To Thine Own Self Be True:
Authentic Leadership and Managerial Training

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Abstract

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Authentic Leadership (AL), a second generation member of the neocharismatic leadership paradigms, has re-emerged in the last six years in response to corporate managerial corruption. Early empirical work has demonstrated the promising effects of AL on performance, motivation, and well-being. Naturally, the question arises of whether AL can be influenced by a formal training protocol; similarly, with the increasing cost of training programs, identifying candidates most likely to benefit from such interventions would be critical. Through a longitudinal design comprised of a three week training intervention, and pre- and post-intervention surveys, this study tested the effect of a transformational leadership (TFL) training protocol, and pre-training TFL self-ratings, on manager post-training self-ratings of AL and its four subconstructs (self-awareness, internalized moral perspective, balanced processing, and relational transparency). Results suggested that AL perception did change over time but that this change was not related to the training intervention. Instead, I speculate that the historic economic recession may have constituted one of the 'life events' touted in the literature as influential on authentic leadership change. Support for this argument, implications for future research and practical application, as well as study limitations are discussed.

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Dedication

To William who helps me make sense of it all

Table of Contents

List of Figures

List of Tables

Introduction

Having re-emerged only in the last five years as an innovative leadership theory comprising many of the core components of ethical, charismatic, transformational and spiritual leadership, authentic leadership today remains in its academic infancy. In order to understand the current state of authentic leadership, it is best to begin with a discussion of the evolution of the leadership theory field as a whole. Following a lead-in through the development of the neocharismatic leadership theories of the 1980s onwards, this literature review will offer definitions of transformational (TFL) and authentic leadership (AL) through three means: by tracing their history, outlining empirical evidence of their outcomes, and describing the most prevalent diagnostic tool in each theory. The second portion of this literature review will introduce the idea of training in business literature to answer the question of whether each of the two leadership styles can be developed through training. Uncharacteristically, the hypotheses section will only begin after the conclusion of the literature review, because the novelty of the authentic leadership construct and the on-going debate over its subconstructs requires a thorough emersion before the author dares add her own conjectures.

The Neocharismatic Leadership Paradigms

In the mid-70's, Zaleznik and Kets de Vries (1975) wrote "Power and the Corporate Mind", a groundbreaking challenge to the orthodox idea of leadership as managing rather than leading people. Zaleznik and Kets de Vries (1975) were the first to argue that traditional postulations of leaders were too focused on the idea of the manager

as authoritarian watchman. James McGregor Burns agreed and wrote that "we lost sight of the 'deep structure' or meaning of leadership" (1978, p. 90). Where indeed was the leader in leadership? The answer offered by Burns, a presidential biographer and political scientist, was his book entitled *Leadership* (Burns, 1978), in which he coining the terms transactional and transformational leadership. He wrote that "leadership over human beings is exercised when persons with certain motives and purposes mobilize [...] institutional, political, psychological, and other resources so as to arouse, engage, and satisfy the motives of followers [...] in order to realize goals mutually held by both leaders and followers" (1978, p. 90). In his work, transactional leadership, defined more traditional notions of leading, and was classified by a straight-forward benefit exchange relationship between leader and follower, focusing largely on the role of reward and punishment. Transformational leadership, on the other hand, was a novel concept, and defined leaders who collaborate *with* their followers *towards* a common goal. Burns believed that all managers could be classified as either transactional or transformational.

His and Zaleznik and Kets de Vries' (1975) ideas touched a vein within the small fraction of business school researchers who had grown dissatisfied with orthodox leadership theory. They would quickly begin work on, what would later be termed, the New Leadership School (Bryman, 1992) or the Neo-charismatic Paradigms (House, 1999).

Conger (1999) writes that this evolution grew both out of interest and necessity. On the one hand, researchers including Bernard Bass, Robert House, and Bruce Avolio had become dissatisfied with the previous generation of leadership theories which often seem constricting in their simplicity. They were convinced that such theories had very

little to do with leading individuals. At the same time, global developments highlighted the need for a new form of management. After what could be classified as several decades of stability, the economic emergence of power players including China, Japan, and Germany required radical restructuring in American companies. Many realized they lacked the managerial abilities to bring about such transformations. Further complicating the issue was the fact that new business structures such as flat hierarchies or matrix work had rarely been considered in terms of their impact on employee performance and morale. It became evident that ideas such as employee well-being, commitment, and motivation would need to be given increasing attention in order for corporations to remain lucrative. "For companies, the challenge became a question of how to orchestrate transformational change while simultaneously building employee morale and commitment—a seemingly contradictory endeavor" (Conger, 1999, p. 148).

The new positive school of leadership theory inspired the idea of leaders as change agents. Its first generation, the "neocharismatic conceptualizations" (House, 1994) included charismatic leadership first introduced by Berlew (1974), ethical leadership (Enderle, 1987), aspirational leadership and visionary leadership (Westley & Mintzberg, 1989). While the former received only limited attention, one theory clearly dominated as the new "darling of the field" (Conger, 1999, p. 145): transformational leadership.

Transformational Leadership

Bass (1985) was the first to thoroughly apply Burns' (1978) terms in the business world. Transformational leadership, he postulated, would be measured as the extent to

which a leader influences followers to feel trust, respect and loyalty, which in turn motivates them to work harder. Transformational leadership is not coercion by any means. Instead, the transformational leader creates a sense of collaboration through consideration for the individual and their work. The leader leads to develop followers into leaders themselves (Avolio, 1999). While a transactional leader works within the confines of established corporate culture, the transformational leader can change culture by realigning it with a new vision. Transformational leaders affect their employees in three ways: they increase follower's awareness of specific goals and induce them to act beyond self-interest in the pursuit of these goals, all while satisfying follower's needs (Conger, 1999).

Of course, in order to study and measure transformational leadership, a more concrete definition needed to be settled upon. Avolio (1999) and Bass (1998) first offered a definition by outlining five subconstructs: attributed charisma, idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. Subsequent work (Yukl, 2006) has argued that attributed charisma is an evaluation of the leader rather than a leadership trait/behavior. As a result, much empirical work, including this project, will rely only on the four subconstructs of transformational leadership as postulated by Avolio, Waldman and Yammarino (1991): the four I's. Here, *idealized influence* means acting as a role model by doing the "right thing" and sharing the burdens of one's followers. Leaders high in *inspirational motivation* can lead by providing meaning and challenges and conveying these to others in an optimistic and energizing way. *Intellectual stimulation* implies including the follower in challenging thought

processes and problem reframing. Finally, *individualized consideration* means seeing and treating subordinates as individuals and addressing their specific needs.

These four I's continue to contrast strongly with the concept of transactional leadership. "Whereas transformational leaders uplift the morale, motivation, and morals of their followers, transactional leaders cater to their followers' immediate self-interests" (Bass, 1999, p. 9). Transactional leadership behaviors were originally subdivided into *management-by-exception*, and *contingent reward* types of management. Here, management-by-exception could involve either an active state in which the leader guides and corrects behavior to ensure compliance with rules or a passive state where leaders limit intervention to occurrences of non-compliance, that is to correction only after errors arise. Contingent reward leadership means the leader will provide followers with material or psychological rewards for completing specific behavior (Antonakis, Avolio, & Sivasubramaniam, 2003). Transactional leaders depend on organizational culture to set boundaries and incentives under which to regulate subordinate behavior. While research has demonstrated the potential benefits of transactional leadership in certain business cultures (Lowe, Kroeck, & Sivasubramaniam, 1996; Nadler & Tushman, 1990), transformational leadership theory is generally acknowledged as being the preferred strategy.

Bass's original theory included only the four transformational and two transactional leadership factors. Subsequent empirical work (Avolio & Bass, 1991; Avolio et al., 1991; Hater & Bass, 1988) expanded the definitions along a continuum to create a model known as the full range of leadership model. Today, the full range model is comprised of nine single-order factors including five transformational leadership

factors (though, as has already been pointed out there is some disagreement about attributed charisma), three transactional leadership factors, and non-transactional laissez-faire leadership. Laissez-faire leadership is characterized by a lack of involvement on the part of the leader and is considered active "to the extent that the leader 'chooses' to avoid taking action. This component is generally considered the most passive and ineffective form of leadership" (Antonakis et al., 2003, p. 265).

It should be noted that, unlike Burns' (1978) conceptualization, the full range of leadership model does not imply that a leader inherently falls into one of the above categories by nature. Instead, the model defines leadership as actions rather than characteristics and each leader frequently engages in various forms of the construct. Rather than classifying leaders as one or the other, Avolio and Bass (1991) argue that those leaders who engage in more transformational than transactional leadership actions will satisfy more of their followers' needs. However, in order to measure the occurrence of various leadership behaviors, a measurement tool needed to be developed.

Multifactor Leadership Questionnaire. The MLQ is one of the most commonly used assessment tools of transformational and transactional leadership in the social sciences. Based on Burns (1978) definition of transformational and transactional leadership, and employing a 142 item pool that combined the results of a literature review and survey of 70 executives, Bass (1985) first developed the 73-item inventory along four dimensions: transformational leadership, transactional leadership, non-transactional leadership (passive and avoidant styles) and outcomes of leadership (e.g. effectiveness). All items were rated on a 5-point scale from 0 (not at all) to 4 (frequently if not always). Over the years, several concerns were raised, about the questionnaire's psychometric

properties (Avolio, Bass, & Jung, 1995) and accordingly, the scale has gone through various revisions. Today, based on confirmatory factor analysis and the recommendations of a group of six experts, version 5X contains 45 items, 20 of which measure the four I's, though idealized influence has been divided into two four-question categories: *idealized influence through behavior* and *idealized influence through attribute* (Antonakis et al., 2003). Using a sample of 1490 individuals, Bass and Avolio (1997) confirmed the validity of the MLQ, and a meta-analysis by Lowe, Kroeck and Sivasubramaniam (1996) established mean Cronbach alphas of .88 for individualized consideration, and .86 for intellectual stimulation. Though the majority of studies on transformational leadership have also indicated acceptable reliability scores of above .70, this meta-analysis did not have enough data to summarize Cronbach alphas for the other subconstructs. This study will therefore be careful to analyze and report reliability scores for the studied sample.

Despite its wide use and verified validity, the MLQ has consistently been the target of criticism. In their 2003 discussion of the measure, Antonakis et al. (2003) listed the assorted comments, including the criticism that the factors underlying the instrument varied from study to study. In fact, besides the original validation, no researchers have actually shown support for the nine-factor model using all the items of the MLQ. Often, various factors are not distinguishable from one another, calling into question the discriminant validity of the measure. Furthermore, some studies have reported high levels of multicollinearity among the transformational leadership scales. Bass (1998; 1985) has argued that this should be expected since the various factors are interrelated and should affect each other. Nonetheless, some researchers (Bycio, Hackett, & Allen, 1995) question whether the different scales truly measure unique constructs.

In response, Antonakis et al.'s (2003) set out to put these worries to rest once and for all. Using a sample of 3368 raters who had used the MLQ over a period of five years to score their immediate supervisor, the study showed that the MLQ (form 5X) is a valid and reliable instrument that can adequately measure the nine sub constructs. Similarly, Judge and Piccolo's (2004) meta-analysis revealed a mean corrected correlation of the transformational leadership subconstructs of .44 for transformational leadership based on 626 correlations from 87 sources which, though lower than Lowe et al.'s (1996) mean correlation of .73, points to an improvement in the methodology of more recent studies. Although, it could never account for all possible leadership dimensions— an unfortunate recurrent misinterpretation of the term 'full' range leadership model— the model is suitable for examining the "full range" from avoidant to inspirational and idealized that Bass and Avolio's (1997) intended.

Transformational Leadership Outcomes

Performance Outcomes: Since its inception in 1985, the MLQ has become the most widely used measurement instrument. In its first decade, the greatest amount of empirical research employing the MLQ was dedicated to studying leader behavior, rather than the effects of follower outcome. As reported by Lowe et al. (1996), research concerned with leader effectiveness generally found statistically significantly positive relationships to individualized consideration and intellectual stimulation. In a sample of full-time employed MBA students, Bass and Avolio (1989) found of a correlation of .77 between individualized consideration and leader effectiveness. In a survey of 84 directors and 604 resident advisors on seven university campuses, Komives (1991) found a

correlation of .71 between intellectual stimulation and director effectiveness. Spangler and Braiotta (1990) worked on the question of relationship between the leadership style of the chairperson of an audit committee and his effectiveness. Results of surveys mailed to audit committee members, external auditors, and senior management indicated that in the absence of aspects of transactional leadership including "formal rewards, punishments, job descriptions, status differentials, and formal legitimate authority, the transformational leadership style of a chairperson would enhance committee effectiveness" (1990, p. 149). Avolio, Waldman and Eisenstein (1988) engaged 27 teams in a three month leadership simulation game to conclude that both active transformational and transactional leadership led to improved financial performance in the game. In a longitudinal study of group projects in three R&D companies by Keller (1992), transformational leadership resulted in higher project quality and budget/schedule performance ratings. Hater and Bass (1988) showed that the most successful managers in a delivery operation displayed significantly higher transformational leadership behaviors than other managers. Pereia (1987), expanded empirical work in an international scope and replicated Bass (1985) support for transformational leadership in a private Indian organization, while Geyer and Steyrer (1998) found a significant positive relationship between the transformational leadership of Austrian bank managers and long-term performance. Furthermore, Howell and Avolio (1993) showed that transformational leadership of financial managers was a positive predictor of their unit performance. Lowe et al.'s meta-analysis (1996) found evidence than transformational leadership is related to leader and work unit effectiveness. Hypothesis testing revealed a higher correlation

between transformational leadership and effectiveness than transactional leadership and effectiveness.

More recently, MacKenzie, Podsakoff and Rich (2001) surveyed 477 sales agents working in a large national insurance company and found that, when compared to transactional leadership, transformational leadership had a stronger relationship to both sales performance and subordinate organizational citizenship behavior. Schaubroeck, Lam and Cha (2007) showed that transformational leadership influenced team performance through the mediating effect of team potency in both US and Chinese bank teams. Jung et al. (2003) and Shin and Zhou (2003) both found evidence that transformational leadership is positively related to follower creative thinking and innovation. Finally, outside the business setting, a survey of 168 university athletes by Charbonneau, Barling, and Kelloway (2001) found that a coach's trained transformational leadership affected subordinate intrinsic motivation and effected athletic performance. Though it should be noted that one potential limitation in these studies was the fact that despite employing an instrument intended for business work, many were not conducted in a business setting, overall results indicate strong support for the link between transformational leadership and performance.

Subordinate outcomes: During the early years of construct development, empirical work focused on leaders' effect and performance, ignoring the impact on subordinates. Nonetheless, even then, such an impact could not be denied. Conger and Kanungo (1988) argued that "any managerial strategy or technique that strengthens [the] self-determination need or self-efficacy belief of employees will make them feel more powerful" (1988, p. 473). Bass (1985) called for research on whether and how

transformational leadership affects follower work commitment, OCB, motivation and satisfaction. Early theoretical work by Bass and Avolio (1994; 1997) and Avolio (1999) asserted that transformational leadership directly affects follower motivation but offered little empirical support. Similarly, Smith and Cooper (1994) suggested that transformational leadership, through its impact on the follower self-assurance and perceived meaning, will reduce subordinate stress levels.

More recently, research has demonstrated support for these previous theoretical postulations. In a 1996 study of Canadian bank managers, Barling, Weber and Kelloway (1996) demonstrated that subordinates rated managers trained in transformational leadership as having higher intellectual stimulation, charisma, and individual consideration on the multifactor leadership questionnaire (MLQ), and expressed higher personal organizational commitment. Similarly, Piccolo and Colquitt (2002) showed that respondents across a range of job types indicated higher perception of all five of Hackman and Oldham's (1980) five core job characteristics (variety, identity, significance, autonomy, and feedback) and intrinsic motivation if their manager had high transformational leadership. Conger and Kanungo's (1988) and Brown, Kitchell, O'Neill, Lockliear, Vosler, Kubek and Dale (2001) have argued in favor of an effect between TFL and work meaning and employee job satisfaction. Similarly, Berson and Linton (2005) and Bono and Judge (2003) found significant positive correlation between TFL and follower job satisfaction across various job settings. Most recently, two studies of Canadian health care and service workers by Arnold, Turner, Barling, Kelloway, and McKee (2007) indicated a significant relationship between supervisor transformational leadership style and subordinate psychological well-being.

The impact of transformational leadership, however, has not been limited to subordinate perception, but has also been shown to impact behavior, particularly in stressful work environments. An unpublished master's thesis by Bryant (1990) noted the effect of transformational leadership on employee turnover intentions in a sample of 42 nurses. Similarly, McDaniel and Wolf's (1992) hospital surveys, found that intellectual stimulation, charisma, and individual consideration were all predictive of high work satisfaction and, subsequently, low turnover in subordinates. Studying a large merger process, Nemanich and Keller (2007) found a significant positive relationship between transformational leadership and job satisfaction and merger acceptance of affected subordinates. Studying the transition process in a different environment, Gooty, Gavin, Johnson, Frazier, and Snow (2009) surveyed 283 members of Midwestern university band after the introduction of a new band director, to reveal that followers' perceptions of the new director's transformational leadership were positively related role performance and individual- and organization directed organizational citizenship behavior.

To conclude, transformational leadership truly was the darling of the first wave of neocharismatic leadership theories and abundant theoretical discussion and empirical work has been conducted to date. Though this literature review touches only the tip of the iceberg, it demonstrates the overall positive effect of transformational leadership on all aspects of the work environment including leader performance, unit effectiveness, and subordinates satisfaction, motivation, and well-being. With so much positive review, it is not surprising that TFL has had an enormous impact on focusing future academic work as well as practical application.

Authentic Leadership

During the first wave of the neocharismatic leadership paradigms, transformational leadership greatly over-shadowed other leadership constructs as the normative theory in the field and usurped the majority of publications (Conger, 1999). However, by the end of the millennium, as other theories gained prominence and empirical work began, some of the short-comings of transformational leadership became evident.

Bass and Steidlmeier (1999) argued that "the ethics of leadership rest upon three pillars: (1) the moral character of the leader; (2) the ethical legitimacy of the values embedded in the leader's vision, articulation, and program which followers either embrace or reject; and (3) the morality of the processes of social ethical choice and action that leaders and followers engage in and collectively pursue" (Bass & Steidlmeier, 1999, p. 182). Transformational leadership, however, does not take into consideration the moral orientation of the leader. In fact, Adolph Hitler and Ghandi could both be considered equally transformational. The transformational leadership literature attempted to explain away this detail, stating that in essence, there exist both an authentic transformational leadership and an inauthentic or pseudo-transformational construct in which leaders of bad moral character act despite conscious knowledge of the negative connotation of their acts (Sartre, 1992). Despite this late addition in reasoning to the construct, the first obvious crack in transformational leadership theory could be seen.

Since transformational leadership is a behavior, rather than a state of being, there is no reason for the leader to actually mentally or emotionally invest in 'transformation';

One could simply fake the skills without fully committing. Transformational leadership theory has extensively reviewed the impact of transformational versus transactional leaders on organizational effectiveness and subordinate outcome, but literature on the difference between authentic and inauthentic transformational leaders is scarce. A theory, more suitable for answering the question of whether genuine commitment affects work outcomes of subordinate perception is offered by authentic leadership theory.

Authenticity meets Leadership

The first reference to authenticity can be seen in the aphorism "Know thyself" found inscribed on the Temple of Apollo at Delphi, and historically ascribed to a number of philosophers from Socrates to Pythagoras (Wikipedia, 2009). As pleasant as it would be to assume that the self-affirming idea of authenticity has thus existed for two millennia, Baumeister (1987) argues that the term most probably had a far different meaning in ancient Greece. Rather than a philosophical awareness of one's identity and needs, the term was more likely a simple command to accept one's strengths and weaknesses in one's vocation and contribution as an integral part of society. The concept of authenticity as insight arose only centuries later in close concordance with the emergence of the modern western world (Handler, 1986). It is no surprise that the Renaissance, as well as Luther's stance against church orthodoxy, occurred around the same time that the invention of mirrors first allowed individuals to recognize the concept of selfhood (Pendergrast, 2004).

By the time Polonius offered the advice "to thine own self be true" in Shakespeare's Hamlet, authenticity had emerged as a construct essential for societal

functioning. Trilling (1972) in his historical discussion *Sincerity and Authenticity* argued that traditionally, man was located on a hierarchical ladder in a world defined by God and ruled by the church. With the emergence of the enlightenment, the ability to construct reality migrated within the self, making the ability to know oneself and sincere expression of that self essential for a communal society to function. Modern notions of sincerity thus came to underlie the idea of the individual as a unit exerting his existence on the rest of the world. Authenticity on the other hand, was the true expression of oneself, apart from civilization's pressures. It was the knowledge of who one truly is, distinct from the many roles played in society. Hewitt (1991) would later position the self as having a relationship both with oneself as well as a construct of social reality in a mutually reinforcing self-referential relationship. In the business literature, this idea of the self was most closely picked up in Deci and Ryan's (1985) postulation of self-determination theory with its central focus on the autonomy continuum. After all, a distinction between intrinsically motivated and externally regulated behavior, requires as its basis the assumption that individuals can distinguish between tasks they genuinely enjoy and those done because of some form pressure exerted by society.

In the 20th century, authenticity has been analyzed from a psychological and a philosophical viewpoint (Novicevic, Harvey, Buckley, Brown & Evans, 2006). In terms of philosophical definition, authenticity can be defined as a moral virtue, necessary to rise above mediocrity and fulfill one's ethical potential (Kierkegaard, 1996; Pianalato, 2003). In psychology, authenticity is the judgment of one's true character; laced with ethical implications it is the conscious distinction of one's superego from the id and ego. Most prominently, authenticity lines up with self-actualization, Maslow's (1971) highest

hierarchical state, since it is there that the individual lives up to the self they want to fulfill. Linked to later developments in the business literature, Maslow would also be the first to overtly identify authenticity as containing an ethical component. The one thing all historical analyses of authenticity have in common is that they acknowledge that "the concept of authenticity gains prominence in times when individuals facing conflicting social pressures become entrapped in moral dilemmas that are engendered by the complex evolution of modern civilization" (Novicevic et al., 2006, p. 65). In that vein, authenticity was first combined with the notion of leadership by Chester Barnard during the tumult of the depression era.

Barnard (1938) theorized that the idea of leader authenticity emerges during periods of moral outrage against the corporate world. During such period, the potential of an authentic, stable and transparent leader becomes a strong counter-point to the turmoil of economic and business instability (Badaracco, 1992). Barnard defined leadership as "the quality of the behavior of individuals whereby they guide people or their activities in organized effort" (Barnard, 1948, p. 83). Authentic leaders are those who can lead subordinates while remaining introspective and aware of their ethical and moral obligations. Focusing his research mainly on top executives, he distinguished between 'personal responsibility', an obligation to personally engage in social codes such as abiding the law and personal commitments, and 'organizational responsibility', a mandate to morally guide the company internally and in the social context. Many of Barnard's ideas of authentic leadership and responsibility would today be recognized in the stakeholder literature. Barnard recognized early that there often is a conflict between the desires of the self and one's responsibilities. It is the authentic leader who stands out

for resolving this conflict ethically (Barnard, 1938). Sartre (1948) and Etzioni (1968) clarified the concept as implying a responsibility to be true to one's moral self as well as a duty to make business decisions that value both one's self-interest and the public's good. Authentic leadership implies reuniting one's internal processes and external appearance.

In the 1950's and 1960's, the study of authenticity migrated from a focus solely on executive leadership to a review of authentic organizations that showed strong concordance between external behavior and internal values (Etzioni, 1968). Authentic leadership as a theoretical construct disappeared until the end of the century. That is until– as predicted by (Badaracco, 1992) – it re-emerged in the practical literature in the wake of the Enron and WorldCom scandals. Titles like *Leading to Grow and Growing to Lead* (Spreitzer, 2006), *Image Counts: Building an Authentic Leadership Presence* (Criswell & Campbell, 2008), and most prominently Bill George's *True North: Discover your Authentic Leadership* (2007), which graced several bestseller lists and was featured on Charlie Rose and CNBC, promised authentic leadership as the quick-fix moral compass to solve managerial dilemmas. The time had come for authentic leadership scholars in academia to respond to these claims and evaluate whether the idea of authentic leadership as an antidote to corruption was more than popular hype.

Authentic Leadership: Construct Development

In 2004, the Gallup Leadership Institute hosted a summit on authentic leadership development at the University of Nebraska- Lincoln. The meeting saw more than eighty entries from academia and industry, a few of which were included in Issue 16(3) of the

Leadership Quarterly, a commemorative issue dedicated to construct development and clarification of authentic leadership theory. In their editorial introduction, Avolio and Garder began by echoing previous assertions that authentic leadership should be particularly important in times of societal crisis during which the authentic leader can lead by "restoring confidence, hope, and optimism; being able to rapidly bounce back from catastrophic events and display resiliency; helping people in their search for meaning and connection by fostering a new self-awareness; and genuinely relating to all stakeholders" (2005, p. 316). Avolio and Gardner's editorial introduces several potential subconstructs of authentic leadership, among them *positive psychological capital, positive moral perspective, leader self-awareness,* and *leader self-regulation*, though it should be noted that in 2005, the journal was intended to facilitate discussion rather than settle the debate on definition. This literature review will employ their four constructs to frame the initial, brief introduction of the authentic leadership debate.

Self-Awareness: Leader self-awareness is the most easily agreed upon dimension, explicitly supported by Kernis (2003), Cooper et al. (2005), Walumbwa et al. (2008) to name only a few. Avolio and Gardner adapt Silva and Duval's (2001) definition of self-awareness as occurring "when individuals are cognizant of their own existence, and what constitutes that existence within the context within which they operate over time" (2005, p. 324). None of the core components of authentic leadership including values, cognitions, emotions, and goals (Gardner et al., 2005), can be possible without an understanding of the self. Considering the historical roots of authentic leadership outlined in the earlier section, it is self-evident that the top-most requirement for authentic leadership is, of course, authenticity which can only be achieved through self-awareness.

Positive Psychological capital: Luthans and Avolio (2003) where the first to state

that authentic leadership is inextricably linked to the expression of confidence, optimism,

resiliency, and resourcefulness, all dimensions of positive psychological capital. Positive

psychological capital is not simply a behavior but a general state of being (Luthans,

Luthans, and Luthans, (2004) which guides the leader in day-to-day activities.

Unfortunately, actual research has been slow to follow because of strong theoretical

opposition. At best, the study of emotions in leadership has been considered too "fuzzy"

(Michie & Gooty, 2005). More detrimentally, criticism of the neocharismatic leadership

literature, especially of inspirational leadership paradigm, has called the focus on

emotions unethical and exploitative of followers who may be goaded into acting based on

emotion rather than rationality and thus potentially against their best interest (Bass &

Steidlmeier, 1999; Price, 2003). In response, Luthans and Avolio (2003) argue that

concepts such as compassion, courage and interest are already fully grounded in the

leadership literature, but studying them only as actions or cognitions leads to an obvious

short-coming. Basic emotions are experienced continuously throughout the day so to

rationally cut them out of empirical research leads to validity issues. Affective states

should be as pertinent to the study of authentic leadership as cognitive processes

(Gardner et al., 2005). This is particularly true when considering Michie and Gooty's

(2005) argument that while rational thought will determine action it is often not enough

to initiate behavior. Their example of a leader who, while he may have strong ethical

convictions, lacks self-awareness or courage to intervene is particularly strong. The

implication is of course that emotions are crucial motivators during both self-regulation

processes and moral perspective and warrant consideration.

Positive moral perspective may be the most disputed subconstruct. Initial work on authentic leadership has been in disagreement about whether authentic leadership must inherently include an ethical component. Advocates include May, Chan, Hodges and Avolio (2003) who see the authentic leader as a moral standard-bearer and Zhu, May, and Avolio's (2004) who describe the authentic leader as leading by example. Opponents like (Cooper et al., 2005) strongly disagree with the inclusion of morality. The dilemma of whether to include ethical behavior is captured particularly well by Price who writes "… leaders sometimes behave immorally precisely because they are blinded by their own values. In the end, we can expect that this kind of blindness will come to bear importantly on the moral psychology of leadership and, in some cases, encourage transformational leaders to believe that they are justified in making exceptions of themselves on the grounds that their leadership behavior is authentic" (2003, p. 67). More recently Walumbwa et al. (2008) included a moral component as a measurement subconstruct in their authentic leadership questionnaire (ALQ).

Self-regulation: Finally, authentic leadership, according to Avolio and Gardner's (2005) editorial, includes the dimension of self-regulation. Applying Stajkovic and Luthans (1998) definition of self-regulation, they cite three behavioral processes: 1. setting standards for oneself, 2. measuring for discrepancy between one's internal standards and outward results and 3. Initializing behavior to reconcile these discrepancies. Authentic Leadership is the active process of aligning the values of which one is aware with actions. Though part of the definition builds on Ryan and Deci's (2006) self-determination theory's assertion that authenticity is a result of internal self-

regulation, this fourth construct also distinguishes itself from earlier work in one important way.

Until 2005, the most commonly cited conceptualization of authentic leadership was Avolio, Luthans, and Walumbwa's definition of leaders as "being aware of their own and others' values/moral perspectives, knowledge, and strengths; aware of the context in which they operate; and [as individuals] who are confident, hopeful, optimistic, resilient, and of high moral character" (2004, p. 4). Avolio and Garder (2005), however, added a behavioral component to a definition that had, until this point, clearly limited the AL construct as being solely an internal state. They thus opened the debate about whether authentic leadership is indeed a stable characteristic or a behavioral expression. The idea to include a behavioral component is particularly pertinent in light of Gardner et al. (2005)'s discussion not just of authentic leadership but also of authentic followership as a dynamic process. The semantic structure of terms leader*ship* and follower*ship* as deverbal nouns derived from verbs, implies an action rather than a constant state of being and requires either an expansion or renaming of the construct. Perhaps in response, Cooper et al. (2005) argued that authentic leadership should be a multi-dimensional construct and should include elements of traits, behaviors, attribution by others and contextual analysis. Though the debate may still not be entirely resolved, more recent constructs (Walumbwa et al., 2008) have adopted a cautiously phrased introduction of behavioral acts. Kernis (2003), in a definition more closely aligned to the current state of authentic leadership, identified four components of authenticity: unbiased processing, relational transparency/authenticity, and authentic behavior. He holds that while authentic leadership, as a social act, cannot be separated from a behavioral component, in fact, it

remains a characteristic with secondary behavioral expressions. This falls in line with Cooper et al.'s (2005) argument that authentic leaders cannot act authentically at all times, but are still authentic leaders. This definition, though it may appear trivial, is quite important when one begins discussion of authentic leadership development. For that reason, this paper considers authentic leadership a state of being, which, though possible to be amended through intervention, may have a natural baseline in individuals.

The preceding section offers a glimpse at the theoretical debate to define AL constructs. In 2008, Walumbwa et al. decided that in order for empirical work to proceed, subconstructs needed to be nailed down, at least temporarily, to create a measurement instrument. Their revision of Kernis and Goldman's work (2006) created a measure with four specific subconstructs. According to Walumbwa et al. (2008), authentic leaders exhibit *self-awareness that* is they have a clear understanding and acceptance of their own strengths, weaknesses, abilities and values, beliefs, and personality. They are *relationally transparent*, meaning they are open and honest in their relationships with others and avoid controlling behavior. They demonstrate *balanced processing*, meaning they display openness in seeking input from diverse sources in their decision-making. Finally, authentic leaders exhibit *internalized moral perspective*, a concept shared with ethical leadership: the leader holds and displays strong morals and acts according to these convictions.

Outcomes of Authentic Leadership

The origin of authentic leadership lies in its practical application. Its inception by Barnard (1938) served the explicit purpose of introducing a new form of security in

uncertain times. True to that origin, in their 2005 editorial introduction, Avolio and

Garder stated that by its very nature, authentic leadership "can make a fundamental

difference in organizations by helping people find meaning and connection at work

through greater self-awareness [...] by promoting transparent relationships and decision

making that builds trust and commitment among followers; and by fostering inclusive

structures and positive ethical climates" (2005, p. 324). In short, authentic leaders are

suspected to engender authenticity in followers which in turn leads to increases in both

well-being and performance. To date, various models have built on the theoretical

literature to justify the positive effects of authentic leadership.

Theoretical models of AL outcomes: Gardner and Schermerhorn (2004) argued

that through positive organizational behavior (POB)– managing subordinates through a

positivist focus on their strengths rather than their weaknesses (Luthans & Church, 1993)

– authentic leaders build confidence, create hope, raise optimism, and create resilience

and subsequently 'should' increase follower performance and commitment. Though their

article cited much anecdotal evidence to back up these claims, no model was developed

to support them. The first theoretical model by Avolio, Gardner, Walumbwa, Luthans,

and May (2004) integrated leadership with research on identification, positive

psychology, trust, emotions, and organizational behavior to describe the mechanisms that

connect authentic leadership and positive follower outcomes and propose a series of

mediating effects. At the core of their model, the authors identified personal

identification– the process by which the beliefs about another person begin to define the

self– and social identification– the sense of belongingness to a group. Both, they argue,

are increased in followers by the leader through displays of moral integrity, balanced

processing, open communication and honesty. Subsequently, personal and social identification are expected to mediate the relationship between authentic leadership and follower hope, trust in the leader, and positive emotions. Trust and positive emotions in turn will mediate the relationship between followers' attitudes and work behavior. Furthermore, positive emotions relate to followers' optimism which in turn mediates the relationship between positive emotions and positive attitudes and leads to positive organizational behavior. The model distinguishes itself as being the first to incorporate trust and positive emotions as well as by its breadth of employee outcomes considered: influenced by common outcomes of transformational leadership, the authors consider performance, additional effort, turnover, absenteeism, tardiness and positive organizational behavior.

A year later Ilies, Morgeson and Nahrgang (2005), developed a different model in which they map Luthans and Avolio's four original authentic leadership constructs, *self-awareness, unbiased processing, authentic behavior/acting* and *authentic relational orientation* onto Ryff and Keyes (1995) six dimensions of human wellness: self-acceptance, environmental mastery, purpose in life, positive relationships, personal growth, and self-determination. The model begins with a series of propositions regarding leader personal well-being. They include the argument that leaders who act authentically feel greater intrinsic motivation towards their work which results in a myriad of work-related positive outcomes including a higher level of trust, a greater willingness to seek out challenges and a propensity to increase skills. As a result, authentic leaders also have higher self-directed positive outcomes including higher self-esteem, emotional intelligence, self-acceptance, autonomy, and positive other-directed relationships. In

addition to leader positive outcomes, the authentic leader also has a significant impact on follower well-being. Positive relationships and emotional openness impact the meaningfulness of employees' lives in a variety of ways. Firstly, followers may identify with the authentic display of self of the leader, which they deem a role model and which in turn creates a strong trusting relationship and organizational identification for the follower. Secondly, through an atmosphere of emotional honesty as well as through emotional contagion, the leader creates a climate that is conductive to emotional well-being and self-expression of the follower. Finally, the authentic leader's personality tends to create opportunities for the follower to increase autonomy and self-determination.

Yammarino, Dionne, Shriesheim, and Dansereau (2008) developed a third model integrating authentic leadership and positive organizational behavior. In their multi-level approach, authentic leadership was analyzed at an individual, dyad, team and organizational level. They argue that these various levels of authentic leadership in the organization directly promote outcomes of positive organizational citizenship behavior, which in turn affects the secondary outcomes of performance.

Finally, Zhu, May, and Avolio's (2004) theoretical approach focused explicitly on the impact of the ethical behavior of leaders on employee outcome. They argued that by embodying ethical behavior, leaders make employees feel emotionally empowered i.e. feel self-determined and competent and find meaning in their work. This emotional empowerment in turn mediates the link between leader authentic leadership and follower trust and organizational commitment. In addition to adding to the canon of potential positive outcomes of authentic leadership, Zhu et al.'s work also adds credence to the inclusion of ethical behavior as a subconstruct.

Empirical support for AL outcomes: In stark contrast to the diversity of theoretical models created over the last five years, empirical work is extremely limited. Nonetheless, what little work has been published seems to support theoretical propositions on the topic. In terms of follower impact, Jensen and Luthans (2006) found in a study of 62 new small businesses in which the founder still held a significant leadership role, employee perceptions of authentic leadership was the most significantly predictor of outcomes including employee job satisfaction, organizational commitment and work happiness. Though the study was solely correlational, the researchers cited previous meta-analytic results that demonstrated a clear link between employee attitude and company productivity, customer satisfaction, profit, safety and overall job performance (Harter, Schmidt, & Hayes, 2002). Similarly, a longitudinal study by Tate (2008) employed hierarchical linear modeling analysis to find that authentic leaders increased follower job commitment and performance. Interested particularly in the effect of relational transparency on follower outcome, Hughes (2005) designed a 2x4 factorial study in which 150 participants were exposed to two relational transparency and four humor conditions. Though several of the hypotheses linking humor to relational transparency and trust were not supported, results indicated a significant positive relationship between relational transparency and follower trust. Studies have also shown the impact of authentic leadership on authentic leaders themselves. Toor and Ofori (2009) found that authentic leaders in the Singapore construction industry experience higher psychological well-being and lower levels of contingent self-esteem. Finally, and most notably, the next section will elaborate on three studies by Walumbwa et al. (2008) that showed a

significant link between authentic leadership and organizational citizenship behavior, organizational commitment, leader satisfaction, organizational climate and performance.

Authentic Leadership Questionnaire. Until 2008, most scholarly articles on authentic leadership cited lack of applicable measure as one of biggest limitations in the field. In fact, none of the studies cited in the preceding section employed anything resembling a standard inventory. This finally changed with the publication of the authentic leadership questionnaire. Though several previous attempts had been made to measure authentic leadership (Sarros, Cooper, & Hartican, 2006; 2008) these efforts tended to be deductive in nature and did not lead to a replicable measure. Walumbwa et al. (2008) developed the authentic leadership questionnaire (ALQ), a multi-dimensional theory-based scale, and conducted multiple separate studies to compare it to various other conceptualizations of authentic leadership and evaluate its construct validity. The ALQ contains 16 items, rated on a 5-point scale ranging from 0 (not at all) to 4 (frequently, if not always). Items in the four sub-categories are distributed as follows: *self-awareness* (4 items), *relational transparency* (5 items), *internalized moral perspective* (4 items), and *balanced processing* (3 items). Confirmatory factor analysis in independent samples from the US and China supported a first-order structure comprised of four factors that are loaded on a second-order latent authentic leadership factor. The Cronbach's alphas were .92 for self-awareness, .87 relational transparency, and .76 for internalized moral perspective and .81 for balanced processing.

The authors subsequently conducted studies with five independent samples in the US, China, and Kenya using the ALQ to compare authentic leadership to ethical and transformational leadership, as well as to organizational citizenship behavior,

organizational commitment and individual subordinate job satisfaction and performance. Results once again indicated acceptable internal consistency. Data analysis showed that the ALQ was distinct from other leadership measures such as the MLQ. The authors also found positive correlation between authentic leadership and job satisfaction and performance. Because of its recent development, the ALQ has not yet been frequently employed by other researchers. A preliminary literature review retrieved only seven articles that briefly cite the study, although none employed it in empirical work.

Authentic Leadership and Transformational Leadership

Since both theories have now been described in depth independently, this first part of the literature review will conclude with a comparison of authentic and transformational leadership. This contrast will be particularly useful as a further attempt to concretely explain the novel authentic leadership idea to the reader.

Transformational and authentic leadership are first and second generation members of the neocharismatic leadership theories and as such share many similarities. Both are built on a tradition of positive psychology that considers the interaction of the leader, the follower, and the work context. Research concerned with relating authentic leadership to earlier theories (Avolio et al., 2004; Gardner et al., 2005) has identified authentic leadership as a 'root construct', defining it as more generic than other forms of positive and ethical leadership. Authentic leadership incorporates elements of transformational as well as charismatic, servant, spiritual, ethical and other positive leadership theories. Considering authentic leaderships moral subconstructs, Bass and Steidlmeier (1999) have argued that transformational leadership– as opposed to

transactional leadership— must be authentic. However, while a transformational leader needs to aim for authenticity, the authentic leader is not necessarily transformational (Bryman, 1992). It could be argued that the main priority of the authentic leader is self-focused whereas the transformational leader must focus his attention outward. While authentic leadership can be compared with self-actualization on Maslow's hierarchy of needs, Bass (1999) citing Burns (1978) argues that the transformational leader must teach his or her followers to transcend interest and go beyond the level of self-actualizations.

It could be reasoned that this distinction once again comes down to the previously addressed question of behavior versus state. While neither leadership theory prioritizes the idea of managing, the concept of leading is more emphasized in transformational than authentic leadership. The authentic leader does not actively pursue a strategy of transforming his followers into leaders. Behavior is a secondary outcome in authentic leadership. While follower transformation is often an outcome, it is not a planned one, nor should it be. In fact, Kark, Shamir, and Shen (2003) point out that is double-sided sword of transformational leadership that can lead to empowerment or dependency of the follower, is never a risk in authentic leadership. Authentic leadership focuses on "the unobstructed operation of one's true, or core, self in one's daily enterprise" (Kernis, 2003, p. 13) — the 'authenticity' in authentic leadership— and a preoccupation with moral justice (the leadership factor). By definition, authentic leadership is not a tactic. It is a state of being in which the leader is self-aware and true to themselves. Authentic leaders do not pursue a technique to achieve a goal but rather "know where they stand on important issues, values, and beliefs, and they are transparent with those they interact with" (Walumbwa et al., 2008, p. 104). Avolio (2005) stresses the idea that the authentic

leader is a role model who leads by setting an example through superior moral behavior and relational actions. Ethical standards and transparency are far more central to the authentic leader. On the other hand, while both leaders work creating lasting relationships and leading with purpose, the authentic leader is often not described as charismatic (George & George, 2003).

As with other topics on authentic leadership, the majority of comparisons to other leadership constructs have been conducted at a theoretical level only. However, some empirical work does clarify both the link and differences between authentic and transformational leadership. Empirical work by Walumbwa et al. (2008) indicated that authentic leadership can account for variance in specific organizational outcomes beyond that explained by transformational leadership. Research also indicates that specific authentic subconstructs may affect ratings on the MLQ. Employing a modified form of the MLQ for military settings, Bass and Yammarino (1991) asked 318 senior officers at the U.S. Naval War to rate their direct superior and compared these to two measures of officer success in the fleet and officer self-rating. In line with Williams and Leavitt's (1947) findings that successful leaders are less likely to over-evaluate their own performance, results indicated that while all superiors had inflated self-ratings as compared to subordinate ratings, officers with a lower discrepancy were more successful and earned higher career appraisals. These findings indicate a positive relationship between at least one construct of authentic leadership (self-awareness) and transformational leadership.

The inevitable conclusion of a comparison of authentic leadership and transformational leadership is that, for all their construct differences, both have a strong record of positively influencing both leader and follower outcomes.

Training Interventions

As the previous section and specific research (Campbell, Dunnette, Lawler, & Weick, 1970) has attested, managers have a direct impact on the performance and competitiveness of companies. It comes therefore as a surprise, that training interventions were not considered an essential part of leader development for the majority of the 20th century.

Faith in technology as the end-all and be-all for industrial success, led researchers at the beginning of the 20th century to embrace Taylorism (Latham, 1988). This decision placed the early managers in the role of authoritarian watchman rather than leader, which required little in terms of training. Recruitment and promotion were freely decided through demographic decision-making rather than managerial skills. Just as the leadership theory in the 1970's and 1980s lamented the narrowly defined nature of their field, similar echoes could be found in the training literature. Campbell (1971) and Goldstein (1981) both criticized the prevalence of training fads with little grounding in theory, though early possible solutions were limited to the training of observable behaviors (Campbell, 1971). In fact, competency training did not truly emerge until David McClelland founded the consultancy firm McBer (Brundrett, 2000). Surveying empirical work on over 2000 managers, Richard Boyaztsis of the McBer group developed a universal model for managerial competencies that considered task and

behavior rather than socio-economic status, gender, or ethnicity as many former researchers had done. Boyatzis defined managerial competency as "an underlying characteristic of an individual which is crucially related to effective or superior performance" (Boyatzis, 1982, p. 64). McClelland and Boyatzis thus developed a definition of competency that would focus on the individual rather than the task and opened the field of management research to the idea of individual training and development. By the 1980s it was clearly understood that to fully exploit managerial abilities, training interventions would be an important part of a company's strategy to increase efficiency and effectiveness (Wexley & Latham, 2002). The competency based movement continued to grow and by the mid-1990s "had come to have an increasingly influential impact on both general management training and development" (Brundrett, 2000, p. 356). In response to the crises of confidence in managers in the first part of the new millennium, Hook (2008) wrote that proper managerial development would be one of the main tenets for avoiding future calamities. Proper executive training and development, he claimed, should be one of the priorities to avoid future corruption.

Training and Transformational Leadership

While clarifying the transformational leadership model, Bass (1998) expressed slight skepticism about the possibility to train this style. Citing research studies by Rose (1995), he recounted a study of 100 monozygotic twins which found that identical twins were far more alike in their self-rating of transformational leadership as measured by the MLQ than dizygotic twins. Rose argued that this was conclusive support for nature,

rather than nurture as the determining force in leadership development and questioned the assumption that leaders are made instead of born.

Through conducting validation studies of the full range of leadership model through a longitudinal study of self-reports and peer ratings of 200 executives and 500 community leaders, Bass and Avolio (1994) did admit recognizable improvements, albeit modest, in transformational leadership and a decrease in management by exception due to training. Consequently, Bass (1999) writes a brief recommendation for transformational leadership training. Leaders must be made aware of their current leadership style in order to set goals for improvement. The trainer must then stay in frequent contact with the leader to discuss and revise set goals until the completion of the program. Transformational leadership training is thus predominantly composed of two parts: an analysis and feedback portion and goal setting. Though Bass (1999) generally considers transformational leadership to be universally applicable, he nonetheless discusses particular contingency factors such as gender, Hofstede's dimensions of culture and organizational culture that might affect training (these issues, while interesting, will not be further addressed in this thesis as our sample of predominantly North American males does not warrant further discussion).

Over the past decade, empirical research has stepped in to validate initial suggestions for transformational leadership development. In a previously cited 1996 study by Barling, Weber, and Kelloway, half the managers in 20 Canadian bank branches were assigned to a transformational leader training intervention. Training included a group-based lecture and role-playing component, introduction to goal setting and feedback as well as individual booster sessions. Results indicated that, compared to a

control group, subordinates rated their trained managers as showing more behaviors of intellectual stimulation, charisma, and individual consideration on the multifactor leadership questionnaire (MLQ), and expressed higher personal organizational commitment. In a larger-scale study, Kelloway, Barling, and Helleur (2000) showed data from 40 managers and 180 subordinates that indicated that training and feedback increased subordinate perceptions of their manager's transformational leadership. Finally, Bass and Avolio's field experiment of their (1989) Full Range Leadership Development Program (a training intervention again very similar to our own) indicated that training increased subordinate ratings of transformational leadership.

By the millennium, Kelloway and Barling (2000) reviewed tested training interventions, reporting unequivocal positive results. Subordinates recognize changes in their leader after training and alter their own behavior accordingly. Firstly, subordinates of trained leaders report significantly higher perceptions of their leaders, suggesting long-term impact such as increased trust and loyalty. Secondly, training affects the bottom-line in that sales increased among those subordinates whose leaders underwent training even though leaders have no direct impact on sales performance. Kelloway and Barling (2000) conclude their review with suggestions for training. They suggest that while both training interventions and feedback will show an increase in transformational leadership behavior, a combination of both does not seem to result in increases beyond that of just from one treatment. The authors also suggest dedicating a portion of training time to setting challenging and specific goals such as changing a few specific leadership behaviors- an idea in line with Locke and Latham's (1990) goal-setting theory. Similarly, they endorse training over an extended period of time with multiple feedback opportunities. In short,

transformational leadership development should include four components, "the presentation of behavioral principles; demonstration of the principles; opportunities to practice the principles; and feedback on performance" (Kelloway & Barling, 2000, p. 360).

Training and Authentic Leadership

While some leaders are inherently aware of their authentic potential – Cooper et al. (2005) cite Ghandi and Mother Theresa as examples – most individuals do not have a complete understanding of their self or an awareness of their inherent leadership potential. That having been said, asking someone to become more authentic is like asking them to become more charismatic or self-actualized. Indeed, does authentic leadership only exist as a natural state in a select few, or can it be uncovered in those chosen to lead. Any discussion of authentic leadership training must accept the fact that "authentic leadership is not like other areas of leadership for which competency sets might be acquired in traditional training programs" (Cooper et al., 2005, p. 483). The fact that being authentic or genuine may in fact be the exact antithesis of training and development warrants serious consideration. Let us begin a discussion of the possibility of training by reviewing arguments by both opponents and proponents.

Training does not work: Transformational leadership by definition implies being able to change people. Its conviction that change is possible in the follower can naturally be extrapolated to the belief that change is possible in all individuals including the leader. This is not the case for authenticity. Though the concept is widely praised for its positive potential on individual and organizational outcomes, many of the founders of authentic

leadership theory do not believe in the feasibility of training 'authenticity'. Critics genuinely fall into one of two categories: 1. the idea of training runs contrary to the idea of authenticity or 2. authentic leadership training, even if it were possible, cannot practically be reduced to an intervention that fits within the temporal and financial constraints of traditional training programs.

Falling into the first category, Shamir and Eilam's (2005) assumption is that their four characteristics of authentic leadership (1. authentic leaders as true to themselves and do not fake their leadership; 2. Authentic leaders are originals, they cannot be copied; 3. Authentic leaders are motivated by personal goals and convictions and not influenced by outside forces; and 4. Authentic leadership base their behavior on these personal convictions) cannot possibly be trained. Other researchers, such as Silvia and Duval (2001), argued that self-awareness is as journey, not a concrete goal and the understanding of one's existence cannot be reduced to a short period of time. Cooper et al. (2005) argued that moral behavior is value based and may be too stable in adult subjects to be significantly altered through training.

Belonging to the second category, Avolio (2005) argues that authentic leadership is too complex a process to be reduced from a 'life program' into a training program. Avolio and Luthans (2006) agree that authentic leadership development cannot be reduced to a simple training program because authenticity requires 'trigger events' – unique life experiences that shape the authentic self. As Ilies et al. (2005) caution, the fact that authenticity depends on such extraordinary life events that cannot possibly be incubated in a training session, makes it impossible to train authentic leadership. In fact, even if participants in such a training could be convinced that they have become genuine

authentic leaders, this internal change would not "relate to the extent to which other group members perceived them as leaders" (Tate, 2008, p. 11). In other words, even if managers can be trained to become more authentic leaders– or at least convinced that they have become them– the fact that this is achieved through training will always cause subordinates to doubt their authenticity.

Training can work: Despite the loud choir of opponents to the idea of authentic leadership development, another group of researchers has taken an entirely different stance. Indeed, May et al.(2003) not only encourage research in authentic leadership development but consider this the most important aspect of authentic leadership. More cautiously, Avolio and Gardner affirm that creating "open, transparent, trusting and genuine relationships" necessary for authentic leadership "may be shaped and impacted by planned interventions such as training" (2005, p. 322). They did not clarify however, if training would work with any leader or only those predisposed for authentic leadership. Tate (2008) found self-monitoring can indeed improve perceptions of leadership and speaks in favor of training managers to raise awareness of their authentic leadership style.

In terms of subconstructs, Walumbwa et al. (2008) suggest that individuals predisposed to above average levels of authentic leadership may be more open to learning during other managerial training interventions than their colleagues. In addition, Avolio (2005) agrees with Silvia and Duval's (2001) idea that self-awareness is shaped over the length of one's life, but posits that it does not rule out the positive impact training interventions have on it. Indeed, training that brings about a fundamental awareness of one's character, traits, values, and experiences will be invaluable in recognizing one's own authenticity (George & George, 2003). Confrontation with self-transcendent values

(positive psychology constructs that affect pro-social organizational behavior) and other-directed emotions (such as gratitude, concern and trust) are fundamental components of developing authentic leadership (Michie & Gooty, 2005). Though they do not state so explicitly, it seems that the proponents of authentic leadership training feel that rather than pointing out the limitations of training programs, opponents would do well to agree that some benefit may be derived from them. In fact, the biggest obstacle to training authentic leadership may not be the program but rather selecting candidates open to the process.

Training Intervention Design

Should authentic leadership be found to be effectively trainable, the literature on how to do so is based entirely on theoretical conjecture and ranges on a wide continuum. Practical articles— expectedly ahead of the curve — already suggest a wide variety of concrete steps. Among recommendations to trainers, Shirey (2006) states that authenticity is about the 'journey of self-discovery' which includes becoming self-aware of one's preferred leadership style and embracing it. Her suggestions to do so range from self-help staples like reading books, keeping a journal or finding a mentor, to less conventional suggestions such as scavenging the internet for advice and participating in missionary trips. While all are admirable endeavors there is no evidence that these would enhance authentic leadership any more than any other activity. Suggestions from the academic literature are far more cautious but tend to that authenticity can be brought out through an indirect approach.

Firstly, the work environment must be permissive to authenticity. May et al. (2003) insisted that fostering authenticity is best achieved when (1) Organizations should pick leaders already displaying authenticity; (2) Top management acts as authenticity role models; (3) Authenticity is encouraged through inclusion in performance appraisal. Cooper et al. (2005) advocate four main components to any training program: 1. A genuine intervention environment which considers individual demographic differences and extends over more than a single session; 2. The possibility of replicating trigger events, the "crucibles of leadership" (Bennis & Thomas, 2002) which shape the leader through transformative experiences or overcoming adversity; 3. The question of whether ethics can genuinely be taught. Here we remind the reader of the previous discussion of whether or not to include a moral component into the authentic leadership construct as authenticity and ethical behavior are not necessarily identical; Finally, 4. A training program should carefully consider who to train.

Secondly, self-awareness must be raised. Ilies et al. (2005) in their practical implications section offer concrete advice to foster AL including multisource feedback, assessment centers, coaching/mentoring, behavioral role modeling, upward feedback, and leader-member exchange training. May et al. (2003) advocate discussion sessions that require moral reasoning, graduated mastery experiences, and feedback to evoke self-awareness. The majority of proponents agree that life experiences that expand the personal narrative may be the primary solution. Though, as Gardner et al. point out, we "can't afford to wait for life experiences" (2005, p. 368), Luthans and Avolio (2003) recommend a discussion of personal circumstances (life challenges, family life, mentors, experience etc.) to replicate trigger events. This pragmatic approach is offered by

Sparrow's Positive Organizational Scholarship Research Group in which training participants offer narrative stories. A potential tool for improving self-awareness is encouraging participants to keep diaries in order to facilitate reflection upon life events (Boas Shamir & Eilam, 2005).

Thirdly, training must include lessons on communication, specifically feedback (Ilies et al., 2005) to increase balanced processing and relational transparency. Scandura and Graen (1984) suggested that specifically training leader-member exchanges will improve leader follower relationships. After all, the authentic leader does not operate in a vacuum and communication is essential for the construct. Feedback must both be offered from a leader's subordinates as well as from the trainer throughout the course. Research from the transformational literature has shown that "generally speaking, follow-up resurvey of participants indicated that improvements in leadership such as increases in idealized influence and intellectual stimulation, appeared to depend on whether the trainees became aware of the need for improvement and created a plan to do so" (Ilies et al., 2005, p. 14). Jarvis (1992), in particular, interprets of authentic leadership as a phenomenon where authenticity exists in a larger social context and can only be brought about by teaching followers to also be more authentic.

<div align="center">Research Questions</div>

Cooper et al. (2005) argue that as long as we remain in the process of refining the definition of authentic leadership, it is too soon to discuss potential interventions. Since, in fact, the debate still continues on whether it is a trait or behavior, whether authentic leadership should be considered from the view of the leader or the follower, which level

of analysis (individual, team, and organization) is most appropriate, and how frequently these dimensions should be measured, it is impossible to currently design and test proper AL training. There is, however, still a practical need to learn about the inadvertent impact of other training interventions on authentic leadership.

The ASTD State of the Industry Report by Bassi, Cheney and van Buren (1997) established that 12% of training time is spent on management and supervisory skills training. The US industry spends an estimated $12 billion on leader development. A survey by Ralphs and Stephans (1986), however, showed that 86% of training sessions are never evaluation except for employee reactions. Similarly, Saari, Johnson, McLaughlin and Zimmerle's (1988) survey of 600 companies indicated that 42% do not evaluate training in any form. More shockingly, the same survey showed that only 27% of companies conduct any needs assessment before implementing training. Twenty years later, there still exists no validated framework for leader development (Avolio & Hannah, 2008) and the training literature is filled with warnings that training cannot be universally applied to all participants (Goldstein & Ford, 2002).

Since, as Avolio and Hannah, write not all managers may be "developmentally ready to engage in leader development" (2008, p. 331), an interesting research question to answer would be whether more commonly used managerial training would impact authentic leadership perceptions. The fact that the transformational leadership protocol designed for this study is one of the most widely applied managerial training techniques, suggests a reason to evaluate its impact on other potential leadership styles, in this case authentic leadership. In addition, there are several important contrasts between transformational and authentic leadership that make their comparison a suitable endeavor.

Both are offspring of the neocharismatic leadership paradigms and thus rely on a positive organizational style. Both have subconstructs that emphasize the importance of open communication between the manager and the subordinate. Finally, transformational leadership training employees many of the techniques recommended by proponents of authentic leadership training design including discussion of individual skills, communication skills training, and feedback giving/receiving practice. The first important research question posed by this thesis is therefore:

Does Transformational Leadership Training influence Authentic Leadership?

I began with the basic assumption that a leadership intervention, even when not directly targeted towards AL, should affect the authentic leadership of leaders. Authentic leadership, I argue, - specifically because of its reliance on authenticity and "being true to oneself"- may be more sensitive to the influence of interventions then other leadership constructs might. Considering first the overall authentic leadership score, I would predict that training, though not specifically targeted towards authentic leadership, would increase scores. After all, the general idea that this formal training protocol, which includes teaching communication skills, offered reports of subordinate perception, and asked managers to reflect on their actions over an extended period of meetings through the use of diaries, should have an effect on overall leader authenticity has strong face validity.

Similarly, for self-awareness, the training intervention in this study design should increase a leader's scores. Previous authors have posited that access to subordinate ratings, diary assignments, and feedback from colleagues– all of which are part of this

study's training design— would increase a leader's self-awareness. Furthermore, all of the four ALQ self-awareness items pertain to an awareness of other perception in either a specific situation (e.g. "I accurately describe how others view my capabilities") or as a general tendency (e.g. "I know when it is time to reevaluate my position on important issues"). In other words, though self-awareness at first thought might be considered a purely inward looking concept, in fact, a well-developed understanding of the self relies heavily on outside feedback.

Relational transparency and balanced processing are the two subconstructs most clearly aligned with the relationships managers have to their subordinates. As such, I would predict them to benefit from transformational leadership training. Firstly, the interventions' communication training, team work exercises, case analyses, and lectures on how to improve employee motivation, performance and satisfaction through non-controlling managerial styles seem directly tailored to such as balanced processing questions as "I listen carefully to different points of view before coming to conclusions" and relational transparency questions as "I encourage everyone to speak their mind". On the other hand, there is a possibility that managers who are not naturally, or "authentically", predisposed to relational transparency or balanced processing would attempt to fake these skills, thus potentially leading to a paradox of increased leadership scores but decreased authentic leadership ratings.

Finally, internalized moral perspective by its very definition should be a fairly stable construct as morality is generally not expected to change much in adulthood. Internalized moral perspective (e.g. "I make decisions based on my core values.") described the leader's internal ethical climate rather than adoption of outside moral value. That having

been said, should scores change, I could speculate that training might have either a beneficial or adverse effect on scores. The only potential for score decreases I foresee would be if managers might feel coerced by the training into acting in ways which they consider contrary to their values. Of course, this prediction is highly unlikely considering that training stressed the values of fairness and transparency inherent in transformational leadership. On the other hand, this study's intervention will contain a lecture about how a leader does not need to compromise between 'what is right' and 'what is good for the company' but that instead positive leadership benefits subordinates and company performance. This may encourage leaders who may previously have been hesitant to involve their morality in the workplace to embrace ethical decision-making and should lead to increased ratings on questions such as "I make difficult decisions based on high standards of ethical conduct".

A second, perhaps more pertinent question of this thesis is how transformational leadership predisposition affects authentic leadership outcomes. With the high cost of training programs, it is crucial to identify individuals for whom training may be beneficial and those for whom it would have no or even an adverse effect before planning an intervention. Assuming training does affect authentic leadership in a portion of training participants, it must be assumed that the training protocol interacts with a previous state to evoke this change.

H1: Transformational Leadership moderates change in Authentic Leadership.

In this particular study, all employees were asked to complete self-evaluations of transformational leadership prior to training. Using these scores, I categorized managers

into two groups: high in pre-training TFL and low in pre-training TFL. Hypothesis one is a test of how individuals in each of the two categories respond to training. The assumption is that individuals in the high pre-training transformational leadership group will score higher on the authentic leadership scale post-training than individuals in the low group. The fact is that the endorsement of the transformational leadership training by both company executives and our university team will act as a form of legitimization. As a result, managers who already see themselves as genuinely transformational will feel further encouraged − or at the least certainly not discouraged− from proceeding as such. They will come into the program as authentically transformational and training will only sharpen those skills, thus expectedly resulting in increased, or at least steady, scores. On the other hand, members of the low group should not increase in authentic leadership as TFL is not their authentic style. As Bass and Avolio wrote in their own intervention study, "follow-up resurvey of participants indicated that improvements in leadership [...] appeared to depend on whether the trainees became aware of the need for improvement and created a plan to do so" (1989, p. 14). Managers low in TFL have adopted a management style different from transformational leadership. Knowing that they have not undergone any prior training, it can be assumed that they adapted the management style seen in a fellow manager or followed the guidance of other sources such as self-help books, etc. The legitimization effect of the training endorsement should cause them to adopt more elements of transformational leadership; since being "indoctrinated" through training, however, is not an authentic act, this change should not increase authentic leadership. Subsequently, managers would increase their TFL scores but have noticeably lower AL scores.

Methodology

Participants

This research was conducted at the headquarters of an international high tech company. Several of the characteristics of the setting made the company particularly suitable for this field experiment. Firstly, the managers were not in fact managers by trade but rather engineers who had been promoted to their supervisory position. Few had any prior managerial training, thus allowing for our intervention to have the maximum impact that often comes from one's first training exposure. Secondly, the company exemplified many of the characteristics previously mentioned as constituting a conducive environment for authentic leadership. It is part of a dynamic sector where employees are continuously under pressure to design new products. Time pressure, a matrix structure, and the constant threat from competition all outline the stressful, crisis environment that Barnard (1938) considered when conceiving authentic leadership. Finally, the need for innovation requires creative individuals, a group that could benefit from authentic leadership, as demonstrated by Hughes (2005), and from transformational leadership, as shown by Jung et al. (2003) and Shin and Zhou (2003).

Managers and their subordinates were asked to complete surveys pre- and post-intervention with a fifteen month lag. The three week training intervention was offered to all managers.
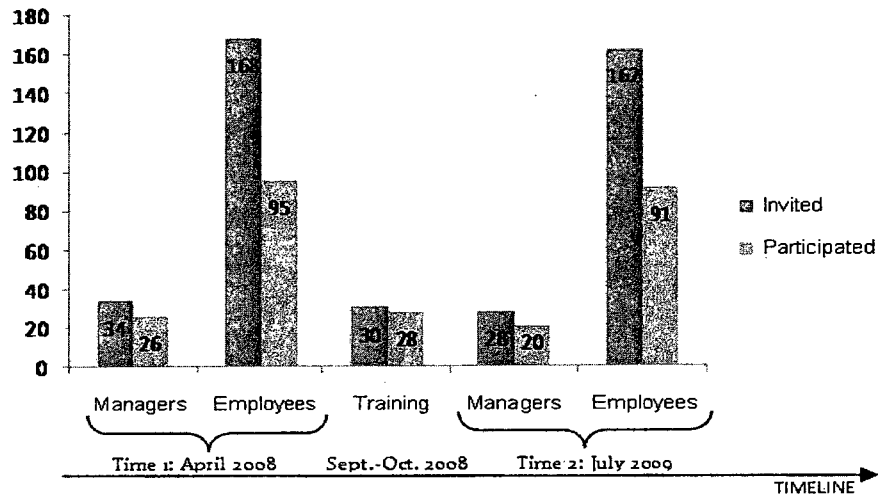
Figure 1: Study Sample Timeline

At time 1, all 169 employees of the R&D department were invited to participate:

of those, 168 received employee surveys and 34 leader surveys since the hierarchical

nature of the company meant that all managers except the CEO were also subordinates.

After three weeks- the expiry date for survey completion- 105 employee surveys (a

62.5% response rate) and 27 manager surveys (a 79.4% response rate) were submitted.

Incomplete or wrongly completed surveys were discarded leaving a remaining sample of

95 employee surveys matched to 26 manager surveys, with each manager having between

two and six subordinate ratings.

At time 2, 20 out of 28 managers (a 71.4% response rate) and 92 out of 162

employees (a 56.8% response rate) completed the survey. Only one employee survey

needed to be discarded at this point for lack of a corresponding managerial survey,

leaving 91 employees matched to 20 managers; each manager had between one and six

employees.

Managerial samples: The first round of surveys was completed by a sample of 26 male managers with an age range from 33 to 54 years (M= 42.52, SD = 5.55) and a company tenure range from 1 to 18 years (M = 7.44, SD = 4.49). Education levels ranged from job-specific AEC certification (Attestation d'études collégiales) to Masters, with the majority of managers (64%) holding a bachelor's degree. The question of managerial experience was only answered by half the sample at time 1 (n=15) and ranged from 2.5 years to 20 years (M= 10.08, SD= 65.56). 17 managers (65%) completed the surveys in English, nine (35%) in French.

The second round of surveys was completed by a sample of 20 male managers with an age range from 29 to 54 (M= 40.85, SD= 6.38); company tenure range from 1 to 18 years (M= 7.05, SD=4.52); and education levels ranging from an AEC to Masters with 56% holding a bachelor. At time 2, all managers chose to answer the question of experience: Managerial experience ranged from 1.5 to 23.3 years (M=9.82, SD=74.44). 10 managers (50%) completed the survey in English, 10 in French (50%). All managers who participated at time 1 and 2 completed the second survey in the same language as the first.

In total, 28 managers were put through the training intervention (of these 15 in the French group; 13 in the English group) while three managers missed training as a result of being out of town on business. Five of these chose not to answer either survey; 12 responded to surveys at both times; the remainder responded to only one survey (7 at time 1; 4 at time 2). Significant statistical differences were shown in the age of managers who participated only in 1 or both surveys $F(2, 27)$= 3.69, p =.04 and the experience of managers who did and did not undergo training $F(1, 44)$= 3.94, p =.06 (see Table 1)

Table 1: Sample Demographics

	M T1 Survey (n=11)	M T2 Survey (n= 5)	M T1 & T2 Surveys (n=15)	M Not Trained (n=7)	M Trained (n=23)	E T1 Survey (n=96)	E T2 Survey (n= 91)
Age (in years)	42.2	35.2	42.73	42.14	41.04	37.61	37.97
Tenure (in years)	6.50	4.00	8.07	4.14	7.70	4.72	4.68
Experience (in years)		9.02	10.08	5.15	10.98		

Note: E = employee, M= manager

Subordinate samples: Though, subordinate ratings would not be employed in the analysis portion of this study, we nonetheless asked subordinates to fill out a questionnaire with demographic information. This step allowed us to verify the strong similarity between employee and manager demographics and in turn attested to the point that managers in this setting were not in fact career managers but instead engineers who had been promoted from within the company. The following paragraph briefly sums up demographic information obtained about subordinates.

At time 1, the subordinate survey was completed by 95 employees ranging from 26 to 61 years of age (M=37.6, SD=8.02), with tenure ranging from less than 1 to 18 years (M=4.72, SD=3.95) and education levels ranging from AEC to PhD with 54.2% of employees holding a bachelors degree. The sample consisted of 7 females and 89 males with 55 completing the survey in English and 41 in French. At time 2, the subordinate survey was completed by 92 employees ranging from 27 to 58 years of age (M=37.97, SD=7.39), with tenure ranging from less than 1 to 18 years (M=4.68, SD=3.87) and education levels ranging from DEP to Masters with 57.6% of employees holding a bachelor. The time 2 sample consisted of 9 females and 83 males with 35 completing the survey in English and 57 in French.

Procedures

Data collections: All measures were hosted online on a secure, university-run site. Participants were sent an invitation email in April of 2008 with a personalized token as well as two reminder emails in subsequent weeks. Both the emails and the first online page of the survey assured participants of their voluntary status and complete anonymity (see Appendix D and E). Participants had three weeks to complete the survey during which time 1 reminder email was sent.

Training took place 5 months after the pre-test in September and October of 2008, and the post-test was conducted 8 months after training in July of 2009, at which time all managers who had undergone training as well as their respective subordinates, were once again invited to complete an identical online surveys (time 2). The online link was kept open for two months during which period two standard reminder emails were sent out. In addition, a prize incentive was offered to survey participants. It is worth noting that the post-test was scheduled to take place 6 months after training. Because of the economic crisis in the Fall of 2008, the company was a precarious financial situation at the time of the scheduled post-test, which had to be delayed by a few months.

Instruments

All participants were asked to complete a brief demographic questionnaire that included questions on managerial experience (if applicable) and interaction with subordinates/supervisors. Age, educational level, and company tenure information were provided by the company for each individual. The majority of the survey was comprised of two surveys. Subordinates were asked to complete the transformational leadership

subscales of the MLQ for their manager. Manager surveys included the transformational leadership subscales of the MLQ, and the complete ALQ.

As previously stated the *Multifactor Leadership Questionnaire* (MLQ), is one of the most commonly used tools to assess transformational transactional and laissez-faire leadership in the social sciences. We followed in the footsteps of researchers such as Basu (1991) who abbreviated the MLQ and used only the TFL subscale. We employed the five subscales that make up TFL − individual consideration, intellectual stimulation, inspirational motivation, idealized influence through attribute, idealized influence through behavior − with four questions each rated on a 5-point scale from 0 (not at all) to 4 (frequently if not always).

The authentic leadership questionnaire (ALQ), developed and validated by Walumbwa et al. (2008) was employed in its entirety. 16 items, rated on a 5-point scale ranging from 0 (not at all) to 4 (frequently, if not always) are distributed among the four subconstructs: self-awareness (4 items), relational transparency (5 items), internalized moral perspective (4 items), and balanced processing (3 items). However, it was applied in a manner different from its original design. Firstly, the ALQ has thus far been administered only to subordinates to evaluate supervisors. However, I posed the question of whether the four subcategories would be better employed as a self-report since the majority of questions pertain to characteristics that may elicit a wide range of behavior and would be hard to be deduced by others. For example, it is doubtful that employees could accurately assess the questions "the manager demonstrates beliefs that are consistent with actions" (internalized moral perspective) or "the manager solicits views that challenge his or her deeply held position" (balanced processing) as it is virtually

impossible for them to know what the manager's internal state is. Consequently, I administered the scale to the leader. In amending the original use of the ALQ from a subordinate to a self measure, I cite precedents from the transformational leadership literature, for example Bommer, Rich and Rubin (2005) who suggested leadership is a subjective experience that should be rated by the most pertinent subject. Secondly, only two of Walumbwa et al.'s (2008) studies employed non-students in their samples. My work will therefore be only the third study to administer the ALQ to working professionals.

Measures were offered in their original English version or a translated French version that was done by a professional translator and verified by two bilingual members of our research team. Sample items of all administered instruments can be found in Appendix A-C.

Training Intervention

Based on managers' emerging weaknesses and strengths, our team designed a three day scripted training seminar comprised of lectures, discussions and exercises hosted by Professor Gagné and assisted by one of four research assistants (including myself) as well as hardcopy course materials with a take-home diary component. The study design shared many of its elements with previous TFL training programs. Managers were divided into English and French groups depending on their language preference: English sessions were held on October 7th, 14th, and 20th, 2008; French sessions were held on October 27th, November 3rd and November 10th.

Day 1. Day one was designed to focus on effective versus ineffective leader behaviours. The day began with a general introduction during which the trainer explained how to distinguish leader behaviours that affect employee motivation from those that are ineffective. The introduction was followed by a discussion round in which managers were encouraged to discuss the best boss they have ever had, a tool to begin the debate on effective versus ineffective behaviour. Managers were then guided to discuss the difference between effective leaders and the failure of both passive leadership and micromanagement, a lesson which was further elucidated through several microcases. In the second portion of the day, managers were given sealed personal envelopes with their own MLQ ratings and a comparison to their subordinates MLQ evaluations. Managers were encouraged to talk about these scores and to list behaviours they wished to change in the future. The day ended with four brief non-mandatory self-assessment scales that managers could use to rate whether they are a team leader, whether they are credible, how charismatic they are, and how good they are at removing obstacles. Before leaving, they were given diaries to assess their transformational and transactional leader behaviours daily for the duration of the program.

Day 2. Day two introduced managers to transformational leadership theory. A case specifically developed for this training program asked participants to rate a manager's four I's and discuss transformational leadership implications. The second portion of the day consisted of lectures and exercises to teach participants effective feedback and communication. Tasks included a self-assessment exercises, an introduction to the various types of feedback (positive vs. negative; direct vs. indirect) and to the idea of coaching vs. counselling as well as respective exercises, tips for proper feedback

phrasing and tools to listen effectively. The day concluded with an exercise in which participants were asked to give positive, emotional feedback to one of their colleagues.

Day 3. Day three moved away from a basic introduction to effective transformational leadership to an explanation of how effective leadership creates motivation and satisfaction among employees. A tower building team exercise developed specifically for the program was intended to make participants experience different leadership styles. Next, individuals were introduced to the three needs which self-determination theory holds as universally essential for optimal human development: the needs for competence, autonomy, and relatedness (Gagné & Deci, 2005). Satisfaction of these needs is determined by the extent to which leaders employ autonomy-supportive versus controlling behaviours and places subordinates on a spectrum from amotivation to extrinsic and intrinsic motivation. Need satisfaction has empirically been shown to be an independent predictors of fluctuations in well-being (Gagné, Ryan, & Bargmann, 2003; Reis, Sheldon, Gable, Roscoe, & Ryan, 2000) as well as work satisfaction and on-the-job well-being (Deci et al., 2001) and performance evaluations (Baard, Deci, & Ryan, 2004), and thus were an essential part of our discussion of motivation. Training concluded with an exercise of transfer in order to make results from the seminar salient to participants.

Results

Analysis

All time 1 and time 2 variables were examined for potential missed entries and mistakes. Since there were very few missing items (less than 5% of all items), missing

data points were filled with the scale's middle point (for example, for the MLQ which is rated from 0 to 4, all blank spaces were filled in with a 2). Subsequently, the time 1 and time 2 files were merged into one SPSS file, using employees' and managers' unique tokens to match responses. Initially, all eligible employee and manager ratings, regardless of whether they participated in both rounds of the survey or in the training intervention, were considered to build a general understanding of the subject pool. Kurtosis and skewness were verified to ensure the normality of the data distribution using the mark up of -2 and +2 (Tabachnick & Fidell, 2006). All variables fell within acceptable boundaries.

Reliability tests were conducted on all scales for two reasons. Firstly, the study relied on a relatively small sample of participants. Secondly, the ALQ was administered in a different manner from its original intended purpose: as a self- rather than subordinate rating. Reliability was calculated for the five transformational leadership subscales of the MLQ and on the overall transformational leadership score for employees and managers as well as for the four subscales of the ALQ and the overall ALQ score. Reliability scores are indicated on the diagonal in correlation Tables 2 to 5. With the exception of a Cronbach's alpha of .66 for subordinate rating of individualized consideration at time 1, all employee ratings on the MLQ at time 1 and 2 fell within acceptable bounds of reliability. Unfortunately, this was not the case for managerial reliabilities.

For managers, at time 1, the only acceptable Cronbach's alpha scores were for the mean transformational leadership and mean authentic leadership scores − none of the subscales passed muster. As can be seen in table 2, the MLQ reliability scores did not just fall below the suggested .70 mark, but, in fact, were extremely low: see for example the -.14 reliability for Intellectual stimulation or the -.07 reliability for idealized influence by

attribute. At time 2, the majority of subconstructs were above .70, though, again, the Cronbach's alphas for individual consideration on the MLQ and relational transparency on the ALQ were far below acceptability.

Previous leadership research has indicated that in designs with larger sample sizes, reliabilities consistently fall above .70. For example, during an expansive examination study of the current version of the MLQ (Form 5X) as a subordinate-rating instrument, with a total of a 2786 respondents in 14 independent samples, reliability scores for all subconstructs ranged from .78 to .92 (Avolio, Bass & Jung, 1999). Similarly, a study verifying the MLQ both as a self- and subordinate measure (Sosik & Megerian,1999) showed significantly higher reliability scores (self-report α=.80; employee-report α=.94) than this study. Finally, Walumbwa et al.'s (2008) verification of the ALQ indicated reliability scores between .70 and .92 for all subconstructs. It is particularly hard to compare our reliability scores to Walumbwa's design, which employed the ALQ in a different design i.e. as a self-measure. Ultimately, the low reliability scores in both measures can be attributed to the study's small sample size and present a strong limitation to our results.

Descriptive Information

Means and standard deviations were calculated for manager self-ratings on the MLQ and the ALQ as well as between non-aggregated employee MLQ and managerial MLQ and ALQ ratings to create a more rounded understanding of leadership perceptions. In addition, correlational analysis was conducted between the manager ALQ and MLQ

subscales at times 1 and 2 (see tables 2 and 3), and between the subordinate MLQ

subscales and the manager MLQ and ALQ scores at times 1 and 2 (see tables 4 and 5).

Table 2: Means, Standard Deviation and Correlations for Managers (n=26) at Time 1

Variables	M	SD	1	2	3	4	5	6	7	8	9	10	11
1. ALQ-SA	2.97	.49	.430										
2. ALQ-BP	2.70	.83	.489*	.669									
3. ALQ-RT	1.49	.84	.205	.044	.595								
4. ALQ-IMP	3.24	.52	.600**	.661**	.031	.672							
5. ALQ	2.60	.46	.745**	.783**	.535**	.750**	.724						
6. MLQ-IC	2.38	.59	.331	.218	.349	.302	.428*	.411					
7. MLQ-IS	2.16	.45	.479**	.177	.242	.228	.379	.340	-.137				
8. MLQ-IM	2.78	.43	.655**	.419*	.074	.633**	.573**	.288	.193	.198			
9. MLQ-IIA	1.89	.44	.344	.119	.042	.190	.217	.348	.297	.240	-.069		
10. MLQ-IIB	3.19	.53	.511**	.403*	.026	.603**	.497**	.608**	.150	.504**	.388	.664	
11. MLQ-TFL	2.48	.34	.658**	.386	.225	.564**	.607**	.794**	.559**	.624**	.644**	.793**	.715

Table 3: Means, Standard Deviation and Correlations for Managers (n=20) at Time 2

Variables	M	SD	1	2	3	4	5	6	7	8	9	10	11
1. ALQ-SA	2.62	.60	.755										
2. ALQ-BP	3.03	.59	.434	.690									
3. ALQ-RT	3.30	.31	.319	.589**	.261								
4. ALQ-IMP	2.94	.62	.278	.244	.426	.764							
5. ALQ	2.97	.39	.730**	.768**	.722**	.690**	.799						
6. MLQ-IC	2.87	.50	.465*	.314	.342	.367	.517*	.368					
7. MLQ-IS	2.81	.41	.681**	.557*	.684**	.508*	.820**	.524*	.675				
8. MLQ-IM	2.80	.64	.531*	.377	.284	.412	.573**	.857**	.540*	.812			
9. MLQ-IIA	2.90	.61	.393	.179	.356	.525*	.504*	.560*	.617**	.631**	.735		
10. MLQ-IIB	2.44	.78	.498*	.291	.137	.467*	.520*	.507*	.374	.580**	.296	.768	
11. MLQ-TFL	2.77	.48	.641**	.421	.425	.576**	.727**	.849**	.740**	.902**	.762**	.734**	.892

* Correlation is significant at the 0.05 level (2-tailed) ** Correlation is significant at the 0.01 level (2-tailed).
 Note: reliabilities are presented on the diagonal

As demonstrated by tables 2 and 3, significant positive correlations existed between the majority of managerial TFL subconstructs (lines 6-11), for example between idealized influence through behavior and individual consideration and inspirational motivation at both times, and for idealized influence through attribute and intellectual stimulation and inspirational motivation at time 2. These positive correlations between the five transformational leadership subcomponents replicate findings from previous factor analysis (Avolio, Bass & Jung, 1999) and attest to the measures convergent validity.

Some positive correlations also emerged between components of the ALQ (see lines 1-5) − for example, self-awareness correlated to internalized moral perspective and balanced processing at time 1, and balanced processing correlated to relational transparency at time 2. Though there were several significant correlations between the four measures, serving as a good indicator of the ALQ's convergent validity, it should be noted that these correlations were lower than the average .67 correlation reported among the four measures by Walumbwa et al. (2008).

Next, I examined the correlation between the various ALQ and MLQ subconstructs. The fact that both authentic leadership and transformational leadership are offspring of the neocharismatic leadership paradigms and both build on similar perceptions of positive leadership would suggest that significant positive correlations should have been found between the ALQ and MLQ subconstructs. This was, in fact, the case for the majority of managerial subscales. For example, at time 1, there was significant positive correlation between balanced processing and intellectual stimulation and inspirational motivation, as well as between internalized moral perspective and

inspirational motivation. In addition, a significant positive correlation was found between the overall transformational leadership score and self-awareness and internalized moral perspective; between the overall authentic leadership score and individualized consideration, inspirational motivation, and idealized influence by behavior; as well as between the overall authentic leadership and overall transformational leadership scores.

Similarly, at time 2, intellectual stimulation significantly correlated with all ALQ subconstructs and inspirational motivation correlated with self-awareness, balanced processing, and internalized moral perspective. The overall transformational leadership score correlated with self-awareness and internalized moral perspective; the overall authentic leadership score correlated to all TFL subconstructs; and the overall transformational leadership score once again correlated with the overall authentic leadership score. Nonetheless, the fact that the majority of correlations were not significant supports previous findings that TFL and AL, while similar, do in fact measure different leadership qualities.

More noticeable than the expected positive correlations between several transformational and authentic leadership subconstructs was the lack of apparent pattern across the two times. Inspirational motivation correlated with all but the relational transparency subconstruct of the ALQ at time 1, but with none at time 2. Similarly, intellectual stimulation correlated with only the self-awareness construct at time 1, but with all subconstructs at time 2. These scattered changes across time, rather than constituting a random occurrence, can be attributed either to small or sample size or point to conscious changes in self-perception from time 1 to time 2 that should be further explored during hypothesis testing.

Table 4: Means, SD and Correlations for Employees (n = 95) and Managers (n=26) at Time 1

Variables	M	SD	1	2	3	4	5	6
1. E Individual Consideration	3.09	.84	.656					
2. E Intellectual Stimulation	3.42	.84	.718**	.771				
3. E Inspirational Motivation	3.59	.81	.491**	.519**	.812			
4. E Idealized Influence: attribute	3.43	.87	.636**	.657**	.733**	.786		
5. E Idealized influence: behavior	3.01	.81	.369**	.463**	.690**	.837**	.711	
6. E Transformational Leadership	3.31	.68	.789**	.823**	.837**	.885**	.753**	.921
7. M Individual Consideration			.223	.297	.309	.131	.141	.247
8. M Intellectual Stimulation			-.251	-.126	-.214	-.077	-.192	-.197
9. M Inspirational Motivation			.020	-.313	-.047	-.194	-.131	-.146
10. M Idealized Influence: attribute			.131	.221	.354	.351	.344	.314
11. M Idealized influence: behavior			.191	.089	.228	.218	.104	.193
12. M Transformational Leadership			.092	.069	.180	.128	.075	.123
13. M ALQ-SA			.077	.318	.343	-.055	.165	.173
14. M ALQ-BP			.536	.413	.426	.206	.403	.448
15. M ALQ-RT			-.183	-.210	-.176	-.509	-.285	-.316
16. M ALQ-IMP			-.344	-.492	-.310	-.363	-.340	-.415
17. M ALQ			.193	.084	.213	.065	.056	.140

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).
Note: E = employee, M= manager; reliabilities are presented on the diagonal

Table 5: Means, SD and Correlations for Employees (n = 91) and Managers (n=20) at Time 2

Variables	M	SD	1	2	3	4	5	6
1. E Individual Consideration	1.83	.88	.743					
2. E Intellectual Stimulation	2.16	.78	.816**	.786				
3. E Inspirational Motivation	2.24	.86	.639**	.723**	.820			
4. E Idealized Influence: attribute	2.12	1.01	.732**	.736**	.726**	.891		
5. E Idealized influence: behavior	1.81	.87	.732**	.729**	.736**	.702**	.795	
6. E Transformational Leadership	2.03	.78	.885**	.900**	.864**	.891**	.881**	.948
7. M Individual Consideration			.168	.126	-.017	-.293	.106	.000
8. M Intellectual Stimulation			.055	.146	-.205	-.334	.073	-.093
9. M Inspirational Motivation			.397	.318	.073	-.057	.276	.231
10. M Idealized Influence: attribute			.052	.087	-.015	-.144	.102	.006
11. M Idealized influence: behavior			.211	.425	.312	.188	.504*	.389
12. M Transformational Leadership			.213	.261	.039	-.144	.252	.131
13. M ALQ-SA			.053	.057	-.066	-.134	.249	.024
14. M ALQ-BP			.418	.300	-.035	-.040	.167	.187
15. M ALQ-RT			-.086	-.080	.150	-.286	-.099	-.111
16. M ALQ-IMP			.225	.198	.316	.031	.242	.241
17. M ALQ			.248	.197	.111	-.120	.245	.151

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).
Note: E = employee, M= manager; reliabilities are presented on the diagonal

During the second phase of correlational analysis, I explored the correlations between employee ratings of the MLQ and manager self-ratings. Looking only at subordinate ratings at times 1 and 2 (lines 1-6) Significant positive correlations existed between every single component of the MLQ for employees, serving as a good indication of the convergent validity of the MLQ.

Not surprisingly, the relationship between self- and subordinate ratings (see lines 7-17) was more complicated. Considering the relationship between manager self-perception and subordinate ratings on the MLQ, there seemed to be overall negative correlations between employee and manager scores on intellectual stimulation and inspirational motivation, and positive correlations between the other subconstructs. The only statistically significant correlation, however, occurred between manager and employee perception of idealized influence through behavior at time 2; it should be noted, however, that correlation between manager balanced processing and all employee TFL subconstructs at time 1 were high in magnitude but not significant due to small sample size. This general lack of significant correlations between employee and manager perception is striking when one considers the strong agreement between the individual subordinates about one supervisor (see r_{wg} Table 8) and replicates previous studies that have shown a discord between subordinate and self-ratings (Sosik & Megerian,1999).

Unique, is the fact that while self-ratings generally tend to be higher than other ratings due to a self-serving bias (Williams & Leavitt, 1947), in the present study, it was only the case at time 2. At time 1, employee ratings on all TFL subconstructs were higher than manager self-ratings. These findings suggest that employees may have generally judged their managers performance at time 1 quite positively, and that the strong drop in all employee MLQ subconstructs from time 1 to time 2 may have been influenced by an outside confounding factor which will be further discussed in the limitations section. Alternatively, employees may have developed high expectations from the training they knew their managers would undergo and dropped post-training scores are a reflection of these unmet expectations.

Manager perceptions of authentic leadership were also compared to employee MLQ scores. At time 1, the highest correlations were the positive correlations between balanced processing and the MLQ subconstructs and the negative correlations between internalized moral perspective and the MLQ subconstructs. However again, due to small sample size, there were no significant correlations, not even between the overall ALQ and TFL scores, but at least correlations were consistent across each subconstruct with the exception of self-awareness, which correlated positively to all subconstructs but idealized influence by attribute. At time 2, correlations were harder to explain as, with the exception of internalized moral perspective, all ALQ subconstructs correlated both positively and negatively with. We would expect that one ALQ subconstruct would be either consistently positively or consistently negatively correlated to a respective MLQ subconstruct, but this was not the case. For example, manager balanced processing was positively correlated to individual consideration and intellectual stimulation but slightly negatively correlated to inspirational motivation or idealized influence through attribute. This runs contrary to all expectations from the theoretical literature that would suggest TFL and ALQ scores should be positively correlated across the board.

Table 6: Comparison of ALQ and MLQ means

Variables	T1 Survey (n=11)	T2 Survey (n= 5)	Both Surveys (n=15)	Not Trained (n=7)	Trained (n=19)
Time 1 ALQ-SA	2.88	-	3.04	2.83	3.02
Time 1 ALQ-BP	2.70	-	2.70	2.76	2.68
Time 1 ALQ-RT	1.17	-	1.72	1.51	1.48
Time 1 ALQ-IMP	3.18	-	3.28	2.07	3.30
Time 1 ALQ	2.48	-	2.69	2.55	2.62
Time 1 MLQ-IC	2.56	-	2.47	2.07	2.49
Time 1 MLQ-IS	2.12	-	2.18	2.07	2.19
Time 1 MLQ-IM	2.70	-	2.83	2.64	2.82
Time 1 MLQ-IIA	1.95	-	1.85	1.79	1.93
Time 1 MLQ-IIB	3.14	-	3.23	2.86	3.31
Time 1 MLQ-TFL	2.43	-	2.51	2.29	2.55

Variables	T1 Survey (n=11)	T2 Survey (n= 5)	Both Surveys (n=15)	Not Trained (n=4)	Trained (n=16)
Time 2 ALQ-SA	-	2.50	2.67	2.00	2.78
Time 2 ALQ-BP	-	3.27	2.96	2.83	3.08
Time 2 ALQ-RT	-	3.35	3.28	3.13	3.34
Time 2 ALQ-IMP	-	3.00	2.92	2.88	2.95
Time 2 ALQ	-	3.03	2.96	2.71	3.04
Time 2 MLQ-IC	-	2.85	2.88	2.50	2.97
Time 2 MLQ-IS	-	2.85	2.80	2.44	2.91
Time 2 MLQ-IM	-	2.75	2.82	2.38	2.91
Time 2 MLQ-IIA	-	2.80	2.93	2.56	2.98
Time 2 MLQ-IIB	-	2.40	2.45	1.88	2.58
Time 2 MLQ-TFL	-	2.73	2.77	2.35	2.87

Finally, to learn whether there was a significant difference in managerial responses on the ALQ and TFL subscales for managers who complete time 1, time 2 or both surveys, a one-way ANOVA was conducted. An independent samples t-test was also conducted between managers who did and those who did not attend training. Means for all five groups can be found in Table 6. Results suggested that there were no statistical differences ($F's < 1$) between the five groups on the majority of subscales. There were three exceptions. Firstly, managers who completed only the time 1 survey had a significantly lower mean on time 1 relational transparency than those managers who completed surveys at both times, $F(1, 24) = 2.98, p < .10$. Secondly, managers who participated in training had a significantly higher mean on time 1 individual consideration, $F(1, 70) = 4.13, p < .05$ and time 1 self-awareness, $F(1, 70) = 4.98, p < .05$, than managers who did not undergo training. These significant differences point to the limitation posed by this study's lack of random assignment to the various groups.

Hypothesis testing

For *research question 1*, I conducted a series of paired sample t-tests to search for significant change in self-ratings on each of the ALQ subconstructs between times 1 and 2. Only managers who participated in both rounds of surveys (n = 15) as well as the training intervention could be considered, reducing our sample size to n = 12. Significant change was indeed found for three out of the four subconstructs and the mean ALQ score.

For self-awareness, the mean changed from 3.13 to 2.88, $t(11) = 2.25, p < .05$, indicating a significant decrease between pre- and post-intervention scores. Internalized moral perspective decreased significantly from 3.35 to 2.94, $t(11) = 2.35, p < .05$.

Relational transparency increased significantly, $t(11) = 6.59, p < .001$, from a mean of 1.83 to 3.33. Balanced processing increased from 2.74 to 3.03, but this increase was non-significant, $t(11) = 1.53, p > .10$. Finally, the overall ALQ rating changed from a mean of 2.76 to 3.04, $t(11) = 2.57, p < .05$. To confirm that these changes were due to training, mean ALQ scores should have been compared to a control group using a series of mixed design ANOVA. Unfortunately, the small available sample size made this option impossible and I, instead, embark on a qualitative discussion of the data. Three managers completed surveys at time 1 and 2 but failed to attend the training intervention and as such constituted a quasi-control group. Means for the two groups at time 1 and 2 are presented in Table 7.

Table 7: Trained (n = 12) and untrained (n = 3) manager T1 and T2 ALQ means and SD

Variables	Time 1		Time 2	
	M (n = 3)	TM (n = 12)	M (n = 3)	TM (n = 12)
Self-Awareness	2.69 (.70)	3.12 (.35)	1.83 (.76)	2.88 (.36)
Balanced Processing	2.56 (1.35)	2.74 (.70)	2.67 (.67)	3.03 (.56)
Relational Transparency	1.27 (1.14)	1.83 (.77)	3.08 (.29)	3.33 (.36)
Internalized Moral Perspective	3.00 (1.09)	3.35 (.49)	2.83 (.76)	2.94 (.52)
Authentic Leadership	2.38 (.74)	2.76 (.44)	2.60 (.46)	3.04 (.30)

Note: M = untrained managers; TM = trained managers
Standard deviation shown in parentheses

There is a notable difference on ALQ time 1 ratings between managers who did and did not undergo training. At time 1, the twelve managers who attended training had higher mean scores on each of the ALQ subscales and the mean ALQ than their untrained counterparts. In addition, their scores seem to be more consistent as their standard deviations were almost half the size of their untrained counterparts on all subscales. This

pattern persisted. At time 2, again the trained group has high means and lower standard deviations than their untrained counterparts.

Despite consistently lower scores, however, in fact, the direction of score changes was surprisingly consistent between the trained and untrained group. Both groups showed a mean decrease in self-awareness scores between times 1 and 2 (.24 and .86 respectively), and internalized moral perspective (.41 and .17 respectively), and increases in balanced processing (.29 and .11 respectively), relational transparency (1.5 and 1.81 respectively), and the overall ALQ score (.28 and .22 respectively). Though the magnitude of mean change varied between the two groups, it was interesting to note that relational transparency demonstrated a much larger mean change than any of the other subconstructs in both groups.

These observations indicate that, at least in this study, we found little support for research question 1- Does Transformational Leadership Training influence Authentic Leadership- as managers in both the experimental and control group had similar changes in subconstructs. There are two possibilities to explain scores: either scores were influenced by an outside confounding event or repeated exposure to surveys, rather than the actual training, prompted similar results on measures.

Hypothesis one tested for a more direct effect of pre-training leadership ratings on post-training ratings. First a median split was conducted for the time 1 overall transformational leadership self-ratings. A dummy variable was created that categorized managers as either high or low on pre-training transformational leadership scores (group A = High time 1 transformational leadership; group B = Low time 1 transformational

leadership). Due to the fact that two of the managers had mean scores identical to the group's overall median but closer to the high range of managers, they were both assigned to the high group. This meant that the low group contained 5 and the high group 7 managers. Next paired sample t-tests were conducted for both the low and high group to explore for significant change in self-ratings on each of the ALQ subconstructs between times 1 and 2.

Table 8: ALQ change for low Transformational Leadership Group (n=5)

	Variables	Time 1	Time 2	t	Sig. (2-tailed)
Pair 1	Mean Authentic Leadership	2.73 (.34)	2.88 (.13)	-1.30	.264
Pair 2	Balanced Processing	2.73 (.43)	2.93 (.43)	-1.18	.305
Pair 3	Relational Transparency	2.00 (.69)	3.20 (.21)	-3.33	.029*
Pair 4	Internalized Moral Perspective	3.15 (.49)	2.60 (.45)	1.67	.171
Pair 5	Self-awareness	3.05 (.37)	2.81 (.33)	1.58	.189

* Correlation is significant at the 0.05 level (2-tailed). ** Correlation is significant at the 0.01 level (2-tailed).

Table 9: ALQ change for high Transformational Leadership Group (n=7)

	Variables	Time 1	Time 2	t	Sig. (2-tailed)
Pair 1	Mean Authentic Leadership	2.78 (.53)	3.16 (.34)	-1.14	.298
Pair 2	Balanced Processing	2.74 (.85)	3.10 (.66)	1.53	.177
Pair 3	Relational Transparency	1.71 (.86)	3.43 (.43)	-5.97	.001*
Pair 4	Internalized Moral Perspective	3.50 (.48)	3.18 (.45)	1.54	.175
Pair 5	Self-awareness	3.18 (.35)	2.93 (.40)	-2.25	.065

* Correlation is significant at the 0.05 level (2-tailed). ** Correlation is significant at the 0.01 level (2-tailed).

The managers who entered training with low transformational leadership scores (see Table 8) showed post-training increase on their overall authentic leadership, balanced processing and relational transparency scores and decreased in internalized moral perspective and self-awareness. This trend was identical to the changes found in

the high transformational leadership group (see Table 9). Similarly, members of each group had the highest (and only significant) change on the relational transparency subconstruct with $t(4) = -3.33, p < .05$ and $t(6) = -5.97, p < .001$ for the low and high groups respectively. A one-way ANOVA test confirmed that the only significant difference between the high and low group was in the mean Time 2 internalized moral perspective $F(1,10) = 4.79, p < .05$. Though Managers in the low time 1 TFL group had significantly lower time 2 IMP scores than managers in the high group, managers in both groups showed similar mean decreases (.55 and .32 respectively).

Collectively, none of these finding offer support for Hypothesis 1. Looking beyond the necessary statistical significance for the hypothesis test, the data showed that managers in the high TFL group showed a greater change on all but the internalized moral perspective subconstruct. This suggests that transformational leadership might act as a moderator under certain circumstances and supports the recommendation that this test be replicated in a larger sample.

Post-hoc: In the course of this longitudinal study, our research team was confronted with a unique set of circumstances. A period of economic recession- arguably the worst since the great depression- had a country-wide detrimental impact on consumer confidence and job security. The company in which we were conducting our intervention was not immune and engaged in a series of lay-offs and furloughs in the period between our training intervention and the second data collection. In order to gain a better understanding of the implications of this historic cofound on our own data, I conducted a post-hoc analysis in which I expanded the managerial sample. Though the research question test included only managers who completed surveys at both times, in this second

analysis, I included all managers for whom we had at least 1 set of responses, sorting

them either into the group of managers who had attended training or those who had not.

Though response rate subsequently varies between the various subconstructs at times 1

and 2, the manager sample had up to 32 responses, the trained sample up to 24 responses,

and the untrained sample up to 8 responded.

Table 10: Mean Differences in Transformational Leadership Scores

Variables	All Managers		Trained Managers		Untrained Managers	
	M	*SD*	*M*	*SD*	*M*	*SD*
Time 1						
Individual Consideration	2.38	.59	2.49	.50	2.07	.76
Intellectual Stimulation	2.16	.45	2.19	.45	2.07	.49
Inspirational Motivation	2.78	.43	2.82	.37	2.64	.57
Idealized Influence: attribute	1.89	.44	1.93	.38	1.79	.60
Idealized influence: behavior	3.19	.53	3.31	.48	2.86	.56
Mean TFL	2.48	.34	2.55	.29	2.29	.41
Time 2						
Individual Consideration	2.88	.50	2.97	.48	2.50	.41
Intellectual Stimulation	2.82	.51	2.91	.49	2.44	.47
Inspirational Motivation	2.80	.64	2.91	.61	2.38	.47
Idealized Influence: attribute	2.90	.61	2.98	.58	2.56	.72
Idealized influence: behavior	2.44	.78	2.58	.65	1.88	1.09
Mean TFL	2.77	.48	2.87	.44	2.35	.47

I proceed with a discussion of the differences in transformational leadership

scores between the three groups (see Table 10). At both times 1 and 2, the managers in

the trained group consistently had the highest mean scores on each of the subconstructs,

followed by a sample of all managers and then the untrained group. This suggests that

perception of leadership abilities may have an impact on self-selection into the training session, which managers scoring themselves higher in transformational leadership being more willing to attend training than those with lower scores. Managers in all groups had similar direction and magnitude change between time 1 and time 2 means for all but one subconstruct: Managers who attended training showed a slight increase in inspirational motivation while managers who did not attend showed a larger decrease on the same subconstruct. This may indicate that training might serve as a buffering effect in the face of a strong historical confound but absolutely requires further testing with a larger sample.

Table 11: Mean Differences in Authentic Leadership Scores

Variables	All Managers		Trained Managers		Untrained Managers	
	M	SD	M	SD	M	SD
Time 1 (n=26, n, n=7)						
Self-awareness	2.97	.49	3.02	.42	2.83	.66
Balanced Processing	2.70	.83	2.68	.85	2.76	.83
Relational Transparency	1.49	.84	1.48	.84	1.51	.89
Internalized Moral Perspective	3.24	.52	3.30	.48	3.07	.64
Mean ALQ	2.60	.46	2.62	.47	2.55	.48
Time 2 (n=20)						
Self-awareness	2.63	.60	2.78	.47	2.00	.71
Balanced Processing	3.03	.59	3.08	.59	2.83	.64
Relational Transparency	3.30	.31	3.34	.31	3.13	.25
Internalized Moral Perspective	2.94	.62	2.95	.64	2.88	.63
Mean ALQ	2.97	.39	3.04	.36	2.71	.43

Differences in authentic leadership across the groups were less clear-cut than they had been for transformational leadership. Manager scores in both groups increased in

balanced processing, relational transparency, and the overall ALQ score and decreased in self-awareness and internalized moral perspective. However, beyond the similarity in direction, no other trends emerged. Magnitude of change varied without any noticeable pattern between the five subconstructs but did not differ noticeably between any of the groups.

Contrasting this comparison of trained and untrained managers with the smaller sample of trained and untrained managers at the beginning of hypothesis testing, indicated that results from both samples mirrored each other. In both samples, balanced processing, relational transparency, and the overall ALQ score increased and self-awareness and internalized moral perspective decreased. This suggests further lack of support for research question one.

Discussion

The purpose of the preceding study was to offer a preliminary analysis of the impact that formal training may have on various authentic leadership outcomes. Unlike research for more established leadership paradigms, this question had no empirical precedent, nor did the theoretical literature agree on potential prescribed outcomes.

Much of the theoretically literature in this new leadership paradigm tends to paint authentic leadership as a hearty characteristic that is hard to influence. Cooper et al. (2005) cite proponents as believing that authentic leadership is dormant in most of the population (they do not take this stand) and training in theory could be useful for all (they fear such interventions could be abused). Knowing that authentic leadership has positive follower and organizational outcomes, these leaders might exploit programs that help

them 'appear' more authentic. As an example Cooper et al. (2005) cite the CEO of Southwest, Herb Kelleher and ask whether he is truly authentic or simply exploits the appearance of authenticity to evoke shareholder confidence and sustained employee performance. In a specific environment, the inherent charisma of many authentic leaders could harm followers by developing into Machiavellian leadership (Conger, 1990). On the other extreme, Harter, Schmidt and Hayes (2002) imply that authentic leadership can be readily taught to leaders and that too much authenticity might be threatening to a subset of subordinates. Persuaded by this strong debate in the literature, I went into this study fully expecting that training to significantly influence authentic leadership ratings. After all, the training literature canon has overwhelmingly convinced us that training generally has unexpected and often unwanted side-effects on managerial outcomes.

Initial t-tests seemed promising, indicating both significant increases and decreases in authentic leadership for all subconstructs but balanced processing. Scores increased for balanced processing, relational transparency, and the overall ALQ score and decreased in self-awareness and internalized moral perspective. Of these initial findings, the fact that a training program that included much communication training would increase relational transparency had high face validity. Similarly, for a population of managers who have predominantly never undergone any formal leadership training, the fact that a three-day intervention that confronted individuals to ratings and discussion of their own skills would generally improve the authentic leadership scores seemed reliable. On the other hand, as previously stated, the only explanation for why internalized moral perspective decreased was because managers might have felt coerced into acting in ways which they consider contrary to their values.

A more rigorous comparison of managers who had actually attended training with a small control group quickly called into question the assumption that changes in ALQ scores were a result of the training intervention. Though managers who had attended training held overall higher time 1 scores (suggesting self-selection into the group based on TFL ability) members in both the control and experimental group showed similar change in direction and magnitude on all ALQ sub constructs. This indicated that scores were influenced either by an outside confounding event or by similar reaction among managers to repeated expose to the two measures. Findings offered no support for research question one.

Results of the tests of Hypothesis 1 were equally unexpected. Managers in both the high and low TFL group indicated a post-training increase on their overall authentic leadership, balanced processing and relational transparency scores and decrease in internalized moral perspective and self-awareness. As such, there was absolutely no support for hypothesis 1. Significant changes in authentic leadership from time 1 to time 2 can not be attributed to the training intervention. Before continuing speculation on what influenced this change, these findings alone are quite interesting to discuss.

Most notable, they contradict the extreme concerns much of the training literature has had about the unforeseen impact of poorly targeted managerial training. Rather than being pre-occupied with protecting authentic leadership from potentially detrimental effects of interventions, we should take solace in the fact that AL in this study seemed entirely immune to training. This finding may be a relief to those who have watched with concern as professional organizations begin embracing AL development. For example, recently, the American Association of Critical-Care Nurses has become the first

professional organization to buy into the potential benefits of authentic leadership and support its systematic implementation. Shirey (2006) reported that the organization published a guideline necessary to create proper working environments in the health care industry and among the six prescribed standards (skilled communication, true collaboration, effective decision making, appropriate staffing, meaningful recognition, and authentic leadership), authentic leaderships as the only leadership constructs was described as the 'glue' to hold proper work environments together. Even though at this point, authentic leadership has not been sufficiently defined – or empirically tested for that matter – for any kind of practical application to be considered, it appears that should organizations engage in training, they may have little success in changing the authentic leadership construct (for better or worse).

But if training did not cause the change in AL, what did? In his call for a better discussion of contextual impact on research findings, Johns (2006) suggests that academics should adopt the principles of good journalistic practice by better grounding their findings in a discussion of "who, what, when, where, and why" (p. 391). The contextual factor most relevant to this study was that of time. Johns writes that "time affects the web of social and economic relationships that surrounds any aspect of organizational behavior" (p. 392). He defines context as a subtle influence; time as a mild, steady breeze that pushes behavioral outcomes. However, there are certain times when historical events slam directly into one's work and make historical context an almost more salient part of the story than any other variables; that is exactly what happened in the case of my thesis.

Beginning in December 2007 (Isidore, 2008) a period of economic slow-down often referred to as "the Great Recession" and considered the worst economic crisis since the Great Depression (Lightman, 2009) started. What began as a US crisis, quickly expanded to a global recession that continues to date. The International Labor Organization (ILO) predicted a loss of over 20 million jobs by the end of 2009, an unemployment rise from which Canada has not been immune. Between October 2008 (the time of our training intervention) and April 2009 (the originally set date for the second data collection) 378,000 jobs had been lost in Canada (Beltrame, 2009). Among the effected companies was the high-tech firm employed in this research. A direct consequence was the company's sudden decrease in enthusiasm for our research; Whereas the company CEO and HR department had been entirely supportive and welcoming of our team for the first data collection in April 2008 and the training sessions in the Fall of 2008, by early 2009, when it was time for the second data collection, their priorities had, understandably, shifted. The second data collection was postponed from April, first until May and finally until June 2009. The first significant effect of this action was the increase of the study lag period from a planned 6 month to 8 months. Secondly, the issue of an already small sample pool was further aggravated by a number of lay-offs and furloughs. Though the majority of employees remained with the company, we needed to extend the survey deadline twice, send multiple reminder emails, and offer a gift certificate incentive to achieve an acceptable response rate. Of course, the issue of response rate was trumped by the even graver potential confounding effect that the economic crisis posed.

Unlike previous economic downturns such as the savings and loan crisis from 1981-1982 which was generally attributed to raised interest rates to counter inflation, the current economic climate is blamed on simple greed at the top. A lack of derivatives regulation causes the collapse of mortgage-backed securities which in turn triggered the global fiscal instability (Faiola, Nakashima, & Drew, 2008). Though sub-prime lending, deregulation, and bad credit-default swamps would have been impossible without the culpability of the general public and government regulators, the crisis is predominantly blamed on top management. Though the original scapegoats were banking executives, the list has quickly expanded to such diverse sectors as the automobile industry (Wutkowski, 2008), government (Connolly, 2009), higher education (Munk, 2009) and, in fact, the idea of top management in general. Though the distrust of leadership seems to be running more rampant in the US (Achenbach & Surdin, 2008) than Canada, the general climate and US media influence certainly are cause for concern as potential confounders in my research.

Though the 15 month lag, the historical nature of the current economic climate, and the quasi-experimental study design make it impossible to deduce whether changes in perceived leadership are primarily the result of the economic crisis, this historical event seems to be the only explanation salient enough to have affected all manager groups. This conclusion would also very much fall in line with Avolio and Luthans (2006) prediction that authentic leadership, while not completely static, can only be shaped through major life events and not through training. It could, for example, be reasonably assumed that managers decided to rate themselves lower in internalized moral perspective after comparing themselves to the 'evil executives' constantly paraded on television and

particularly salient in Montreal where Earl Jones and Vincent Lacroix are villainized on the nightly news (Ha, 2009). While large, general life circumstances could thus affect ratings of one's own ethical performance, ratings on the communication subcontracts would most likely be more directly related to work performance. There, a self-serving bias might have caused individual managers to rate themselves as higher on balanced processing and relational transparency when comparing themselves to the more repressed and subdued climate within the company. Finally, fear and nervousness for their own jobs might cause them to question their own strengths and skills and lead to decreases in self-awareness.

Limitations

Juts as the economic crisis presented this thesis with an interesting, unexpected discussion topic, it also was the cause of much of the study's limitations. Limitations of the preceding research can be generally grouped in one of three categories. The first category includes study design limitations. The most obvious flaw in this design was limitation inherent to the sample: a small sample size due to attrition, lack of random assignment to the experimental and control group, and lack of a proper control group. Though three managers did ultimately complete both surveys but failed to attend training and as such could be considered a de facto control group, their limited number and non-random assignment certainly does not make up for the original design limitation. The small, unpredicted time 2 sample size made it impossible to conduct the mixed design ANOVA, test of interaction effects, and linear regression I had intended on employing in this study. Furthermore, the fact that ANOVA demonstrated three distinct differences

between the various manager groups offers further cause for concern: 1. managers who completed only the time 1 survey had a significantly lower mean on time 1 relational transparency than those managers who completed surveys at both times; 2. managers who participated in training had a significantly higher mean on time 1 individual consideration and on time 1 self-awareness than managers who did not undergo training. These significant differences point to the limitation posed by this study's lack of random assignment to the various groups.

In terms of instruments, the novelty of the ALQ meant it is still in the validation phase and while the present study contributes to its validation, its use − particularly as a self-report measure − is supported by only one precedent (Briand, 2009) and thus certainly not a practice with much empirical support. In light of the lack of data on this scale, it might have been better to give it to both managers and subordinates. Furthermore, though both the ALQ and MLQ have been previously validated, a second limitation was the fact that subconstructs of each showed unacceptable manager self-rating reliabilities ($\alpha < .70$), again presumably due to small sample size.

This brings me to the second practical limitation: the sample make-up. The small sample size has been repeatedly mentioned as a significant limitation. However, further limitations include the fact that the employee sample was almost entirely, and the manager sample entirely comprised of males, predominantly of North American origin (though unfortunately ethnicity was not included in the demographic questionnaire) with a similar age range and educational levels. For these reasons, extrapolation of results is hard to justify. On the bright side, the fact that most of these demographic data were

taken directly from company HR reports rather than self-reports at least gives us complete confidence in data accuracy.

Conclusion

The workforce of the 21st century is quickly becoming unrecognizable from that of previous generations. Changes include the fact that the workforce is growing more slowly with the exit of the baby boomer generation, the diversification from a European, male work force to a more ethnically and gender diverse pool, and the change of westernized countries to a more technologically demanding, service industry. Goldstein and Ford emphasize that this "changing nature of the workplace and workforce highlights the need for effective leadership" (2002, p. 305). Specifically, they cite Rothwell and Kolb (1999) as believing that managers are increasingly expected not only to manage their subordinates but also to deliver high quality just-in-time training. The manager as a trainer fits closely with the idea of transformational leadership so the industry cannot be blamed for increasingly putting a transformational spin on training sessions. But what if an individual manager is not transformational? What will be the effects of molding him or her into such a role?

The AL literature to date had been extremely cautious in avoiding empirical work on whether authentic leadership can be trained and instead has focused on a more theoretical discussion. In that vein, I side-stepped the issue by asking not whether authentic leadership training is effective, but rather, if other common forms of leadership training can have an impact on authentic leadership development. The limited results of my work suggested that authentic leadership was surprisingly insulated from the impact

of training interventions, even when considering diverse pre-training makeups. Instead, authentic leadership may be unique in the sense that it may be the first leadership construct that in its purest form develops naturally without intervention.

This unique characteristic indicates a promising future for AL research. The authentic leadership literature re-emerged in the beginning of the 21st century as a response to the idea of managerial corruption. As such, the current crisis of leadership should certainly encourage an increase in generated research. Though training impact on authentic leadership was this thesis' primary research focus, other interesting research topics are emerging and warrant further investigation. For example, rather than training authentic leadership, research could focus on the implication of authenticity as a hiring and recruiting criterion (Ilies et al., 2005). Research expanding on topics such as validation of the ALQ, development of additional instruments, subconstruct clarification, and perception of authentic leadership across a variety of contexts, would also be welcomed.

I'd like to conclude with one final reflection upon the economic crisis. A regret of the present study design is that it allowed me to treat the once-in-a-lifetime opportunity of the recent recession only as a confound and thus limited the discussion of its potential effects on authentic leadership outcomes to narrative speculations. Through this reflection however, I have come to the realization that similar future historic events- could they hypothetically be predicted and planned into research design- would allow proponents of authentic leadership the opportunity for a wide variety of studies. I shall conclude this thesis with a proposition of research specifically framed around future economic recessions.

The first category of potential future research pertains to the question of whether and how the economic crisis constituted a life event. Future researchers should test the assumptions that 1. considerable life events - in the tradition of punctuated equilibrium - do matter in authentic leadership development and 2. the economic crisis did present such an event. In the absence of an economic crisis, one approach to this speculation would be design a survey study in which correlational analysis of the ALQ and a life events questionnaire (see for example Gray et al.'s (2004) report on the Life Events Checklist-LEC) could identify significant events that may have occurred in the lives of individuals with high AL and see whether economic events would be among them. Another way to test whether the economic crisis could be classified as a life event would be to conduct interviews with managers who have completed an ALQ questionnaire. Rather than directing them towards a specific leadership - as was done in this study's training intervention - questions asking a. what informed their specific managerial style, b. whether they consider themselves a leader, and c. how they became a leader might indicate noticeable differences in perception between high and low AL managers.

More directly targeted to the economic recessions, a second idea would be to compare changes in authentic leadership during a future recession in a sample of managers in various companies - this, of course, would rely on a fair bit of serendipity in terms of study design. Such research would be beneficial in pin-pointing what about a negative economic climate causes it to have an impact as a life event. Would it be fear specifically for one's own job or financial stability or more a general recognition of instability in the country? By sampling several companies that would presumably be differently affected by the recession, researchers could separate the impact of these

specific perceptions. This research would be particularly useful if it selected companies from various industries including the non-profit industries. Would the economic recession have a differential effect on managers in non-profit organizations which were hit particularly hard by the recession but which also boast a particularly passionate workforce? Furthermore, the impact of the recession should be studied in different global contexts, for example comparing Canada, which was hit relatively mildly, to other nations such as Iceland for whom the crisis represents an on-going detrimental impact.

A third opportunity would be a longitudinal study employing the more recently popularized Event Sampling Methodology (ESM) without any type of intervention. As previously mentioned, this study included the use of diaries to record daily occurrences of transformational leadership, primarily as a learning tool during the three week training intervention. Since the training intervention occurred several months before any serious impact by the recession on the company, there is little to be learned from these diaries beyond the day-to-day effect of training. However, since life events are touted as having an impact on AL, a longitudinal study that includes diaries as well as a regular assessment through use of the ALQ would be extremely beneficial. Studying the development of AL over time, preferably over years and eventually decades, would be a tremendous asset in confirming whether this is indeed a fairly stable construct or whether it continues to develop throughout one's life- questions to which we thus far have only theoretical answers. Such a longitudinal study would also assess the impact of future economic crisis as potential causes of punctuated equilibrium.

A final interesting line of inquiry would be to learn whether authentic leadership would be an asset in coping with negative life events. Avolio and Gardner speculated that

the authentic leader is an asset in times of crisis by "restoring confidence, hope, and optimism; being able to rapidly bounce back from catastrophic events and display resiliency; helping people in their search for meaning and connection by fostering a new self-awareness; and genuinely relating to all stakeholders" (2005, p. 316). Fortuitously, the present research utilized additional scales including motivation and job satisfaction inventories completed by both managers and subordinates. Further statistical analysis beyond the scope of this thesis should test for any significant relationship between change in AL and change in motivation or between the motivation/satisfaction ratings of employees whose managers are either consistently high or low in AL. A motivation scale could also be coupled with the already proposed longitudinal diary or event sample methodology research.

Regardless of what direction future research takes, there are a plethora of avenues for interested academics to join the study of this new leadership construct. I am confident that the field is ready to step beyond Shamir and Eilam's original skepticism that, in the case of authentic leadership, "all definitions are arbitrary. They reflect choices that cannot be proved or validated" (Shamir & Eilam, 2005, p. 395). This preceding study and the majority of the theoretical literature raise enough questions to make the coming decade a fruitful one for authentic leadership research.

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Appendix A- Authentic Leadership Questionnaire

The following survey items refer to your leader's style, as you perceive it.

Judge how frequently each statement fits your leadership style using the following scale:

0	Not at all	Pas du tout
1	Once in a while	Rarement
2	Sometimes	Parfois
3	Fairly often	Assez souvent
4	Frequently, if not always	Souvent, sinon toujours

	As a leader I...	En tant que leader...
Relational Transparency		
RT4	Tell you the hard truth.	Je ne cache pas la vérité.
RT5	Display emotions exactly in line with my feelings.	J'exprime les émotions qui reflètent mes sentiments.
Internalized Moral Perspective		
IM6	Demonstrate beliefs that are consistent with actions.	J'exprime des croyances qui correspondent à mes actions.
IM7	Make decisions based on my core values.	Je prends des décisions basées sur mes valeurs fondamentales.
Balanced Processing		
BP12	Listen carefully to different points of view before coming to conclusions.	J'écoute attentivement tous les points de vue avant de prendre une décision.
Self-Awareness		
SA14	Accurately describe how others view my capabilities.	Je décris précisément comment les autres perçoivent mes capacités.
SA15	Know when it is time to reevaluate my position on important issues.	Je sais lorsque c'est le moment d'évaluer mes prises de position sur des questions importantes.

Appendix B- MLQ (manager inventory)

Please rate the frequency with which you do each of the following behaviors in your role as manager.

0	Not at all	Pas du tout
1	Once in a while	Rarement
2	Sometimes	Parfois
3	Fairly often	Assez souvent
4	Frequently, if not always	Souvent, sinon toujours

Individual Consideration		
IC1	I spend time teaching and coaching.	Je consacre du temps à l'enseignement et au coaching.
IC2	I treat others as individuals rather than just as a member of the group.	Je considère mes subordonnés plutôt comme des individus que comme des membres du groupe.
Inspirational Motivation		
IM1	I talk optimistically about the future.	Je parle avec optimisme de l'avenir.
IM2	I talk enthusiastically about what needs to be accomplished.	Je parle avec enthousiasme de ce qui doit être accompli.
Intellectual Stimulation		
IS1	I re-examine critical assumptions to question whether they are appropriate.	Je réexamine les normes et pratiques pour m'assurer de leur bien- fondé.
IS2	I seek differing perspectives when solving problems.	Je recherche différents points de vue quand je tente de résoudre des problèmes.
Idealized Influence through Attribute		
IIA1	I instill pride in others for being associated with me.	Mes subordonnés sont fiers d'être associés à moi.
IIA2	I go beyond self-interest for the good of the group.	Je vais au-delà de mon propre intérêt pour le bien du groupe.
Idealized Influence through Behavior		
IIB1	I talk about my most important values and beliefs.	Je parle de mes valeurs et convictions les plus importantes.
IIB2	I specify the importance of having a strong sense of purpose.	Je souligne l'importance d'avoir une forte détermination.

Appendix C- MLQ (subordinate inventory)

The following questions pertain to your direct supervisor. Please rate the frequency at which your supervisor enacts the following behaviors. My supervisor..............

0	Not at all	Pas du tout
1	Once in a while	Rarement
2	Sometimes	Parfois
3	Fairly often	Assez souvent
4	Frequently, if not always	Souvent, sinon toujours

Individual Consideration		
IC1	Spends time teaching and coaching.	Passe du temps à l'enseignement et au coaching.
IC2	Treats me as an individual rather than just as a member of a group.	Me considère comme une personne à part entière plutôt qu'un simple membre du groupe.
Inspirational Motivation		
IM1	Talks optimistically about the future.	Parle avec optimisme de l'avenir.
IM2	Talks enthusiastically about what needs to be accomplished.	Parle avec enthousiasme de ce qui doit être accompli.
Intellectual Stimulation		
IS1	Re-examines critical assumptions to question whether they are appropriate.	Réévalue les pratiques de l'entreprise pour questionner leur bon fondement.
IS2	Seeks differing perspectives when solving problems.	Recherche différents points de vue quand il(elle) résout des problèmes.
Idealized Influence through Attribute		
IIA1	Instills pride in me for being associated with him/her.	Me rend fièr(e) d'être associé (e) à lui(elle).
IIA2	Goes beyond self-interest for the good of the group.	Va au-delà de son propre intérêt pour le bien du groupe.
Idealized Influence through Behavior		
IIB1	Talks about his/her most important values and beliefs.	Parle de ses valeurs et convictions les plus importantes.
IIB2	Specifies the importance of having a strong sense of purpose.	Souligne l'importance d'avoir une forte détermination.

Appendix D- Manager Consent Form

CONSENT TO PARTICIPATE IN THE MANAGER SURVEY

This is to state that I agree to participate in a program of research being conducted by Professor Marylène Gagné of the Department of Management, John Molson School of Business at Concordia University. Phone: 514-848-2424 ext. 2484. Email: mgagne@jmsb.concordia.ca.

A. PURPOSE

I have been informed that the purpose of the research is to examine the best supervision methods to increase the engagement and well-being of employees.

B. PROCEDURES

This research consists of administering a survey to managers and employees at Miranda Technology Inc. You are being asked to complete at this time the Manager Survey. This survey will take you approximately 10 minutes to complete. It is recommended that you complete the survey in one sitting. You will notice that many questions seem to be repeated in the survey. Although we agree that this may be somewhat frustrating to answer the seemingly same question more than once, we have to do it this way in order to ensure that we have reliable results. We therefore ask you to answer ALL questions in the survey so that we can provide reliable and valid results to Miranda.

Although you are being sent a personalized email, we will identify your survey responses by a code we have assigned to you in order to preserve the confidentiality of your responses. Miranda will not receive any individual responses, but will instead receive a report of aggregated results. We have signed a confidentiality agreement with Miranda that protects your identity and protects Miranda's identity in any resulting presentation or publication of the results in scientific journals. The data is collected on a secured server located at Concordia University and will be processed on secured computers.

C. RISKS AND BENEFITS

There are no anticipated risks to you associated with participating in this survey. Your participation will yield many benefits: It will provide useful feedback that can be used in training. It will provide data to test new management ideas. It will give useful feedback to Miranda. You may benefit in the long run by helping Miranda improve its practices.

D. CONDITIONS OF PARTICIPATION

• I understand that I am free to withdraw my consent and discontinue my participation at anytime without negative consequences. • I understand that my participation in this study is confidential (i.e., the researcher will know, but will not disclose my identity).

• I understand that the data from this study may be published in academic journals and conferences, without disclosing my identity or the identity of my company.

I HAVE CAREFULLY STUDIED THE ABOVE AND UNDERSTAND THIS AGREEMENT. I FREELY CONSENT AND VOLUNTARILY AGREE TO PARTICIPATE IN THIS STUDY. COMPLETING THIS SURVEY CONSTITUTES CONSENT ON MY PART.

If at any time you have questions about your rights as a research participant, please contact Adela Reid, Research Ethics and Compliance Officer, Concordia University, at (514) 848-2424 x7481 or by email at areid@alcor.concordia.ca.
(you can print this page for your records)

Appendix E- Employee Consent Form

CONSENT TO PARTICIPATE IN THE EMPLOYEE EXPERIENCE SURVEY.

This is to state that I agree to participate in a program of research being conducted by Professor Marylène Gagné of the Department of Management, John Molson School of Business at Concordia University. Phone: 514-848-2424 ext. 2484. Email: mgagne@jmsb.concordia.ca.

A.PURPOSE.

I have been informed that the purpose of the research is to examine the best supervision methods to increase the

engagement and well-being of employees.

B. PROCEDURES.

This research consists of administering a survey to managers and employees at Miranda Technology Inc. You are being asked to complete at this time the Employee Experience Survey. This survey will take you approximately 30 minutes to complete. It is recommended that you complete the survey in one sitting. You will notice that many questions seem to be repeated in the survey. Although we agree that this may be somewhat frustrating to answer the seemingly same question more than once, we have to do it this way in order to ensure that we have reliable results. We therefore ask you to answer ALL questions in the survey so that we can provide reliable and valid results to Miranda.

Although you are being sent a personalized email, we will identify your survey responses by a code we have assigned to you in order to preserve the confidentiality of your responses. Miranda will not receive any individual responses, but will instead receive a report of aggregated results. We have signed a confidentiality agreement with Miranda that protects your identity and protects Miranda's identity in any resulting presentation or publication of the results in scientific journals. The data is collected on a secured server located at Concordia University and will be processed on secured computers.

C. RISKS AND BENEFITS.

There are no anticipated risks to you associated with participating in this survey. Your participation will yield many benefits: It will provide useful feedback that can be used in training. It will provide data to test new management ideas. It will give useful feedback to Miranda. You may benefit in the long run by helping Miranda improve its practices.

D. CONDITIONS OF PARTICIPATION.

• I understand that I am free to withdraw my consent and discontinue my participation at anytime without negative consequences.

• I understand that my participation in this study is confidential (i.e., the researcher will know, but will not disclose my identity).

• I understand that the data from this study may be published in academic journals and conferences, without disclosing my identity or the identity of my company.

I HAVE CAREFULLY STUDIED THE ABOVE AND UNDERSTAND THIS AGREEMENT. I FREELY CONSENT AND VOLUNTARILY AGREE TO PARTICIPATE IN THIS STUDY. COMPLETING THIS SURVEY CONSTITUTES CONSENT ON MY PART.

If at any time you have questions about your rights as a research participant, please contact Adela Reid, Research Ethics and Compliance Officer, Concordia University, at (514) 848-2424 x7481 or by email at areid@alcor.concordia.ca..
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