added to Christie and colleagues' (2011) model whereby a pseudo-transformational leader is conceptualized as one who can inspire and motivate followers like a true transformational leader but who is not particularly considerate to followers' needs, does not encourage followers to question the old ways, and does not act as a positive role model for followers. This means that pseudo-transformational leaders can be distinguished from true transformational leaders by combining their MLQ profiles (on the four transformational leadership subscales) with their scores on the PMLS II.

Perceived Machiavellian Leadership Scales I and II. To explore the extended model of pseudo-transformational leadership, it was necessary to have a measure of

manipulative, self-focused leadership. Before conducting this research, a review of the relevant literature yielded very few studies and consequently very few measures that actually assessed these leadership behaviors. Because Machiavellianism personality trait appeared to closely describe manipulateness and emphasis on personal gain, the primary measure of Machiavellianism (i.e., Mach IV created by Christie & Geis, 1970) was examined to evaluate its appropriateness for this project. Unfortunately, there were several issues with the scale that made it somewhat unsuitable for present purposes. Those issues included the self-assessment nature of the scale, the focus on Machiavellian beliefs (rather than behaviors), and the somewhat outdated language used for certain Mach IV items. Because present research aimed to have employees rate their organizational leaders' Machiavellian behaviors, it was necessary to develop and test a measure of the perceived Machiavellian leadership style. Hence, I created the Perceived Machiavellian Leadership Scale (PMLS).

When developing this scale, several Mach IV items were adjusted and new items written for Study 1; collectively, these items formed PMLS I. In Study 1, PMLS I was tested to assess its psychometric properties. Study 1 obtained solid preliminary evidence of reliability and validity of PMLS I. However, there were a number of problems with the scale, including items that performed poorly in factor analyses, the fact that many of the items were not behavioral in nature, and the absence of items addressing certain aspects which were thought to be important parts of Machiavellian leadership. Therefore, adjustments were made to the scale whereby 13 of the original items were kept and another 7 new items created to be more behavioral in nature and to tap the previously-omitted aspects of Machiavellian leadership, such as impression management and taking credit for success regardless of whether credit is due. The modified scale was termed the Perceived Machiavellian Leadership Scale II (PMLS II). The psychometric properties of the PMLS II were tested in Studies 2 and 3. The PMLS II performed even better than did the PMLS I; specifically, evidence from Studies 2 and 3 suggested that PMLS II has even higher internal consistency reliability and stronger evidence of construct validity than PMLS I. Moreover, factor analyses provided reasonable support for unidimensionality of the construct of Machiavellian leadership.

Collectively, these findings suggest that the revised PMLS II instrument is likely to be a valuable addition to the existing leadership measures – especially measures of dysfunctional leadership. Indeed, although the psychometric properties of PMLS I obtained in Study 1 were quite strong and encouraging, the PMLS II evidence from Studies 2 and 3 was even stronger. The high reliability coefficients combined with solid validity evidence from Studies 2 and 3 attest to the scale’s quality and potential value as an addition to the existing leadership literature.

Implications for Organizational Leadership and Effectiveness

Trust in leader has been both theorized and found to predict important organizational outcomes. Burke, Sims, Lazzara and Salas (2007) theorized that trust in organizational leaders would facilitate effective and open communication, learning, and organizational citizenship behaviors as well as resulting in better organizational and team performance and lower turnover. Apart from theorizing, Dirks and Ferrin (2002) and Colquitt and colleagues’ (2007) provided meta-analytic evidence that trust in leaders is positively related to job performance, organizational citizenship behavior (OCBs), organizational commitment, job satisfaction, and risk taking and negatively related to intentions to quit one’s job; moreover, Kelloway and colleagues (2012) related trust in leaders to improved psychological well-being. Therefore, it is clear that it may be highly beneficial for organizations to attempt to increase employees’ trust in organizational leaders. Unfortunately, organizational surveys from Canada, US and Australia suggest that trust in organizational leaders is on decline (Connell et al., 2003; Dirks & Skarlicki, 2004). Therefore, it is important to consider ways in which trust in organizational leaders can be fostered.

Leadership Training and Development

In order to achieve the positive outcomes that stem from high levels of trust in leaders, organizations could adopt leadership training and development programs that encourage greater use of transformational and contingent reward leadership behaviors (e.g., Barling, Weber & Kelloway, 1996). Specifically, these leadership training programs could teach leaders about developing an inspiring vision for where the

organization and/or team should go in the future and to communicate their vision effectively to their employees. These training programs should teach leaders the benefits of serving as positive role models by demonstrating positive characteristics such as persistence, determination in spite of challenges as well as ethical and transparent leadership behaviors. Furthermore, leaders should be trained on inspiring and motivating their followers to always strive to do better and helping them envision attractive future states. These training programs should also teach leaders to encourage creativity and innovation by allowing and even inviting employees to question old ways and assumptions and to come up with new approaches and ideas. Moreover, leaders should be trained to learn about and be considerate of the needs of individual employees and to develop employees through coaching and mentoring. Also, given that contingent reward leadership has been found to be effective in trust building, the programs should train leaders to recognize their employees when they do effective work. For example, Avolio and Bass's Full Range of Leadership Program (FRLP) – which studies show to be an effective leadership training program – includes training modules on most of the above-described topics (Bass & Riggio, 2006).

Bass and Riggio (2006) reviewed a number of studies that examined the effectiveness of transformational leadership training. Based on the findings of these studies, the authors concluded that it appears that organizational leaders can indeed be trained to be transformational with positive effects on colleagues' and employees' performance and other important outcomes. In a landmark study, Barling and colleagues (1996) demonstrated that managers' exposure to transformational leadership training increased subordinates' perceptions of managers' transformational leadership as assessed through a pretest and a posttest of managers' leadership style; interestingly, the training also affected both the subordinates' organizational commitment and some branch-level financial indicators.

Simultaneously, leadership training programs could point out the pitfalls of common leadership behaviors (e.g., micromanaging, being unavailable, failing to provide sufficient direction, manipulating people for personal gain, and taking credit for others' success) associated with active and passive management-by-exception, laissez-faire,

Machiavellian, and pseudo-transformational leadership. For instance, my results suggest that micromanaging employees and focusing overly on their mistakes are not the behaviors that build trust in leaders; if anything, they may occasionally erode or decrease trust in leaders. Moreover, being unavailable for extended periods and failing to provide sufficient direction to employees tends to lower trust in leaders. Indeed, it is difficult to build trust if a leader is unavailable for guidance or questions. Additionally, manipulating one's direct reports or colleagues for personal gain or taking credit for other people's good work are most certainly the types of leader behavior that erode trust. Therefore, leadership training should explain that these types of behaviors decrease trust and should be minimized or avoided by leaders who wish to gain their employees' trust. Certainly, if leaders are utilizing laissez-faire or other dysfunctional leadership styles, they could first be coached to gain awareness of the problem and an understanding of how it affects others; then, a coach or a leadership development specialist may be able to help these leaders change some of their less-desirable behaviors – providing that the leaders demonstrate sufficient openness to change and commitment to continuous development.

The present findings regarding emotions suggest additional implications for leadership development and organizational effectiveness. Specifically, this research found that leaders who evoke positive emotions such as self-assurance, enthusiasm, gratitude and relief in their followers tend to foster trust, whereas those who tend to evoke negative emotions in their followers may be perceived as untrustworthy and thus lower employees' trust in these leaders. Therefore, organizational leaders should be trained to build strong awareness of their own and others' emotions. They should also be trained to manage their own and others' emotions – especially those of their employees. Leadership development and training programs could include coverage of emotional awareness and emotional intelligence (Bar-On, 2006; Mayer & Salovey, 1997; Mayer, Salovey, & Caruso, 2004). Although the construct of emotional intelligence (EI) and the question of its importance for leadership effectiveness have sparked considerable debate amongst researchers (see Antonakis, Ashkanasy, & Dasborough, 2009), some evidence suggests that EI predicts important outcomes such as performance, relatedness, and ability to communicate motivating messages (Mayer, Salovey, & Caruso, 2004; Van

Rooy & Viswesvaran, 2004). Also, Barling, Slater and Kelloway (2000) showed that managers' EI is associated with the transformational leadership components of idealized influence, inspirational motivation and individualized consideration as well as with contingent reward leadership – thus providing preliminary evidence that EI may indeed be relevant to leader effectiveness.

As Colquitt and colleagues (2007) suggested, the trustworthiness factors of ability, integrity and benevolence provide “three distinct avenues for fostering trust in organizations” (p. 922). For example, if a leader is found lacking in ability or job competence, he or she could pursue training and development in his or her technical area. Regarding integrity as a trustworthiness factor, its importance could be described and emphasized in leadership training and development programs. For instance, leaders could be made aware that telling the truth and being authentic (Avolio, Walumbwa, & Weber, 2009), delivering on one's promises, aligning one's talk with one's actions, and maintaining high ethical standards (Parry & Proctor-Thomson, 2002) are the types of behaviors that tend to contribute to employees' trust in leaders. Indeed, Avolio, Walumbwa, and Weber (2009) suggest that authentic leaders who demonstrate good self-awareness and who are transparent and ethical in their behavior toward others tend to positively predict followers' organizational commitment, extra-role behaviors and satisfaction with their leader; these authors suggested that authentic leadership development interventions have been shown to contribute positively to these and other important outcomes (e.g., ratings of leader's performance). Finally, regarding benevolence, leaders should be aware that showing goodwill toward others and looking out for others' interests (rather than focusing solely on one's own interest) are also the types of behaviors that tend to foster trust in leaders. Certainly, to the extent that leaders possess at least a degree of integrity and goodwill toward others, these leaders could benefit from training and development that teaches them some strategies to demonstrate these qualities to their employees.

Leader Recruitment and Selection

The present results also have practical implications for recruitment and selection of organizational leaders. First, following Mayer et al.'s (1995) model of trustworthiness, ability or technical expertise should definitely be targeted in recruitment efforts and assessed in the early stages of leader selection. Integrity could be effectively assessed as a part of selection efforts using paper-and-pencil integrity tests (e.g., Ones, Viswesvaran, & Schmidt, 1993) and/or reference checks. It would also be possible to assess integrity through structured behavioral interviews, shown by Schmidt and Hunter (1998) to be effective tools for selection. Similarly, benevolence of leaders could be assessed in selection through behavioral interview questions, reference checks and potentially well-designed assessment centre exercises. Also, some of the leadership styles could be assessed through behavioral interview questions and reference checks. Moreover, if future empirical investigations yield stronger predictive validity evidence for EI assessments than exists currently, then perhaps employers could consider assessing emotional awareness and emotional intelligence as a part of their recruitment and selection activities, perhaps within behavioral interview questions or reference checks. Selection and recruitment systems that take these important characteristics into consideration should help to screen out leaders who may not be good at fostering trust.

HR Systems and Programs

Finally, in order to ensure that leaders are developing in directions that contribute to increased trust in leaders, company boards of directors could drive this development from the top. For example, if an organization's aim were to encourage positive leadership styles such as transformational and contingent reward leadership and discourage styles such as laissez-faire and Machiavellian leadership, company boards or even executives could ensure that this is emphasized in performance appraisal. Organizational rewards, recognition, promotions and other career development opportunities could be offered to those who develop in positive ways and display transformational and contingent reward leadership styles and behaviors; similarly, succession planning efforts could be designed so as to consider for succession only those leaders who display transformational and contingent reward leadership behaviors and characteristics. Simultaneously, such privileges could be denied to those leaders who

make extensive use of dysfunctional leadership styles such as laissez-faire, Machiavellian, and pseudo-transformational leadership styles. Lastly, efforts could be made to create organizational culture of empowerment – wherein employee initiative and involvement are emphasized so as to discourage authoritarian and other dysfunctional leadership styles (Padilla, Hogan & Kaiser, 2007).

Theoretical Implications

Trust in Leader

First, an important implication of the present research for trust theory is the proposed extension of Mayer and colleagues' (1995) model of trust. As originally conceived, the model included the perceived trustworthiness factors of ability, benevolence, and integrity as antecedents to trust (and trust propensity as the moderator of the relationships between the trustworthiness factors and trust). The present research supported the hypotheses that the trustor's positive and negative emotions influence trustworthiness perceptions, the same positive emotions influence trust, and leadership style is an antecedent of both emotions and trustworthiness perceptions. Therefore, it is proposed that emotions as well as leadership style be considered as important elements in the mechanism for developing trust. A revised model of these antecedents to trust is presented in Figure 5.

Full Range of Leadership Model

The results of this research also suggest a number of interesting implications for leadership theory. First, the present findings suggest that, within the Full Range of Leadership Model (Avolio, 1999; Avolio & Bass, 2004; Bass, 1998), the current conceptualization of transactional leadership and its components should be re-examined. Specifically, this research showed that contingent reward leadership was perceived as co-occurring with and closely related to transformational leadership; contingent reward also tended to relate to the outcome variables (e.g., emotions, trustworthiness, trust) much as did transformational leadership. Other researchers have noted this relationship between

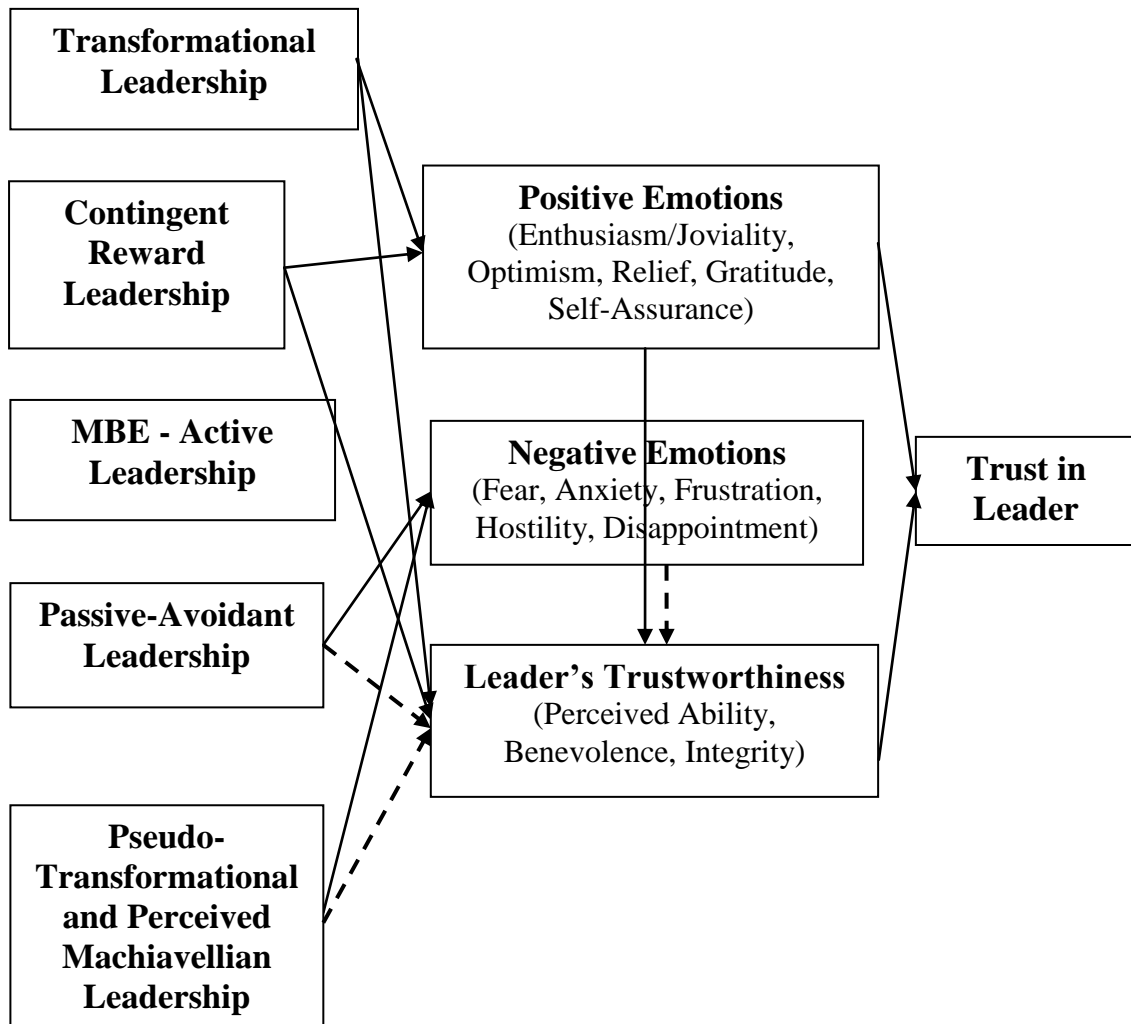


Figure 5. Revised integrated model of functional and dysfunctional leadership, followers' emotions, perceptions of leader trustworthiness and trust in leader. Solid lines denote positive relationships; dashed lines denote negative relationships.

contingent reward and transformational leadership to be a criticism of the theory. As noted by Bass and Riggio (2006) and Yukl (1999), contingent reward leadership includes both transactional or exchange-based elements as well as transformational aspects. For instance, Yukl (1999) argued that the contingent reward behaviors whereby leaders provide praise and recognition to their subordinates may involve both transformational and transactional leadership. Bass and Riggio (2006) described this well by noting that, on the one hand, contingent reward is transactional when the leader assigns or obtains followers' agreement on what needs to be done and when the leader offers material rewards to followers for carrying out assignments; on the other hand, they argued that contingent reward "can be transformational, however, when the reward is psychological, such as praise" (p. 8).

Apart from theorizing about this, some research has found sizeable correlations between contingent reward and transformational leadership. For example, in their review of the extant literature on Full Range of Leadership components, Rafferty and Griffin (2004) concluded that empirical research suggests that contingent reward tends to be highly positively correlated with transformational leadership; moreover, these researchers suggested that these two leadership styles tend to display similar relationships with outcomes. Given that the present research also found high correlations between contingent reward and transformational leadership, these two leadership styles were examined in combination with one another.

Second, the present research repeatedly demonstrated that MBE-passive leadership tends to be related more closely to laissez-faire leadership than to the other transactional leadership components. This strong relationship between MBE-passive and laissez-faire leadership has also been found in previous research (e.g., Den Hartog, Van Muijen, & Koopman, 1997; Hinkin & Schreishem, 2008). In fact, researchers who have found a high correlation between these two leadership styles have often combined them into a single passive-avoidant leadership style (e.g., Frooman, Mendelson, & Murphy, 2012). Because the present research also found a high correlation between MBE-passive and laissez-faire leadership, these two leadership styles were combined into a single passive-avoidant leadership in this research.

Third, based on the findings of present research, active management-by-exception or MBE-active appears to be the only leadership component which is fully transactional in nature. MBE-active leaders tend to operate through corrective transactions with their subordinates whereby these leaders actively monitor subordinates' performance, provide direction, and correct mistakes or deviations from standards so as to ensure better performance in the future (see Avolio, 1999; Bass, 1998; Bass & Avolio, 2004; Bass & Riggio, 2006). Interestingly, however, the operationalization of MBE-active leadership through MLQ's MBE-active subscale does not seem to cover all aspects of the MBE-active construct. Specifically, the MBE-active subscale of MLQ appears to focus on looking for subordinates' mistakes and correcting them – a fact which was also recognized by Yukl (1999). The MLQ items on MBE-active do not appear to capture ways in which these leaders monitor subordinates' performance or the ways in which they correct subordinates' mistakes (Yukl, 1999). Thus, despite the fact that MBE-active appears to be the only fully transactional leadership style, the MLQ assessment of this styles does not appear to capture all the aspects of the style.

Given the above-mentioned findings, it appears that it may be useful to re-examine and possibly re-define the construct of transactional leadership. Specifically, given that contingent reward appears to have both transformational and transactional aspects, it may be useful to divide the current contingent reward construct into two components - one that is transformational and the other which is transactional. Rafferty and Griffin (2004), for instance, proposed a fifth component of transformational leadership, called personal recognition, to reflect rewarding the achievement of outcomes through praise and acknowledgment of followers' efforts. These researchers provided preliminary empirical support for personal recognition as the fifth component of transformational leadership, but additional research would be beneficial to corroborate the personal recognition component and distinguish it from a more transactional component of contingent reward leadership that has to with assigning work to subordinates and providing material rewards for good work.

In a similar vein, the present findings suggest a possible need for re-categorization of the passive management-by-exception or MBE-passive leadership style. Specifically,

given that MBE-passive has been found to relate more closely to laissez-faire than to other transactional leadership components, it may be useful to re-classify MBE-passive so that it is placed in the same category as laissez-faire leadership. With these changes to the original Full Range of Leadership model, MBE-active and the new transactional component of contingent reward leadership would be the only two components of the wider transactional leadership category.

Additionally, it may be useful to re-examine the measurement of the MBE-active leadership. If this style, indeed, includes aspects such as monitoring subordinates' performance, being vigilant for possible mistakes, providing direction and correcting mistakes and deviations from standards, then more scale development may be needed to capture the currently-omitted aspects of this leadership style. For example, additional items could be added to the scale to capture the ways in which subordinates' performance is monitored or the ways in which mistakes are discovered and corrected.

Pseudo-Transformational Leadership Conceptualization

The last implication of the present research covered here is the proposed extension to Christie and colleagues' (2011) model of pseudo-transformational leadership to include perceived Machiavellian leadership. The present research provided evidence that in addition to high inspirational motivation and low idealized influence, intellectual stimulation and individualized consideration, pseudo-transformational leaders could also be distinguished from true transformational leaders by displaying high levels of Machiavellian leadership. Therefore, it is proposed that, going forward, pseudo-transformational leadership should be operationalized through a profile consisting of high inspirational motivation and perceived Machiavellian leadership as well as low idealized influence, intellectual stimulation and individualized consideration. In other words, researchers may describe pseudo-transformational leaders as both highly enthusiastic and motivating as well as manipulative and dominating while in pursuit of self-interest, but not particularly considerate of followers' needs or particularly eager to invite or encourage followers' questions or innovative ideas. Finally, it is suggested that both the

transformational leadership subscales of the MLQ and the PMLS II be used together to identify pseudo-transformational leaders in future research.

Limitations of the Present Research

Samples

There were both positive and negative characteristics associated with the samples used in the current research project. On the one hand, the current research project was conducted with three independent samples with over 900 participants. Although the samples from Studies 1 and 3 consisted of post-secondary students, their demographic and occupational data appear to suggest reasonable diversity of industries, positions and hence work experiences. The Study 2 participants were largely full-time workers with longer tenure and an even larger diversity of industries and work positions. Therefore, across the three samples, there was a reasonable diversity of work experiences. The diversity of participants constitutes a strength of the present research project, strengthens our confidence in the results, and increases the likelihood that these findings will be replicated in future research with other North American samples.

On the other hand, the participants from the three studies were largely obtained through convenience sampling. This was especially true of students who were recruited for Studies 1 and 3. Even Study 2 participants - who were recruited through the StudyResponse - were likely a convenience sample as there was no reason to think that the StudyResponse project randomly selected people for their database of potential study participants. Unfortunately, convenience samples tend to be less representative of the general population of North American workers. Therefore, any conclusions as to how the present findings may generalize to the wider population should be made with caution.

Study Design and Related Issues

First, Studies 1 and 2 employed a cross-sectional design whereby all variables were assessed at the same time through a questionnaire. Because of this as well as the absence of manipulation of variables and random assignment, it is difficult to make solid inferences about causal relationships based on these two studies. Study 3 employed the

experimental method whereby leadership style was manipulated and participants were assigned randomly to one of the five leadership conditions. Therefore, based on the findings of Study 3, it is possible to start speaking about causal relationships between the leadership styles and the outcome variables of emotions, trustworthiness and trust. Furthermore, it is encouraging that the results of Study 3 are largely similar to those from the first two cross-sectional studies – which provided some evidence to point to a greater likelihood of the predicted causal links. Certainly, additional experimental and longitudinal studies would help to further ascertain the nature of the causal mechanism and relationships among the variables from the present research.

Second, it is also important to acknowledge the potential concerns related to the Study 3 design. Although considerable effort was dedicated to ensuring the realism of the experimental simulation through graphics and creative design of the simulation web site as well as through realistic design of experimental materials, it is possible that this experiment was still somewhat artificial in nature. It is likely that the simulation could have been made more engaging to the participants through the use of videos of leadership with various leadership styles. Future researchers might benefit from creating videos of actors enacting various leadership styles (such as in one of the experiments by Christie et al., 2011) or even employing real-life organizational leaders with different leadership styles in an investigation of leaders' influence on employees' emotions and trust.

Issues with Measures

First, although the present research obtained strong evidence of reliability and validity of both PMLS I and PMLS II, some of the evidence from factor analyses did not unequivocally support the unidimensionality of the perceived Machiavellian leadership construct. For example, certain fit indices from the confirmatory factor analyses of PMLS items were somewhat below adequate – thus indicating that some items had other sources of systematic variance which were not captured by the common factor of Machiavellian leadership. Exploratory analyses indicated a possibility of other factors – albeit much less prominent ones than the primary factor common to the PMLS items.

Further exploration of the factor structure of perceived Machiavellian leadership needs to be done in the future. For example, it may be beneficial to consider and test other potential dimensions of Machiavellian leadership. Dahling and colleagues (2009) theorized and found that *Machiavellian personality* was comprised of the four dimensions of distrust of others, desire for status, desire for control, and amoral manipulation, whereas Kessler and colleagues (2010) theorized and found that *organizational Machiavellianism* consisted of the dimensions of maintained power, managerial behavior, and manipulative behavior. Thus, it is possible that perceived Machiavellian leadership – a construct related to both Machiavellian personality and organizational Machiavellianism – may also contain more than a single dimension.

Of course, perceived Machiavellian leadership is conceptually distinct from both the Machiavellian personality and organizational Machiavellianism. Machiavellian personality was conceptualized by Dahling et al. (2009, p. 219) as “one’s propensity to distrust others, engage in amoral manipulation, seek control over others and seek status for oneself”. Organizational Machiavellianism was described by Kessler et al. (2010, p. 1871) as “the belief in the use of manipulation, as necessary, to achieve one’s desired ends in the context of work environment”. In comparison, the PMLS assesses a leadership style characterized by manipulative, self-interested leader behaviors revolving around the leader’s personal agenda, employing impression management, and displaying little concern with ethical and moral principles. Hence, both the Machiavellian personality and the organizational Machiavellianism are distinct, although related, constructs that are separate from perceived Machiavellian leadership.

Furthermore, perceived Machiavellian leadership – as assessed by PMLS – focuses on the *subordinates’ perceptions of their leader’s Machiavellian leadership style*, whereas the focus of both organizational Machiavellianism as well as the Machiavellian personality trait (as conceptualized by Dahling et al., 2009) is on *the respondent’s own attitudes, beliefs, and behaviors* in an organizational context. Therefore, it is entirely possible that these two related constructs may consist of somewhat different dimensions than does Machiavellian leadership. Future research should explore the similarities and differences between these three constructs and their measures.

As explained previously, the present project highlighted issues about the assessment of transactional leadership styles through the MLQ. Contingent reward scale scores were more highly related to transformational scales scores than to the other transactional leadership scale scores, whereas MBE-passive leadership was more highly related to laissez-faire than to other transactional leadership components. Furthermore, MLQ items measuring MBE-active leadership appeared to capture only the focus on mistakes, irregularities, and deviations from standards – rather than all aspects of the MBE-active construct. Therefore, the measurement as well as the conceptualization of transactional leadership components warrants further examination in the future to attempt to resolve some of the issues noted here and in other research (see Rafferty & Griffin, 2004 and Yukl, 1999 for some examples).

Common Method Variance

In the past, many researchers have noted that common method variance is a potential problem in behavioral research because it could be a source of measurement error (Podsakoff, MacKenzie, Lee & Podsakoff, 2003). More recently, however, researchers have questioned the seriousness of this issue. For instance, Spector (2006) has argued that making an automatic assumption that common method variance would influence variables measured using the same method “is a distortion and oversimplification of the true state of affairs” (p. 221). Moreover, he presented evidence that casts doubt that a common research method contributes systematic variance that tends to increase correlations to any significant degree. For example, Spector (2006) argued that if the self-report questionnaire is a method that is expected to introduce common method variance into the measurement of a set of variables, “we should find a baseline level of correlation among all variables” (p. 224). Spector (2006) further argues that, as long as the level of common method variance is not “so small as to be inconsequential” (p. 224), this baseline should bring the correlations among study variables to a statistically significant level – even if they would not be expected to be significant based on theory or previous research. By demonstrating that, in spite of their large samples and high power to detect correlations, many studies published in well-respected peer-reviewed journals have found non-significant correlations among

variables, even when these correlations were predicted, Spector provided evidence that common method variance is unlikely to be a “universal inflator of correlations” (p. 224).

Similar evidence from the present research can be examined to assess the likelihood of common method variance impacting the findings of the present research. For example, because Studies 1 and 2 employed self-report questionnaires to gather data on all study variables, it is possible that this common method of a self-report questionnaire may have artificially inflated all correlations among study variables. If common method variance were to be a significant contributor to the bivariate correlations obtained in Studies 1 and 2, then all correlations would have been expected to be statistically significant – even the ones which were not predicted to be significant. In spite of having sufficient power to detect as significant correlations as low as .12, both Studies 1 and 2 found that the correlations between certain variables which were predicted to be unrelated were indeed found to be low (i.e., ranging from .01 to .10) and non-significant. For example, trust propensity, which was expected to be associated with few, if any, variables, was indeed found not to be significantly correlated with most other study variables (with the majority of its correlations ranging from .02 to .07). Similarly, in Study 2, MBE-active leadership was both predicted and found not to display statistically significant correlations with several other study variables, such as positive emotions. Therefore, evidence from Study 1 and Study 2 correlations suggests that common method variance likely did not artificially inflate the correlations among study variables. Of course, to be certain about this, it would have been beneficial for future researchers examining the relationships among leadership styles, followers’ emotions, perceptions of leader trustworthiness, and trust in leader to utilize different methods or data sources.

In this regard, it is important to note that in Study 3 the independent variable, leadership style, was manipulated using written simulation materials rather than having leadership style reported by the same participants who also responded to questionnaire measures of the mediators and dependent variables, as in Studies 1 and 2. Despite the use of two different research methods, the findings of Study 3 were generally consistent to those from Studies 1 and 2 – thus increasing confidence about the validity of the findings

Finally, both Spector (2006) and Podsakoff et al. (2003) discussed social desirability as a potential biasing variable that may inflate observed correlations by producing common method variance. Therefore, it is important to consider the possible influence of social desirability in present research. First, the data for the project were all gathered from the employees rather than from the leaders themselves. Because the participants were reporting on their leaders' behavior rather than their own behavior, social desirability was less likely to be a significant factor influencing participants' responses. Second, from the outset of the present studies, the participants were assured that their study responses would be kept confidential and could not be linked to any of their personal information. This anonymity and confidentiality of responses were intended to reduce effects of social desirability on participants' responses. Finally, the scores on most of the variables from the present research were found to vary considerably – rather than being restricted to the more socially desirable ranges. Therefore, it is unlikely that social desirability played a significant role in influencing participants' responses in the present research project.

Directions for Future Research

Findings from the present research project in conjunction with extant literature have inspired several outstanding questions that could be examined in the future. Here I discuss four possible avenues for future research.

Pseudo-Transformational Leadership

The present research demonstrated support for the proposed extension of Christie and colleagues' (2011) model of pseudo-transformational leaderships by showing that Machiavellian leadership is an important characteristic that distinguishes pseudo- from true transformational leaders. There are, however, additional characteristics of pseudo-transformational and personalized charismatic leadership that have not yet been examined empirically. For example, apart from Machiavellianism, House and Howell (1992) discussed a number of characteristics that distinguish personalized from socialized charismatic leaders. For example, House and Howell (1992) theorized that personalized charismatic leaders would demonstrate a high need for power along with low activity

inhibition and would rate highly on narcissism, authoritarian personality syndrome, external locus of control, and poor self-esteem. It may be valuable to examine these characteristics and motives in the future to determine whether additional aspects should be added to the existing conceptualization or model of pseudo-transformational leadership. Indeed, both Dahling et al. (2009) and O'Boyle and colleagues (2012) found moderately-sized positive correlations between Machiavellianism and narcissism – thus suggesting a likelihood of a correlation between pseudo-transformational leadership and narcissism.

Perceived Machiavellian Leadership Conceptualization and Measurement

Future research should further examine the conceptualization and measurement of perceived Machiavellian leadership. While most predictions about perceived Machiavellian leadership were confirmed, all three of the present studies unexpectedly found sizeable correlations between perceived Machiavellian and passive-avoidant leadership. I suggested that these correlations might have arisen because of similarities in the ways in which these leadership styles are manifested behaviorally. However, in the interest of better understanding and assessing Machiavellian leadership, it may be beneficial to examine this link and its potential boundary conditions in more detail.

Since the outset of the current studies, some novel literature has emerged on Machiavellianism in the organizational context. As noted above, Dahling et al. (2009) made important strides toward an improved conceptualization of Machiavellian personality by asserting that this personality consists of a person's propensity to distrust others, seek control over others, seek status for him or herself, and show tendency to engage in amoral manipulation of others. Kessler and colleagues (2010) also contributed to an improved understanding and conceptualization of Machiavellianism in the organizational context by developing a new construct of organizational Machiavellianism, comprised of three dimensions of maintaining power, management practices, and manipulativeness, and an improved instrument to assess it. While the construct of perceived Machiavellian leadership has aspects that are distinct from those of organizational Machiavellianism and Machiavellian personality, these constructs should

still be linked with one another. Therefore, future research should examine the links of perceived Machiavellian leadership with both organizational Machiavellianism and Machiavellian personality as conceptualized by Dahling and colleagues (2009), as well as how all three of these constructs predict various organizational outcome variables.

Re-Conceptualization of Transactional Leadership

Third, as mentioned previously, the present project has contributed to an improved understanding of the influence that the less-researched Full-Range leadership styles of MBE-active, MBE-passive, and laissez-faire as well as contingent reward leadership have on followers' emotions, perceptions of leader trustworthiness, and trust in leaders. However, as elaborated previously, additional research to clarify the conceptualization and measurement of transactional leadership components of contingent reward, MBE-active and MBE-passive would be desirable. For example, it would be beneficial to explore the possibilities that contingent reward could be divided into transformational and transactional components and to redesign the MBE-active subscale so that it includes the previously-omitted aspects of this leadership style. Such changes to the conceptualization and measurement of these transactional leadership styles could alter the relationships of these leadership styles with emotions, trustworthiness and trust. For instance, while the transformational component of contingent reward leadership should relate to these variables as do other transformational leadership components, it is unclear how the transactional component of contingent reward may relate to emotions, trustworthiness and trust. Additionally, although I found that MBE-active leadership had a neutral or slightly negative influence on followers' emotions and trustworthiness perceptions, these relations could be different if the MBE-active measure included a wider range of leader behaviors. It would, therefore, be beneficial first to examine alternative conceptualizations and measures of the transactional leadership components and then to re-examine their effects on emotions, trustworthiness and trust.

Development of Trust in Leader

Lastly, to draw more definitive conclusions regarding the causal relationships among leadership styles, followers' positive and negative emotions, their perceptions of

leader trustworthiness, and their trust in leaders, longitudinal studies of development of trust in leaders should be undertaken. For example, followers' responses to organizational leaders with diverse leadership styles could be examined over time. It would be interesting to track followers' positive and negative emotions, their perceptions of leader trustworthiness, and their trust in different types of leaders – starting with the initial exposure to a leader and continuing with months and years of close work with that leader. Current research would suggest that transformational and contingent leaders would build strong relationships and deep trust over time through positive emotions and positive perceptions of trustworthiness, whereas passive-avoidant and pseudo-transformational leaders could be expected not to progress beyond exchange-based relationships and trust. Furthermore, it may be highly beneficial for future researchers to examine longitudinal outcomes of types and degrees of trust in different types of organizational leaders. From such research, we could gain better insight into organizational outcomes of trust in various types of leaders.

Summary and Conclusions

The overarching research goal of the present research was to develop an integrated model of how organizational leaders with diverse leadership styles influence followers' trust in leaders; this model was supported. Of specific interest were the mediating roles of followers' positive and negative emotions as well as followers' perceptions of leader trustworthiness in linking various leadership styles with trust. Additionally, it was of interest to compare the effects of the examined leadership styles. My results showed that transformational and contingent reward leadership styles tended to have positive influences on how people feel, how they perceive their leaders' trustworthiness, and how much they trust their leaders, while the MBE-active style had little impact on followers, and passive-avoidant, perceived Machiavellian, and pseudo-transformational leadership styles tended to negatively impact people's feelings, trustworthiness perceptions and trust in leaders. Overall, the results of the three studies contribute significantly to our understanding of the mechanisms - as depicted in my revised integrated model in Figure 5 - through which different types of organizational leaders influence followers' emotions and trust. Taken together, these findings provide

valuable insights that can be used to enhance organizational effectiveness and well-being of all employees through the design of leadership training and development, selection, succession planning, and other HR programs so as to obtain benefits that stem from employees' strong trust in their organizational leaders.

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Appendices

Appendix A: Ethics Approval Form (Study 1)



Department of Psychology The University of Western Ontario
 Room 7418 Social Sciences Centre,
 London, ON, Canada N6A 5C1
 Telephone: [REDACTED]

Use of Human Subjects - Ethics Approval Notice

Review Number	09 10 08	Approval Date	09 10 05
Principal Investigator	Tatjana Ilic/Susan Pepper	End Date	10 04 30
Protocol Title	Leadership and emotions at work		
Sponsor	n/a		

This is to notify you that The University of Western Ontario Department of Psychology Research Ethics Board (PREB) has granted expedited ethics approval to the above named research study on the date noted above.

The PREB is a sub-REB of The University of Western Ontario's Research Ethics Board for Non-Medical Research Involving Human Subjects (NMREB) which is organized and operates according to the Tri-Council Policy Statement and the applicable laws and regulations of Ontario. (See Office of Research Ethics web site: <http://www.uwo.ca/research/ethics/>)

This approval shall remain valid until end date noted above assuming timely and acceptable responses to the University's periodic requests for surveillance and monitoring information.

During the course of the research, no deviations from, or changes to, the protocol or consent form may be initiated without prior written approval from the PREB except when necessary to eliminate immediate hazards to the subject or when the change(s) involve only logistical or administrative aspects of the study (e.g. change of research assistant, telephone number etc). Subjects must receive a copy of the information/consent documentation.

Investigators must promptly also report to the PREB:

- changes increasing the risk to the participant(s) and/or affecting significantly the conduct of the study;
- all adverse and unexpected experiences or events that are both serious and unexpected;
- new information that may adversely affect the safety of the subjects or the conduct of the study.

If these changes/adverse events require a change to the information/consent documentation, and/or recruitment advertisement, the newly revised information/consent documentation, and/or advertisement, must be submitted to the PREB for approval.

Members of the PREB who are named as investigators in research studies, or declare a conflict of interest, do not participate in discussion related to, nor vote on, such studies when they are presented to the PREB.

[REDACTED]

Clive Seligman Ph.D.

Chair, Psychology Expedited Research Ethics Board (PREB)

The other members of the 2009-2010 PREB are: David Dozois, Bill Fisher, Riley Hinson and Steve Lupker

CC: UWO Office of Research Ethics

This is an official document. Please retain the original in your files

Appendix B: Study 1 Questionnaire

Letter of Information and Informed Consent

Project Title: Leadership and Emotions at Work

Principal Investigator: Tatjana Ilic, PhD Candidate in Industrial/Organizational Psychology

Thank you for your interest in participating in this research study. This study is a part of my PhD research program which I am doing under the guidance of Professor Pepper. You are invited to participate if you currently hold a job (part-time or full-time). The main goal of this study is to examine whether the relationship between various leadership styles and employees' trust in organizational leaders can be explained through various positive and negative feelings, as well as through certain beliefs that employees hold about their leaders.

If you take part in this study, you will be asked to complete a web-based survey. This survey consists of six sections. As a part of the general introduction, you will be asked a few general questions regarding your job. Then, you will be asked to complete a questionnaire regarding the leadership style and characteristics of your direct supervisor (i.e., the person to whom you report, who tells you what to do and who may evaluate your performance). In the third section, you will be asked to answer questions about your general beliefs about human nature. In the fourth section, you will be asked to indicate how your supervisor has made you feel in the last few weeks (both in terms of positive and negative feelings). The fifth section consists of questions regarding your beliefs about what your supervisor is like as a person. Lastly, you will be asked how your and other employees' behavior at work may be affected by your supervisor.

The survey will take approximately 40 or 45 minutes to complete, and you will receive **one credit** for your participation. You will be asked to provide your participant identification number and your e-mail address only for the purposes of receiving your credit for participation. In order to maintain your anonymity, this information will be stored separately from your survey responses. Thus, there will be no way of linking your personal information to your responses. Additionally, your answers will be kept confidential and used for research purposes only.

Participation in this study is voluntary. Thus, you may withdraw from the study at any time or refuse to answer any questions without loss of promised credit. If you decide to withdraw from the study before you reach the end of the questionnaire, simply click on the button "Next" at the end of each survey page. When you *get to the feedback page*, click on the link provided in the 2nd sentence of the first paragraph and you will get a chance to enter the information necessary to receive your credit. There are no known physical or psychological risks associated with participating in this study.

If you have read this information letter and agree to participate in this study, simply click on the button "I agree to participate" (on the bottom of this page). After you click on this button, you will be taken to the 1st page of the survey. When you are done with each section of the survey, simply click on "Next" in order to be taken to the following section. When you complete the entire survey and click on "*Proceed to feedback*", you will be taken to the *feedback* page containing additional information about the background and purposes of the study. **On this page, there will also be a link that you will need to follow in order to provide your participant ID number and e-mail address necessary to receive your research credit.** If you

7. My supervisor never tells the real reason for doing something unless it is useful to do so.
8. My supervisor takes action only when sure that it is morally right.
9. My supervisor thinks that it is wise to flatter important people.
10. My supervisor thinks that it is better to be humble and honest than important and dishonest.
11. My supervisor treats people as if they are gullible or easily tricked.
12. My supervisor strives to be good in all respects.
13. My supervisor thinks that most people are basically good and kind.
14. My supervisor believes there is no excuse for lying to someone.
15. To my supervisor, material possessions and personal successes are more important than interpersonal relationships.
16. My supervisor thinks that most people who get ahead lead clean, moral lives.
17. My supervisor thinks that people won't work hard unless they are forced to do so.
18. My supervisor believes that the main difference between criminals and other people is that criminals are stupid enough to get caught.
19. My supervisor believes that most people would make a sacrifice for a good cause.
20. My supervisor often manipulates and exploits people for personal gain.
21. My supervisor believes in winning at all costs.
22. My supervisor only cares about employees' needs and preferences when they are consistent with his or her own goals.
23. My supervisor thinks that ends justify the means.
24. My supervisor believes that personal successes and gains are all that matters
25. My supervisor prefers loyal and unquestioning followers.
26. My supervisor rarely asks employees for their opinions.

2) This questionnaire is to describe the leadership style of your supervisor as you perceive it. Forty-five descriptive statements are listed on the following pages. **Please judge how frequently each of the following statements fits the supervisor you are describing.** Use the following scale:

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

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3) Again, please think about your immediate supervisor or manager. Based on your impressions of him/her, please indicate the extent to which the following statements are characteristic of him or her. Please use the following rating scale:

Not at all characteristic					Highly characteristic
1	2	3	4	5	6

1. Acts in ways that build respect from his friends.
2. Uses his/her influence for personal benefit.
3. Relies mainly on him/herself and not on his/her friends.
4. Goes beyond self-interest for the good of the team.
5. Uses the team to promote his/her personal success.
6. Makes sure that justice and equality are maintained in the team.
7. Cares mainly about him/herself and much less about his/her friends.
8. His/her personal success is more important to him/her than the success of the team.
9. Encourages the team members to count on themselves in solving problems.

Next

PART II.

Think about your own beliefs about human nature. Please indicate how much you agree or disagree with each statement by using the following scales:

1	2	3	4	5
Disagree strongly	Disagree moderately	Undecided (neither agree nor disagree)	Agree moderately	Agree strongly

1. One should be very cautious with strangers.
2. Most experts tell the truth about the limits of their knowledge.
3. Most people can be counted on to do what they say they will do.
4. These days, you must be alert or someone is likely to take advantage of you.
5. Most salespeople are honest in describing their products.
6. Most repair people will not overcharge people who are ignorant of their specialty.
7. Most people answer public opinion polls honestly.
8. Most adults are competent at their jobs.

Next

PART III.

Think about how your supervisor has made you feel in the last month or so. Here are some words and phrases that describe different feelings and emotions. **Please indicate to what extent your immediate supervisor has made you feel this way during the past few weeks.** Type in the appropriate number in the space next to each word. Use the following scale to record your answers:

1	2	3	4	5
very slightly or not at all	a little	moderately	quite a bit	extremely

- | | | | |
|-----------|---------------|-----------------|-----------------|
| ___afraid | ___strong | ___appreciative | ___enthusiastic |
| ___angry | ___frightened | ___bold | ___shaky |
| ___happy | ___irritable | ___nervous | ___loathing |

___proud	___delighted	___optimistic	___reassured
___disappointed	___comforted	___daring	___fearless
___hostile	___disgusted	___lively	___thankful to him/her
___excited	___scornful	___anxious	___content
___worried	___energetic	___hopeful	___scared
___irritated	___confident	___frustrated	___relieved
___disillusioned	___let down	___calmed	___cheerful
___jittery	___joyful	___tense	___grateful to him/her

Next

PART IV.

1) Think about what your supervisor is like. Using the following scale, please click on the bubble under the number that best describes how much you agree or disagree with each statement as it relates to the characteristics of your supervisor.

1	2	3	4	5
Disagree strongly	Disagree	Undecided (neither agree nor disagree)	Agree	Agree strongly

1. My supervisor is very capable of performing his/her job.
2. My supervisor is very concerned about my welfare.
3. My supervisor has a strong sense of justice.
4. My supervisor is known to be successful at the things he/she tries to do.
5. My needs and desires are very important to my supervisor.
6. I never have to wonder whether my supervisor will stick to his/her word.
7. My supervisor has much knowledge about the work that needs to be done.
8. My supervisor would not knowingly do anything to hurt me.
9. My supervisor tries hard to be fair in dealings with others.

10. I feel very confident about my supervisor's skills.
11. My supervisor really looks out for what is important to me.
12. My supervisor's actions and behaviors are not very consistent.
13. My supervisor has specialized capabilities that can increase our performance.
14. My supervisor will go out of his/her way to help me.
15. I like my supervisor's values.
16. My supervisor is well qualified.
17. Sound principles seem to guide my supervisor's behavior.
18. If I had my way, I wouldn't let my supervisor have any influence over workplace issues that are important to me.
19. I would be willing to let my supervisor/manager have complete control over my future in this company.
20. I really wish I had a good way to keep an eye on my supervisor.
21. I would be comfortable giving my supervisor a task or problem which was critical to me, even if I could not monitor his/her actions.

2) Please indicate how willing you are to engage in each of the following behaviors with Your Supervisor, by circling a number from 1 to 7.

How willing you are to do the following with <u>your Supervisor</u>?	Not at all willing							Completely willing
	1	2	3	4	5	6	7	
1. Rely on your supervisor's task-related skills and abilities.	1	2	3	4	5	6	7	
2. Depend on your supervisor to handle an important issue on your behalf.	1	2	3	4	5	6	7	
3. Rely on your supervisor to represent your work accurately to others.	1	2	3	4	5	6	7	
4. Depend on your supervisor to back you up in difficult situations.	1	2	3	4	5	6	7	
5. Rely on your supervisor's work-related judgments.	1	2	3	4	5	6	7	
6. Share your personal feelings with your supervisor.	1	2	3	4	5	6	7	

7.	Discuss work-related problems or difficulties with your supervisor that could potentially be used to disadvantage you.	1	2	3	4	5	6	7
8.	Confide in your supervisor about personal issues that are affecting your work.	1	2	3	4	5	6	7
9.	Discuss how you honestly feel about your work, even negative feelings and frustration.	1	2	3	4	5	6	7
10.	Share your personal beliefs with your supervisor.	1	2	3	4	5	6	7
11.	Depend on your supervisor's expertise for work-related problems	1	2	3	4	5	6	7
12.	Rely on your supervisor to give you appropriate credit for your work	1	2	3	4	5	6	7
13.	Share personal information which does not directly impact your performance at work	1	2	3	4	5	6	7
14.	Rely on the information provided by your supervisor to make important decisions	1	2	3	4	5	6	7
15.	Depend on your supervisor to voice support for your position on important matters at work	1	2	3	4	5	6	7
16.	Exchange work-relevant ideas and feelings openly with your supervisor	1	2	3	4	5	6	7
17.	Be influenced by your supervisor's opinion of the best strategy for success	1	2	3	4	5	6	7
18.	Disclose all the task-relevant information regardless of whether it reflects on you positively or negatively	1	2	3	4	5	6	7
19.	Rely on your supervisor's judgment on how a problem should be handled	1	2	3	4	5	6	7
20.	Accept your supervisor's advice without getting another opinion	1	2	3	4	5	6	7
21.	Openly admit your mistakes to him or her	1	2	3	4	5	6	7
22.	Pursue goals suggested by your supervisor without questioning them	1	2	3	4	5	6	7
23.	Pursue new initiatives in collaboration with your supervisor	1	2	3	4	5	6	7

3) Please answer the following questions regarding your overall trust in your current supervisor.

	Do not trust or rely on him/her at all							Trust or rely on him/her greatly						
	1	2	3	4	5	6	7	1	2	3	4	5	6	7
1. How much trust do you place in your supervisor?														
2. How willing are you to rely on your supervisor in general?														

Next

PART V.

Please indicate the extent to which you agree with each sentence using the following scale:

1	2	3	4	5	6	7
Strongly Disagree	Moderately Disagree	Slightly Disagree	Undecided (Neither Agree Nor Disagree)	Slightly Agree	Moderately Agree	Strongly Agree

1. If my supervisor went on vacation, the employees' functioning would deteriorate.
2. My personal development at work depends on my supervisor.
3. If my supervisor was transferred to another branch, we would have difficulty to continue functioning as a team.
4. I feel I can do my job better when my supervisor is around or in the area.
5. Were my supervisor to leave, my commitment to work would decline.
6. I feel I can function well at work, irrespective of who supervises or manages me and the others.
7. Were my supervisor to leave, the employees' motivation would decline.
8. I find it difficult to function without the guidance of my supervisor.
9. If my supervisor was replaced, the employees would feel they do not have someone to solve their problems.
10. If my supervisor was replaced, the employees would feel that they do not have anyone to give them advice.

END OF THE QUESTIONNAIRE
 ****THANK YOU FOR YOUR VALUABLE HELP****

[Proceed to feedback](#)

PARTICIPANT FEEDBACK

Title of the Study: Leadership and Emotions at Work

Principal Investigator: Tatjana Ilic, PhD Candidate in Industrial/Organizational Psychology

Thank you for participating in this study. **In order to receive your research credit, please click on _____ and fill in your participant ID number and e-mail address.** When you do that, an e-mail will be sent to the principal investigator, who will then ensure that you receive your credit for participation.

We are interested in what leadership styles and employees' beliefs and feelings about their supervisors make employees trust their supervisors. Previous studies have shown that managers whose leadership style is more transformational are likely to have more trusting, satisfied, and committed subordinates (Dirks & Ferrin, 2002). Transformational leaders are those who generate and communicate compelling visions, and who, through their self-sacrifice and consideration of everyone's best interests, inspire and challenge their followers to perform beyond expectations and to become leaders themselves (Avolio, 1999; Bass, 1998). In general, we predicted that the supervisor's leadership styles will be associated with trust in the supervisors and that this relationship can be explained by employees' feelings about their supervisors and their perceptions of their supervisors' ability, integrity, and benevolence.

In this study, we tested the predicted relationships by asking you to complete questionnaires about your current supervisor's leadership style and personality, your beliefs about your supervisor's competence, honesty, and concern for your best interests, as well as your beliefs in trustworthiness of people in general. We also asked you to describe the extent to which your supervisor made you feel both positive emotions (e.g., optimism, hope, self-assurance, gratitude) and negative emotions (e.g., anxiety, fear, anger, disappointment), as well as the extent of your trust in your supervisor. Finally, we asked you to describe your level of dependence on your supervisor.

We made a number of specific predictions. We predicted that supervisors who are more transformational in their leadership style will have employees who see them as more competent, honest and benevolent, and who report more positive and fewer negative feelings about the supervisor. This pattern of employees' beliefs and emotions should also be associated with greater trust in the leader. In contrast, supervisors whose style tends to be more transactional (i.e., exchange-based and corrective), laissez-faire (characterized by lack of supervisor's help and involvement), or Machiavellian (i.e., self-interested and utilitarian at the expense of employees) should have employees who see them as lower in honesty, integrity and concern for workers, who feel fewer positive and more negative emotions, and who report less trust in the supervisor. We hope that increased understanding of the antecedents and consequences of trust in the workplace will ultimately contribute to more positive and satisfying workplaces.

If you have any questions about this study, please contact Tatjana Ilic, PhD Student in Industrial/Organizational Psychology, Department of Psychology, The University of Western Ontario, London, Ontario, _____, or Dr. Susan Pepper, Associate Professor, Department of Psychology, The University of Western Ontario, London, Ontario, _____.

If you have questions about your rights as a research subject, you should contact the Director of the Office of Research Ethics at _____.

Suggested Readings:

- Bass, B. M. (1998). *Transformational leadership: Industrial, military, and educational impact*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Dirks, K. T. & Ferrin, D. L. (2002). Trust in leadership: Meta-analytic findings and implications for research and practice. *Journal of Applied Psychology, 87*(4), 611-628.
- Humphrey, R. H. (2002). The many faces of emotional leadership. *The Leadership Quarterly, 13*, 493-504.
- Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integrative model of organizational trust. *The Academy of Management Review, 20*(3), 709-734.

Appendix C: Perceived Machiavellian Leadership Scale I

1) Think about your immediate supervisor or manager in terms of his/her behavior and personal views. To what extent would you agree or disagree with the following statements about your supervisor. Please use the following rating scale:

1	2	3	4	5
Disagree strongly	Disagree somewhat	Undecided (neither agree nor disagree)	Agree somewhat	Agree strongly

1. My supervisor tends to handle people by telling them what they want to hear.
2. When asking me to do something, my supervisor gives the real reason for wanting it instead of reasons that might sound better.*
3. My supervisor believes that trusting a person completely is simply asking for trouble.
4. My supervisor thinks that it is hard to get ahead without cutting corners here and there.
5. My supervisor believes that honesty is always the best policy.*
6. My supervisor assumes that all people have a vicious streak that will come out at the first opportunity.
7. My supervisor never tells the real reason for doing something unless it is useful to do so.
8. My supervisor takes action only when sure that it is morally right.*
9. My supervisor thinks that it is wise to flatter important people.
10. My supervisor thinks that it is better to be humble and honest than important and dishonest.*
11. My supervisor treats people as if they are gullible or easily tricked.
12. My supervisor strives to be good in all respects.*
13. My supervisor thinks that most people are basically good and kind.*
14. My supervisor believes there is no excuse for lying to someone.*
15. To my supervisor, material possessions and personal successes are more important than interpersonal relationships.

16. My supervisor thinks that most people who get ahead lead clean, moral lives.*
17. My supervisor thinks that people won't work hard unless they are forced to do so.
18. My supervisor believes that the main difference between criminals and other people is that criminals are stupid enough to get caught.
19. My supervisor believes that most people would make a sacrifice for a good cause.*
20. My supervisor often manipulates and exploits people for personal gain.
21. My supervisor believes in winning at all costs.
22. My supervisor only cares about employees' needs and preferences when they are consistent with his or her own goals.
23. My supervisor thinks that ends justify the means.
24. My supervisor believes that personal successes and gains are all that matters
25. My supervisor prefers loyal and unquestioning followers.
26. My supervisor rarely asks employees for their opinions.

*Items with an asterisk at the end are reverse-keyed.

Appendix D: Ethics Approval Form (Study 2)



Department of Psychology The University of Western Ontario
 Room 7418 Social Sciences Centre,
 London, ON, Canada N6A 5C1
 Telephone: [REDACTED]

Use of Human Subjects - Ethics Approval Notice

Review Number	10 01 12	Approval Date	10 01 21
Principal Investigator	Susan Pepper/Tatjana Ilic	End Date	10 04 30
Protocol Title	Leadership and emotion at work – Survey study #2		
Sponsor	n/a		

This is to notify you that The University of Western Ontario Department of Psychology Research Ethics Board (PREB) has granted expedited ethics approval to the above named research study on the date noted above.

The PREB is a sub-REB of The University of Western Ontario's Research Ethics Board for Non-Medical Research Involving Human Subjects (NMREB) which is organized and operates according to the Tri-Council Policy Statement and the applicable laws and regulations of Ontario. (See Office of Research Ethics web site: <http://www.uwo.ca/research/ethics/>)

This approval shall remain valid until end date noted above assuming timely and acceptable responses to the University's periodic requests for surveillance and monitoring information.

During the course of the research, no deviations from, or changes to, the protocol or consent form may be initiated without prior written approval from the PREB except when necessary to eliminate immediate hazards to the subject or when the change(s) involve only logistical or administrative aspects of the study (e.g. change of research assistant, telephone number etc). Subjects must receive a copy of the information/consent documentation.

Investigators must promptly also report to the PREB:

- changes increasing the risk to the participant(s) and/or affecting significantly the conduct of the study;
- all adverse and unexpected experiences or events that are both serious and unexpected;
- new information that may adversely affect the safety of the subjects or the conduct of the study.

If these changes/adverse events require a change to the information/consent documentation, and/or recruitment advertisement, the newly revised information/consent documentation, and/or advertisement, must be submitted to the PREB for approval.

Members of the PREB who are named as investigators in research studies, or declare a conflict of interest, do not participate in discussion related to, nor vote on, such studies when they are presented to the PREB.

[REDACTED]
 Clive Seligman Ph.D.

Chair, Psychology Expedited Research Ethics Board (PREB)

The other members of the 2009-2010 PREB are: David Dozois, Bill Fisher, Riley Hinson and Steve Lupker

CC: UWO Office of Research Ethics

This is an official document. Please retain the original in your files

Appendix E: Study 2 Questionnaire

Letter of Information and Informed Consent

Project Title: Leadership and Emotions at Work – Survey Study #2

Principal Investigator: Tatjana Ilic, PhD Candidate in Industrial/Organizational Psychology

Thank you for your interest in participating in this research study. You are invited to participate if you currently hold a job (part-time or full-time). This study is part of my PhD research under the guidance of Professor Pepper. The main goal is to examine the relationships of leadership styles with people’s positive and negative feelings and their beliefs about organizational leaders.

If you take part in this study, you will be asked to complete a web-based survey. This survey consists of four sections. First, you will be asked to complete some questions regarding the leadership style and characteristics of your direct supervisor (i.e., the person to whom you report, who tells you what to do and who may evaluate your performance). In the second section, you will be asked to indicate how your supervisor has made you feel in the past few weeks (both in terms of positive and negative feelings). The third section consists of questions regarding your beliefs about what your supervisor is like as a person. Lastly, you will be asked a few general questions about yourself and your job experience.

The survey will take approximately 20 minutes to complete. For your participation in this study, you will receive a gift certificate. This survey is anonymous; thus, you will not be asked to provide any personally identifiable information (e.g., name, e-mail address). Additionally, your answers will be kept confidential and used for research purposes only.

Participation in this study is voluntary. Thus, you may withdraw from the study at any time or refuse to answer any questions. There are no known physical or psychological risks associated with participating in this study.

If you have read this information letter and agree to participate in this study, simply click on the button “I agree to participate”. After you click on this button, you will be taken to the 1st page of the survey. When you have finished each section of the survey, simply click on “Next” in order to be taken to the following section. When you complete the entire survey and click on “*Proceed to feedback*”, you will be taken to the *feedback* page containing additional information about the background and purposes of the study. If you have any additional questions, please feel free to contact either myself or Professor Pepper at the e-mail addresses provided below.

Tatjana Ilic, MA
PhD Candidate

Industrial/Organizational Psychology
The University of Western Ontario
London, ON, [REDACTED]
e-mail: [REDACTED]

Susan Pepper, PhD
Professor Emerita; Adjunct Research
Professor

Industrial/Organizational Psychology
The University of Western Ontario
London, ON, [REDACTED]
e-mail: [REDACTED]

LEADERSHIP AND EMOTIONS AT WORK - Survey Study #2

Your StudyResponse ID #: _____

General Instructions:

For this survey, think about the person who acts as your immediate supervisor or manager at work. This will be the person to whom your report, who tells you what to do, and who may evaluate your performance. In this survey, we refer to this person as *your supervisor* regardless of his/her official title in the company for which you work.

PART I.

1) Think about your immediate supervisor's behavior and personal views. To what extent would you agree or disagree with the following statements about your supervisor? Please use the following rating scale:

1	2	3	4	5
Disagree strongly	Disagree somewhat	Undecided (neither agree nor disagree)	Agree somewhat	Agree strongly

MY SUPERVISOR...

1. Never tells the real reason for doing something unless it is useful to do so.
2. Thinks that it is wise to flatter important people.
3. Uses power primarily for personal gain.
4. Thinks that it is better to be humble and honest than important and dishonest.
5. Often takes credit for other people's ideas.
6. Treats people as if they are gullible or easily tricked.
7. Believes in winning at all costs.
8. Often manipulates and exploits people for personal gain.
9. Only cares about employees' needs and preferences when they are consistent with his/her own goals.

10. Demands that his/her decisions be accepted without question.
11. Believes that personal successes and gains are all that matters.
12. Relies on threat and fear of punishment to keep people “in line”.
13. Pretends to care about others’ needs and opinions.
14. Believes that honesty is always the best policy.
15. Comes up with plans that largely benefit him/her.
16. Prefers loyal and unquestioning followers.
17. Rarely asks employees for their opinions.
18. Assumes that all people have a vicious streak that will come out at the first opportunity.
19. Has no intention of sacrificing his/her interests for the good of others.
20. To him/her, material possessions and personal successes are more important than interpersonal relationships.

2) This questionnaire is to describe the leadership style of your supervisor as you perceive it. Forty-five descriptive statements are listed on the following pages. **Please judge how frequently each of the following statements fits the supervisor you are describing.** Use the following rating scale:

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

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3) Again, please think about your immediate supervisor or manager. Based on your impressions of him/her, **please indicate the extent to which the following statements are characteristic of him or her.** Please use the following rating scale:

Not at all characteristic					Highly characteristic
1	2	3	4	5	6

1. Acts in ways that build respect from his/her friends.
2. Uses his/her influence for personal benefit.
3. Relies mainly on himself/herself and not on his/her friends.
4. Goes beyond self-interest for the good of the team.
5. Uses the team to promote his/her personal success.
6. Makes sure that justice and equality are maintained in the team.
7. Cares mainly about himself/herself and much less about his/her friends.
8. His/her personal success is more important to him/her than the success of the team.
9. Encourages the team members to count on themselves in solving problems.

Next

PART II.

Think about how your supervisor has made you feel in the past month or so. Here are some words and phrases that describe different feelings and emotions. **Please indicate to what extent your immediate supervisor has made you feel this way during the past few weeks.** Type in the appropriate number in the space next to each word. Use the following scale to record your answers:

1	2	3	4	5
Very slightly or not at all	A little	Moderately	Quite a bit	Extremely

___ afraid	___ strong	___ appreciative	___ enthusiastic
___ angry	___ frightened	___ bold	___ shaky
___ happy	___ irritable	___ nervous	___ loathing

___proud	___delighted	___optimistic	___reassured
___disappointed	___comforted	___daring	___fearless
___hostile	___disgusted	___lively	___thankful to him/her
___excited	___scornful	___anxious	___content
___worried	___energetic	___hopeful	___scared
___irritated	___confident	___frustrated	___relieved
___disillusioned	___let down	___calmed	___cheerful
___jittery	___joyful	___tense	___grateful to him/her

Next

PART III.

1) Think about what your supervisor is like. Using the following scale, **indicate how much you agree or disagree with each statement as it relates to the characteristics of your supervisor.**

1	2	3	4	5
Disagree strongly	Disagree	Undecided (neither agree nor disagree)	Agree	Agree strongly

1. My supervisor is very capable of performing his/her job.
2. My supervisor is very concerned about my welfare.
3. My supervisor has a strong sense of justice.
4. My supervisor is known to be successful at the things he/she tries to do.
5. My needs and desires are very important to my supervisor.
6. I never have to wonder whether my supervisor will stick to his/her word.
7. My supervisor has much knowledge about the work that needs to be done.
8. My supervisor would not knowingly do anything to hurt me.
9. My supervisor tries hard to be fair in dealings with others.
10. I feel very confident about my supervisor's skills.

11. My supervisor really looks out for what is important to me.
12. My supervisor's actions and behaviors are not very consistent.
13. My supervisor has specialized capabilities that can increase our performance.
14. My supervisor will go out of his/her way to help me.
15. I like my supervisor's values.
16. My supervisor is well qualified.
17. Sound principles seem to guide my supervisor's behavior.

2) Please indicate how willing you are to engage in each of the following behaviors with your supervisor. Use the following scale:

1	2	3	4	5	6	7
Not at all willing	Moderately unwilling	Somewhat unwilling	Undecided	Somewhat willing	Moderately willing	Completely willing

How willing you are to...

1.	Rely on your supervisor's task-related skills and abilities.	1	2	3	4	5	6	7
2.	Depend on your supervisor to handle an important issue on your behalf.	1	2	3	4	5	6	7
3.	Rely on your supervisor to represent your work accurately to others.	1	2	3	4	5	6	7
4.	Depend on your supervisor to back you up in difficult situations.	1	2	3	4	5	6	7
5.	Rely on your supervisor's work-related judgments.	1	2	3	4	5	6	7
6.	Share your personal feelings with your supervisor.	1	2	3	4	5	6	7
7.	Discuss work-related problems or difficulties with your supervisor that could potentially be used to disadvantage you.	1	2	3	4	5	6	7
8.	Confide in your supervisor about personal issues that are affecting your work.	1	2	3	4	5	6	7
9.	Discuss how you honestly feel about your work, even negative feelings and frustration.	1	2	3	4	5	6	7

10. Share your personal beliefs with your supervisor. 1 2 3 4 5 6 7

3) Please answer the following questions regarding your overall trust in your current supervisor.

	None/ Not at all				Undecided /Unsure		Very Much/ Completely
1. How much trust do you place in your supervisor?	1	2	3	4	5	6	7
2. How willing are you to rely on your supervisor in general?	1	2	3	4	5	6	7

Next

Lastly, please tell us a bit about yourself:

1. Gender: Male Female
2. Age: _____
3. How long have you been working for your current employer? ____years ____months
4. How many hours do you work during an average week? _____hours per week
5. How long have you known your current supervisor? ____years ____months
6. What is the industry in which you are working? _____
7. What is the title of your position? _____

END OF THE QUESTIONNAIRE

****THANK YOU FOR YOUR VALUABLE HELP****

Proceed to feedback

PARTICIPANT FEEDBACK

Title of the Study: Leadership and Emotions at Work

Principal Investigator: Tatjana Ilic, PhD Candidate in Industrial/Organizational Psychology

Thank you for participating in this study. For your participation, you will receive a gift certificate.

We are interested in the influence that various types of organizational leaders have on people's feelings, their perceptions of the leader's trustworthiness, and their trust in these organizational leaders. Previous studies have shown that managers whose leadership style is more transformational are likely to have more trusting, satisfied, and committed subordinates (Dirks & Ferrin, 2002). Transformational leaders are those who

generate and communicate compelling visions, and who, through their self-sacrifice and consideration of everyone's best interests, inspire and challenge their followers to perform beyond expectations and to become leaders themselves (Avolio, 1999; Bass & Riggio, 2005).

We made a number of specific predictions. We predicted that the managers with a transformational leadership style will be seen as more competent, honest and benevolent, and will engender more positive and fewer negative feelings in the participants than other managers. Thus, transformational managers are expected to engender more trust within their employees. In contrast, the managers with transactional (i.e., exchange-based and corrective), laissez-faire (lacking involvement and help for employees), or Machiavellian (i.e., self-interested, unethical, and manipulative) leadership styles should be seen as lower in honesty, integrity and concern for other people in the workplace. Such managers are expected to engender less trust, fewer positive, and more negative emotions within their employees.

In this study, we tested the predicted relationships by asking you to complete questionnaires about your current supervisor's leadership style and personality as well as your beliefs about your supervisor's competence, honesty, and concern for your best interests. We also asked you to describe the extent to which your supervisor made you feel both positive emotions (e.g., optimism, hope, self-assurance, gratitude) and negative emotions (e.g., anxiety, fear, anger, disappointment), as well as the extent of your trust in your supervisor. We hope that increased understanding of antecedents of trust in leaders and the consequences of different types of organizational leadership will ultimately contribute to more positive and satisfying workplaces.

If you have any questions about this study, please contact Tatjana Ilic, PhD Student in Industrial/Organizational Psychology, Department of Psychology, The University of Western Ontario, London, Ontario, [REDACTED] or Dr. Susan Pepper, Professor Emerita, Department of Psychology, The University of Western Ontario, London, Ontario, [REDACTED]. If you have questions about your rights as a research subject, you should contact the Director of the Office of Research Ethics at [REDACTED].

Suggested Readings:

- Dirks, K. T. & Ferrin, D. L. (2002). Trust in leadership: Meta-analytic findings and implications for research and practice. *Journal of Applied Psychology, 87*(4), 611-628.
- Howell, J. M., & Avolio, B. J. (1992). The ethics of charismatic leadership: Submission or liberation? *Academy of Management Executive, 6*, 43-54.
- Humphrey, R. H. (2002). The many faces of emotional leadership. *The Leadership Quarterly, 13*, 493-504.
- Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integrative model of organizational trust. *The Academy of Management Review, 20*(3), 709-734.

Appendix F: Perceived Machiavellian Leadership Scale II

1) Think about your immediate supervisor's behavior and personal views. **To what extent would you agree or disagree with the following statements about your supervisor?** Please use the following rating scale:

1	2	3	4	5
Disagree strongly	Disagree somewhat	Undecided (neither agree nor disagree)	Agree somewhat	Agree strongly

MY SUPERVISOR...

1. Never tells the real reason for doing something unless it is useful to do so.
2. Thinks that it is wise to flatter important people.
3. Uses power primarily for personal gain.
4. Thinks that it is better to be humble and honest than important and dishonest.*
5. Often takes credit for other people's ideas.
6. Treats people as if they are gullible or easily tricked.
7. Believes in winning at all costs.
8. Often manipulates and exploits people for personal gain.
9. Only cares about employees' needs and preferences when they are consistent with his/her own goals.
10. Demands that his/her decisions be accepted without question.
11. Believes that personal successes and gains are all that matters.
12. Relies on threat and fear of punishment to keep people "in line".
13. Pretends to care about others' needs and opinions.
14. Believes that honesty is always the best policy.*
15. Comes up with plans that largely benefit him/her.
16. Prefers loyal and unquestioning followers.

17. Rarely asks employees for their opinions.
18. Assumes that all people have a vicious streak that will come out at the first opportunity.
19. Has no intention of sacrificing his/her interests for the good of others.
20. To him/her, material possessions and personal successes are more important than interpersonal relationships.

*Items with an asterisk at the end are reverse-keyed.

Appendix G: Ethics Approval Form (Study 3)



Department of Psychology The University of Western Ontario
 Room 7418 Social Sciences Centre,
 London, ON, Canada N6A 5C1
 Telephone: [REDACTED]

Use of Human Subjects - Ethics Approval Notice

Review Number	10 09 26	Approval Date	10 09 30
Principal Investigator	Sue Pepper/Tatjana Ilic	End Date	10 12 15
Protocol Title	Leadership and emotions at work: II		
Sponsor	n/a		

This is to notify you that The University of Western Ontario Department of Psychology Research Ethics Board (PREB) has granted expedited ethics approval to the above named research study on the date noted above.

The PREB is a sub-REB of The University of Western Ontario's Research Ethics Board for Non-Medical Research Involving Human Subjects (NMREB) which is organized and operates according to the Tri-Council Policy Statement and the applicable laws and regulations of Ontario. (See Office of Research Ethics web site: <http://www.uwo.ca/research/ethics/>)

This approval shall remain valid until end date noted above assuming timely and acceptable responses to the University's periodic requests for surveillance and monitoring information.

During the course of the research, no deviations from, or changes to, the protocol or consent form may be initiated without prior written approval from the PREB except when necessary to eliminate immediate hazards to the subject or when the change(s) involve only logistical or administrative aspects of the study (e.g. change of research assistant, telephone number etc). Subjects must receive a copy of the information/consent documentation.

Investigators must promptly also report to the PREB:

- a) changes increasing the risk to the participant(s) and/or affecting significantly the conduct of the study;
- b) all adverse and unexpected experiences or events that are both serious and unexpected;
- c) new information that may adversely affect the safety of the subjects or the conduct of the study.

If these changes/adverse events require a change to the information/consent documentation, and/or recruitment advertisement, the newly revised information/consent documentation, and/or advertisement, must be submitted to the PREB for approval.

Members of the PREB who are named as investigators in research studies, or declare a conflict of interest, do not participate in discussion related to, nor vote on, such studies when they are presented to the PREB.

[REDACTED]

Clive Seligman Ph.D.

Chair, Psychology Expedited Research Ethics Board (PREB)

The other members of the 2009-2010 PREB are: David Dozois, Bill Fisher, Riley Hinson and Steve Lupker

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Appendix H: Study 3 Materials

Letter of Information and Informed Consent

Project Title: Leadership and Emotions at Work

Principal Investigator: Tatjana Ilic, PhD Candidate in Industrial/Organizational Psychology

Thank you for your interest in participating in this research study. This study is a part of my PhD research program which I am doing under the guidance of Professor Pepper. You are invited to participate if you have held a job (part-time or full-time) in the past 3 years. The main goal of this study is to examine the relationships of various leadership styles with people's positive and negative feelings and certain beliefs about organizational leaders.

If you take part in this study, you will be asked to imagine that you are an Employee Representative on a Hiring Committee to fill a management position. Your task will be to read some documents including the advertisement for the job, organizational chart, and the job application materials for one of the candidates. All this will be displayed on the store web site – which you will reach after going over this letter of information. The job application materials consist of a professional resume for the candidate and some statements by the candidate, his supervisor, colleagues and salespeople. When you review these materials and feel comfortable with the information in them, you will be asked for your impressions of the job candidate through some questions about the candidate's leadership style, personal characteristics, and your feelings and beliefs about the candidate. Lastly, you will be asked if you would recommend the candidate for hiring, and then you will be given a few general questions about yourself and your job experience.

The survey will take approximately 45 minutes to complete, and you will receive **one credit** for your participation. Your answers will be kept confidential and used for research purposes only. There will be no way of linking your personal information to your responses.

Participation in this study is voluntary. Thus, you may withdraw from the study at any time or refuse to answer any questions without loss of promised credit. There are no known physical or psychological risks associated with participating in this study.

If you have read this information letter and agree to participate in this study, simply click on the button “I agree to participate” (on the bottom of this page). After you click on this button, you will be taken to the store web site with instructions and links for the materials that you need to review. On the last page of the questionnaire, click on “*Proceed to feedback*” to be taken to the *feedback* page containing additional information about the background and purposes of the study. If you have any questions, please feel free to contact either myself or Professor Pepper at the e-mail addresses provided below.

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MEGA Department Store



You are an Employee Representative on a Committee to hire a General Sales Manager for Mega Department Store.

One of Mega's Department Heads, Jack Harris, has applied for this job. Your job is to review his application, record your impression of him and decide if he would be a good candidate for the managerial position.

Your Task as a Member of the Hiring Committee:

- 1. Review the Job Advertisement**
- 2. Look over Mega's Organizational Chart**
- 3. Read over Jack Harris' Job Application Materials (& think about your impression of Jack Harris)**
- 4. Record your Impression of the Job Candidate (Jack Harris) and by answering questions**

Your help with this project is greatly appreciated.

Go To These Links For All Application Materials:

1. Job Advertisement

2. Mega's Organizational Chart

3. Jack Harris' Job Application Materials

4. Questions about Your Impression of the Job Candidate & Your Hiring Recommendation

General Sales Manager **Job Advertisement**

POSITION SUMMARY:

This position is based in Calgary, AB, and the person chosen for the position will report directly to the store manager. He or she will work with Operations Manager and other General Sales Managers across Canada to enhance the store's revenue and image, and otherwise fulfill his/her duties and responsibilities as outlined below.

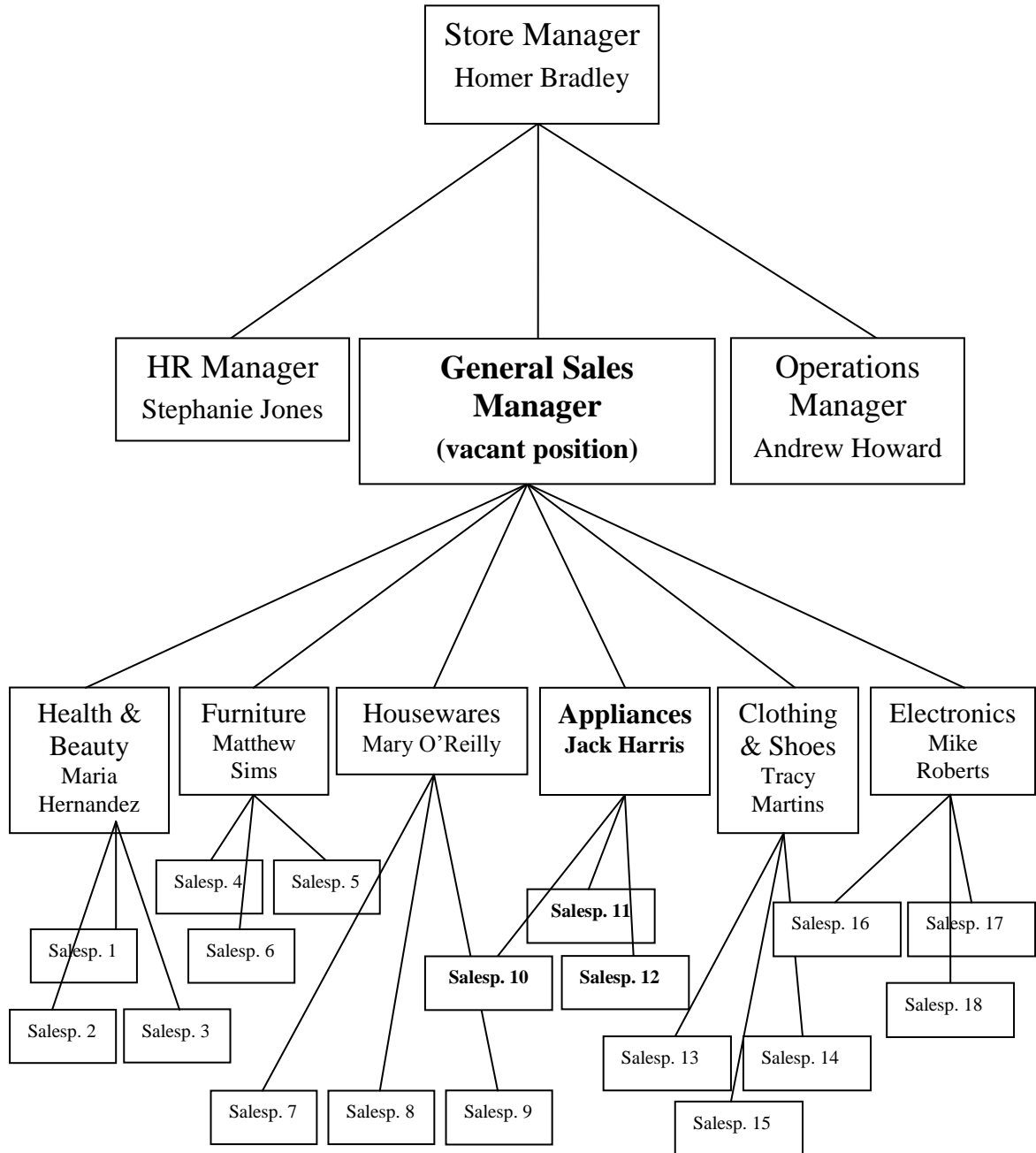
DUTIES & RESPONSIBILITIES:

- Liaising with suppliers and customers
- Delivering or exceeding quarterly and annual sales revenue goals
- Quarterly sales plan updates and reviews with top management
- Helping select Department Heads and other sales staff and train them
- Supervising and motivating Sales Associates and Dept. Heads, and monitoring their performance
- Setting budgets/targets
- Liaising with other managers, and reporting back to senior managers
- Maintaining detailed knowledge of the company's products and services
- Keeping abreast of what the competing department stores are doing

REQUIRED QUALIFICATIONS:

- Minimum 3-5 years of sales experience, preferably in a department store
- Minimum 2 years of supervisory experience
- Strong strategic, analytical, and problem solving skills and abilities
- Strong leadership and management skills/abilities including worker motivation, organization, influence and persuasion, being a motivated self-starter
- Team player with a "get it done" attitude
- Ability to thrive in a fast-paced, high-growth environment
- Outstanding oral and written communication and presentation skills

Mega Department Store Organizational Chart



Resume

Jack Harris
Department Head

403.444.1111
JackHarris@MegaStore.ca

HIGHLIGHTS OF PROFESSIONAL QUALIFICATIONS:

- ❖ Ability to supervise or manage salespersons effectively
- ❖ Good written and oral communication skills
- ❖ Strong interpersonal and leadership skills
- ❖ Assertive with a positive attitude
- ❖ Functions well independently and as a part of a team
- ❖ Quick learner and reliable
- ❖ Strong problem-solving skills

RELATED EMPLOYMENT HISTORY:

Sept. 2006 – Present
Mega Department Store
Position: Department
Head – Appliances

- Supervising and coordinating sales staff and cashiers
- Assigning duties and preparing work schedules for salespeople
- Resolving problems that arise (e.g., handling customer complaints)
- In charge of maintaining inventory
- Preparing reports on sales and personnel-related matters
- Participated in salesperson employment interviews
- Involved in Customer First Focus Group Project to improve key products and increase sales

Sept. 2004 – Sept. 2006
Mega Department Store
Position: Intermediate
Sales Associate –
Appliances

- Greeted customers and discussed type, quality and quantity of products
- Quoted prices, credit terms, warranties and delivery dates
- Advised customers on use and care of various products
- Prepared merchandise for purchase and accepted cash, credit card or automatic debit payment
- Helped maintain a computerized inventory record

Sept. 2001 – Sept. 2004
ABC Home Improvement
Store
Position: Junior Sales
Associate

- Greeted customers and checked prices, warranties and delivery options for their products of interest
- Discussed product strengths and weaknesses as well as their similarities and differences from other related products
- Entered new merchandise into a computerized inventory system
- Prepared merchandise for purchase

EDUCATION:

1999 – 2001

Business Administration Diploma
SAIT Polytechnic, Calgary, AB

1996 – 1999

High School Diploma
Western Canada Secondary School, Calgary, AB

Appendix I: Statements for Transformational Condition

Applicant's Personal Statement by Jack Harris [Transformational]

1. Management Philosophy:

To survive in today's dynamic economy, businesses need to focus on people, expertise, innovation, and adaptability. I worked hard to develop these characteristics in myself and my direct reports. If selected as the next General Sales Manager, I would focus first on customers. To be successful, we must truly understand their needs. Next, I focus on our Mega team and encourage everyone to contribute their knowledge and experience to make the store successful. I would also coordinate with senior management. By combining our ideas for success, we can be the best department store in Canada. Everyone would gain – management, owners, employees, and customers.

We must be innovative to stay ahead of the competition and be profitable in the long run. We should search for new technologies and ways to make our business efficient. If some new strategies look promising, like a better inventory system, we should adopt them to be leaders in the industry.

2. Ideas for Organizing Salespeople & the Store:

When sales were declining, I suggested that we form Customer First Focus Groups in which our best salespeople talked to customers about their product needs and wants. I was thrilled to hear how many good ideas we got from these meetings with customers. Many products were improved and sales went way up. So, I think it's crucial for us to continue working with customers to get to know them better and make every effort to meet their product needs with great customer service.

3. Supervisory Style:

To keep the employees happy and productive, I give them interesting and challenging tasks and make sure they get coaching whenever possible. I work closely with salespeople and use their special talents to benefit the company and everyone in it. I try to inform employees about where the company is going so they can see how their contributions fit into the big picture. They need to know how important they are to Mega's success.

To show my supervisory style, here is how I handled last August's big Back-to-School Sale Event. I met with my team of Sales Associates in June and talked about the special talents we have that can be helpful for the sale. We decided to divide everyone in 3 teams. Team 1 was the creative sales people. Their goal was to find innovative ways to display products and grab attention. The most nurturing people were on Team 2. They organized a supervised kids' play area so parents could shop comfortably. Team 3, with

good planners and organizers, made sure that everything was set up and ready to go by mid-August. The salespeople enjoyed the process of coming up with their own ideas. They felt that they were part of something great and sales showed they were right.

Report from Jack Harris' Most Recent Supervisor [Transformational]

1. Contribution to Innovation and Success of Mega Store:

Last year, Jack had a great vision for the store - to put together "Customer First Focus Groups" to find out customers' needs and preferences for some key products. He had a lot of energy and passion for the project and led several groups himself. Based on customer feedback, we changed some products and sales increased. The store manager rewarded Jack with a sizeable bonus.

Jack has innovative ideas for improvement but invites others' input too. He is committed to questioning old ways and coming up with new strategies. He supports good ideas whether they are his or someone else's. I recall he was pushing for a good but expensive new inventory system in a low-profit year. When we pointed out that the company could not afford the system that year, Jack realized his mistake and looked for other ways to handle inventory.

2. Character and Personal Qualities:

People can rely on Jack's words and promises. He does what he says he will, not only for me but for his Sales Associates too. When his sales people asked for more training, he talked to the HR manager that week, got the list of available courses, and sat down one-on-one to help each person choose the best course. Jack sets a good example for other managers, department heads and sales associates.

3. Relations with Subordinates:

Jack is dedicated to helping his Sales Associates. For the last Back-To-School Sale Event, Jack met with them to discuss strategies for making the event better. His salespeople were quite enthused and played a key part in making the event a success in the end.

Jack gives credit where credit is due. He made sure to recognize his team's contribution to the successful Customer First project; he said it was a group effort and he couldn't have done it alone. He also actively invites others' input and comments on his ideas. He clearly listened to his salespeople's ideas of splitting into three teams during the last Back-To-School Sale.

Jack encourages his people to learn more and get more training whenever possible.

He tells his people that he believes in their ability to do a good job on difficult tasks. Salespeople who report to him are happy and motivated to work extra hard. They seem to admire Jack and to be loyal to the store. So, Jack seems to have a good rapport with them.

4. Relations with Other Department Heads and Senior Management:

Jack also has a good rapport with the other department heads and senior management. For the Customer First Focus Group project, he got the store manager's buy-in first, led a team of other Department Heads to plan it, and at the end, recognized everyone for making the project a success. He used a part of his bonus to throw a big "thank you" BBQ at his house for his sales people, colleagues and managers as well as their families. So although he was the biggest contributor to this project, he was a real team-player in the whole thing.

Extracts from Feedback from Salespeople Reporting to Jack Harris

[Transformational]

- Jack comes up with good ideas to make the store better. Last year, he started those focus groups to talk to customers about their product needs. He was pumped about the idea and he got us excited too. When it was all done, we had better sales and everyone profited, just like he said we would.
- He says in front of others how important our sales team is and how our work contributes a lot to the sales in this store...he makes us feel like we make a real difference
- ... truly believes in going beyond self interests for the good of our team and the company...
- he made sacrifices to help our department and our company survive. Last year, when things were bad at the store, he took a pay cut so that some of us Sales Associates would not be laid off..
- Jack asks us for our input and encourages us to question the old ways – even if he was the one who created them. So we're never afraid to share our true opinions on important things.
- He expects a lot of his staff, but he is pretty confident in our abilities to tackle problems and get to the next level...he makes me want to try harder.
- Jack helps us when we have bumps in the road...recently when we had some customer service issues, Jack met with us several times and showed us some different strategies that really helped us work better with customers.
- ... passionate ... gets us enthused about working on our projects.
- Jack often talks to us about various sales problems...he usually has great ideas about how to solve these problems so we listen and learn from him...but even then, he always asks what we think and says we should try to think outside the

box...so I really feel I am growing and learning new things all the time on this job...thanks to Jack, I think I'll soon be ready to move up.

Extracts from Feedback from Jack Harris' Colleagues (other Department Heads)

[Transformational]

- Jack really seems to walk the talk. When he says he will help you with something, he makes sure that he does what he promises.
- What stands out about Jack is his willingness to sacrifice his time, effort and profits for the sake of success of his sales team and the other departments. His actions were selfless. Once he even took a pay cut to avoid laying off staff.
- He likes challenges and looks for new ways to improve existing store operations. He is very enthusiastic when he talks to others about his new ideas.
- ... likes to question the old ways – even if they produced good sales in the past... keeps telling us we must innovate and stay ahead of game if we want to be successful in the long run.
- Jack listens to his salespeople and tries to meet their needs and interests. When they show interest in getting involved in new tasks, he looks into it and tries to find new duties to challenge them, even if he has to arrange for some training first. He encourages them to learn new things and pursue new opportunities.
- When he presented his plan for Customer First Focus Groups, you could tell he was passionate about the idea. In the end, it all worked out as he predicted – we made some product improvements which increased sales. Both Mega and the employees benefited because Jack made sure that everyone shared in the store's success.

Appendix J: Statements for Pseudo-Transformational Condition

Applicant's Personal Statement by Jack Harris [Pseudo-Transformational]

1. Management Philosophy:

In today's world where only the fittest survive, *a truly great manager* must be equipped with expertise, ambition, innovation and adaptability. I am proud to say - I have what it takes. I worked really hard to build my sales expertise. I asked for more responsibilities and showed that I am more than capable of handling everything. Thanks to my natural intelligence and hard work, I succeeded at everything I undertook.

Innovativeness and taking on challenges are incredibly important for success, and I have clearly shown I have these traits. I had many innovative ideas for our store to adapt and stay competitive in a changing environment. An example is my idea of a new computer inventory system that would put us ahead of our competitors. Although this idea met with some resistance, I am confident that I will be able to convince them of its greatness. In a position of a Sales Manager, I would initiate positive changes which, I am convinced, would lead to long-term success of our store.

2. Ideas for Organizing Salespeople & the Store:

When sales were declining, I was the only person to suggest an insightful solution of forming Customer First Focus Groups in which our best salespeople talked to customers about their product needs and wants. Customers enjoyed talking with me and kept thanking me for being so thoughtful and caring. Seeing the many good ideas we got from customers, I was proud of myself. Because of my contribution, many products were improved and sales went way up. Many customers returned to express gratitude for everything I did for them. I called the store manager to tell him what I had accomplished. He was very pleased with my contribution. The results of this project show my value to the company.

3. Supervisory Style:

To show my supervisory style, here is how I handled last August's big Back-to-School Sale Event. I met with my team of salespeople in June and talked about the special talents we have that can be helpful for the sale. I divided everyone in 3 teams. I had a great idea of putting the creative people into Team 1 to find innovative ways to display products and grab attention. I put the most nurturing people in Team 2. They organized a supervised kids' play area so parents could shop comfortably. This brilliant idea of mine made customers with children really happy. Team 3, with good planners and organizers, made sure that everything was set up and ready to go by mid-August.

I really enjoyed coming up with these impressive ideas and contributing to the amazing sales. Customers really loved my ideas! The success of that project demonstrates *my impressive interpersonal and leadership skills* and my commitment to excellence.

Report from Jack Harris' Most Recent Supervisor [Pseudo-Transformational]

1. Contribution to Innovation and Success of Mega Store:

Last year, Jack had a great vision for the store - to put together "Customer First Focus Groups" to find out customers' needs and preferences for some key products. He seemed to put his energy and drive into the project and led several groups himself. Based on the customer feedback, we changed some products and sales increased. But sometimes he pushed this idea of focus groups a bit too hard. When his efforts started yielding returns for the store, he pushed managers to give him a large bonus and he didn't quit until he got it.

Jack has some innovative ideas for store improvement, but he doesn't ask for others' input. He doesn't like when his ideas are questioned. He prefers when they're accepted and actively promotes them no matter what others think.

2. Character and Personal Qualities:

Jack typically follows up on the tasks I ask him to do. However, I am not sure he does the same with his subordinates. He tries to give the impression that he takes care of his people, but he often ignores their requests. I overheard him promising to his people to talk to HR manager about their requests for training, but he never did it. When they asked him about this he just said that he is very busy and will do it next week. So his salespeople can't rely on his words and promises.

3. Relations with Subordinates:

Jack sometimes asks his salespeople for input and comments. But he rarely considers their comments when making important decisions. For example, although his salespeople had other good ideas for the last Back-To-School Sale Event, he still just gave them the tasks that he thought they should do without considering their suggestions.

At times he seems too eager to take all the credit for a job well done. Many salespeople supported his task force idea and did a lot of work on this project, but he never acknowledged their contributions. He acted as if it was only his work that made the project successful. But when we had customer service problems in the past, he tried to blame it on others.

4. Relations with Other Department Heads and Senior Management:

Jack tries hard to have a good rapport with senior management. When he got a bonus for his work on Customer First project, he invited the managers to his house for a fancy Barbecue. He said he organized it to celebrate the success, but it seemed like he was trying to draw managers' attention and win some favors with them.

Although Jack tries to listen to managers' opinions, often he refuses to acknowledge that his ideas might not be feasible – even when everyone else thinks they aren't. I recall he was pushing for a good but expensive new inventory system in a low-profit year. We kept telling him that this was a bad year to make that change and that company could not afford buying that inventory system then – but he still kept pressing and giving us the sales pitch.

Extracts from Feedback from Salespeople Reporting to Jack Harris

[Pseudo-Transformational]

- Jack comes up with good ideas to make the store better. He started those focus groups to talk to customers about their product needs. He was pumped about the idea and he got us excited too. When it was all done, we had better sales. When the project succeeded, the first thing he did was ask for a salary raise.
- I can't remember a time when he recognized us for good work. He typically takes all the credit for successes for himself... no matter how hard we work, he acts as if he is the only one making a real difference around here.
- ... talks about going beyond our own interests for the good of the company, but doesn't seem to be willing to sacrifice his own profits and time to help our company.
- I heard he was pushing management into giving him a bonus for his work on the task force project... it's like he is just going after his own goals.
- Jack makes an effort to ask us for our input... but when he makes decisions, our suggestions typically don't make much difference.
- ... expects a lot of us and asks us to work hard. But sometimes he acts like he doubts our ability to do a good job... we caught him checking up on us - as if he did not expect us to do the job right... that doesn't exactly make us want to try harder.
- ... promises to help us with problems, but never quite gets to it. A few times he promised to help us solve some customer problems, but never spent more than 5 minutes with us – which didn't help us much.
- ... passionate ... talks to us enthusiastically about his projects.

- I know he has more experience than us, but sometimes we know things better and can contribute. Problem is - we don't get asked for our opinions very often. And when we do get asked, it seems like it goes in one ear and out the other.

Extracts from Feedback from Jack Harris' Colleagues (other Department Heads)

[Pseudo-Transformational]

- Jack really doesn't seem to walk the talk. He says he will help you with something, but often doesn't end up doing what he promises.
- I don't know if he is truly willing to sacrifice his personal interests for others. When the store was in trouble, he suggested that they cut salespeople's jobs. So, many people (including those from his team) lost their jobs, while he got to keep his fat salary.
- He likes challenges and looks for new ways to improve existing store operations. He is enthusiastic when he talks to others about his new ideas.
- ... likes to question the old ways and innovate to stay ahead of others.
- Jack tries to listen to his salespeople when they show interest in getting involved in new projects or tasks. But he doesn't seem to assign or delegate new tasks to them. Their requests seem to go nowhere. Also he doesn't recommend or approve any additional training for them. I don't know if they are learning anything new on their jobs or growing in any way.
- He worked hard to sell the idea of Customer First Focus Groups to us and senior management. He argued that other ideas would lead to bad results like diminishing sales so he asked us to support him. He said that if he's promoted, he would get us some salary raises and more freedom to run things how we see fit in our own departments.

Appendix K: Statements for Contingent Reward Condition

Applicant's Personal Statement by Jack Harris [Contingent Reward]

1. Management Philosophy:

In today's dynamic economy, it is important to know the tried and true ways that lead to success of department stores. In my opinion, stores like this succeed if they have good organization and good customer service. So, these are the things that I would emphasize if I was to become the next General Sales Manager.

So, first I would make sure that the store and the events are well organized. Sales associates should also be clear on their duties and should be rewarded for very good performance. Next, I would focus on customers and tried and true ways of providing good customer service. Finally, I would coordinate with senior management to find out some ways to get organized and better serve our valued customers.

2. Ideas for Organizing Salespeople & the Store:

First, I would emphasize organization and customer service to all salespeople right from the start. When they are hired, I would make it clear that good organization and customer service are part and parcel of their every day duties and responsibilities. Then I would break these down further into specific actions that salespeople need to follow in order to achieve good organization and customer service, like regularly updating the inventory and attaching new price tags, greeting customers politely and answering their questions, etc.

If some salespeople performed their duties really well, I would check with the store manager to see if we could give them some small bonus or salary raise for good performance. I believe that employees who do their jobs really well should at least be recognized openly – e.g., by praising them or by having their names on the Employees of the Month lists.

3. Supervisory Style:

To show my supervisory style, here is how I handled last August's big Back-to-School Sale Event. Before the event, I thought about how to best divide the tasks. Then, I met with my sales people in June and divided them into 2 teams. I put the 1st team in charge of doing the displays for the sale and explained to them what worked well for us in the past. I gave the 2nd team the task of handling the price tags and explained some great ways of doing the price tags (we used in the past). They worked hard to put everything together. In the end, everything was organized and ready to go well before the sale date. The sale event went smoothly and the sales were good. At the next general meeting, I

recognized my Sales Associates for their hard work and praised them for the job well done. I managed to get them a bit of a bonus as well – since the sales were good.

Report from Jack Harris' Most Recent Supervisor [Contingent Reward]

1. Contribution to Organization and Success of Mega Store:

Last year, Jack helped with the Customer First Focus Group project that senior management came up with. Jack was a part of one of the focus groups that talked to customers to find out their product needs and wants. Based on the feedback that these groups got from the customers, we changed some products and sales increased.

Jack is committed to following the old ways that have worked for us in the past (but not so much coming up with new strategies to make the store better in the long run). He believes that what has worked well in the past should work well in the future.

2. Character and Personal Qualities:

People can rely on Jack's words and promises. When he tells his sales people that he will deliver certain rewards, monetary or otherwise, to them for good performance, he really does it. This is not only with monetary rewards like bonuses, but also with other things like recognition, employee of the month lists, team of the month plaques, etc. So he seems to set a good example for other managers, department heads and sales associates.

3. Relations with Subordinates:

Jack is dedicated to explaining duties and responsibilities to his Sales Associates. He tells them what worked well before – so that it can be done again. For the last Back-to-School Sale Event, he explained to his salespeople what they needed to do with price tags, displays, customer questions and complains, etc. And when it came down to the preparation for the event, his people did exactly what he asked of them. He used some ways that worked for us in the past, so the event turned out as we hoped. Sales were fairly good and the store did well overall.

Jack doesn't follow his people around all the time and breathe down their necks. Occasionally he checks with them to see how they are getting along. In most cases, they are doing things the way he told them to, so he shows his satisfaction with their work. Once in a while when they do things differently from what he told them, he takes them aside and quietly corrects them. Right after that, he also tells them how they are doing a good job.

Jack never hesitates to give credit where credit is due. I often see him praise his people for doing a good job and thank them on behalf of senior management. When he saw that

his people contributed heavily to success of Back-to-School Sale Event, he checked with us managers if we could somehow reward them. We were able to give all team members a small bonus and Jack recognized them openly in front of everyone. Overall, his sales associates seem to work well and have a good rapport with him.

4. Relations with Other Department Heads and Senior Management:

Overall, I'd say that Jack has a good rapport with the other department heads and with the store management.

Extracts from Feedback from Salespeople Reporting to Jack Harris

[Contingent Reward]

- Jack tells us what to do to get the job done... last year he met with us well before Back to School Sale event and explained to us how to prepare displays and price tags and help customers. The event turned out good and sales were high.
- Jack gets us rewards and recognizes us publicly when we do a good job. For example, when we helped prepare for the last sale event, he thanked us for our hard work and got us a bonus. He also praised us in front of the managers and said we contributed to the success of this event.
- ... talks to us about the importance of following company procedures and rules.
- When product is marked for delivery he told us to package and protect it with Styrofoam so it doesn't get damaged. Then we must check product code, customer name and address - so there are no mistakes with the delivery. We make sure to follow these directions because this saves company a lot of money.
- ... seems satisfied with what we've done so far. In front of everyone he praised us for reaching the goal of zero delivery mistakes for the last two quarters. He even got our names on the official company bulletin board.
- ... tells us our tasks and duties and what we can expect to get in return for doing these tasks properly.
- He told us what to do with customers right from the start. First we greet them and offer our help, then we tell them about brands and features of products they are interested in.
- Jack said we should be proactive and tell customers about product features – to grab their interest right away. The first time I did that, customers seemed interested and satisfied and Jack was happy about it. He said I did a great job and that he was proud of me.
- With Jack we're learning what worked well before – so we can do it like that now.

Extracts from Feedback from Jack Harris' Colleagues (other Department Heads)

[Contingent Reward]

- He not only completes his duties but he motivates his people with praise... he really shows his satisfaction when they do well and recognizes them in front of other employees and management. Several times he got their names on the company bulletin board - to recognize their achievements.
- Doesn't like to question the old ways that produced good sales in the past. He thinks if something worked well before, why change?
- I have seen him showing his people how to solve different sales and customer service problems. So more often than not, his subordinates seem to be clear on what is required of them.
- ... informs his people of any rewards, bonuses or other perks they can get when they do a good job. So far they got several bonuses when they did good on some projects.
- Jack tells his people what their goals and responsibilities are, like greeting customers and telling them about products, and ensuring that the most current price tags are applied to each product. Sometimes he even asks them if he left out any important tasks or duties and gets them to agree on some duties. He also tells them when there is some training that the company requires them to take.
- I noticed that he tends to thank his sales associates and praise them for their hard work and project success. So, he seems to try to take care of his subordinates.

Appendix L: Statements for MBE-Active Condition

Applicant's Personal Statement by Jack Harris [MBE-Active]

1. Management Philosophy:

In today's dynamic economy, it is important to know the tried and true ways that lead to success of department stores. In my opinion, stores like this succeed if they have good organization, effective procedures, and good customer service. So, these are the things that I'd emphasize if became the next General Sales Manager.

So, first I would make sure that the store and the events are well organized. Sales associates should also be clear on their duties and procedures. Next, I'd focus on customers and tried and true ways of providing good customer service. Finally, I'd coordinate with senior management to find ways to get organized and better serve our valued customers.

2. Ideas for Organizing Salespeople & the Store:

I would emphasize organization, procedures, and customer service to all Sales Associates right from the start. When they are hired, I'd make it clear that they are to keep the inventory and work space well organized at all times – so that if any employees or customers are looking for a product or a price, they could find it easily.

Next, I'd teach them from the start that they are to follow specific procedures at all times. In this line of work creativity is not important. What is important is following the prescribed ways of greeting customers, answering questions, submitting paperwork for deliveries, packaging products, entering new products and prices, printing new price tags, handling difficult customers, etc. In this job there is a lot to do, and people before us have figured out how best to do it. My job is to make sure that all salespeople are following the established procedures. I am convinced that if employees follow procedures consistently, the store will profit and succeed in the long run.

3. Supervisory Style:

To show my supervisory style, here is how I handled last August's big Back-to-School Sale Event. Before the event, I thought about how to best divide the tasks. Then, I met with my sales people in June and divided them into 2 teams. I put the 1st team in charge of doing the displays for the sale and explained to them what worked well for us in the past. I gave the 2nd team the task of handling the price tags and explained some good ways of doing the price tags from earlier. After the meeting, I kept an eye on my salespeople to make sure they follow procedures for making displays and price tags. Whenever they started doing something different from what I told them, I corrected them

immediately. In the end, everything was organized and ready to go well before the sale date. The sale event went smoothly and the sales were good.

Report from Jack Harris' Most Recent Supervisor [MBE-Active]

1. Contribution to Organization and Success of Mega Store:

Last year, Jack helped with the Customer First Focus Group project that senior management came up with. Jack was a part of one of the focus groups that talked to customers to find out their product needs and wants. Based on the feedback that these groups got from the customers, we changed some products and sales increased.

Jack is committed to following the old ways that have worked for us in the past (but not so much coming up with new strategies to make the store better in the long run). He believes that what has worked well in the past should work well in the future.

2. Character and Personal Qualities:

Jack doesn't really inspire people with new innovative ideas, and he rarely gets his sales associates excited about some project or motivated to work extra hard. On the other hand, I'd have to say that Jack is consistent and when he says that he will follow procedures and get something done, he delivers on it. Also, when he says he will go over duties and procedures with his people, he does it. In that sense, he is a good worker and department head.

3. Relations with Subordinates:

Jack is dedicated to explaining duties and responsibilities to his Sales Associates. He tells them what worked well before – so that it can be done again. For example, for the last Back-to-School sale event, he explained to his salespeople what they needed to do with price tags, displays, customer questions and complains, etc. When it came down to the preparation for the event, his people did exactly what he asked of them. He used some ways that worked for us in the past, so the sales were fairly good and the store did well overall.

Jack seems to like to keep an eye on his sales people and check their work. The main reason why he checks on his people is his desire to make sure that things are done correctly. He likes to follow the proper procedures, so he tries to get his people to do that too. In most cases, his people do things the way he told them to. But when they depart from his directions, he puts a lot of time and energy into correcting them.

Although he doesn't usually give his people any special credit for job well done, he definitely corrects them when they are not doing things right. For example, he didn't seem to praise his people or thank them for contributing to success of Back-to-School Sale Event, but I am sure he was glad that there were no mistakes with the different procedures. They followed all his directions of how to handle different aspects of the event. Overall, his sales associates seem to be good workers.

4. Relations with Other Department Heads and Senior Management:

Overall, I'd say that Jack has a good rapport with the other department heads and with the store management.

Extracts from Feedback from Salespeople Reporting to Jack Harris

[MBE-Active]

- Jack tells us what to do to get the job done... last year he met with us well before Back to School Sale event and explained to us how to prepare displays and price tags and help customers. The event and the sales turned out good.
- The whole time during Back to School event and the preparation he hung around us and checked our work. He corrected us as soon as we started doing something wrong. That way he made sure that we only did things how he said.
- ... talks to us about the importance of following company procedures and rules.
- When product is marked for delivery he told us to package it in a box and protect it with Styrofoam so it doesn't get damaged. Then we must check and double-check product code, customer name and address - so there are no mistakes with the delivery. We make sure to follow these directions because this saves company a lot of money.
- He kept an eye on us while we were learning procedures. We did OK, but once or twice we slipped – we forgot to double-check some codes and wrong things were delivered. He said if this happens again, we may have to pay for delivery costs out of our own pockets. We really pay close attention now.
- He told us what to do with customers right from the start. First we greet them and offer our help, then we tell them about brands and features of products they are interested in.
- Jack really emphasized it is not enough to just answer customer's questions. He said we must be proactive and tell customers about product features – to grab their interest right away.
- He watches us closely to make sure we do exactly as he says. If he sees us doing things wrong, he pulls us aside to tell us what we did wrong and correct us.

- With Jack we're learning what worked well before – so we can do it like that now.

Extracts from Feedback from Jack Harris' Colleagues (other Department Heads)

[MBE-Active]

- Jack assigns tasks to his salespeople and tells them exactly what to do to avoid mistakes. He follows their progress and if he sees something wrong, he tries to correct it right away so it doesn't become a habit. I notice he also tells them when there is some training that the company requires them to take.
- Doesn't like to question the old ways that produced good sales in the past... thinks if something worked well before, why change?
- I have seen him showing his people how to solve different sales and customer service problems. He also explains to them common mistakes salespeople tend to make - so they can avoid them. So more often than not, his people are clear on what is required of them.
- He explains salaries to his people before hiring and doesn't mention any rewards or perks after that. But he keeps an eye on them so they follow his directions.
- Jack spells out duties to his sales associates, like greeting customers and telling them about products, and applying the most current price tags to each product. He seems to monitor them a lot to make sure that they do things according to his directions.
- ... really focuses on details. I overheard him telling one of his people that he is supposed to wear black pants – not dark grey ones. If you ask me, it looks like this person's pants used to be black but turned lighter with all the washing.

Appendix M: Statements for Passive-Avoidant Condition

Applicant's Personal Statement by Jack Harris [Passive-Avoidant]

1. Management Philosophy:

In these modern times, the important thing is to give employees lots of room to do things the way it makes them most comfortable. That is exactly what I do. I like to let the staff figure things out for themselves, rather than spend countless hours teaching and directing them. I find this approach works fine. They can show how resourceful they are, and I am not breathing down their necks. Even if occasionally they are confused about what to do, they figure it out eventually.

So, if I was to become the next General Sales Manager, I would definitely want some independent salespeople who can figure stuff out on their own – so that I can focus on my tasks and get my own things done.

2. Ideas for Organizing Salespeople & the Store:

I think it is good to have people who work well independently and don't require a lot of attention. I myself am one of these people who prefer to work independently. I get a lot of good work done when I work by myself in my office. I get things organized and completed. Occasionally, I still even handle customer service issues. For example, once in a while when I find out that some of my salespeople clearly mishandled a difficult customer, I get involved and handle the customer issue calmly. Sometimes you get really demanding customers that you dislike and would rather not deal with. But no matter how much you would like to escape this responsibility of dealing with difficult people – you just can't. So, occasionally I still have to face these customers and see if I can resolve the problem or address their complaint.

3. Supervisory Style:

To show my supervisory style, here is how I handled last August's big Back-to-School Sale Event. When I got the memo from the head office about our Back-to-School Sale Event, I printed out the flyer and posted it on the big bulletin board on the main floor – for all sales associates to see. I wrote on it in red pen so that they see it well: "Here is something for you to think about for the end of the summer. You will need to figure out how to handle displays and price tags for the sale." A few weeks before the sale, I noticed there was a lot of activity outside my office as people were putting things together for the big sale. Closer to the sale date, I saw the displays as I was passing by on my way to the office. They looked just fine. So, although things seemed a bit hectic for a while, in the end the staff managed to prepare for the sale on their own.

Report from Jack Harris' Most Recent Supervisor [Passive-Avoidant]

1. Contribution to Organization and Success of Mega Store:

Last year, Jack helped a bit with the Customer First Focus Group project that senior management came up with, although he was not actually in any of the focus groups that talked to customers to find out their product needs and wants.

Jack just does his own thing. He doesn't care much about the tried and true ways that have worked for us in the past. He is also not too concerned with looking for new strategies to stay competitive and make the store better in the long run.

2. Character and Personal Qualities:

He avoids a lot of his responsibilities especially those that have to do with his salespeople. He doesn't keep an eye on his people to make sure that things are done correctly. By not caring about how things are done, he is indirectly taking away from the store's success. This is because even when his people figure out what they need to do by themselves, they usually don't know good ways to get things done. Despite that, he does complete most of his sales tasks assigned to him by the top managers. So, he does take care of some of his duties.

3. Relations with Subordinates:

Jack did a bit of work with his salespeople at Mega. For example, for the last Back-to-School Sale Event, he reminded them that they needed to work on preparing everything for the event (like price tags, displays, etc.). He wasn't very involved with their actual preparation though. He never took time to explain what they needed to do and how they could best prepare for this event. His people essentially did all the work on their own and without his help or guidance. For a while, they seemed confused about what they needed to do and how they should go about setting up the displays, price tags and everything else. Still, the event went OK. Sales were fairly good and the store did well overall. However, that was mainly because other salespeople knew what they were doing with everything. Jack's salespeople were lost for a good while, until they saw what the others were doing and learned from them.

Jack doesn't inspire people with new innovative ideas, and he rarely gets his sales associates excited about some project or motivated to work extra hard. Also, he rarely sits down with his people to explain their duties and responsibilities. He doesn't seem to follow their progress or pay much attention to them. He rarely even picks up on their mistakes. They pick stuff up on their own, but it takes a lot longer and they typically don't do a very good job. Without Jack's guidance and feedback, it is difficult for them to grow and be excellent workers.

4. Relations with Other Department Heads and Senior Management:

Overall, I'd say that Jack has a decent rapport with the store management, but not much of a rapport with other people at Mega.

Extracts from Feedback from Salespeople Reporting to Jack Harris

[Passive-Avoidant]

- Jack doesn't follow us around and tell us what to do (like some supervisors). He lets us figure things out on our own. Last year before our big Back to School event, he posted a memo he got from the head office reminding us about the event. He just added that we should think about how to handle price tags, displays... – and that's it.
- Jack doesn't tell us what to do to get the job done... for our last sale event, we were a bit lost so we asked other salespeople. When we got some ideas, we prepared displays and price tags how we thought would be OK. We tried to help customers as best as we could. The event turned out fine. It was a bit nerve wracking but we finally figured things out.
- ... doesn't check our work... but once in a blue moon when he catches us doing something wrong, he flips out.
- ... never said anything about how to handle deliveries -- we had to learn the hard way. After a few mistakes we figured out that products for delivery should be packaged and protected with Styrofoam - so they don't get damaged.
- Once or twice we slipped – we forgot to double-check product code and wrong things were delivered to customers. One time when that happened Jack showed up out of nowhere and told us if this ever happened again, we would have to cover delivery costs out of our own pockets.
- Jack didn't tell us what to do with customers. I remember being confused and watching other salespeople to figure it out.
- Eventually we figured we're supposed to like say hi to customers and offer our help -- then try to answer questions about the products.
- Sometimes I wish we could get some directions from Jack like what to do and what not to do... there is so much confusion in our sales team.
- With Jack we're not learning much...we haven't learned what worked well before or any new ways of doing things.

Extracts from Feedback from Jack Harris' Colleagues (other Department Heads)**[Passive-Avoidant]**

- Jack doesn't seem to be on the sales floor very much. I don't know if he's out or just hiding in his office. Sometimes I think the salespeople want to talk to him about getting involved in different tasks or getting some training – but he is difficult to get a hold of. So even when there is extra training offered, they'd probably never know about it.
- Doesn't care about how to do things better... barely takes care of his own responsibilities.
- Jack rarely shows to his people how to solve sales problems or explain common mistakes to them. When they messed up, he pulled them aside and really showed his dissatisfaction. He told them that if the mistakes get repeated, it would cost them money out of their salary or even worse – their jobs.
- Other than their salaries, he doesn't mention the rewards or perks they could get if they do a good job.
- Jack usually takes the “hands-off” approach. He does his own thing in his office and rarely gets involved with his salespeople. I see them trying to figure things out on their own like greeting customers, talking about products, keeping price tags current.
- His sales associates are often unclear on what is required of them. Typically they make a bunch of mistakes before they figure out how to deal with problems effectively... Jack gets upset and lectures them once in a blue moon when he notices that they are handling something wrong.

Appendix N: Study 3 Questionnaire

YOUR IMPRESSION OF JACK HARRIS

Dear Hiring Committee Member:

❖ **Before giving your impression of the candidate, please make sure you have looked at all of the following documents:**

- **Job Advertisement for General Sales Manager**
- **Resume for Jack Harris**
- **Applicant's Personal Statement by Jack Harris**
- **Report from Jack Harris' Most Recent Supervisor**
- **Extracts from Feedback from Salespeople Reporting to Jack Harris**
- **Extracts from Feedback from Jack Harris' Colleagues (Other Department Heads)**

❖ **To return to these documents, first SAVE your responses and then click [HERE](#):**

General Instructions:

Please think about everything you have read regarding Jack Harris. The following questions ask for your thoughts and feelings about Jack. If, at any time, you wish to go back and review any of Jack Harris's application materials, please feel free to do so.

PART I.

1) Based on what you read in Jack Harris' Job Application Materials, tell us **what you think about him** using this rating scale:

1	2	3
No	Undecided	Yes

1. Jack Harris speaks enthusiastically about his plans for the store.
2. Jack Harris says he has all the leadership skills he needs for this position.

3. Jack's personal statement creates a more positive impression of him than do the statements from his supervisor, colleagues, and Sales Associates.
4. Several people discussed how Jack handled a Back-To-School Sale Event at Mega.
5. Jack **came up** with the idea of using focus groups to find out customers' needs.
6. Jack spends little or no time explaining tasks and duties to his salespeople.
7. Jack Harris makes sure to give employees credit when they do a good job.
8. Jack tries to get people excited about his ideas for our department and the store.

2) Think about Jack Harris' behavior and personal views. **To what extent would you agree or disagree with the following statements about Jack?** Please use this rating scale:

1	2	3	4	5
Disagree strongly	Disagree somewhat	Undecided (neither agree nor disagree)	Agree somewhat	Agree strongly

JACK HARRIS...

1. Never tells the real reason for doing something unless it is useful to do so.
2. Thinks that it is wise to flatter important people.
3. Uses power primarily for personal gain.
4. Thinks that it is better to be humble and honest than important and dishonest.
5. Often takes credit for other people's ideas.
6. Treats people as if they are gullible or easily tricked.
7. Believes in winning at all costs.
8. Often manipulates and exploits people for personal gain.
9. Only cares about employees' needs and preferences when they are consistent with his own goals.
10. Demands that his decisions be accepted without question.

11. Believes that personal successes and gains are all that matters.
12. Relies on threat and fear of punishment to keep people “in line”.
13. Pretends to care about others’ needs and opinions.
14. Believes that honesty is always the best policy
15. Comes up with plans that largely benefit him.
16. Prefers loyal and unquestioning followers.
17. Rarely asks employees for their opinions.
18. Assumes that all people have a vicious streak that will come out at the first opportunity.
19. Has no intention of sacrificing his interests for the good of others.
20. To him, material possessions and personal successes are more important than interpersonal relationships.

3) Describe Jack Harris’ leadership style as you perceive it. Use the following scale to indicate how frequently each of the statements below fits Jack Harris based on what you have read.

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

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Next

PART II.

If Jack Harris were hired as the General Sales Manager at Mega Store, he would be your boss. Bearing this in mind, how would he make you feel?

Here are some words that describe different feelings and emotions. Using the following scale, type in the appropriate number in the space next to each word to tell us how you would feel if Jack were hired.

1	2	3	4	5
Very slightly or not at all	A little	Moderately	Quite a bit	Extremely

___ afraid	___ strong	___ appreciative	___ enthusiastic
___ angry	___ frightened	___ bold	___ shaky
___ happy	___ irritable	___ nervous	___ loathing
___ proud	___ delighted	___ optimistic	___ reassured
___ disappointed	___ comforted	___ daring	___ fearless
___ hostile	___ disgusted	___ lively	___ thankful to him/her
___ excited	___ scornful	___ anxious	___ content
___ worried	___ energetic	___ hopeful	___ scared
___ irritated	___ confident	___ frustrated	___ relieved
___ disillusioned	___ let down	___ calmed	___ cheerful
___ jittery	___ joyful	___ tense	___ grateful to him/her

Next

PART III.

1) Think about what Jack Harris is like as a manager. Use the following scale to describe how much you agree or disagree with each statement about Jack Harris.

1	2	3	4	5
Disagree strongly	Disagree	Undecided (neither agree nor disagree)	Agree	Agree strongly

1. Jack is very capable of performing his job.
2. Jack is very concerned about his salespeople's welfare.
3. Jack has a strong sense of justice.

4. Jack is known to be successful at the things he tries to do.
5. Salespeople's needs and desires are very important to Jack.
6. Salespeople never have to wonder whether Jack will stick to his word.
7. Jack has much knowledge about the work that needs to be done.
8. Jack would not knowingly do anything to hurt his salespeople.
9. Jack tries hard to be fair in dealings with others.
10. Salespeople feel very confident about Jack's skills.
11. Jack really looks out for what is important to his salespeople.
12. Jack's actions and behaviors are not very consistent.
13. Jack has specialized capabilities that can increase salespeople's performance.
14. Jack will go out of his way to help his salespeople.
15. Salespeople like Jack's values.
16. Jack is well qualified.
17. Sound principles seem to guide Jack's behavior.
18. I feel very confident about Jack's skills.
19. I like Jack's values.

2) If Jack Harris were hired as the General Sales Manager (and became your boss), how willing would you be to engage in each of the following behaviors based on what you know about him?

1	2	3	4	5	6	7
Not at all willing	Moderately unwilling	Somewhat unwilling	Undecided	Somewhat willing	Moderately willing	Completely willing

How willing would you be to ...

1.	Rely on Jack's task-related skills and abilities.	1	2	3	4	5	6	7
2.	Depend on Jack to handle an important issue on your behalf.	1	2	3	4	5	6	7
3.	Rely on Jack to represent your work accurately to others.	1	2	3	4	5	6	7
4.	Depend on Jack to back you up in difficult situations.	1	2	3	4	5	6	7
5.	Rely on Jack's work-related judgments.	1	2	3	4	5	6	7
6.	Share your personal feelings with Jack.	1	2	3	4	5	6	7
7.	Discuss work-related problems or difficulties with Jack that could potentially be used to disadvantage you.	1	2	3	4	5	6	7
8.	Confide in Jack about personal issues that are affecting your work.	1	2	3	4	5	6	7
9.	Discuss how you honestly feel about your work, even negative feelings and frustration.	1	2	3	4	5	6	7
10.	Share your personal beliefs with Jack.	1	2	3	4	5	6	7

3) Please answer the following questions about your overall trust in Jack Harris.

	Not at all			Undecided /Unsure	Very Much/ Completely			
1.	How much trust would you place in Jack?	1	2	3	4	5	6	7
2.	How willing would you be to rely on Jack in general?	1	2	3	4	5	6	7

4) Promotion recommendation for the position of General Sales Manager.

	1	2	3	4	5
Would you recommend Jack Harris for the promotion to the managerial position?	Definitely Not	Likely Not	Undecided	Likely Yes	Definitely Yes

Next

PART IV.

Lastly, please tell us a bit about yourself:

1. Gender: Male Female
2. Age: _____
3. Have you had paid employment in the past 3 years? Yes No
4. How long have you worked for your most recent employer? _____years _____months
5. In your most recent job, how many hours have you worked during an average week?
_____ hours per week
6. What is the industry in which you worked in your most recent job (e.g., retail, financial, oil and gas, automotive, information and communications...)?

7. What was/is the title of your position?

END OF THE QUESTIONNAIRE

****THANK YOU FOR YOUR VALUABLE HELP****

Proceed to feedback

PARTICIPANT FEEDBACK

Title of the Study: Leadership and Emotions at Work

Principal Investigator: Tatjana Ilic, PhD Candidate in Industrial/Organizational Psychology

Thank you for participating in this study. **In order to receive your research credit, please click [HERE](#) and fill in your participant ID number and e-mail address.** When you do that, an e-mail will be sent to the principal investigator, who will then ensure that you receive your credit for participation.

We are interested in the influence that various types of organizational leaders have on people's feelings, their perceptions of leader trustworthiness, and their trust in these organizational leaders. Previous studies have shown that managers whose leadership style is more transformational are likely to have more trusting, satisfied, and committed subordinates (Dirks & Ferrin, 2002). Transformational leaders are those who generate and communicate compelling visions, and who, through their self-sacrifice and consideration of everyone's best interests, inspire and challenge their followers to perform beyond expectations and to become leaders themselves (Avolio, 1999; Bass & Riggio, 2005). In general, we predicted that transformational leadership will positively affect people's emotions, their trust in organizational leaders, and their perceptions of the leaders' trustworthiness.

We made a number of specific predictions. We predicted that the manager with transformational leadership style will be seen as more competent, honest and benevolent, and will engender more positive and fewer negative feelings in the participants. This pattern of leader-related beliefs and emotions was expected to lead to greater trust in the leader. In contrast, the managers with transactional (i.e., exchange-based and corrective), laissez-faire (characterized by lack of manager's help and involvement), or Machiavellian (i.e., self-interested, unethical, and utilitarian at the expense of employees) leadership styles should be seen as lower in honesty, integrity and concern for other people in the workplace. Thus, these types of managers were expected to engender less trust, fewer positive, and more negative emotions in others.

In this study, we tested the predicted relationships by presenting descriptions of 1 out of 5 different types of managers to each participant, and then asking all participants to complete a questionnaire about this manager's leadership style and personality, and their beliefs about the manager's competence, honesty, and concern for other people's best interests. We also asked the participants to describe the extent to which they felt both positive emotions (e.g., optimism, hope, self-assurance, gratitude) and negative emotions (e.g., anxiety, fear, anger, disappointment) during or after going over the statements about the manager (Jack Harris). Finally, we asked the participants about the extent to which they would be willing to trust this manager (Jack Harris) with things that are important to them in the workplace. We hope that increased understanding of antecedents of trust in leaders and consequences of organizational leadership will ultimately contribute to more positive and satisfying workplaces.

If you have any questions about this study, please contact Tatjana Ilic, PhD Student in Industrial/Organizational Psychology, Department of Psychology, The University of Western Ontario, London, Ontario, [REDACTED]; or Dr. Susan Pepper, Associate Professor, Department of Psychology, The University of Western Ontario, London, Ontario, [REDACTED].

If you have questions about your rights as a research subject, you should contact the Director of the Office of Research Ethics at [REDACTED].

Suggested Readings:

Dirks, K. T. & Ferrin, D. L. (2002). Trust in leadership: Meta-analytic findings and implications for research and practice. *Journal of Applied Psychology, 87*(4), 611-628.

Howell, J. M., & Avolio, B. J. (1992). The ethics of charismatic leadership: Submission or liberation? *Academy of Management Executive, 6*, 43-54.

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

Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integrative model of organizational trust. *The Academy of Management Review, 20*(3), 709-734.

Appendix O: Study 3 Descriptive Statistics for Five Leadership Conditions

Table O1.

Study 3 Descriptive Statistics for the Transformational Leadership Condition

Variable	<i>n</i>	<i>M</i>	<i>SD</i>	Skew	Kurtosis
PMLS II	77	2.04	0.70	0.50	-0.84
Transformational Leadership (MLQ)	77	3.04	0.61	-0.70	-0.16
Contingent reward Leadership (MLQ)	77	2.80	0.67	-0.63	0.21
MBE-active Leadership (MLQ)	77	1.89	0.71	-0.27	-0.21
MBE-passive Leadership (MLQ)	77	1.08	0.90	0.47	-0.86
Laissez-faire Leadership (MLQ)	77	0.82	0.87	0.88	-0.13
Effectiveness (MLQ)	77	3.21	0.70	-0.83	0.06
Extra Effort (MLQ)	77	3.16	0.68	-0.51	-0.08
Satisfaction (MLQ)	77	3.19	0.74	-0.43	-0.94
Ability	75	4.16	0.69	-0.81	0.53
Integrity	75	3.99	0.75	-0.34	-1.02
Benevolence	75	4.15	0.80	-0.90	0.60
Trust (BTI)	76	5.13	1.00	-0.18	-0.34
Positive emotions	76	3.43	0.81	-0.84	0.83
Relief	75	3.29	0.83	-0.36	0.44
Optimism	75	3.98	0.99	-1.28	1.51
Enthusiasm	75	3.56	0.92	-0.58	0.01
Self Assurance	76	3.07	0.79	-0.46	-0.39
Gratitude	75	3.29	0.99	-0.39	-0.54
Negative Emotions	77	1.38	0.50	1.68	2.52
Fear/Anxiety	77	1.47	0.52	1.24	1.05
Hostility	75	1.31	0.56	1.99	3.48
Disappointment	75	1.31	0.54	2.28	5.80
Frustration	75	1.45	0.64	1.45	1.59

Note. All variables were rated on 1-5 Likert scale – except for the MLQ (0-4) and trust BTI (1-7). PMLS II = Perceived Machiavellian Leadership Scale II; Trust (BTI) = Behavioral Trust Inventory.

Table O2

Study 3 Descriptive Statistics for the Contingent Reward Leadership Condition

Variable	<i>n</i>	<i>M</i>	<i>SD</i>	Skew	Kurtosis
PMLS II	81	2.36	0.58	0.39	-0.17
Transformational Leadership	81	2.35	0.48	-0.46	0.18
Contingent reward Leadership	81	3.15	0.63	-0.85	1.02
MBE-Active Leadership	81	2.08	0.78	-0.04	-0.30
MBE-Passive Leadership	81	1.71	0.80	0.35	0.07
Laissez-Faire Leadership	81	1.01	0.85	0.67	-0.25
Effectiveness	81	3.07	0.66	-0.54	-0.54
Extra Effort	81	2.81	0.72	-0.73	0.53
Satisfaction	81	3.04	0.75	-0.51	-0.32
Ability	80	3.94	0.59	-0.76	0.71
Integrity	80	4.04	0.58	-0.89	1.20
Benevolence	80	3.92	0.74	-0.54	-0.14
Trust (BTI)	80	4.55	0.97	-0.56	0.39
Positive emotions	79	2.99	0.74	-0.22	0.13
Relief	78	2.99	0.81	-0.25	-0.38
Optimism	78	3.16	0.89	-0.42	-0.17
Enthusiasm	78	2.99	0.81	-0.21	-0.56
Self Assurance	79	2.61	0.76	0.28	0.18
Gratitude	79	3.11	1.00	-0.32	-0.33
Negative emotions	81	1.58	0.63	1.49	1.82
Fear/Anxiety	81	1.65	0.73	1.27	0.81
Hostility	80	1.42	0.60	1.70	2.58
Disappointment	79	1.55	0.76	1.84	3.54
Frustration	79	1.69	0.79	1.24	1.05

Note. All variables were rated on 1-5 Likert scale – except for the MLQ (0-4) and trust BTI (1-7). PMLS II = Perceived Machiavellian Leadership Scale II; Trust (BTI) = Behavioral Trust Inventory.

Table O3

Study 3 Descriptive Statistics for the MBE-Active Leadership Condition

Variable	<i>n</i>	<i>M</i>	<i>SD</i>	Skew	Kurtosis
PMLS II	80	3.14	0.49	-0.37	-0.10
Transformational Leadership	81	1.72	0.59	0.29	-0.19
Contingent Reward Leadership	81	1.98	0.77	-0.16	-0.40
MBE-Active Leadership	81	3.07	0.78	-0.61	-0.65
MBE-Passive Leadership	81	1.47	0.87	0.08	-0.87
Laissez-Faire Leadership	81	1.07	0.84	0.67	-0.06
Effectiveness (MLQ)	81	2.43	0.74	-0.26	0.17
Extra Effort (MLQ)	81	1.59	0.98	0.30	-0.37
Satisfaction (MLQ)	81	1.85	0.90	-0.24	0.08
Ability	80	3.55	0.64	-0.92	2.76
Integrity	80	3.41	0.56	-0.41	-0.19
Benevolence	80	2.62	0.73	-0.17	-0.37
Trust (BTI)	80	3.34	1.16	0.06	-0.55
Positive emotions	75	2.17	0.92	0.78	0.19
Relief	74	2.15	0.91	0.55	-0.21
Optimism	74	2.46	1.22	0.40	-1.04
Enthusiasm	75	2.05	0.97	1.01	0.44
Self Assurance	75	2.10	0.93	0.94	0.96
Gratitude	75	2.10	1.02	0.87	0.22
Negative emotions	80	2.30	0.92	0.60	-0.17
Fear/Anxiety	80	2.30	0.99	0.73	-0.12
Hostility	75	2.10	0.91	0.63	-0.55
Disappointment	74	2.18	0.93	0.31	-1.02
Frustration	74	2.44	1.05	0.43	-0.76

Note. All variables were rated on 1-5 Likert scale – except for the MLQ (0-4) and trust BTI (1-7). PMLS II = Perceived Machiavellian Leadership Scale II; Trust (BTI) = Behavioral Trust Inventory.

Table O4

Study 3 Descriptive Statistics for the Passive-Avoidant Leadership Condition

Variable	n	Mean	SD	Skew	Kurtosis
Machiavellian Leadership	76	3.45	0.48	-0.73	1.23
Transformational Leadership	76	1.20	0.72	1.02	0.76
Contingent reward Leadership	76	1.09	0.86	0.95	0.47
MBE-active Leadership	76	1.99	0.92	0.17	-0.65
MBE-passive Leadership	76	2.95	0.63	-0.23	-0.58
Laissez-faire Leadership	76	2.71	0.77	-0.62	0.42
Effectiveness (MLQ)	76	1.29	0.91	0.65	0.66
Extra Effort (MLQ)	76	1.24	0.96	0.75	0.27
Satisfaction (MLQ)	76	1.01	1.04	0.88	-0.14
Ability	76	2.57	0.78	0.85	0.89
Integrity	76	2.42	0.69	1.01	1.96
Benevolence	76	2.14	0.85	1.34	1.71
Trust	76	2.38	1.23	0.97	-0.08
Positive emotions	75	1.71	0.81	1.45	1.84
Relief	72	1.58	0.75	1.47	1.64
Optimism	72	1.74	0.86	1.11	0.64
Enthusiasm	74	1.67	0.86	1.46	1.39
Self Assurance	75	1.91	0.91	1.21	1.27
Gratitude	72	1.54	0.90	1.92	3.33
Negative Emotions	76	2.93	0.82	-0.06	-0.28
Fear/Anxiety	76	2.73	0.91	0.21	-0.45
Hostility	74	2.74	0.94	0.10	-0.58
Disappointment	74	2.97	0.94	-0.04	-0.39
Frustration	73	3.33	1.08	-0.35	-0.65

Note. All variables were rated on 1-5 Likert scale – except for the MLQ (0-4) and trust BTI (1-7). PMLS II = Perceived Machiavellian Leadership Scale II; Trust (BTI) = Behavioral Trust Inventory.

Table O5

Study 3 Descriptive Statistics for the Pseudo-Transformational Leadership Condition

Variable	<i>n</i>	<i>M</i>	<i>SD</i>	Skew	Kurtosis
Machiavellian Leadership	77	3.99	0.42	-0.75	0.46
Transformational Leadership (MLQ)	77	1.94	0.43	0.50	0.78
Contingent reward Leadership (MLQ)	77	1.68	0.84	-0.12	-0.42
MBE-active Leadership (MLQ)	77	1.81	0.74	0.32	-0.01
MBE-passive Leadership (MLQ)	77	1.69	0.85	0.24	-0.49
Laissez-faire Leadership (MLQ)	77	1.77	0.81	0.09	-0.51
Effectiveness (MLQ)	77	1.73	0.72	0.57	0.59
Extra Effort (MLQ)	77	1.77	0.99	0.31	-0.21
Satisfaction (MLQ)	77	1.25	0.93	0.83	0.82
Ability	77	3.43	0.65	-0.28	-0.14
Integrity	77	2.30	0.66	0.19	-0.63
Benevolence	77	1.91	0.83	0.95	0.28
Trust (BTI)	76	2.57	1.03	0.81	-0.09
Positive emotions	74	1.89	0.86	1.10	-0.03
Relief	74	1.62	0.85	1.38	0.81
Optimism	73	2.25	1.07	0.63	-0.67
Enthusiasm	74	1.89	0.95	1.20	0.24
Self Assurance	74	2.09	1.00	0.85	-0.32
Gratitude	73	1.59	0.89	1.59	1.72
Negative Emotions	77	2.79	0.91	0.12	-0.48
Fear/Anxiety	76	2.46	0.91	0.24	-0.70
Hostility	75	2.76	1.01	0.21	-0.32
Disappointment	75	2.75	1.06	0.17	-0.90
Frustration	75	3.24	1.15	-0.28	-0.97

Note. All variables were rated on 1-5 Likert scale – except for the MLQ (0-4) and trust BTI (1-7). PMLS II = Perceived Machiavellian Leadership Scale II; Trust (BTI) = Behavioral Trust Inventory.

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Special University Scholarship (SUS)
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Lewis, R., Carswell, J., Ilic-Balas, T., Iliescu, D., Pepper, S., & O'Brien, J. (2012, April). *Predisposed to derail: The personality correlates of derailment behaviors*. Poster presented at the 27th Annual Conference of the Society for Industrial and Organizational Psychology, San Diego, CA.

Lewis, R., Carswell, J., *Ilic-Balas, T.*, Iliescu, D., Pepper, S., & O'Brien, J. (2011, April). *Risks for leader derailment: A unique contribution beyond Full-Range Leadership?* Poster presented at the 26th Annual Conference of the Society for Industrial and Organizational Psychology, Chicago, IL.

Krause, D.E., Parfyonova, N., *Ilic, T.*, & Meyer, J. (2009, May). Charismatic leadership, trust in the team and in the leader, and taking charge. In N. Anderson (Chair), *Creativity and innovation*. Symposium conducted at the XIVth European Congress of Work and Organizational Psychology, Santiago de Compostela, Spain.

Ilic, T., & Parfyonova, N. (2008, July). *Validation of individual level power distance & uncertainty avoidance scales and their relationships with organizational commitment*. Poster presented at the 19th International Congress of the International Association for Cross-Cultural Psychology, Bremen, Germany.

Ilic, T., & Pepper, S. (2005, April). Work values and job satisfaction: A study of immigrants from former Yugoslavia. In J. Dietz (Chair), *U.S., German, and Canadian Perspectives on Employment Discrimination against Immigrants*. Symposium conducted at the 20th Annual Conference of the Society for Industrial and Organizational Psychology, Los Angeles, CA.

Ilic, T., Slawinski, E. B., & Kline, T. J. B. (2003, June). *Effects of speech accent on performance ratings*. Poster presented at the 64th Annual Convention of the Canadian Psychological Association, Hamilton, Ontario.

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Memberships:**

Society for Industrial and Organizational Psychology (SIOP)
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Canadian Psychological Association (CPA) and
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International Association for Applied Psychology
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