

**EXAMINING THE RELATIONSHIP BETWEEN AUTHENTIC LEADERSHIP
BEHAVIORS AND FOLLOWER EMPLOYEE ENGAGEMENT**

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Abstract

Improving employee engagement has become a major concern for organizational leaders, and HR practitioners are challenged with choosing the most appropriate interventions in an effort to optimize employee engagement. Authentic leadership development theory is a recently documented theory of leadership. Although several researchers have identified the theoretical link between authentic leadership behaviors and follower/employee engagement, there is a problem with a lack of understanding whether a relationship exists between authentic leadership behaviors and follower/employee engagement. The purpose of this research was to fill a gap in the literature by identifying whether authentic leadership behaviors are linked to employee engagement within organizational settings in Canada. The participants were employees from organizations that have participated in the Best Small and Medium Employers in Canada study. The results of this quantitative study indicate a significant, yet moderate, correlation between authentic leadership behavior and follower/employee engagement. These findings will assist HR practitioners in adjusting leadership practices in selection and development with respect to the components of authentic leadership to ensure the optimization of leadership behaviors that enhance follower/employee engagement and organizational performance.

Dedication

I dedicate this dissertation to my parents, Ken and Ella Murray. Your belief in my potential inspired me to pursue higher education.

Acknowledgments

First, I would like to thank Dr. Donald Wilson, my husband, advisor, and most avid supporter. I am grateful to have been the beneficiary of your wisdom. Without you, I could not have got this far.

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CHAPTER 1. INTRODUCTION

Introduction to the Problem

Improving employee engagement has been identified as a top priority for organizational leaders and human resources practitioners in recent years (Attridge, 2009; Christian, Garza, & Slaughter, 2011; Harter & Blacksmith, 2010; Saks, 2006). Those conducting research in the fields of leadership and engagement have identified leadership as one of the major drivers of employee engagement (Attridge, 2009; Kahn, 1990; Macey & Schneider, 2008; May, Gilson, & Harter, 2004; Saks, 2006; Schaufeli & Bakker, 2004a). Given the perceived relationship among leadership behaviors and employee engagement, there is a need to understand which leadership behaviors will optimize follower/employee engagement. In the current study I explored the existence and extent of authentic leadership behaviors and their relationship to follower/employee engagement within organizational settings.

A discussion of the background of the current topic includes details of importance with respect to the study of leadership and engagement. Leaders who demonstrate the key dimensions of authenticity have the potential to foster a more engaged workforce (Alok & Israel, 2012; Giallonardo, Wong, & Iwasiw, 2010; Walumbwa, Wang, Wang, Schaubroeck, & Avolio, 2010; Wang & Bird, 2011; Wong & Cummings, 2009a; Wong, Spence Laschinger, & Cummings, 2010). There is a lack of empirical knowledge as to

which leadership behaviors have a stronger influence on follower/employee engagement (Harter & Blacksmith, 2010; Saks, 2006). The knowledge gained from the current research will assist human resource practitioners to identify leadership behaviors linked to employee engagement and may be used to shape human resource practices in selecting, developing, and rewarding authentic leadership behaviors linked to greater levels of engagement.

Chapter 1 contains a brief discussion of the research design and method. A more detailed discussion is found in Chapter 3. Chapter 1 also includes a description of the population, the research method, and the key variables. I also state the hypothesis, research questions, and the null and alternative hypotheses and discuss the definitions, assumptions, and limitations.

Background of the Study

Improving employee engagement has become a major focus for organizational leaders and human resources practitioners in recent years, given the benefits of increased engagement (Attridge, 2009; Christian et al., 2011; Harter & Blacksmith, 2010; Saks, 2006). Included in several studies are the relationships between employee engagement contrasted against a variety of positive outcomes at the individual (Bakker & Bal, 2010) and organizational levels (Harter, Schmidt, Asplund, Killham, & Agrawal, 2010; Harter, Schmidt, & Hayes, 2002). Despite the positive organizational outcomes of engagement, increased interest in the topic is due, in part, to the prevalence of employee disengagement in organizations today, demonstrated by Towers Perrin (2008) and BlessingWhite, Inc. (2008) reporting that the majority of employees are not fully

engaged. Given the employee engagement challenge in organizations today, researchers and practitioners need to understand which factors will optimize follower/employee engagement.

There is evidence in literature that leadership is a key factor in follower outcomes such as engagement (Attridge, 2009; Kahn, 1990; Macey & Schneider, 2008; May et al., 2004; Saks, 2006; Schaufeli & Bakker, 2004a); however, a lack of knowledge on the leadership behaviors that have a strong influence on the level of follower/employee engagement exists (Harter & Blacksmith, 2010; Saks, 2006). Part of the problem may be that employee engagement has primarily been a practitioner-led concept and, although academic researchers are now becoming more interested in the topic (Attridge, 2009; Macey & Schneider, 2008), there remains a dearth of research on leadership behaviors and follower engagement in the academic literature (Harter & Blacksmith, 2010; Saks, 2006).

Theoretical Framework

The theoretical framework (Figure 1) for the current research is *positive psychology*. The study of positive psychology is focused on increasing individuals' overall happiness and making them more productive by identifying and developing their individual strengths. Positive psychology theory emerged at the turn of the century with the study and measurement of positive states in the workplace (Luthans & Avolio, 2003; Seligman & Csikszentmihalyi, 2001). For the theoretical framework of the current research I integrated Walumbwa, Avolio, Gardner, Wernsing, and Peterson's (2008)

conceptualization of authentic leadership with Schaufeli and Bakker's (2004a) concept of work engagement. Schaufeli and Bakker proposed that the demonstrated use of authentic leadership creates authentic relationships and fosters employee engagement in an organizational context (Giallonardo et al., 2010).

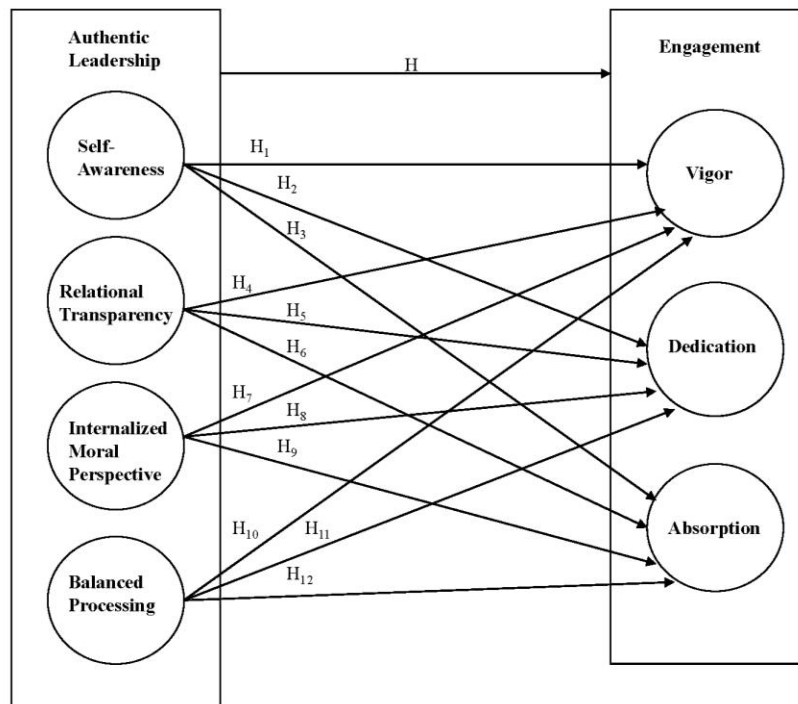


Figure 1. Theoretical framework and postulated relationships.

The two constructs that I have selected for this study, authentic leadership and employee engagement, have a theoretical basis in positive psychology and emerged with the study and measurement of positive states in the workplace. *Authentic leadership* is defined as the behavior of individuals who act in accordance with what they believe and encourage positive psychological abilities and a fair environment, while promoting

greater self-awareness, trust, openness, high moral standards, and objectivity in working with their followers in an organizational context (Walumbwa et al., 2008). *Employee engagement* is defined as an individual's positive affective-cognitive work-related state of mind, characterized by vigor, dedication, and absorption (Schaufeli, Salanova, & González-Romá, 2002).

Statement of the Problem

Given the perceived relationships among leadership behaviors, employee engagement, and organizational performance, researchers and practitioners need to understand which leadership behaviors will optimize follower/employee engagement and organizational performance. Authentic leadership development theory is a recently documented theory of leadership. The problem is the lack of knowledge on whether authentic leadership behaviors are related to employee engagement. Although several researchers have identified the theoretical link between authentic leadership behaviors and follower/employee engagement (Avolio, Gardner, Walumbwa, Luthans, & May, 2004; Gardner, Avolio, Luthans, May, & Walumbwa, 2005; Walumbwa et al., 2008), only a few empirical studies have tested the relationship (Alok & Israel, 2012; Giallonardo et al., 2010; Walumbwa, Wang et al., 2010; Wang & Bird, 2011; Wong & Cummings, 2009a; Wong et al., 2010). This lack of knowledge suggests that more research needs to be conducted on the relationship between authentic leadership and follower outcomes such as engagement.

Purpose of the Study

The purpose of the current study was to determine the existence and extent of authentic leadership behaviors and their relationship to follower/employee engagement within organizational settings. The problem is the lack of knowledge to be able to answer the question of whether authentic leadership behaviors have an impact on follower outcomes such as engagement. Specifically, this research study has helped to fill the identified gap in the literature by identifying whether or not authentic leadership behaviors are linked to high levels of employee engagement within organizational settings in Canada, and if so, to what extent.

The current study complements previous research focused on authentic leadership and employee engagement, because only four empirical studies (Alok & Israel, 2012; Wang & Bird, 2011; Wong & Cummings, 2009a; Wong et al., 2010) included the examination of the mediating relationship between the two variables, and two empirical studies (Giallonardo et al., 2010; Walumbwa, Wang et al., 2010) included the testing of the direct relationship between authentic leadership behaviors and engagement. The current research will also add to the limited knowledge on authentic leadership theory and employee engagement by increasing the understanding of the correlation among all of the components of authentic leadership and engagement. I was able to find only one study (Giallonardo et al., 2010) that measured the relationship between the subscales of the Authentic Leadership Questionnaire ([ALQ] Walumbwa et al., 2008) and the subscales of the Utrecht Work Engagement Scale ([UWES] Schaufeli et al., 2002). The current research will also append quantitative studies on authentic leadership and

employee engagement conducted in organizational settings in Canada. There are only three Canadian studies (Giallonardo et al., 2010; Wong & Cummings, 2009a; Wong et al., 2010) which have been conducted within the topic.

Significance of the Study

An understanding of existence, direction, and the strength of the relationship between authentic leadership and employee engagement has value for organizational leaders and human resources professionals. I expected the results of this research study to show a positive correlation between authentic leadership and follower engagement: The more that the leader demonstrates authentic behavior; the more engaged his or her followers will be in their work roles. Leaders who demonstrate the key components of authenticity (self-awareness, relational transparency, internalized moral perspective, and balanced processing) have the potential to encourage follower engagement and foster positive organizational outcomes. The results from the current study will assist organizational leaders in understanding which leadership behaviors are linked to high levels of employee engagement. The knowledge gained from the current study may also be used to develop human resource practices in leadership development and selection.

The current research has contributed to authentic leadership development theory and engagement research in the fields of industrial/organizational psychology, occupational health psychology, and positive psychology. Only a few studies in the fields of leadership and employee engagement included the exploration of correlations between specific authentic leadership behaviors and follower engagement (Giallonardo et al., 2010; Walumbwa, Wang et al., 2010; Wang & Bird, 2011). The current study has also

added to the limited body of knowledge in the psychological literature and quantitative studies conducted in organizational settings in North America by increasing the understanding of the correlation between authentic leadership and engagement and by testing the current theory on the relationship between the two variables.

Research Design

The research design for the current study was a quantitative, nonexperimental, and correlational. The quantitative research method uses quantitative techniques to generate and test hypotheses using standardized measures to collect, analyze, and interpret the data from a sample of the population. A quantitative, nonexperimental, correlational research design approach is appropriate when the researcher is testing hypotheses using standardized measures to collect, analyze, and interpret the data from a sample of the population in the search for an association or relationship between two variables (Creswell, 2005; Patton, 2002). In this study I conducted correlation statistical analyses to test the strength and direction of the correlation between the variables (authentic leadership behaviors and employee engagement).

I recruited the population for this research from organizations that have participated in the Best Small and Medium Employers in Canada study and were ranked in the Top 50 Best Employers in Canada list. The sample size from this population was based on a certain percentage of the total population to produce accurate research results. I used a nonprobabilistic sampling method of purposive sampling, because I selected the participants for this study for a particular purpose (Leedy & Ormrod, 2005).

After I confirmed the population, I calculated the sample size based upon a confidence level of 95%.

In this research study I used an online and paper research methodology. I began the data collection by contacting the companies that have participated in the Best Small and Medium Employers in Canada study and were ranked in the Top 50 to seek their participation in the study. I sent an e-mail invitation to all of the potential participants and used the Internet survey tool SurveyMonkey™, along with a paper version for one company, to administer a survey. I used the Authentic Leadership Questionnaire (ALQ) (Walumbwa et al., 2008) to assess authentic leadership and the Utrecht Work Engagement Scale (UWES) (Schaufeli et al., 2002) scale to measure engagement. The ALQ is a 16-item questionnaire that measures the four dimensions of authentic leadership: self-awareness, relational transparency, internalized moral perspective, and balanced processing. The UWES is a self-report questionnaire that measures engagement and includes three subscales (vigor, dedication, and absorption) with acceptable psychometric properties.

I included design controls to decrease threats to reliability and validity. Design strategies that increased the reliability were to ensure that I consistently administered the instrument to all participants by using an Internet survey and that the instructions to the participants for completion of the survey were clear. Research design strategies to control for the threat in internal validity included explaining the anonymous nature of the survey to reduce these affects. The features of the research study that I incorporated to decrease the threat to external validity included the participation of employees in the study from a

cross-section of industries and the use of specific demographics (e.g., age). This means that a comparison of the results from this research study to other populations with similar demographics is possible.

I properly stored, secured, and analyzed the data from this survey. Upon the participants' completion of the survey, I downloaded and stored the data on a hard drive and used a secondary backup disc for archiving; I then deleted all of the data on the SurveyMonkey™ website. To confirm that the participants had agreed to participate in the research study and to ensure that the missing data were within acceptable levels, I screened the data. Creswell (2005) explained that the results of statistical analyses remain valid if no more than 15% of the data are missing from the sample. For the current research, I measured all variables at the individual level of analysis using both descriptive and parametric statistics. I used SPSS to calculate the descriptive statistics (such as mean and standard deviation) to determine how similar or varied the data scores are (Creswell, 2005). Pearson's correlation coefficient (r) helped me to determine the strength and direction of the relationships between the two variables (authentic leadership behavior and engagement) by measuring the linear association between the variables for normally distributed data (Creswell, 2005).

This study also controlled for company type as well as demographics. The demographic measures of control included age, gender, position level, and length of service. I performed statistical tests (independent sample t -test and ANOVA) to determine significant relationships when I controlled for the four demographic variables (gender, age, position level, and years of service) and the major study variable (employee

engagement). To determine the strength and direction of the relationships between the variables, I tested the null hypothesis for statistical significance by calculating the partial correlations among the main variables and subscales while controlling for company type.

Research Questions and Hypotheses

Research Question

I selected a quantitative, nonexperimental, correlational research design to assess the relationships between authentic leadership and follower/engagement. The following research question guided this study: Is there a statistically significant relationship between authentic leadership behaviors and follower/employee engagement while controlling for company type?

The following research subquestions included the subscales of authentic leadership and engagement scales:

1. Is there a statistically significant relationship between self-awareness and follower vigor while controlling for company type?
2. Is there a statistically significant relationship between self-awareness and follower dedication while controlling for company type?
3. Is there a statistically significant relationship between self-awareness and follower absorption while controlling for company type?
4. Is there a statistically significant relationship between relational transparency and follower vigor while controlling for company type?
5. Is there a statistically significant relationship between relational transparency and follower dedication while controlling for company type?
6. Is there a statistically significant relationship between relational transparency and follower absorption while controlling for company type?
7. Is there a statistically significant relationship between internalized moral perspective and follower vigor while controlling for company type?

8. Is there a statistically significant relationship between internalized moral perspective and follower dedication while controlling for company type?
9. Is there a statistically significant relationship between internalized moral perspective and follower absorption while controlling for company type?
10. Is there a statistically significant relationship between balanced processing and follower vigor while controlling for company type?
11. Is there a statistically significant relationship between balanced processing and follower dedication while controlling for company type?
12. Is there a statistically significant relationship between balanced processing and follower absorption while controlling for company type?

Hypotheses

In the current study I hypothesized a relationship between authentic leadership behaviors and follower/employee engagement and develop one main hypothesis and several subhypotheses based upon the research question:

1. Hypothesis H0 (Null hypotheses): There is no statistically significant relationship between authentic leadership behaviors and employee engagement while controlling for company type.
2. Hypothesis Ha (Alternate hypotheses): There is a statistically significant relationship between authentic leadership behaviors and employee engagement while controlling for company type.

The following research subhypotheses include the subscales of authentic leadership and engagement scales.

3. Hypothesis H01 (Null hypotheses): There is no statistically significant relationship between self-awareness and follower vigor while controlling for company type.
4. Hypothesis Ha1 (Alternate hypotheses): There is a statistically significant relationship between self-awareness and follower vigor while controlling for company type.
5. Hypothesis H02 (Null hypotheses): There is no statistically significant relationship between self-awareness and follower dedication while controlling for company type.

6. Hypothesis Ha2 (Alternate hypotheses): There is a statistically significant relationship between self-awareness and follower dedication while controlling for company type.
7. Hypothesis H03 (Null hypotheses): There is no statistically significant relationship between self-awareness and follower absorption while controlling for company type.
8. Hypothesis Ha3 (Alternate hypotheses): There is a statistically significant relationship between self-awareness and follower absorption while controlling for company type.
9. Hypothesis H04 (Null hypotheses): There is no statistically significant relationship between relational transparency and follower vigor while controlling for company type.
10. Hypothesis Ha4 (Alternate hypotheses): There is a statistically significant relationship between relational transparency and follower vigor while controlling for company type.
11. Hypothesis H05 (Null hypotheses): There is no statistically significant relationship between relational transparency and follower dedication while controlling for company type.
12. Hypothesis Ha5 (Alternate hypotheses): There is a statistically significant relationship between relational transparency and follower dedication while controlling for company type.
13. Hypothesis H06 (Null hypotheses): There is no statistically significant relationship between Relational transparency and follower absorption while controlling for company type.
14. Hypothesis Ha6 (Alternate hypotheses): There is a statistically significant relationship between Relational transparency and follower absorption while controlling for company type.
15. Hypothesis H07 (Null hypotheses): There is no statistically significant relationship between internalized moral perspective and follower vigor while controlling for company type.
16. Hypothesis Ha7 (Alternate hypotheses): There is a statistically significant relationship between internalized moral perspective and follower vigor while controlling for company type.

17. Hypothesis H08 (Null hypotheses): There is no statistically significant relationship between internalized moral perspective and follower dedication while controlling for company type.
18. Hypothesis Ha8 (Alternate hypotheses): There is a statistically significant relationship between internalized moral perspective and follower dedication while controlling for company type.
19. Hypothesis H09 (Null hypotheses): There is no statistically significant relationship between internalized moral perspective is positively related to follower absorption while controlling for company type.
20. Hypothesis Ha9 (Alternate hypotheses): There is a statistically significant relationship between internalized moral perspective is positively related to follower absorption while controlling for company type.
21. Hypothesis H010 (Null hypotheses): There is no statistically significant relationship between balanced processing and follower vigor while controlling for company type.
22. Hypothesis Ha10 (Alternate hypotheses): There is a statistically significant relationship between balanced processing and follower vigor while controlling for company type.
23. Hypothesis H011 (Null hypotheses): There is no statistically significant relationship between balanced processing and follower dedication while controlling for company type.
24. Hypothesis Ha11 (Alternate hypotheses): There is a statistically significant relationship between balanced processing and follower dedication while controlling for company type.
25. Hypothesis H012 (Null hypotheses): There is no statistically significant relationship between balanced processing and follower absorption while controlling for company type.
26. Hypothesis Ha12 (Alternate hypotheses): There is a statistically significant relationship between balanced processing and follower absorption while controlling for company type.

Assumptions and Limitations

Assumptions

Several assumptions influenced the results of this study. One assumption was that the participants would answer honestly and have a similar understanding of the questions. To increase the likelihood of honest responses, I assured the participants that I would maintain the confidentiality of their responses. In my e-mail invitation to the potential participants, I stated that the completion of the survey indicated informed consent, which would also increase the anonymity of their responses. In addition, I assured them that I would protect their identity to increase the likelihood of honest responses.

Another assumption was that the variable of authentic leadership would produce reliable and valid survey results. Walumbwa et al.'s (2008) ALQ, which assesses an individual's level of authentic leadership, appears to be a reliable and valid instrument. Walumbwa et al. found sufficient evidence from multiple sources that the scale demonstrates empirical validation: construct validity, which includes convergent and divergent validity; predictive validity, which ranges from .26 to .34 for organizational outcomes (organizational citizenship behaviors, organizational commitment, and followers' satisfaction with their supervisors); and internal consistency reliabilities above .70.

A third assumption was that the variable of employee engagement would produce accurate results. The literature (Schaufeli, Bakker, & Salanova, 2006) revealed plenty of support from reviews and analyses of the reliabilities and validities of the UWES that

supported my decision to use the scale for this research project, combined with the fact it is the most often used instrument to measure engagement.

Finally, the last assumption was that the quantitative statistical tests that I selected for this research would be appropriate to measure the relationship between the variables. Prior research studies (e.g., Giallonardo et al., 2010; Walumbwa, Wang et al., 2010) on the relationship between authentic leadership and engagement have used correlational statistics. This evidence supported the choice of correlational statistics for this study. Chapter 3 includes a detailed discussion of the statistical tests that I used.

Limitations

I chose the participants for this study from organizations on the Top 50 Best Employers in Canada list because the criterion for selection for the list is employee engagement. I expected that this specific group would yield a sufficient sample size for collection and to ensure statistical confidence. The results of the collection of data from the employees of organizations on this single list might not be generalizable to other countries, regions, and industries because their level of engagement is likely to be higher than that of employees selected from a random list of Canadian companies.

Delimitations

I selected the participants for this study from organizations on the Top 50 Best Employers in Canada list. The geographic area from which I selected the potential participants included only one geographic area, Canada. The results of the research might reflect the limitations associated with their transferability to other countries.

Several questions in the survey ensured that the participants qualified for inclusion in this research study. These controls included affirmation that they are participating voluntarily and that they are 18 years or older. The participants were required to sign an informed consent statement that assured them that they would remain anonymous. Although the population sample size was to be determined, generalization to all organizations required identification of the population as organizations on the Top 50 Companies in Canada list.

The participants had the right to withdraw from the study. In the current study, I advised the participants of their right to withdraw before they completed the online survey or at any time during the survey. Finally, I maintained the confidentiality, privacy, and anonymity of all participants in the research study (Breakwell, Hammond, Fife-Schaw, & Smith, 2006).

Definition of Terms

The key constructs for the research study are authentic leadership and employee engagement. Walumbwa et al. (2008) defined authentic leadership as behavior that encourages positive psychological abilities and a fair environment while promoting greater self-awareness, trust, openness, high moral standards, and objectivity in working with followers. Schaufeli, Salanova et al. (2002) defined employee engagement as an individual's positive affective-cognitive work-related state of mind, characterized by vigor, dedication, and absorption.

Expected Outcomes

I expected the results of this research study to show that authentic leadership is positively related to follower/employee engagement. I anticipated this positive relationship in the single main hypothesis because of the expected positive link between the overall authentic leadership score and the overall engagement score. This result is consistent with those of previous studies (Walumbwa, Wang et al., 2010). Two studies in the fields of leadership and employee engagement identified positive correlations between specific authentic leadership behaviors and higher levels of employee engagement (Walumbwa, Wang et al., 2010; Wang & Bird, 2011). The current research also has added to the quantitative studies conducted in organizational settings in North America. I expected that the results from all 12 subhypotheses would show positive relationships, that each of the 12 subhypotheses that measured the relationship between the subscales of the ALQ (Walumbwa et al., 2008) and the subscales of the UWES (Schaufeli et al., 2002) would reject the respective null hypothesis, and, conversely, that they would accept the respective alternate hypotheses and detect a statistically significant relationship between the variables.

Chapter 1 Summary

The purpose of this research was to determine whether or not a correlation exists between authentic leadership and employee engagement and, if so, the direction and strength of the relationship. Research that has been conducted in the fields of leadership and engagement includes the identification of leadership as one of the major drivers of employee engagement (Attridge, 2009; Kahn, 1990; Macey & Schneider, 2008; May

et al., 2004; Saks, 2006; Schaufeli & Bakker, 2004b). Authentic leadership development theory has been recently documented. Although several researchers have identified the link between authentic leadership behaviors and follower/employee engagement (Avolio et al., 2004; Gardner et al., 2005; Walumbwa et al., 2008), the problem is the lack of knowledge to definitively answer the question of whether authentic leadership behaviors are related to employee engagement, because only a few studies have explored the relationship (Alok & Israel, 2012; Giallonardo et al., 2010; Wang & Bird, 2011; Walumbwa, Wang et al., 2010; Wong & Cummings, 2009a; Wong et al., 2010). I selected a quantitative, nonexperimental, correlational research design approach because I searched for an association or relationship between two variables (Creswell, 2005) by testing hypotheses through the use of standardized measures to collect, analyze, and interpret the data from a sample of the population. In this nonexperimental study, I collected data from a survey that I made available to members of organizations that have participated in the Best Small and Medium Employers in Canada study and that were ranked in the Top 50 on the Best Employers in Canada list. After the data collection, I conducted correlation statistical analyses to test the strength and direction of the correlation between the two variables (authentic leadership behaviors and employee engagement).

CHAPTER 2. LITERATURE REVIEW

Chapter 2 reviews the literature on the dimensions of employee engagement and authentic leadership that I explored to answer the research question and sub-questions identified in Chapter 1. In Chapter 1 I discussed the theoretical orientation for the research study. In Chapters 2 and 3 I will review the current relevant literature on each variable (employee engagement and authentic leadership); discuss the conceptualizations, measurements, and outcomes of each; address the control variables (company type and demographics) in this research; review the methodological literature relevant to the study; and present a synthesis of the research findings.

Documentation

I conducted a search of the current literature using databases and reference materials. I used more than 10 databases in the Capella University's online library system. The databases included (but were not limited to) EBSCOhost-Psych articles, Psych Books, Psych Info E books, Academic Search Premier, Business Source Complete, Socio INDEX, Sage Journals, ProQuest Dissertations & Theses, and Dissertations and Theses @ Capella. In the global online libraries I searched the following journals: *Academy of Management Journal*, *Canadian Psychology Journal of Organizational Behavior*, *Consulting Psychology Journal: Practice and Research*, *Human Resource Development Quarterly*, *Industrial and Organizational Psychology*, *Journal of Applied*

Psychology Journal of Business & Psychology, Journal of Educational Psychology, Journal of Happiness Studies, Journal of Leadership Studies, Journal of Leadership & Organizational Studies, Journal of Management, Journal of Managerial Psychology, Journal of Nursing Management, Journal of Positive Psychology, Journal of Psychology, Journal of Occupational & Organizational Psychology, Journal of Occupational Health Psychology, The Leadership Quarterly, and Work & Stress. The search terms that I used were relevant to this research topic (but not limited to the following): *engagement, employee engagement, job engagement and work engagement, leadership, authentic leadership, authentic leadership development theory, positive psychology and authentic leadership and engagement.* A final search in Google Scholar yielded a few additional articles specific to the proposed research, which verified that the literature search was exhaustive and thorough.

Theoretical Orientation for the Study

The theoretical basis for this research study is positive psychology theory. The study of positive psychology is focused on increasing individuals' overall happiness and making them more productive by identifying and developing their individual strengths (Luthans & Avolio, 2003; Seligman & Csikszentmihalyi, 2001). The formalization of the positive psychology discipline grew from the need for balance in the psychological literature (Gable & Haidt, 2005), because traditional psychology had focused primarily on human pathology, or the limitations and weaknesses of people, which resulted in a set of theories and practices that described and explained remedies for specific human problems (Cameron, Dutton, & Quinn, 2005; Seligman & Csikszentmihalyi, 2001). For

example, Schaufeli and Bakker (2004a) asserted that in the *Journal of Occupational Health Psychology* the negative work-related outcomes article outnumber the positive outcomes by a ratio of 15 to 1.

Employee engagement has its roots in positive psychology (Seligman & Csikszentmihalyi, 2001) and occupational health psychology (Schaufeli & Bakker, 2004a), and it is a commonly used construct in industrial/organizational psychology research. Schaufeli et al. (2002) defined employee engagement as an individual's positive affective-cognitive work-related state of mind, characterized by vigor, dedication, and absorption. The increased attention to engagement occurred as a result of the positive psychology movement at the turn of the century and with the study and measurement of positive states in the workplace (Luthans & Avolio, 2003; Macey & Schneider, 2008; Seligman & Csikszentmihalyi, 2001). For example, the positive psychology movement prompted a shift in research on *burnout* by shifting the focus from the negative (e.g., burnout) aspects of work to the positive (e.g., engagement) aspects. Burnout can be described as mental weariness, which is defined by three dimensions: exhaustion (fatigue), cynicism (indifference or a distant attitude towards work), and lack of professional efficacy (social and nonsocial components of work accomplishments; Maslach, Schaufeli, & Leiter, 2001). The shift in focus in optimal functioning has also aroused attention in industrial/organizational psychology. For example, Luthans (2002) identified a need for "the study of positively oriented human resource strengths and psychological capacities that can be measured, developed, and effectively managed for performance improvement in today's workplace" (p. 698).

Authentic leadership development theory also has its conceptual roots in positive psychology (Avolio & Gardner, 2005; Luthans & Avolio, 2003). Authentic leadership is defined as the behavior of individuals who act in accordance with what they believe and encourage positive psychological abilities and a fair environment, while promoting greater self-awareness, trust, openness, high moral standards, and objectivity in working with their followers in an organizational context (Walumbwa et al., 2008). Luthans and Avolio asserted that individuals who regularly demonstrate positive-capacity behaviors (such as confidence, optimism, and hope) and identify strengths in themselves and others have a positive impact on their followers. For example, Buckingham and Coffman (1999) suggested that leaders who have adopted a strengths-based approach to employee development see the greatest gains in employee engagement.

The positive psychology framework of this research study will integrate Walumbwa et al.'s (2008) conceptualization of authentic leadership with Schaufeli and Bakker's (2002) concept of work engagement, which proposes that authentic leadership creates authentic relationships and fosters employee engagement in an organizational context (Giallonardo et al., 2010). A positive psychology perspective is most appropriate for this research study because both variables (authentic leadership and employee engagement) in the study have foundational roots in positive psychology. Prior researchers (e.g., Gardner et al., 2005) have identified follower engagement as an outcome of authentic leadership (Gardner, Cogliser, Davis, & Dickens, 2011).

Employee Engagement

Researchers have not yet agreed on a single definition or model of employee engagement, and a review of the research revealed a number of conceptualizations of engagement (employee, job, personal, or work; Kahn, 1990; Macey & Schneider, 2008; Saks, 2006; Schaufeli et al., 2002; Serrano & Reichard, 2011). Although Macey and Schneider contended that the number of competing definitions of engagement in both the academic and practitioner literature has resulted from the relative newness of the construct, some significant conceptualizations of engagement are worthy of review. In the first section of this literature review I will clarify the various conceptualizations by reviewing some of the most common definitions found in the literature (Kahn, 1990; Maslach et al., 2001; Schaufeli et al., 2002). Finally, I will present a rationale for my selection of Schaufeli et al.'s conceptualization of engagement for this research study.

Conceptualizations of Employee Engagement

Kahn (1990) conceptualized the first model of employee engagement and disengagement in the workplace. He defined personal engagement as the state of being psychologically present by investing physical, emotional, and cognitive energy in the work role and personal disengagement as the state of being psychologically absent or withdrawing physical, emotional, and cognitive energy from the work role. To understand the conditions of work in which people are likely to show personal engagement in their role, Kahn conducted two qualitative studies involving summer camp counselors [$n = 16$] and members of an architectural firm [$n = 16$]). He identified three psychological conditions that are positively correlated with personal engagement at work:

(a) psychological meaningfulness (individuals' perceptions of what they will get in return for their efforts); (b) psychological safety (individuals' perceptions that their efforts are free from negative consequences); and (c) psychological availability (individuals' perceptions that they have physical, emotional, or psychological support and resources; Kahn, 1990). Although Kahn presented a comprehensive model of engagement, he did not propose an operationalization of the construct.

Although many current definitions of engagement have been influenced by Kahn's (1990) seminal work, most contemporary research on engagement has been influenced by research on burnout (Bakker & Schaufeli, 2008). The positive psychology movement prompted Maslach et al. (2001) to expand their concepts of burnout from employees' unwell-being (burnout) to employees' well-being (engagement). The three dimensions of burnout (exhaustion, cynicism, and lack of professional efficacy) are characterized by the three engagement dimensions (energy—investment of a high level of resources in the task; involvement—a positive, attentive response to work; and efficacy—the feeling of competence and ability to perform tasks).

Schaufeli et al.'s (2002) conceptualization of engagement is a revision of Maslach et al.'s (2001) approach. Schaufeli et al. disagreed with the fact that the same questionnaire was used to assess both burnout and engagement and argued that the relationship between the constructs cannot be empirically studied when they are measured by the same questionnaire (Schaufeli & Bakker, 2004b). Schaufeli et al. described employee engagement as an independent construct defined by an individual's positive affective-cognitive work-related state of mind and characterized by the three

dimensions of: vigor, dedication, and absorption. Vigor refers to an individual's level of energy, effort, and persistence (Schaufeli et al., 2006). For example, an individual whose vigor is high will invest a considerable amount of time, energy, and persistence in completing job tasks (Schaufeli & Bakker, 2004b; Schaufeli et al., 2002). Vigor is considered the direct opposite of the burnout dimension of exhaustion (Maslach et al., 2001). Dedication refers to an individual's enthusiasm, feeling of pride, or inspiration for his or her work. For example, a person whose dedication is high will find meaning and purpose in his or her work (Schaufeli & Bakker, 2004b; Schaufeli et al., 2002). Dedication is considered the direct opposite of the burnout dimension of cynicism (Maslach et al., 2001). Absorption refers to an individual's happiness and immersion in his or her work that results in difficulty detaching from it. For example, an individual whose absorption is high will lose track of time when he or she is working (Schaufeli & Bakker, 2004b; Schaufeli et al., 2002). Absorption is considered a distinct aspect and not considered the opposite of professional efficacy (Maslach et al., 2001).

I found other definitions of engagement in the academic literature (Demerouti, Bakker, Vardakou, Kantas, 2003; Macey & Schneider, 2008; May et al, 2004; Saks, 2006) and practitioner literature (Towers Perrin, 2008, among others). For example, Macey and Schneider suggested that employee engagement is a multidimensional construct that encompasses state, trait, and behavioral dimensions, along with work and organizational conditions. State engagement refers to an individual's level of energy, involvement, and investment of self in his or her work (Macey & Schneider, 2008). Trait engagement refers to an individual's dispositional influences (such as proactive

personality or conscientiousness; Macey & Schneider, 2008). Behavioral engagement refers to an individual's going above and beyond what is expected of him or her, being proactive, or taking the initiative (Macey & Schneider, 2008).

With so many competing constructs in both the academic literature and the practitioner community, it is important that quantitative researchers select the most appropriate conceptualization that can be operationalized (or measured) for their quantitative research project. Given that many of the engagement conceptualizations are based on Kahn's (1990) seminal work, in which he suggested that engagement is related to a person's investment of physical, emotional, and cognitive resources at work (see, e.g., May et al., 2004; Saks, 2006; Schaufeli et al., 2002), one might consider Kahn's conceptualization the best choice for this research project. However, Kahn's conceptualization of engagement cannot be operationalized.

I selected Schaufeli et al.'s (2002) conceptualization for this research study partly because it is the most widely used conceptualization of engagement among academic researchers in industrial/organizational psychology (Christian et al., 2011). I also chose Schaufeli et al.'s conceptualization because it can be operationalized, builds upon the previous work of Maslach et al. (2001) in occupational health psychology, and is defined by an individual's positive affective-cognitive work-related state of mind, which is the most appropriate definition to adopt for a research study based on a positive psychology perspective.

In the first section of this literature review, I reviewed the conceptualizations of engagement. The most significant conceptualizations of engagement (Kahn, 1990;

Maslach et al., 2001; Schaufeli et al., 2002) were presented to clarify the various conceptualizations found in the literature and to provide support for my selection of Schaufeli et al.'s (2002) conceptualization of engagement for this research study. I selected Schaufeli et al.'s (2002) conceptualization of engagement for this study because it has evolved as a conceptualization based on refinements of prior research, it is recognized as the most commonly used conceptualizations in the academic literature, it can be operationalized as a construct and is defined in positive psychology theory as a positive state. For these reasons, Schaufeli et al.'s (2002) conceptualization of engagement was the most appropriate conceptualizations for a research study based on the positive psychology framework

Measurements of Engagement

A review of the literature revealed several measurement instruments that have operationalized the engagement construct. Psychological research uses measurement instruments to measure, observe, and document data (Creswell, 2005). In this section I will review some of the most common tools for measuring engagement (e.g., Maslach et al., 2001; Schaufeli et al., 2002) that I found in the psychological and practitioner literature. Finally, I will discuss my rationale for selecting the measurement of engagement that I did for this research study.

Maslach et al.'s (2001) conceptualization of employee engagement as the direct opposite of burnout (characterized by the three engagement dimensions of energy, involvement, and efficacy) can be operationalized using the Maslach Burnout Inventory

([MBI] Maslach & Jackson, 1986; as cited in Maslach et al., 2001). Maslach and Jackson developed the MBI and have since modified it; the latest version is more generic and is known as the Maslach Burnout Inventory General Survey ([MBI-GS] Schaufeli, Leiter, Maslach, & Jackson, 1996; as cited in Maslach et al., 2001). In the MBI-GS, high scores on exhaustion and cynicism and low scores on professional efficacy suggest burnout (Schaufeli & Bakker, 2004a).

Schaufeli et al.'s (2002) conceptualization of engagement led to their development of a self-report questionnaire, the UWES, which includes the three dimensions of engagement: vigor, dedication, and absorption. Originally, the UWES included 24 items, but after psychometric evaluation, 7 items were eliminated, and 17 remained (Schaufeli et al., 2002): Vigor (VI, 6 items), Dedication (DE, 5 items), and Absorption (AB, 6 items). The UWES-17 was then reduced to the latest version, the UWES-9, which is a 9-item questionnaire that measures the three dimensions of engagement (Schaufeli et al., 2006). Schaufeli et al. used a 7-point Likert scale ranging from 0 (*not at all*) to 6 (*always*) in their questionnaire, in which they asked the participants to assess their level of engagement. For example, one item reads, "At work, I feel bursting with energy" (vigor).

Many other measurements of engagement are discussed in the academic (e.g., Demerouti et al., 2003; Harter et al., 2002; May et al., 2004; Saks, 2006) and practitioner literature, because many consulting firms (such as BlessingWhite, Inc., 2008, and Towers Perrin, 2003) have also developed their own proprietary survey tools to measure employee engagement (Attridge, 2009; Saks, 2006; Stairs & Galpin, 2010). For

example, Gallup researchers developed the Gallup Workplace Audit ([GWA] The Gallup Organization, 1992-1999; as cited in Harter et al., 2002) to measure employee engagement and satisfaction in the workplace. It consists of 12 items. Although the GWA has gained popularity in recent years and is considered a reliable and valid measure of engagement (Buckingham & Coffman, 1999; Harter et al, 2002), Macey and Schneider (2008) argued that the measurement instruments from Gallup and the consulting firms (e.g., Towers Perrin, 2003) measure descriptive items about the work conditions that are more related to job satisfaction than to engagement.

For this research study I selected the UWES (Schaufeli et al., 2002) as the measurement instrument to assess level of engagement. Prior to selecting a measurement instrument, researchers must review its validity and reliability, the reasons for its use, and its scores to determine whether the instrument is the most appropriate tool for their research project (Creswell, 2005; Kaplan & Saccuzzo, 2005). I will review and analyze the reliability and validity of the UWES next.

Researchers have a responsibility to ensure that the measurement that they select for their projects is reliable. They determine its reliability by the consistency and stability of the instrument and whether a collection of people can replicate the uniformity of a set of measurements over time (American Educational Research Association, American Psychological Association, and National Council on Measurement in Education, 1999). Schaufeli et al. (2006) reviewed data from 27 studies that were carried out between 1999 and 2003 in 10 countries (Australia, Belgium, Canada, Finland, France, Germany, The Netherlands, Norway, South Africa, and Spain; $N = 14,521$) to study the psychometric

properties of the new shorter version of the UWES, the UWES-9. Schaufeli et al.'s report on the internal consistency reliability revealed sufficient evidence that the UWES-9 instrument was measuring the same construct as the UWES-17 had. One of the most common forms of reliability is an internal consistency estimate (Henson, 2001), which is the extent to which all of the instrument items are measuring the same construct (Henson, 2001). The majority of the UWES's internal consistency reliabilities that Schaufeli et al. reported were above .70, which is evidence of the UWES's reliability as a measurement instrument. The acceptable reliability coefficient scores should fall between .60 and .70 when different groups' mean scores (internal consistency coefficient) are measured (Aiken & Groth-Marnat, 2006). Schaufeli et al. (2006) reported that the UWES-9 scale scores also had good test-retest reliability.

Validity is the degree to which the instrument measures what it is intended to measure. It gives the researcher meaningful information to be able to draw appropriate conclusions (American Educational Research Association et al., 1999; Creswell, 2005). The factorial validity of the UWES-9 was demonstrated using confirmatory factor analyses in several countries. For example, Schaufeli et al. (2006) compared a one-factor model in which they based the items on a single factor (engagement) with a second-order factor model in which they loaded the items into their respective factors. They found that the three-factor structure across the 10 countries was statistically better than any alternative factor structures.

Validity studies on the UWES-9 have demonstrated a negative correlation with such constructs as burnout and workaholism (Schaufeli & Bakker, 2004b). Schaufeli

et al. (2006) compared a sample ($N = 11,152$) from eight countries to investigate the relationship between work engagement and burnout. The results show that burnout and engagement are negatively correlated and confirm that engagement can be conceived as the positive opposite of burnout. Schaufeli, Taris, and Rhenen (2008) invited 854 middle managers and executives of a Dutch telecom company to participate in their study, and they reported evidence of construct validity on engagement burnout and workaholism; and provided converging evidence that workaholism, burnout, and engagement were three different kinds of employee well-being.

Some authors in the literature examined (e.g., Hallberg & Schaufeli, 2006) also demonstrated evidence of discriminant validity between engagement and other organizational behaviors (job involvement and organizational commitment). Discriminant validity is needed to prove that the test is measuring a unique construct (Kaplan & Saccuzzo, 2005). Leedy and Ormrod (2005) advised researchers to demonstrate that their measurement instruments have validity by measuring two or more of the same constructs in different ways and presenting the correlations among those different measurements. Halbesleben and Wheeler (2008) found that work engagement (measured by the UWES) can be empirically separated from job involvement and organizational commitment in a sample of information technology consultants ($N = 186$). The results of this study supported Macey and Schneider's (2008) argument that engagement is positively correlated with both job involvement and organizational commitment, but not so much as to indicate construct redundancy.

For the current research project I used Schaufeli et al.'s (2002) UWES measurement tool, based on the review and analysis of the reliabilities and validities that I discussed previously. The evidence that supported my decision was their internal consistency reliabilities, which were above .70 and evidence of factorial and discriminate validity. My decision to use the UWES also resulted from Macey and Schneider's (2008) assertion that this measure is one of very few that accurately portray engagement (compared to the measurement instruments of Gallup and the consulting firms) and that it is used the most frequently to measure engagement. Many recent study authors (e.g., Giallonardo et al., 2010; Halbesleben & Wheeler, 2008; Wang & Bird, 2011; Wong & Cummings, 2009b; Wong et al., 2010) in many countries (including Canada) have also validated it..

In the second section of this literature review, I reviewed the measurements of engagement. The most common tools for measuring engagement in the academic (e.g., Maslach et al., 2001; Schaufeli et al., 2002) and practitioner literature,(such as BlessingWhite, Inc., 2008, and Towers Perrin, 2003) were presented to provide support for my selection of the measurement instrument for engagement for this research study. I selected Schaufeli et al.'s (2002) UWES as the tool to measure engagement for this study. The literature and a review and analysis of its reliability and validity offer plenty of evidence to support my decision to use the UWES, and recent literature (e.g., Giallonardo et al., 2010; Halbesleben & Wheeler, 2008; Wang & Bird, 2011; Wong & Cummings, 2009b; Wong et al., 2010) has identified it as the most often used instrument to measure engagement. Furthermore, the UWES operationalizes Schaufeli et al.'s

conceptualization of engagement that I accepted for this project and is therefore the most appropriate measurement tool based on its positive psychology framework.

Current Findings on Employee Engagement

Antecedents of Engagement

A review of the academic literature revealed evidence of antecedents that predict employee engagement. In Kahn's (1990) seminal work, he identified various drivers that have influenced each of the three psychological conditions of meaningfulness, safety, and availability that lead to engagement. He found that task characteristics, role characteristics, and work interactions influence psychological meaningfulness. Interpersonal relationships, group and intergroup dynamics, and the direct supervisor influence psychological safety. Engagement increases in environments where psychological safety is promoted (e.g., in which employees feel accepted and supported by a supportive management style); and physical energy, emotional energy, individual insecurity, and outside lives influence psychological availability.

Appending Kahn's (1990) work, May et al. (2004) reported that job enrichment and role fit are positively related to meaningfulness. For example, a well-designed job held by the right person enhances meaningfulness. Finally, available resources (cognitive, emotional, and physical stressors, as well as learning and development) are positively related to psychological availability (May et al., 2004).

Other researchers have supported the argument that job resources predict engagement (Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007; Bakker, Schaufeli, Leiter, & Taris, 2008; Nahrgang, Morgeson, & Hofmann, 2011; Schaufeli & Bakker,

2004a). For example, Schaufeli and Bakker found a positive relationship between job resources (performance feedback, social support, and supervisory coaching) and engagement among Dutch employees ($n = 112$) from four different organizations. They used structural equation modeling analyses to show that resources (and not job demands) forecast engagement and that engagement moderates the relationship between job resources and the intention to leave a company. In another two-year longitudinal study, Mauno, Kinnunen, and Ruokolainen (2007) investigated work engagement and its antecedents with Finnish health care workers ($n = 409$) and found that job resources more than job demands predict engagement and that job control and organization-based self-esteem are the best lagged predictors of the three dimensions of work engagement. In a third study of managers and executives from a Dutch telecom company, Schaufeli et al. (2008) found evidence that changes in the job resources of social support, autonomy, opportunities to learn and develop, and performance feedback predicted engagement over a period of one year.

Stairs and Galpin (2010) asserted that of all the drivers of engagement, leaders can have the biggest impact because they can influence job resources (such as support, autonomy, or rewards), which been positively related to employee engagement (Bakker et al., 2007; Christian et al., 2011; Harter & Blacksmith, 2010; Harter et al., 2002; Kahn, 1990; May et al., 2004; Schaufeli & Bakker, 2004b). This was consistent with Macey and Schneider's (2008) assertion that leadership behaviors (such as fairness and recognition) have positive effects on follower outcomes such as employee engagement. Kahn also supported this conclusion. He first reported that leaders influence the degree to which

individuals become engaged in their work or the environment, and May et al. also found that leaders influence the conditions for higher employee engagement. Babcock-Roberson and Strickland (2010) and Ismail, Mohamed, Sulaiman, Mohamad, and Yusuf (2011) concurred that leaders influence work outcomes such as employee engagement. For example, when Ismail et al. examined the relationship between transformational leadership (empowerment) and the organizational commitment of employees who worked in a US subsidiary firm in East Malaysia, they found that transformational leadership significantly correlates with organizational commitment (or behavioral engagement).

Serrano and Reichard, (2011) argued that the research on leadership is full of examples of how it influences important employee outcomes such as engagement. However, other researchers such as Harter and Blacksmith (2010) and Saks (2006) contended that, although academic researchers are now becoming more interested in the topic—for example, the first issue of the Canadian research journal *Industrial and Organizational Psychology* focused on the topic of employee engagement (Attridge, 2009; Macey & Schneider, 2008)—there is still a dearth of research on leadership employee engagement in the academic literature.

Much of what has been written about employee engagement in the practitioner literature comes from consulting firms that have also identified the different drivers of employee engagement (Saks, 2006; Stairs & Galpin, 2010). For example, Towers Perrin (2008) identified the top engagement drivers in Canada as (a) senior management's sincere interest in employees' well-being, (b) the organization's reputation for social

responsibility, and (c) input into decision making in my department; (d) improved their skills and capabilities over the last year and (e) understand potential career track within organization. The problem is that the conflicting information in the practitioner literature, combined with the lack of research on employee engagement in the academic literature, has compounded the confusion of HR practitioners and organizational leaders on the greatest drivers of engagement.

Outcomes of Engagement

Improving employee engagement has been identified as a major challenge for human resources practitioners in recent years, given the benefits of an engaged workforce. (Attridge, 2009; Christian et al., 2011; Harter & Blacksmith, 2010; Saks, 2006). Some studies have linked engagement to positive outcomes at the individual (Bakker & Bal, 2010) and organizational levels (Harter et al., 2010; Harter et al., 2002). Examples of positive outcomes at the individual level include Bakker and Bal's finding that teachers' ($n = 54$) daily levels of work engagement predict classroom performance. Performing multilevel analyses confirmed their hypotheses by showing that levels of autonomy, interaction with the supervisor, and developmental opportunities (but not social support) are positively related to engagement, measured on a weekly basis. In another study Rich, Lepine, and Crawford (2010) found that for 245 fighters and their supervisors, engagement mediates the relationships between congruence in values, perceived organizational support, and core self-evaluations and the two job performance dimensions of task performance and organizational citizenship behavior.

At the organizational level, high levels of employee engagement have been linked to reduced employee turnover and greater financial performance and sales (Harter et al., 2002; Harter et al., 2010). For example, Harter et al. used meta-analyses based on 7,939 business units in 36 companies, to examine the relationship the Gallup research data on engagement containing 42 studies from 36 companies and found that the relationship of employee satisfaction and employee engagement at the business-unit level was positively related to customer satisfaction, productivity, profit, employee turnover, and safety across all companies. Then, in a later study, Harter et al. (2010) came to the same conclusions studying another 2,178 business units in 10 companies, with the additional finding that employee engagement is positively related to financial performance.

Despite the enhanced organizational outcomes from engagement, increased interest in the topic is due in part to the prevalence of employee disengagement in organizations today. Kahn (1990) defined personal disengagement as the state of being psychologically absent or withdrawing physical, emotional, and cognitive energy from the work role. Towers Perrin (2008) and BlessingWhite, Inc. (2008) reported that the majority of employees are not fully engaged. For example, Towers Perrin's (2008) global workforce survey of 2007–2008 revealed that 23% of Canadians reported that they were highly engaged, 44% were moderately engaged, 25% were disenchanted (or doing the minimum to get by) and 7% were disengaged. Other studies that the Gallup Organization conducted determined that about 20% of US employees are disengaged from their work, 54% are neutral about their work, and 26% are highly engaged (Buckingham & Coffman, 1999 and BlessingWhite, Inc.) found similar results.

In recent years improving employee engagement has been identified as a top concern for organizational leaders and human resources practitioners (Attridge, 2009; Christian et al., 2011; Harter & Blacksmith, 2010; Saks, 2006). High levels of employee engagement have been linked to organizational outcomes such as reduced turnover and improved financial performance (Harter et al., 2002). The problem is that much of what has been written on employee engagement comes from the practitioner literature and, although academic researchers are now beginning to catch up, there is still a lack of empirical knowledge on employee engagement in the academic literature (Harter & Blacksmith, 2010; Saks, 2006). The knowledge that I have gained from this research has filled the identified gap in the overall topic by assisting organizational leaders and human resources practitioner in identifying the leadership behaviors linked to high levels of employee engagement and can be used to shape human resources practices in leadership selection and development.

Authentic Leadership Development Theory

Leadership theorists attempt to answer the question by explaining the purpose, characteristics, and impact of leaders (Bass, 1990). One of the most recently documented theories of leadership is authentic leadership development. After the corporate scandals and meltdowns in business ethics in recent years, there is an urgent need for a more positive form of leadership and higher standards of integrity and accountability of leaders to restore trust and confidence in the corporate world (Luthans & Avolio, 2003; May, Chan, Hodges, & Avolio, 2003). Walumbwa et al. (2008) defined authentic leadership as behavior that encourages positive psychological abilities and a fair environment while

promoting greater self-awareness, trust, openness, high moral standards, and objectivity as leaders work with followers.

The authentic leadership model is built upon positive psychology (as discussed earlier) and the transformational and ethical leadership theories (Luthans & Avolio, 2003). Burns (as cited in Bass, 2008) first developed the transformational/transactional leadership model, which suggests that leaders influence their subordinates through either of two styles: transactional or transformational (Bass, 1990; Howell & Avolio, 1993; Mandell & Pherwani, 2003). Transformational leaders are charismatic and inspire others to pursue a vision and work towards common goals greater than themselves (Bass & Avolio, 1994). Transformational leadership has four dimensions: (a) idealized influence (or charisma), (b) inspirational motivation, (c) intellectual stimulation, and (d) individualized consideration (Bass & Avolio, 1994).

Brown, Treviño, and Harrison (2005) defined ethical leadership as leaders' role-modeling behaviors such as honesty and fairness and discussing the importance of ethics with their followers, reinforcing ethical behavior, and considering the ethical consequences of their decisions. Furthermore, Brown et al. asserted that because ethical leaders are seen as having credibility as role models, they are seen as sources of guidance.

Conceptualizations of Authentic Leadership

A review of the literature revealed several models and conceptualizations of authentic leadership that have advanced in recent years. I present below a historical overview of some of the most common conceptualizations and how they have converged.

Although the history of authenticity can be linked back to Greek philosophy (e.g., behavior in accordance with one's true self; Harter, 2002), most of the scholarly interest in authentic leadership started with Luthans and Avolio's (2003) conceptualization of authentic leadership and development based on the principles of positive psychology. The study of positive psychology has emerged from the reaction to a focus on the negative or what is wrong and on weaknesses to a focus on an increasing individuals' overall happiness and making them more productive by identifying and developing their individual strengths (Luthans & Avolio, 2003; Seligman & Csikszentmihalyi, 2001). Positive psychology in the field of organizational behavior is called positive organizational behavior, which is defined as the study and application of strengths and psychological capabilities in the workplace that can be managed, measured, and developed to improve performance (Luthans, 2002; Luthans & Avolio, 2003). This differs from traditional organizational behavior in that it highlights the development of state (versus trait) psychological capabilities in individuals and leaders in the organizational context (Cameron, Dutton, & Quinn, 2005; Ilies, Morgeson, & Nahrgang, 2005). From the positive psychology perspective, Luthans and Avolio defined authentic leadership as the state of demonstrating the positive psychological capacities of confidence, hope, optimism, and resilience in an organizational context, which results in greater self-awareness, positive behaviors, and development of self and others.

Social psychologists have also clarified and refined the broader conceptualization of authenticity (e.g., Kernis, 2003). Michael Kernis's conceptualization of authenticity includes four components: awareness (knowledge, of needs, values, strengths, and

emotions); unbiased processing (objectivity and acceptance of one's positive and negative attributes); action (acting in accordance with one's true self); and relational orientation (value for and the achievement of openness in relations). For example, authentic individuals come to know and accept themselves (including their strengths and weaknesses), display high self-esteem, and are comfortable in forming transparent, open relationships with others while demonstrating authentic behavior that is consistent with their values, beliefs, and actions (Kernis, 2003).

Appending Kernis's (2003) theoretical development of authenticity, Ilies et al. (2005) explored the links between authentic leadership and both leaders' and followers' human well-being. They developed a four-component model of essential qualities for authentic leaders that includes self-awareness (awareness and trust in one's own characteristics, values, motives, feelings, and cognitions, strengths and weaknesses); unbiased processing (absence of distortion in processing information on self); authentic behavior/acting (acting in a way that is consistent with one's true self); and authentic relational orientation (openness and truthfulness in relationships with others).

Gardner et al. (2005) developed a self-based model for authentic leader and follower development based on Kernis's (2003) conception of authenticity and consistent with Ilies et al.'s (2005) framework. Gardner et al.'s model emphasized five key components of authentic leadership: self-awareness, self-regulation, balanced processing of information, relational transparency, and authentic behavior. In addition, Avolio and Gardner (2005) asserted that moral development and a development focus (for both the leader and the follower) are required for authentic leader behavior. Authentic

followership is a consequence of authentic leadership, which leaders demonstrate when they act as key role models by ‘walking the talk’ and thereby influencing their followers’ development (Gardner et al., 2005). Luthans and Avolio (2003), May et al. (2003), and Kernis (2003) supported the arguments for moral development.

Built on the prior conceptualizations of authenticity of Avolio and Gardner (2005), Gardner et al. (2005), Ilies et al. (2005), and Luthans and Avolio (2003), Walumbwa et al. (2008) defined authentic leadership as

a pattern of leader behavior that draws upon and promotes both positive psychological capacities and a positive ethical climate, to foster greater self-awareness, an internalized moral perspective, balanced processing of information, and relational transparency on the part of leaders working with followers, fostering positive self-development. (p. 94)

Walumbwa et al.’s (2008) four-component model of authentic leadership development includes (a) self-awareness, (b) internalized moral perspective, (c) balanced processing, and (d) relational transparency. Self-awareness is the ongoing process of authentic leaders’ coming to understand their purpose, values, strengths, and weaknesses and the impacts of these attributes on others (Kernis, 2003; Walumbwa et al., 2008). For example, leaders high in self-awareness are clear about their values and cognizant of their own existence with regard to identity, emotions, and goals by being introspective (self-reflective; Avolio & Gardner, 2005; Gardner et al., 2005).

Internalized moral-perspective behaviors and decisions are a form of self-regulation guided by the leader’s authentic self (values, beliefs, thoughts, and feelings)

rather than pressures from the external environment (such as the organization or society; Gardner et al., 2005; Walumbwa et al., 2008). For example, leaders high in internalized moral perspective have high moral standards and stay true to their core values when they deal with ethical issues (Gardner et al., 2005; Walumbwa et al., 2008). Balancing processing is leaders' ability to objectively interpret all of the information on themselves accurately; solicit views from others, whether they are positive or negative; make decisions; and demonstrate behaviors based on their true selves (values, beliefs, thoughts, and feelings; Gardner et al., 2005; Walumbwa et al., 2008). For example, leaders high in balanced processing objectively analyze all the relevant information before deciding on a course of action (Gardner et al., 2005; Walumbwa, Wang et al., 2010). Relational transparency is leaders' ability to express their true emotions through openness, self-disclosure, and the demonstration of their authentic self and their own vulnerabilities (Walumbwa et al., 2008). For example, leaders high in relational transparency express their true feelings and emotions and present their true selves in their relationships with followers while at the same time minimizing emotions or expressions that might be inappropriate (Kernis, 2003; Walumbwa et al., 2008).

I found other definitions of authentic leadership in the academic literature. For example, authentic leadership theorists Shamir and Eilam (2005) suggested a life-stories approach to the development of authentic leaders and defined them as individuals who demonstrate the following four behaviors: (a) leading as a reflection of their true self, (b) leading from conviction in pursuit of a values-based cause, (c) driven by deeply rooted values that they hold as true and (d) taking action based on their values and

convictions. This conceptualization of authentic leadership contrasts with other definitions that incorporate considerations of morality.

For this research project I have chosen to follow Walumbwa et al.'s (2008) conceptualization of authentic leadership for two primary reasons. First, Walumbwa et al.'s (2008) conceptualization is a refinement of earlier definitions (Gardner et al., 2005; Ilies et al., 2005; Luthans & Avolio, 2003) based in positive psychology. Second, Walumbwa et al.'s (2008) construct of authentic leadership can be operationalized. Therefore, Walumbwa et al.'s (2008) authentic leadership conceptualization is the most appropriate for a quantitative research study based on the positive psychology framework.

In this section of the literature review, I reviewed the conceptualizations of authentic leadership. The most significant conceptualizations of authentic leadership (Gardner et al., 2005; Ilies et al., 2005; Luthans & Avolio, 2003; Walumbwa et al., 2008) were presented to provide a historical overview of some of the most common conceptualizations and how they have converged and to provide support for my selection of Walumbwa et al.'s (2008) conceptualization of authentic leadership for this research study. I selected Walumbwa et al.'s (2008) conceptualization for this study, partly because it builds upon the previous literature, it is the most commonly used conceptualization found in the academic literature, it can be operationalized as a construct and is defined in positive psychology theory as a positive state construct. For these reasons, Walumbwa et al.'s (2008) conceptualization of authentic leadership was

the most appropriate conceptualizations for a research study based on the positive psychology framework.

Measurements of Authentic Leadership

A review of the literature revealed few instruments to measure authenticity. Gardner et al. (2005) identified the two most commonly used measures of authenticity as Goldman and Kernis's (2004, as cited in Kernis, & Goldman, 2006) Authenticity Inventory, Version 3 (AI-3); and Walumbwa et al.'s (2008) ALQ. A review of the two instruments follows.

Goldman and Kernis (2004, as cited in Kernis & Goldman, 2006) developed the Authenticity Inventory, Version 3 (AI-3), to assess the extent to which individuals function in an authentic manner in their daily lives. The AI-3 is a 45-item questionnaire that measures the four dimensions of authenticity: awareness, unbiased processing, behavior, and relational orientation. Goldman and Kernis's questionnaire uses a 5-point Likert-scale that ranges from 1 (*strongly disagree*) to 5 (*strongly agree*) and asks the participants to assess themselves. For example, one item reads, "I am in touch with my motives and desires; I am close to understanding my weaknesses" (awareness). This instrument measures authenticity at the individual level and not an individual's level of authentic leadership.

Walumbwa et al. (2008) developed the ALQ to assess an individual's level of authentic leadership. The ALQ is a 16-item questionnaire that measures the four dimensions of authentic leadership: self-awareness, relational transparency, internalized moral perspective, and balanced processing. Walumbwa et al.'s questionnaire uses a 5-

point Likert scale that ranges from 0 (*not at all*) to 4 (*frequently, if not always*) and asks the participants to assess their supervisors. For example, one item reads, “Solicits views that challenge his or her deeply held positions” (balanced processing). The ALQ is one of the most commonly used measurement instruments in recent authentic leadership studies (Giallonardo et al., 2010; Walumbwa, Wang et al., 2010; Wang & Bird, 2011; Wong et al., 2010).

As I mentioned earlier, prior to selecting an instrument for their research project, researchers must review the instruments’ reliability and validity, the reasons for their use, and their scores (Creswell, 2005; Kaplan & Saccuzzo, 2005). Although Kernis and Goldman (2006) reported acceptable test–retest reliability for the AI-3 as well as acceptable results from a confirmatory factor analysis that indicates that the AI-3 assesses four distinct, but related authenticity components, I have selected Walumbwa et al.’s (2008) ALQ as the measurement instrument over the AI-3 for this research project because the ALQ measures authentic leadership behaviors whereas the AI-3 only measures individual authenticity, and in the next section I will review and analyze its reliability and validity.

Walumbwa et al. (2008) reported the internal consistency reliabilities for the ALQ in three studies. In the first study ($N = 224$) the internal consistency reliabilities (Cronbach’s alpha) in the US sample for each of the four measures were at acceptable levels: self-awareness, .92; relational transparency, .87; internalized moral perspective, .76; and balanced processing .81. In the second (Chinese) sample ($N = 212$), the Cronbach’s alphas for each of the measures were also at acceptable levels: self-

awareness, .79; relational transparency, .72; internalized moral perspective, .73; and balanced processing, .76. In the second study all coefficient alpha reliabilities were above .70. Finally, in the third study the internal consistency reliability for each ALQ measure was as follows: self-awareness .73; relational transparency, .77; internalized moral perspective, .73; and balanced processing, .70. All of the ALQ's internal consistency reliabilities were above .70, which is evidence of the ALQ's reliability as a measurement instrument. The acceptable reliability coefficient scores should fall between .60 and .70 when different groups' mean scores (internal consistency coefficient) are measured (Aiken & Groth-Marnat, 2006).

Walumbwa et al. (2008) built an argument for a higher-order questionnaire and provided evidence of the ALQ's construct validity. They reported high convergent validity, which they achieved by comparing a one-factor model in which they based the items on a single factor (authentic leadership) with a second-order factor model in which they loaded the items into their respective factors; this model was statistically better. This finding, plus a higher correlation among the four factors (.69), supported convergent validity for the higher-order construct of authentic leadership versus the individual constructs of self-awareness, relational transparency, internalized moral perspective, and balanced processing (Walumbwa et al., 2008).

Walumbwa et al. (2008) also presented evidence of predictive validity between the ALQ measures and the organizational outcome variables. They used two independent samples from a US university setting, one to assess the construct validity and predictive validity of the authentic leadership construct relative to transformational leadership; the

second, relative to ethical leadership; and both, relative to the outcome variables. The results present predictive validity evidence that authentic leadership positively correlates with the outcome variables (organizational citizenship behaviors [OCB], organizational commitment, and followers' satisfaction with supervisor), with the results for OCB ($\beta = .30, p < .01$), organizational commitment ($\beta = .28, p < .01$), and followers' satisfaction with supervisor ($\beta = .26, p < .01$), controlling for ethical leadership; and OCB ($\beta = .29, p < .01$), organizational commitment ($\beta = .34, p < .01$), and followers' satisfaction with supervisor ($\beta = .33, p < .01$), controlling for transformational authentic leadership (Walumbwa et al., 2008). These results are sufficient evidence of the predictive validity of the ALQ and organizational outcome variables; the reported predictive validities range from .26 to .34 for the organizational outcome variable, because validity coefficients in the range of .30 to .40 are considered high (Kaplan & Saccuzzo, 2005).

As observed earlier in the current research, discriminant validity is needed to prove that the test is measuring a unique construct (Kaplan & Saccuzzo, 2005). A review of the literature identified two constructs (transformational leadership and ethical leadership) in leadership theory that have the potential to overlap with authentic leadership development theory. For example, to measure authentic leadership, the researcher would look for evidence of discriminant validity compared with that of other leadership constructs (such as transformational or ethical leadership) to ensure that authentic leadership maintains its unique construct.

Walumbwa et al. (2008) reported evidence of discriminant validity with transformational leadership and ethical leadership, with positive correlations among the four dimensions of authentic leadership and ethical leadership ranged from .51 to .55 and transformational leadership dimensions ranged from .28 to .58. These results support Walumbwa et al.'s hypothesis that the four dimensions of authentic leadership positively correlate with those of ethical leadership and transformational leadership, but not so much as to indicate construct redundancy.

I have selected Walumbwa et al.'s (2008) ALQ as the measurement instrument for my research. Although Kernis and Goldman (2006) reported acceptable test-retest reliability for the AI-3 as well as acceptable results from a confirmatory factor analysis that indicates that the AI-3 assesses four distinct, but related authenticity components, I selected the ALQ over the AI-3 because the ALQ measures authentic leadership behaviors, whereas the AI-3 measures individual authenticity. In addition, Walumbwa et al. provided sufficient initial evidence that the scale demonstrates empirical validation as a reliable and valid instrument. My recent review of the authentic leadership literature showed that the ALQ is one of the most commonly used measurement instruments in recent authentic leadership studies (Giallonardo et al., 2010; Walumbwa, Wang et al., 2010; Wang & Bird, 2011; Wong et al., 2010).

In this section of the literature review, I reviewed the measurements of authentic leadership. The most common tools for measuring authentic leadership in the academic literature (e.g., Kernis and Goldman, 2006) Maslach et al., 2001; Schaufeli et al., 2002) were presented to provide support for my selection of the measurement instrument for

authentic leadership for this research study. I had chosen Walumbwa et al.'s (2008) ALQ as the measurement instrument for my study based on sufficient initial evidence that the ALQ demonstrates empirical validation as a reliable and valid tool (Walumbwa et al.). I found no other research that validated the instrument. However, I also found support for the ALQ in Gardner et al.'s (2011) review of the literature on authentic leadership and in recent authentic leadership studies (Giallonardo et al., 2010; Walumbwa, Wang et al., 2010; Wang & Bird, 2011; Wong et al., 2010). Furthermore, the ALQ operationalizes Walumbwa et al.'s (2008) et al.'s conceptualization of authentic leadership that I accepted for this project and is therefore the most appropriate measurement tool based on its positive psychology framework.

Current Findings on Authentic Leadership

Outcomes of Authentic Leadership

My interpretation from my review of the literature leads me to believe that authentic leadership positively affects various follower outcomes such as identification with the supervisor (Walumbwa, Wang et al., 2010), trust in the leadership (Wong & Cummings, 2009b; Wong et al., 2010), followers' job satisfaction (Giallonardo et al., 2010; Walumbwa et al., 2008), and followers' engagement (Giallonardo et al., 2010; Walumbwa, Wang et al., 2010), among many others. For example, in a Canadian study Wong and Cummings (2009b) examined how authentic leadership behaviors (leadership trust and supportive work groups) influence followers' work outcomes of their ability to speak up, job performance, and burnout by using structural equation modeling in two samples of health care employees (clinical [$n = 147$]) and nonclinical employees

[$n = 188$]) at a Canadian cancer care agency and found that supportive leader behavior and trust in leadership were needed for staff to speak up about issues (voice behavior) and offer suggestions for workplace improvement. This study was also significant because it was the first study to provide evidence of a predicted negative relationship between authentic leadership and follower burnout.

Some researchers have identified the link between authentic leadership behaviors and follower engagement (Gardner et al., 2005; Ilies et al., 2005; Shamir & Eilam, 2005). Kahn (1990) first reported that leaders influence the degree to which employees engage in their work, and the leadership characteristics that Kahn identified are similar to the characteristics of authentic leadership (Gardner et al., 2005; Ilies et al., 2005; Luthans & Avolio, 2003). For example, Gardner et al. described authentic leaders as acting in line with their values; being open, honest, and transparent in their decision making; and demonstrating their authentic self (values, beliefs, thoughts, and feelings) when they deal with their followers. Bono and Judge (2003) and Kahn found that employees whose work is aligned with their personal values are more engaged. This suggests that authentic leaders have a greater impact on engagement given that the core components of the authentic leadership development theory are leaders' and followers' self-knowledge and self-awareness.

Current Findings on Authentic Leadership and Engagement

Empirical research on authentic leadership styles and engagement is limited, especially considering the quantitative studies that have tested the direct effect of the variables in organizational settings in Canada. Only six quantitative studies were found in

the literature on authentic leadership and engagement, four of which (Alok & Israel, 2012; Wang & Bird, 2011; Wong & Cummings, 2009a; Wong et al., 2010) tested the indirect (or mediating) effects, and two of which (Giallonardo et al., 2010; Walumbwa, Wang et al., 2010) tested the direct effects of authentic leadership and engagement. Of these six quantitative studies, three were conducted in Canada (two indirect, Wong & Cummings, 2009a and Wong et al., 2010); and one direct, Giallonardo et al., 2010); one in China (Walumbwa, Wang et al., 2010); one in the US (Wang & Bird, 2011); and one in India (Alok & Israel, 2012). Five of the six studies were conducted in organizational settings (Alok & Israel, 2012; Giallonardo et al., 2010; Walumbwa et al., 2010; Wong & Cummings, 2009a; Wong et al., 2010) and one in an educational setting (Wang & Bird, 2011). Gardner et al., 2011 also noted this lack of empirical research on authentic leadership; they reviewed the authentic leadership research and found only 19 quantitative studies worldwide, of which only 3 were conducted in Canada (Giallonardo et al., 2010; Wong et al., 2010; Wong & Cummings, 2009a) and 2 of which (Giallonardo et al., 2010; Walumbwa, Wang et al., 2010) measured the direct effect of authentic leadership behaviors on engagement.

Four empirical studies that explored the indirect relationship between authentic leadership and engagement were found in the literature. Alok and Israel (2012) used a correlational research design to study 117 working professionals in India and found that authentic leadership is indirectly related to employees' work engagement through the full mediation of psychological ownership. In a Canadian study, Wong et al. (2010) used a nonexperimental predictive survey design in Ontario to study a random sample of nurses

($N = 280$) and explore the link between authentic leadership and trust in their manager, which can indirectly impact work engagement, voice behavior, and the perceived quality of care on the unit. The results support the positive effects of authentic leadership and positively influenced the participants' trust in their manager and indirectly influenced their work engagement; which, in turn predicted their voice behavior and perceived quality of care on the unit.

Other researchers who used the theoretical framework of authentic leadership, trust, and engagement (e.g., Wang & Bird, 2011; Wong & Cummings, 2009a) revealed similar findings. For example, a study in an educational setting in North Carolina that involved 917 teachers from 60 schools found that teachers' perceptions of principals' authenticity levels were directly highly correlated with their trust and indirectly affected their engagement levels. The above studies were based on Avolio's et al. (2004) model that suggested that authentic leaders are able to enhance follower attitudes such as engagement through mediating variables such as trust, among others. Rather than examine the indirect (or mediating) effects of authentic leadership on follower engagement, in this research study I will examine the direct effects of two variables.

The first empirical study that tested the direct link between authentic leadership and engagement was conducted in two telecom companies in China, Walumbwa, Wang et al. (2010) explored the direct and indirect effects of the authentic leadership behavior of managers ($n = 129$) and their direct reports ($n = 387$) using a cross-sectional research design. They hypothesized that authentic leadership has a positive relationship with OCB and follower engagement, using the control variables of power distance, company type,

and followers' age and sex. Walumbwa et al.'s results show a positive relationship between authentic leadership and a significant relationship between supervisor-rated authentic leadership and OCB ($\beta = 0.20, p < 0.01$) and work engagement ($\beta = 0.26, p < 0.01$). The study results also support the argument that authentic leadership influences follower behavior because these relationships are mediated by the followers' level of identification with the supervisor and their feeling of empowerment.

An evaluation of Walumbwa, Wang et al.'s (2010) research identified both similarities to and differences from the current research study. Both studies follow the same conceptualization and measurements to operationalize authentic leadership, along with some of the same control variables (e.g., company type, age, and gender), and I will refer to Walumbwa Wang et al.'s study in my research. Their study differs from my study in that it assessed the follower-outcome variables of OCB, the mediating variables of identification with the supervisor and empowerment, and the additional control variable of power distance. Furthermore, these researchers did not assess the specific components of authentic leadership or engagement, they used multisource data (from supervisors and their direct reports) to measure authenticity, and they used the GWA instead of the UWES to measure engagement.

Walumbwa, Wang et al.'s (2010) study has several strengths and weaknesses. They defined their conceptualizations and clearly stated the hypothesis for each variable (e.g., authentic leadership is positively related to work engagement) in a way that made them testable. However, because their sample (employees from two companies in China) does not appear to have been random, researchers must question how they could

reasonably generalize their results to the greater population. Furthermore, their theoretical diagram displayed only the indirect relationship between authentic leadership and follower outcomes of engagement and OCB; displaying all of the hypothesized relationships would have improved it.

In the only Canadian study that tested the direct relationship, Giallonardo et al. (2010) used a predictive survey design in their nonexperimental study to assess a sample of randomly selected nurses ($N = 170$) who had less than three years of experience in an acute care setting in Ontario. Giallonardo et al. tested the hypothesis that graduate nurses' perceptions of the authentic leadership of their preceptors (or more experienced practitioner coaches) positively predict work engagement and job satisfaction. The authors' show that new graduate nurses' perceptions of preceptor authenticity are positively related to their engagement ($r = 0.21, P < 0.01$). The results also reveal that authentic leadership is strongly related to dedication ($r = 0.29, P < 0.01$) and vigor ($r = 0.19, P < 0.05$), but the researchers found no significant relationship between authentic leadership and absorption. Furthermore, they also found positive (but small) relationships between engagement and the authentic leadership variables of relational transparency ($r = 0.19, P < 0.01$), balanced processing ($r = 0.18, P < 0.01$), self-awareness ($r = 0.14, P < 0.01$), and internalized moral perspective ($r = 0.24, P < 0.01$).

An evaluation of Giallonardo et al.'s (2010) study identified both similarities to and differences from the proposed research study. Both studies follow the same conceptualization and measurements to operationalize authentic leadership and employee engagement, assess the specific components of each variable (authentic leadership or

engagement), do not use the multisource instrument to measure authenticity, and use a predictive-survey correlation research design. Giallonardo et al.'s study differs from the proposed study in that it also assesses the impact of authentic leadership on followers' job satisfaction and suggests that work engagement mediates the relationship between authentic leadership and job satisfaction.

Giallonardo et al.'s (2010) study also has several strengths and weaknesses. The theoretical framework, conceptualizations, and measurements were clearly defined. Although Giallonardo et al. clearly stated two hypotheses for the general variables of engagement, authentic leadership, and job satisfaction, they did not include hypotheses for the components in their theoretical diagram. They also did not identify any control variables in the study despite the evidence in the literature (Alarcon, Lyons, & Tartaglia, 2010; Harter et al, 2002; Spreitzer, 1996) that items such as company type impact employee behavior.

The current research has complemented the above studies on authentic leadership and employee engagement. Four empirical studies (Alok & Israel, 2012; Wang & Bird, 2011; Wong & Cummings, 2009a; Wong et al., 2010) examined the mediating relationship between the two variables, and two empirical studies (Giallonardo et al., 2010; Walumbwa, Wang et al., 2010) tested the direct relationship between authentic leadership behaviors and engagement. Gardner et al. (2011) supported this argument and asserted that more research needs to be conducted on the effects of authentic leadership and follower outcomes such as engagement.

The current study has added to the limited knowledge on authentic leadership theory and employee engagement by increasing the understanding of the correlations among all of the components of authentic leadership and engagement. Only one study (Giallonardo et al., 2010) found in the literature measured the relationship between the subscales of the ALQ (Walumbwa et al., 2008) and the subscales of the UWES (Schaufeli et al., 2002). This study will explore the relationship between the higher-order construct of authentic leadership (Walumbwa et al., 2008) and the construct of employee engagement (Schaufeli et al., 2002), as well as the strength and direction of the relationships among the subscales of authentic leadership (self-awareness, relational transparency, internalized moral perspective, and balanced processing) and the subscales of engagement (vigor, dedication, and absorption). The current study adds to the literature on authentic leadership and employee engagement.

The current study has also added to the quantitative studies on authentic leadership and employee engagement conducted in organizational settings in Canada. Only three Canadian studies have been conducted on the relationship between authentic leadership behaviors and engagement, and all were in the health care industry. This research study involved a cross-section of Canadian organizations from two different industries. Not only does it add to the limited body of knowledge in Canada, but it has also answered the question of whether authentic leadership behaviors have an impact on employee engagement.

Control Variables

Company Type

Research in the academic and practitioner literature has recognized the impact of company type on employee behavior (Alarcon et al., 2010; Harter et al, 2002; Spreitzer, 1996). For example, in a survey of a group of middle managers from 50 different organizations, Spreitzer found that organizational culture and strategy influence the level of employee empowerment. Other researchers, such as the Gallup researchers, found that engagement levels across companies vary (Harter et al., 2002). Previous research (e.g., Walumbwa, Wang et al., 2010) on authentic leadership and employee engagement has also included the control variable of company type. Based on this prior research on the influence of company type on follower/employee behavior, I selected company type as a control variable for this research study.

Demographic Measures

Prior research on employee engagement has included control variables for demographics (Harter et al, 2002; Schaufeli et al., 2006; Walumbwa, Wang et al., 2010). For example, Schaufeli et al. reviewed data from 27 studies that were carried out between 1999 and 2003 in 10 countries (Australia, Belgium, Canada, Finland, France, Germany, The Netherlands, Norway, South Africa and Spain; $N = 14,521$) and found that engagement is weakly but positively related to age and that correlations of vigor, dedication, and absorption are statistically significant. The exception was the Canadian sample, but the correlations in all other samples were .15 or less. Schaufeli et al. also found that the relationship between engagement and gender is weak and no gender

differences in the three engagement dimensions in the participants in the Australian, Canadian, and French samples were observed, slightly higher scores for men than women in the Belgian, German, Finnish, and Norwegian samples; and slightly higher scores for women than men in South African (only VI), Spanish (only DE and AB), and Dutch samples (Schaufeli et al., 2006). Schaufeli et al. also explored the relationship between engagement and occupational group, and in each of the 10 countries the highest levels of vigor, dedication, and absorption were found among educators, managers, and police officers; whereas the lowest scores were observed for blue-collar workers.

Previous research on authentic leadership and engagement that are relevant to this study have also included control variables for demographics (Walumbwa, Wang et al., 2010; Wang & Bird, 2011). For example, Wang and Bird collected information on gender, ethnicity, education level, and teaching experience; and based on the previous research, I selected the demographic control variables of gender, age, length of service, and position level for this research study. Previous research conducted on authentic leadership and engagement has also influenced the research design chosen for this study.

Review of Methodological Literature Relevant to the Study

I used a quantitative, nonexperimental, correlational research design for this study for several reasons. The quantitative research method uses techniques to generate and test hypotheses by using standardized measures to collect, analyze, and interpret the data from a sample of the population (Patton, 2002). This study tested the main hypothesis (and several subhypotheses) on the relationship between authentic leadership and employee engagement. In a nonexperimental, correlational research design the researcher

looks for an association or relationship between two variables or explores how one variable correlates with another variable without the use of a treatment variable (Creswell, 2005). The key characteristics of a correlational research design include a display of scores, associations between scores, and multiple variable analyses (Creswell, 2005).

In this study I used correlation statistical analyses (scatter plots, a correlation matrix, and partial correlations) to describe and determine the strength and direction of the relationship between authentic leadership behaviors and employee engagement, without the use of a treatment variable. The correlational research design approach was the most appropriate for this study because it was consistent with the design methods used in previous studies on authentic leadership and engagement (Alok & Israel, 2012; Walumbwa, Wang et al., 2010). Gardner et al. (2011) supported this argument in their review of the authentic leadership research when they found that 13 of 19 quantitative studies on authentic leadership used correlational analyses.

Synthesis of the Research Findings

The theoretical framework for this research study from a positive psychology perspective integrated Schaufeli et al.'s (2002) conceptualization of engagement with Walumbwa et al.'s (2008) conceptualization of authentic leadership as proposed by Gardner et al. (2005), who identified follower engagement as an outcome of authentic leadership. I selected both conceptualizations for this research study because positive psychology theory defines them as positive states, they have evolved as conceptualizations based on refinements of prior research, they are recognized as the

most commonly used conceptualizations in the academic literature, and they can be operationalized as constructs. For these reasons, they are the most appropriate conceptualizations for a research study based on the positive psychology framework.

I also selected Schaufeli et al.'s (2002) UWES as the tool to measure engagement and Walumbwa et al.'s (2008) ALQ as the instrument to measure authentic leadership. The literature and a review and analysis of its reliability and validity offer plenty of evidence to support my decision to use the UWES, and recent literature (e.g., Giallonardo et al., 2010; Halbesleben & Wheeler, 2008; Wang & Bird, 2011; Wong & Cummings, 2009b; Wong et al., 2010) has identified it as the most often used instrument to measure engagement. In contrast, although Walumbwa et al. (2008) presented sufficient initial evidence that the ALQ demonstrates empirical validation as a reliable and valid tool, I found no other research that validated the instrument. However, I also found support for the ALQ in Gardner et al.'s (2011) review of the literature on authentic leadership and in recent authentic leadership studies (Giallonardo et al., 2010; Walumbwa, Wang et al., 2010; Wang & Bird, 2011; Wong et al., 2010).

Improving employee engagement has been identified as a top priority for organizational leaders and human resources practitioners in recent years, given the benefits of increased engagement (Attridge, 2009; Christian et al., 2011; Harter & Blacksmith, 2010; Saks, 2006). High levels of employee engagement have been linked to organizational outcomes such as greater employee retention and improved profits and sales (Harter et al., 2002). In addition, the increased interest in engagement is due in part to the prevalence of employee disengagement in organizations today.

The problem is that employee engagement has primarily been a practitioner-led concept, and much of what has been written about employee engagement in the practitioner literature comes from consulting firms that have each identified different drivers that influence employee engagement (Saks, 2006; Stairs & Galpin, 2010). The conflicting information found in the practitioner literature combined with the lack of research on employee engagement in the academic literature has compounded the confusion for HR practitioners and organizational leaders on what drivers may have the greatest relationship with engagement.

Evidence can be found in academic literature that supports the position that leaders are key influences on work outcomes such as employee engagement (Babcock-Roberson & Strickland, 2010; Ismail et al., 2011). This is because they influence job resources (such as support, autonomy, or rewards), which have been positively related to employee engagement (Bakker et al., 2007; Harter & Blacksmith, 2010; Harter et al., 2002; Kahn, 1990; May et al., Harter, 2004; Schaufeli & Bakker, 2004a). *Authentic leadership Theory* is a recently documented theory of research. The problem is the lack of knowledge to be able to answer the question of whether authentic leadership behaviors have an impact on employee engagement. Although several researchers have identified the link between authentic leadership behaviors and follower engagement (Gardner et al., 2005; Ilies et al., 2005; Shamir & Eilam, 2005), only two empirical studies (Giallonardo et al., 2010; Walumbwa, Wang et al., 2010) have tested the direct relationship between authentic leadership behaviors and engagement. This lack of knowledge suggests the

need for more research on the relationship between authentic leadership and follower outcomes such as engagement.

This current study has added to the quantitative studies on authentic leadership and employee engagement conducted in organizational settings in Canada (and North America). The current research has complemented previous studies on authentic leadership and employee engagement and add to the limited knowledge on authentic leadership theory and employee engagement by increasing the understanding of the correlation among all of the components of authentic leadership and engagement. I accomplished this by studying the relationship between the higher-order construct of authentic leadership (Walumbwa et al., 2008) and the construct of employee engagement (Schaufeli et al., 2002) as well as the strength and direction of the relationships among the subscales of authentic leadership (self-awareness, relational transparency, internalized moral perspective, and balanced processing) and the subscales of engagement (vigor, dedication, and absorption). The knowledge gained from this research study will assist organizational leaders and human resources practitioner in identifying the leadership behaviors linked to high levels of employee engagement. They can then use this information to shape human resources practices in selecting, developing, and rewarding leadership behaviors that are linked to higher levels of engagement.

The current study also included control variables. Previous research also included control variables for demographics and company type to determine their effect on employee behavior (Alarcon et al., 2010; Harter et al., 2002; Spreitzer, 1996) and demographics (Walumbwa Wang et al., 2010; Wang & Bird, 2011). Based on this prior

research, I selected the control variables of company type and gender, age, length of service, and position level for this research study. The correlational research design approach that I selected for this study was consistent with the design methods of previous studies on authentic leadership (Alok & Israel, 2012; Giallonardo et al., 2010; Walumbwa Wang et al., 2010; Wang & Bird, 2011; Wong et al., 2010). Two of these studies (Giallonardo et al., 2010; Wong et al., 2010) used a predictive correlational research design rather than the explanatory correlational design that I selected for this study. Gardner et al.'s (2011) review of the authentic leadership research, in which they found 13 of 19 quantitative studies on authentic leadership that used correlational analyses, supports my choice.

Summary

The purpose of the literature review in this dissertation proposal was to exhaust the search for information on the topics of authentic leadership behaviors and follower/employee engagement. This chapter has included a review, analysis, and summary of current and relevant literature on authentic leadership and engagement, including definitions, models, and measurement instruments. Research on the relationship between authentic leadership behaviors and employee engagement is limited, especially considering the number of quantitative studies conducted in organizational settings in Canada. This research study tested the current knowledge on authentic leadership theory and employee engagement and add to the literature on authentic leadership and employee engagement in the fields of industrial/organizational psychology, occupational health psychology, and positive psychology.

Chapter 3 includes a detailed description of the methodology that I will use for the proposed research study.

CHAPTER 3. RESEARCH METHODS

Purpose of the Study

The purpose of this study is to aid in determining the existence and extent of authentic leadership behaviors and their relationship to follower/employee engagement within organizational settings. The problem is the lack of knowledge to be able to answer the question of whether authentic leadership behaviors have an impact on employee engagement. Specifically, in this study I explored the relationship between the higher-order construct of authentic leadership (Walumbwa et al., 2008) and the construct of employee engagement (Schaufeli et al., 2002). I also determined the strength and direction of the relationships among the subscales of authentic leadership (self-awareness, relational transparency, internalized moral perspective, and balanced processing) and the subscales of engagement (vigor, dedication, and absorption) while controlling for company type. The current study followed the hypothesis that authentic leadership is related to follower/employee engagement. I developed one main hypothesis and several subhypotheses from the research question. I used an Internet and paper survey by which to examine the engagement of a sample population of employees of who have participated in the Best Small and Medium Employer in Canada study and were ranked in the Top 50 Best Employers in Canada list.

The basis for the study was that organizations potentially benefit from this knowledge for one of two major reasons. First, a significant positive influence will assist organizational leaders and human resources practitioner in identifying the leadership behaviors linked to high levels of employee engagement. Second, this information can be used to develop human resources practices that identify the leadership behaviors that are linked to higher levels of engagement. Chapter 3 contains a detailed discussion of the research design, strategies to decrease threats of reliability and validity, target population and participant selection, sampling, research measurement instrument a description of data collection and data analysis procedures along with the research questions and hypotheses. The expected findings conclude the chapter.

Research Design

I used a quantitative, nonexperimental, correlational research design for the current study. Quantitative research uses quantitative techniques to generate and test hypotheses using standardized measures to collect, analyze, and interpret the data from a sample of the population (Patton, 2002). A nonexperimental correlational research design approach is appropriate when the researcher is looking for an association or relationship between two variables or exploring how one variable is correlated to another variable (Creswell, 2005). Using correlation statistics is the best way to determine the strength and direction of the correlation or the degree of the relationship (Creswell, 2005). In this study I used correlation statistical analyses to test the strength and direction of the correlation between the variables (authentic leadership behaviors and employee engagement).

The study involved an online and paper research methodology. I obtained prior permission from the selected human resources leaders and employees of the selected organizations before I administered the survey. I used the ALQ (Walumbwa et al., 2008) as the measurement instrument to assess the variable of authentic leadership. Walumbwa et al. demonstrated empirically that the ALQ, a 16-item questionnaire that measures the four dimensions of authentic leadership—self-awareness, relational transparency, internalized moral perspective, and balanced processing—is a reliable and valid instrument. I also used the UWES scale (Schaufeli et al., 2002) to measure follower/employee engagement. The UWES is a self-report questionnaire with acceptable psychometric properties that measures engagement and includes three subscales (vigor, dedication, and absorption; Schaufeli et al., 2002). I developed a demographic questionnaire to obtain descriptive information about the participants' age, gender, position level, and years of service. I administered the research instruments (Appendices A and B) to all of the participants by using an Internet-delivered survey (SurveyMonkey™), with the exception one group of employees from one of the participating companies who requested a paper version of the survey.

I included design controls to increase the likelihood of reliability for this research study. The research study should be designed to minimize any compromise in drawing good conclusions from the scores in the study (Creswell, 2005). One such control will be to ensure that the administration of the instrument is consistent among all participants using an Internet survey. This method of administering the current survey ensured consistent treatment of all participants. The second control to increase the likelihood of

reliability of the study was to ensure that the instructions to the participants about completing the survey were clear and left little room for misinterpretation (Singleton & Straits, 1999).

Internal validity is the extent to which research findings can be used to make underlying deductions (Warner, 2008). A threat to internal validity of a research study means the design may impact the study to produce false conclusions from the data and may relate to participants, treatment, or procedures in the research study (Creswell, 2005). One strategy I used to control for the threat to internal validity for this research was to include an explanation of the anonymous nature of the survey. The inclusion of anonymity in the research survey design reduced these effects.

Researchers who are seeking results that are applicable across the entire population must ensure external validity (Creswell, 2005), which is the degree to which the results of a study can be generalized to groups of people (Warner, 2008). Threats to external validity affect the ability to generalize application of the results of research (Creswell) and include realism, the Hawthorne effect, demand characteristics, placebo effect, and reactivity. In the current research I used strategies to limit the threats to external validity. One strategy to decrease the threat is to ensure the ease of participation in the survey for all individuals by using an Internet survey. This method of administration also limited the effects upon the participants who became involved in the current study.

Two other features of the current research also decreased the threat to external validity. First, participation in the study included employees from a cross-section of

industries, which I believed would ensure transferability to other organizations in Canada (and North America). The second feature was the demographic measures. Recording specific demographics (e.g., age, length of service, position level) of the participants meant that a comparison of these results to other populations with similar demographics would be possible.

Target Population and Participant Selection

The population is defined as the group of subjects whom the researcher is interested in studying (Breakwell et al., 2006). The population for this research consisted of organizations from different industries that have participated in the Best Small and Medium Employer in Canada study and were ranked in the Top 50 Best Employers in Canada list. I selected this population because the Best Small and Medium Employer in Canada study measures employee engagement, and organizations that make up the Top 50 list have high levels of employee engagement. The sample size was based on a certain percentage of the total population (or the staff complement of the Top 50 Best Employers in Canada list) to produce accurate research results. The total staff complement of the two companies that participated in the study was 421. I estimated the required sample size at $N = 201$, based on a typical confidence level of 95% and a confidence interval of 5%. The confidence level is the long-term probability that the confidence interval, or the range of values above and below the sample mean, is likely to include the actual population mean (Leedy & Ormond, 2006). The purpose of using a confidence interval of 5% in the research design was to give confidence that there is only a 5% probability of making a Type I error, or erroneously rejecting the null hypothesis when it was true. (Creswell,

2005). I conducted an interim analysis of the responses that I received ($N = 106$) to test the data. I found that the data based on a confidence level of 95% and a confidence interval of 8.22% resulted in a moderate correlation between the study variables with statistical significance. Given these results, I decided to accept the 8.22% risk of making a Type I error to save the extra time and effort of increasing the sample size. Supported by the preliminary test results, I modified my research design and adjusted the confidence interval to 8.22% (3% higher than initially planned that I will reject a true null hypothesis), and the sample size ($N = 106$).

Procedures

For this research study I employed nonprobability sampling methods (Creswell, 2005), because I did not know the sample size and total population before I began the study (Creswell, 2005). One nonprobabilistic sampling method that I used is purposive sampling (to select the participants for a particular purpose (Leedy & Ormrod, 2005)). I chose participants from organizations on the Top 50 Best Employers in Canada list because the criterion for selection for the list is employee engagement, and the level of employee engagement in these organizations is likely to be higher than that of employees selected from a random list of Canadian companies. I contacted the chief executive officers or human resources leaders from organizations that have participated in the Best Small and Medium Employer in Canada study and were ranked in the Top 50 on the Best Employers in Canada list to gain permission to access their organizations to seek the participation of their employees in the study. Then I sent an e-mail invitation to the human resources contact for distribution to the potential participants.

I obtained the informed consent of the participants in the study and informed them of the voluntary nature of their participation in the survey as well as the level/type of risk in participating in the study. Informed consent is an important ethical issue in sampling procedures. The participants in all research studies must be informed of all components of the study to be able to make an informed decision to participate (Breakwell et al., 2006). In my e-mail invitation to potential participants, I stated that the completion of the survey indicated informed consent before they could access the survey, and I gave them the option of withdrawing from the study at any time, including before they began the survey, without penalty. I also informed the participants that only I as the researcher and the employees of SurveyMonkey™ would have access to their data. I elected not to collect their IP addresses under the SurveyMonkey™ agreement, which also ensured that I would maintain the complete confidentiality of the information, and I have not included any identifying information.

Instruments

The survey contained two instruments that use Likert-type ordinal scales. I used the ALQ (Walumbwa et al., 2008) as the measurement instrument to assess authentic leadership. It is a 16-item questionnaire that measures the four dimensions of authentic leadership: self-awareness, relational transparency, internalized moral perspective, and balanced processing. As mentioned earlier, Walumbwa et al. found sufficient evidence that the scale demonstrates empirical validation: construct validity, which includes convergent and divergent validity; predictive validity, which ranges from .26 to .34 for organizational outcomes (organizational citizenship behaviors, organizational

commitment, and followers' satisfaction with their supervisors). All of the ALQ's internal consistency reliabilities that these researchers reported were above .70, which is evidence of ALQ's reliability as a measurement instrument as the acceptable reliability coefficient scores should fall between .60 and .70 (Aiken & Groth-Marnat, 2006).

I used the UWES (Schaufeli et al., 2002) to measure employee engagement. The UWES is a self-report 9-item questionnaire with acceptable psychometric properties that measures engagement and includes three subscales (vigor, dedication, and absorption). The UWES uses a 7-point Likert scale that ranges from 0 (*never*) to 6 (*always*) and measures three dimensions of work engagement: vigor, dedication, and absorption (Macey & Schneider, 2008; Schaufeli & Bakker, 2004b). As reported in Chapter 2, based on the review and analysis of the reliabilities and validities UWES's internal consistencies (Cronbach's alpha) typically range between .80 and .90. (Schaufeli & Bakker, (2006) and validity studies carried out with the UWES have reported a negative correlation between such constructs such as burnout and workaholism. I also used a control variable for company type, along with demographic control variables that included age, gender, position level, and length of service.

Research Questions and Hypotheses

A quantitative, nonexperimental, correlational research design was appropriate to test for the relationships between the authentic leadership behaviors and employee engagement (Gardner et al., 2011). The current study required a research question to develop the corresponding hypotheses. The research questions and hypotheses for the current study are as follows:

Research Question: Is there a statistically significant relationship between authentic leadership behaviors and follower/employee engagement while controlling for company type?

Hypothesis H0 (Null hypotheses): There is no statistically significant relationship between authentic leadership behaviors and employee engagement while controlling for company type.

Hypothesis Ha (Alternate hypotheses): There is a statistically significant relationship between authentic leadership behaviors and employee engagement while controlling for company type.

The following research subquestions and subhypotheses include the subscales of authentic leadership and engagement scales:

1. Is there a statistically significant relationship between self-awareness and follower vigor while controlling for company type?

Hypothesis H01 (Null hypotheses): There is no statistically significant relationship between self-awareness and follower vigor while controlling for company type.

Hypothesis Ha1 (Alternate hypotheses): There is a statistically significant relationship between self-awareness and follower vigor while controlling for company type.

2. Is there a statistically significant relationship between self-awareness and follower dedication while controlling for company type?

Hypothesis H02 (Null hypotheses): There is no statistically significant relationship between self-awareness and follower dedication while controlling for company type.

Hypothesis Ha2 (Alternate hypotheses): There is a statistically significant relationship between self-awareness and follower dedication while controlling for company type.

3. Is there a statistically significant relationship between self-awareness and follower absorption while controlling for company type?

Hypothesis H03 (Null hypotheses): There is no statistically significant relationship between self-awareness and follower absorption while controlling for company type.

Hypothesis Ha3 (Alternate hypotheses): There is a statistically significant relationship between self-awareness and follower absorption while controlling for company type.

4. Is there a statistically significant relationship between relational transparency and follower vigor while controlling for company type?

Hypothesis H04 (Null hypotheses): There is no statistically significant relationship between relational transparency and follower vigor while controlling for company type.

Hypothesis Ha4 (Alternate hypotheses): There is a statistically significant relationship between relational transparency and follower vigor while controlling for company type.

5. Is there a statistically significant relationship between relational transparency and follower dedication while controlling for company type?

Hypothesis H05 (Null hypotheses): There is no statistically significant relationship between relational transparency and follower dedication while controlling for company type.

Hypothesis Ha5 (Alternate hypotheses): There is a statistically significant relationship between relational transparency and follower dedication while controlling for company type.

6. Is there a statistically significant relationship between relational transparency and follower absorption while controlling for company type?

Hypothesis H06 (Null hypotheses): There is no statistically significant relationship between Relational transparency and follower absorption while controlling for company type.

Hypothesis Ha6 (Alternate hypotheses): There is a statistically significant relationship between Relational transparency and follower absorption while controlling for company type.

7. Is there a statistically significant relationship between internalized moral perspective and follower vigor while controlling for company type?

Hypothesis H07 (Null hypotheses): There is no statistically significant relationship between internalized moral perspective and follower vigor while controlling for company type.

Hypothesis Ha7 (Alternate hypotheses): There is a statistically significant relationship between internalized moral perspective and follower vigor while controlling for company type.

8. Is there a statistically significant relationship between internalized moral perspective and follower dedication while controlling for company type?

Hypothesis H08 (Null hypotheses): There is no statistically significant relationship between internalized moral perspective and follower dedication while controlling for company type.

Hypothesis Ha8 (Alternate hypotheses): There is a statistically significant relationship between internalized moral perspective and follower dedication while controlling for company type.

9. Is there a statistically significant relationship between internalized moral perspective and follower absorption while controlling for company type?

Hypothesis H09 (Null hypotheses): There is no statistically significant relationship between internalized moral perspective is positively related to follower absorption while controlling for company type.

Hypothesis Ha9 (Alternate hypotheses): There is a statistically significant relationship between internalized moral perspective is positively related to follower absorption while controlling for company type.

10. Is there a statistically significant relationship between balanced processing and follower vigor while controlling for company type?

Hypothesis H010 (Null hypotheses): There is no statistically significant relationship between balanced processing and follower vigor while controlling for company type.

Hypothesis Ha10 (Alternate hypotheses): There is a statistically significant relationship between balanced processing and follower vigor while controlling for company type.

11. Is there a statistically significant relationship between balanced processing and follower dedication while controlling for company type?

Hypothesis H011 (Null hypotheses): There is no statistically significant relationship between balanced processing and follower dedication while controlling for company type.

Hypothesis Ha11 (Alternate hypotheses): There is a statistically significant relationship between balanced processing and follower dedication while controlling for company type.

12. Is there a statistically significant relationship between balanced processing and follower absorption while controlling for company type?

Hypothesis H012 (Null hypotheses): There is no statistically significant relationship between balanced processing and follower absorption while controlling for company type.

Hypothesis Ha12 (Alternate hypotheses): There is a statistically significant relationship between balanced processing and follower absorption while controlling for company type.

Data Collection and Data Analyses

Data Collection

The data collection for this research study required several steps. First, I contacted the chief executive officers or human resources leaders from organizations that have participated in the Best Small and Medium Employer in Canada study and were ranked in the Top 50 on the Best Employers in Canada list to seek their participation in the study. Once I received permission, I administered an Internet survey, SurveyMonkey™, to the potential participants to collect the data. I sent an e-mail invitation first to the human resources contact for distribution to the potential participants and then to the potential participants to invite them to participate; the invitation included a direct link to the Web-based survey. I used the ALQ (Walumbwa et al., 2008) as the measurement instrument to assess authentic leadership and the UWES (Schaufeli et al., 2002) to measure employee engagement. In the survey I also sought demographic data such as age, gender, position

level, and length of service. These two scales combined with the demographic information made up the 29-question survey, which took the participants approximately 10 to 15 minutes to complete. I allowed the participants two weeks to complete the survey. One week after the initial invitation, I sent them an e-mail to remind them to complete the survey by the two-week deadline. In the event that I received a low response rate from the participants of the organizations that have participated in the Best Small and Medium Employer in Canada study, I would extend my invitation to larger Canadian employers who have participated in the Best Employer in Canada study and were ranked in the Top 50 list. After I ran the interim analysis, I decided to end the data collection rather than extend the invitation to participate any further.

Data Analyses

For this research study I employed several data-analysis procedures. To store and protect the data upon the participants' completion of the survey, I downloaded the results and store them on a hard drive and a secondary backup disc for archiving and then delete all of the data on the SurveyMonkey™ website. I then conducted two data screens, the first to confirm that the participants have agreed to participate in the research study and the second to ensure that any missing data are within acceptable levels. Creswell (2005) asserted that the results of statistical analyses are valid if no more than 15% of the data are missing from the sample. I replaced any missing data with the statistical mean of the respective survey question (Creswell, 2005).

I analyzed all variables at the individual level using both descriptive and parametric statistics. Descriptive statistics such as central tendency, variability, and

relative standing detect trends and tendencies in the data and will give me a greater understanding of how similar or varied the data scores are (Creswell, 2005). Examples of central-tendency statistics include median and mode; of variability statistics, variance, standard deviation, and range; and of relative-standing statistics, z-score and percentile ranks. For this study I used SPSS to calculate the descriptive statistics (such as mean and standard deviation) for gender, age, position level, and company type.

Parametric statistics include means, squares, and sums of squares and are used for larger samples (Warner, 2008). Examples of parametric analysis include the *t*-test, ANOVA, ANCOVA, regression, and Pearson's correlation coefficient (Warner, 2008). To determine the strength and direction of the relationships between the variables (employee engagement and authentic leadership behavior), I used Pearson's correlation coefficient; it measured the linear association between the two variables for normally distributed data (Creswell, 2005). Values range between -1 and 1, and larger values indicate stronger relationships (Creswell, 2005). Although the results from the current study were expected to be normally distributed, SPSS was used to conduct a normality test, such as the Kolmogorov-Smirnov statistic, to ensure that Pearson's *r* is the most appropriate correlation to use. Once it was determined that the data was normally distributed, I conducted a Pearson's correlation statistical analysis using SPSS to test the main hypothesis and the 12 subhypotheses to determine whether there is a statistical significance between the variables. To determine the strength and direction of the relationships between the variables (authentic leadership and engagement) while controlling for company type, I conducted a series of analyses. For the first-order partial

correlation (controlling for one variable), I used SPSS to calculate the bivariate correlations (or Pearson's r) among the main variables and subscales before I computed the partial correlation. Next, I tested the null hypothesis for statistical significance by setting up a t ratio and interpreting the strength of the relationship among the variables to determine the effect size. I repeated the same series of analyses while controlling for the other variables.

Expected Findings

I expected the results from this research study to show that authentic leadership is positively related to follower/employee engagement because I expected a positive link between the overall authentic leadership score and the overall engagement score. This result will be consistent with the findings in previous studies in business (Walumbwa, Wang et al., 2010) and education (Wang & Bird, 2011). Two studies in the fields of leadership and employee engagement (Walumbwa, Wang et al., 2010; Wang & Bird, 2011) identified positive correlations between specific authentic leadership behaviors and higher levels of employee engagement. This study will also add to the quantitative studies conducted in organizational settings in North America.

I also expected the results from all 12 subhypotheses, which measure the relationship between the subscales of the ALQ (Walumbwa et al., 2008) and the subscales of the UWES (Schaufeli et al., 2002), to show positive relationships because I expect that they will all show the rejection of the respective null hypothesis. Conversely, I expect the respective alternate hypotheses to be accepted, with a statistically significant relationship between the variables.

Summary Chapter 3

This quantitative correlational research helped me to determine whether a relationship exists between the authentic leadership behaviors and follower/employee engagement from a cross section of industries in Canada. The population consisted of organizations from two different industries that have participated in the Best Small and Medium Employer in Canada study and were ranked in the Top 50 Best Employers in Canada list. I based the sample size on a certain percentage of the total population (or the staff complement of the Top 50 Best Employers in Canada list) to produce accurate research results. Employing using nonprobability sampling methods, I calculated the sample size for this population. I contacted the chief executive officers or human resources leaders from organizations that have participated in Canada study and gained permission to access their organizations to seek the participation of their employees in the study. I then sent an e-mail invitation to the participants with two instruments: The ALQ (Walumbwa et al., 2008) is a measurement instrument that assesses authentic leadership, and the UWES (Schaufeli et al., 2002) measures employee engagement. I also used a control variable for company type, along with demographic control variables that included age, gender, position level, and length of service. I employed several data-collection steps and data-analysis procedures and use parametric and descriptive statistics to assess the strength and direction of the relationships between the variables (authentic leadership and engagement) while controlling for company type.

Chapter 3 contained a detailed discussion of the research design, strategies to decrease threats of reliability and validity, target population and participant selection,

sampling, research measurement instrument a description of data collection and data analysis procedures along with the research questions and hypotheses with the expected findings concluding the chapter.

CHAPTER 4. ANALYSIS AND PRESENTATION OF QUANTITATIVE RESULTS

The purpose of the current quantitative correlational study served to support an examination of the direction and degree of the relationship between authentic leadership behaviors and follower/employee engagement within organizational settings. Chapter 1 contains the background and rationale for the further examination of authentic leadership and follower/employee engagement. The contents of Chapter 2 include a discussion of relevant employee engagement and authentic leadership literature and the current findings. Chapter 3 consists of a framework of the research methodology and described the research design. Chapter 4 contains a description of the sample and presents statistical analyses of the possible relationship between the aggregate score for authentic leadership and the aggregate score for follower/employee engagement. I also tested the research question (Is there a statistically significant relationship between authentic leadership behaviors and follower/employee engagement while controlling for company type?) and Hypothesis H₀ (null hypothesis): There is no statistically significant relationship between authentic leadership behaviors and employee engagement while controlling for company type.

Hypothesis H_a (alternate hypothesis) states: There is a statistically significant relationship between authentic leadership behaviors and employee engagement. The subsequent analysis addresses the individual facets of authentic leadership scores in

relation to and the individual facets of follower/employee engagement and tested the 12 research subquestions and subhypotheses of the subscales of the authentic leadership and engagement scale. Additionally, chapter 4 summarizes the results of the data analyses.

Description of the Sample

The participant sample for the current research consisted of employees from organizations that have participated in the Best Small and Medium Employer in Canada study and were ranked in the Top 50 Best Employers in Canada list. I contacted the chief executive officers or human resources leaders from organizations that participated in the study and were ranked in the top 50 of the Best Employers in Canada list to seek their participation in the study. Two of the companies that I contacted agreed to participate in my research study.

I used the Authentic Leadership Questionnaire (ALQ) (Walumbwa et al., 2008) to measure employees' perceptions of their leaders' authentic leadership and each of its four dimensions of authentic leadership: self-awareness, relational transparency, internalized moral perspective, and balanced processing. I also used the Utrecht Work Engagement Scale (UWES) scale (Schaufeli et al., 2002) to measure follower/employee engagement and each of its three subscales (vigor, dedication, and absorption). I developed a demographic questionnaire to obtain descriptive information about the participants' age, gender, position level, and years of service. All the research instruments (Appendices A and B) were administered using the Internet-delivered survey (SurveyMonkey™) with the exception one group of employees from one of the participating companies who requested a paper version of the survey.

I sent invitations to participate in the research study to the human resources contact person from the participating organizations for distribution. The e-mail invitations contained a direct link to the Web-based survey through which the participants could access the survey; along with an informed consent form. The paper-copy invitations included a letter of invitation, an informed consent form, the questionnaire, and a self-addressed stamped envelope.

Approximately 421 potential participants received a copy of the invitation. One week after I sent the initial invitation, I sent a reminder to all potential participants to complete the survey by the two-week deadline. After two weeks, responses from 116 participants yielded 106 complete and valid data records. The response rate was 28%. I imported all of the Internet survey data into an Excel spreadsheet exactly as the respondents had entered them. I then entered all of the paper-copy data into the same Excel spreadsheet.

Data Screening

The first screening of the composite survey data revealed the participants' acceptance of the informed consent agreement and revealed missing responses. I then conducted the second screening to determine the quantity of missing data. Creswell (2005) suggested that the results of statistical analyses remain valid with a substitution of less than 15% of missing data from the respective sample. The intended design of the survey gave the respondents the option to decide whether to answer each question, with the purpose of increasing their comfort with answering the entire Internet survey. A screening for incomplete data revealed that some participants stopped their participation

in the middle of the survey, and I therefore eliminated those responses. Of those who responded, I deemed 91% suitable for the current study. The suitable responses revealed 0.96% missing data, which is well within acceptable limits. The remaining data were free of any odd or inconsistent responses. I replaced the missing data with the statistical mean of the respective survey question (Creswell, 2005), which yielded 106 responses for analysis.

The nine items on the UWES (Schaufeli & Bakker, 2003), which are based on the components of work engagement—vigor, dedication, and absorption—were rated by participants on a Likert scale ranging from 0 = *never* to 6 = *always, every day*. I then averaged each subscale to produce a total scale score between 0 and 6; the higher scores represented greater work engagement. The 16 items on the ALQ (Walumbwa et al., 2008), based on the components of authentic leadership—self-awareness, relational transparency, internalized moral perspective, and balanced processing— were rated by participants on a Likert scale ranging from 0 = *not at all* to 4 = *frequently, if not always*. I averaged each subscale to produce a total scale score between 0 and 4; the higher scores represented a greater perception of authentic leadership. Subsequently, I downloaded these data into IBM SPSS Statistics for Windows™, Version 20.0 (IBM Corp., 2011) to statistically test the data.

As mentioned in Chapter 2, the sample size for this study was to be based on a certain percentage of the total population (or the staff complement of the participating companies). The total staff complement of the two companies that participated in the study was 421. I estimated the required sample size at $N = 201$, based on a confidence

level of 95% and a confidence interval of 5%. I conducted an interim analysis of the responses that I received ($N = 106$) to determine whether a statistical significance existed between the variables. A minimum of $N = 100$ is required for correlation studies, in part to ensure an adequate statistical power of .8 or greater (Warner, 2008). Statistical power is the probability that the test will reveal a statistically significant difference when such a difference actually exists, or the likelihood of obtaining a sample r large enough to reject the null hypothesis when it should be rejected (and thus avoid a Type II error; Warner, 2008). The results of this interim analysis showed an adequate statistical power (100%) and that the significance, magnitude, and direction ($r[106] = .28, p < .01$) were all sufficient to dismiss the null hypothesis. As a result, I adjusted the required sample size ($N = 106$) and confidence interval (8.22%). After deleting the survey from the SurveyMonkey™ system, I downloaded all of the data to a hard drive and copied them to a DVD disc for archiving.

Demographics

The survey instrument contained demographic information that included age, gender, position level, and length of service. I then analyzed these demographic data. Some results were either notable or possibly related to the reliability of the research. The demographics of concern were gender, age, and position level, which I will discuss in more detail.

The sample included a large proportion of females in the study. Of the total participants, 92 respondents (87%) were female and 14 respondents (13%) were male. The majority of the participants were in two of the age categories. Of the total

participants, those between the ages of 26 and 45 (41%) and 46 and 55 (39%) represented a total of 80%. The majority of the participants were in one position category: over 50% were frontline employees. The largest category of employment tenure for the participants was 2-5 years of service (over 26%). Table 1 summarizes the demographics of the participant sample.

Table 1

Demographics of Participant Sample

Variable	Level	Frequency	Percent
Gender	Male	14	13.2
	Female	92	86.8
Age	18-25 years	7	6.6
	26-40 years	43	40.6
	41-55 years	41	38.7
	56 years or older	15	14.2
Position level	Administrative or clerical support	23	21.7
	Front-line employee	54	50.9
	Professional or technician	11	10.4
	Manager	15	14.2
	Senior manager	1	0.9
	Executive	1	0.9
Length of service	Less than a year	8	7.5
	1-2 years	20	18.9
	2-5 years	28	26.4
	6-10 years	25	23.6
	11-15 years	12	11.3
	16-25 years	9	8.5
	26 years or longer	3	2.8

Summary of Results

I computed descriptive statistics for all of the study variables. The means (M) and standard deviations (SD) of authentic leadership first-order ($M = 3.12, SD = 0.76$) and second-order constructs—internalized moral perspective ($M = 3.29, SD = .74$), relational transparency ($M = 3.17, SD = .84$), balance processing ($M = 3.17, SD = .84$), and self-awareness ($M = 2.91, SD = .990$)—showed moderate levels of authenticity. The means and standard deviations of employee engagements aggregate score—($M = 4.74, SD = 0.91$)—and the three subscales—dedication ($M = 4.82, SD = 1.06$), absorption ($M = 4.78, SD = 1.01$), and vigor ($M = 4.61, SD = 1.06$)—showed high levels of engagement. I found no significant relationships while controlling for three of the demographic variables (age, gender, and position level) and the major study outcome variable (employee engagement). However, I found statistically significant mean differences between one of the demographic measures (years of service) and engagement. There was also a significant difference identified in the participants' level of engagement and the use of data-collection methods; in this case, paper and online surveys.

I examined the data for normal distribution. The normality plot test, the Kolmogorov-Smirnov statistic, tested the normality of the datasets; and I used histograms to visually examine the frequency distribution of the data. Both tests showed that the data were normally distributed. Details of these tests are reported in the results section below.

I used Pearson's r for the hypothesis testing for normally distributed data. The analysis of the correlations among the major study variables showed a statistically significant relationship between authentic leadership behaviors and follower/employee

engagement while controlling for company type ($r[106] = .28, p < .01$). The results from all 12 subhypotheses measuring the relationship between the subscales of the ALQ (Walumbwa et al., 2008) and the subscales of the UWES (Schaufeli et al., 2002) yielded 11 moderate correlations and one facet with no significant correlation (see details summarized in Table 2).

Table 2

Summary of Correlations Between Authentic Leadership and Follower/Employee Engagement

Control variable measure	1	2	3	4	5	6	7	8	9
Company 1. Authentic leadership	—	.91**	.91**	.91**	.88**	.28**	.27**	.27**	.23*
2. Relational transparency	.91**	—	.86**	.75**	.71**	.23*	.19*	.23*	.21*
3. Internalized moral perspective	.91**	.86**	—	.81**	.68**	.30**	.27**	.29**	.24*
4. Balanced processing	.91**	.74**	.81**	—	.75**	.24*	.21*	.23*	0.19
5. Self-awareness	.88**	.71**	.68**	.75**	—	.25*	.25*	.23*	.20*
6. Employee engagement	.28**	.23*	.30**	.24*	.25*	—	.92**	.90**	.87**
7. Vigor	.26**	.19*	.27**	.21*	.25*	.92**	—	.77**	.68**
8. Dedication	.27**	.23*	.29**	.23*	.23*	.90**	.77**	—	.66**
9. Absorption	.23*	.21*	.24*	0.19	.20*	.87**	.68**	.66**	—

Note. $N = 106$.

** Correlation is significant at 0.01 level.

* Correlation is significant at 0.05 level.

Results in Detail

Descriptive Statistics

I computed descriptive statistics for all of the study variables. The means and standard deviations for the major study variables are summarized in Table 3. The

employees perceived their leaders as demonstrating a moderate level of authentic leadership ($M = 3.12$, $SD = 0.76$). Of the four subscales that contribute to authentic leadership, the employees reported an internalized moral perspective ($M = 3.29$, $SD = .74$) as the highest authentic leadership factor, followed by transparency ($M = 3.17$, $SD = .84$), balance processing ($M = 3.17$, $SD = .84$), and self-awareness ($M = 2.91$, $SD = .990$). The employees in this study were engaged ($M = 4.74$, $SD = 0.91$). Of the three subscales that contribute to engagement, the employees reported dedication ($M = 4.82$, $SD = 1.06$) as the highest engagement factor, followed by absorption ($M = 4.78$, $SD = 1.01$) and vigor ($M = 4.61$, $SD = 1.06$).

Table 3

Summary of Descriptive Statistics

Instrument	<i>M</i>	<i>SD</i>
Authentic leadership	3.12	0.77
Subscales		
Relational transparency	3.17	0.84
Internal moral perspective	3.29	0.74
Balance processing	3.12	0.82
Self-awareness	2.91	0.99
Engagement	4.74	0.92
Subscales		
Vigor	4.61	1.06
Dedication	4.82	1.06
Absorption	4.79	1.01

Note. $n = 106$.

Demographic Variables

I performed statistical tests (independent sample *t*-test and ANOVA) to determine any significant relationships when controlling for the four demographic variables (gender, age, position level, and years of service) and the major study variable (employee engagement). The *t*-test was used to determine whether there was a significant mean difference between the demographic variables for groups of two (such as gender). I conducted the ANOVA test to assess any significant differences between more than two group means (such as age, position level, and years of service; Warner, 2008).

I conducted an independent sample *t*-test analysis to determine whether there was a mean difference in gender. The male and female groups had 14 and 92 participants, respectively. I assessed the assumption of homogeneity of variance by using the Levene test ($F = .04, p = .949$), which indicates no significant violation of the equal variance assumption; therefore, I used the pooled variances version of the *t* test. The difference in mean engagement scores was not statistically significant: $t(104) = 1.16, p = .25$, two-tailed. The *p*-value was not statistically significant because it was greater than $p = .05$. The 95% confidence interval (CI) between the mean of sample means M_{female} M_{male} , had a lower bound of $-.22$ and an upper bound of $.83$. The means and standard deviations for the gender groups are shown in Table 4. The overall conclusion is that there is no difference in the level of engagement between males ($M = 4.48, SD = .92$) and females ($M = 4.78, SD = .92$).

Table 4

Independent Sample t-test for Gender

Group statistics: Gender									
Engagement	<i>N</i>	<i>M</i>	<i>SD</i>	Std. error mean					
Female	92	4.78	0.92	0.10					
Male	14	4.48	0.92	0.25					
Independent samples test									
Engagement	Levene's test for equality of variances			<i>t</i> -test for equality of means					
	<i>F</i>	<i>Sig.</i>	<i>t</i>	<i>df</i>	Sig. (2-tailed)	Mean difference	Std. error difference	95% confidence interval of the difference	
Equal variances assumed	.004	.949	1.16	104.00	0.25	0.31	0.26	-0.22	0.83
Equal variances not assumed			1.16	17.17	0.26	0.31	0.26	-0.25	0.86

I used the ANOVA to compare the mean scores for engagement for the participants in different age groups. The age groups of 18-25, 26-40, 41- 55, and 56 and older had 7, 43, 41, and 15 participants, respectively. The overall *F* for the one-way ANOVA was not statistically significant: $F(3,102) = .736, p = .533$). The *p*-value was not statistically significant because $p > .05$. This corresponds to the effect size, which was .02; that is, about 2% of the variance in engagement scores was predictable from the participants' age. This is a small effect. The means and standard deviations for the age groups are shown in Table 5. The overall conclusion is that there is no statistical difference between age and level of engagement.

Table 5

ANOVA Test for Age

Age	N	Mean	Std. deviation	Std. error	95% confidence interval for mean		Minimum	Maximum
					Lower bound	Upper bound		
18-25	7	4.40	0.92	0.35	3.55	5.24	2.89	5.22
26-40	43	4.65	1.06	0.16	4.33	4.98	2.11	6.00
41-55	41	4.85	0.72	0.11	4.62	5.07	3.11	6.00
56 or older	15	4.87	1.01	0.26	4.32	5.43	2.78	6.00
Total	106	4.74	0.92	0.09	4.56	4.92	2.11	6.00

Age	Sum of squares	Df	Mean square	F	Sig.
Between groups	1.882	3	.627	.736	.533
Within groups	86.955	102	.852		
Total	88.837	105			

I used the ANOVA to determine whether there is a significant difference between position level and engagement. The position-level groups of administrative, frontline, professional, manager, senior manager, and executive had 23, 54, 11, 15, 1, and 1 participant, respectively. I grouped three of the position-level management groups (manager, senior manager, and executive) given the low level of respondents in two of the three categories. The overall F for the one-way ANOVA was not statistically significant: $F(3,101) = 2.139, p = .100$. The p -value was not statistically significant because $p > .05$. This corresponds to the effect size, which was .06; that is, about 6% of the variance in engagement scores was predictable from the participants' position levels. This is a small effect. The means and standard deviations for the age groups are shown in

Table 6. The overall conclusion is that there is no statistical difference between position level and level of engagement.

Table 6

ANOVA Test for Position Level

Position level	N	M	SD	Std. error	95% confidence interval for mean		Minimum	Maximum
					Lower bound	Upper bound		
Administrative or clerical support	23	4.34	1.05	0.22	3.89	4.80	2.11	5.67
Front-line employee	54	4.91	0.90	0.12	4.66	5.16	2.33	6.00
Professional or technician	11	4.75	0.64	0.19	4.32	5.18	3.67	5.78
Manager, Senior Manager and Executive	15	4.79	0.82	0.20	4.37	5.22	2.78	5.78
Total	105	4.75	0.92	0.09	4.57	4.93	2.11	6.00

	Sum of squares	df	Mean square	F	Sig.
Between groups	5.237	3	1.746	2.139	.100
Within groups	82.442	101	.816		
Total	87.679	104			

I used the ANOVA to determine whether there is a significant difference between years of service and engagement. The years-of-service groups of less than a year, 1-2 years, 2-5 years, 6-10 years, 11-15 years, 16-25 years, and 26 or longer had 8, 20, 28, 25, 12, 9, and 3 participants, respectively. The overall F for the one-way ANOVA was statistically significant: $F(6,98) = 2.456, p = .03$. The p -value is statistically significant

because $p < .05$. The means and standard deviations for the age groups are shown in Table 7. The overall conclusion is that there is a difference between years of service and level of engagement.

Table 7

ANOVA Test for Years of Service

Years of service	N	M	SD	Std. error	95% confidence interval for mean		Minimum	Maximum	Between- component variance
					Lower bound	Upper bound			
< 1	8	5.46	0.40	0.14	5.13	5.79	5.00	6.00	
1–2	20	5.06	0.82	0.18	4.68	5.45	3.33	6.00	
2–5	28	4.32	1.07	0.20	3.91	4.74	2.11	5.78	
6–10	25	4.79	0.78	0.16	4.47	5.11	3.11	6.00	
11–15	12	4.61	1.11	0.32	3.91	5.31	2.33	6.00	
16–25	9	4.80	0.64	0.21	4.31	5.29	3.89	5.78	
26 or more	3	4.89	0.22	0.13	4.34	5.44	4.67	5.11	
Total	105	4.75	0.92	0.09	4.57	4.93	2.11	6.00	
Model									
Fixed effects			0.88	0.09	4.58	4.92			
Random effects				0.15	4.38	5.12			0.08

Years of service	Sum of squares	Df	Mean square	F	Sig.
Between groups	11.460	6	1.910	2.456	.030
Within groups	76.219	98	.778		
Total	87.679	104			

The use of a dual data-collection method (paper and online) for this research study prompted a statistical test to determine whether there was a difference in the mean for engagement among the participants who completed the survey online versus the paper copy (Table 8). I used the *t*-test to determine whether there is a significant difference between the two groups that I measured; in this case, paper and online, which had 35 and 71 participants, respectively. I assessed the assumption of homogeneity of variance by using the Levene test: $F = 1.94, p = .17$. This indicated no significant violation of the equal variance assumption; therefore, I used the pooled-variances version of the *t* test.

Table 8

Independent Sample t-test for Data-Collection Method

Group statistics: Data-collection method									
Data-collection method	<i>N</i>	<i>M</i>	<i>SD</i>	Std. error mean					
Paper	35	5.10	0.80	0.14					
Online	71	4.56	0.93	0.11					
Independent samples test									
Data-collection method	Levene's test for equality of variances		T-test for equality of means						
	<i>F</i>	Sig.	<i>T</i>	<i>Df</i>	Sig. (2-tailed)	Mean difference	Std. error difference	95% confidence interval of the difference	
Equal variances assumed	1.94	0.17	2.96	104.00	0.00	0.54	0.18	0.18	0.91
Equal variances not assumed			3.12	77.43	0.00	0.54	0.17	0.20	0.89

The difference in mean engagement scores was statistically significant: $t(104) = 2.96, p = .00$, two-tailed. The *p*-value was statistically significant because

$p < .05$. The 95% CI between the mean of sample means M_{paper} , M_{online} had a lower bound of .18 and an upper bound of .91. The overall conclusion is that there is a difference between the paper ($M = 5.10$, $SD = .80$) = .92) and online ($M = 4.56$, $SD = .93$) methods and the participants' level of engagement.

Hypotheses Testing

I used statistical correlational analysis to test the proposed hypotheses. Correlational coefficients measured the strength and direction of the relationship between the authentic leadership behaviors and follower/employee engagement. The correlation analysis established whether a statistically significant relationship existed. The correlation was between -1 and +1, with a stronger relationship associated with either furthest value (Creswell, 2005). Commonly accepted levels of correlational strength are as follows: Pearson correlation of $r = +/-0.50$ is strong; $r = +/-0.30$ is moderate; and $r = +/-0.10$ is weak (Warner, 2008).

To determine the strength and direction of the relationships between the authentic leadership behaviors and follower/employee engagement, I used correlation coefficients. The Pearson correlation for normally distributed data was included as the research design for this study as correlational methods test whether a statistically significant relationship existed between the variables (Creswell, 2005). For this research study I examined the data using SPSS for normal distribution and used normality plot tests to classify and appropriately apply statistical tests such as the correlation analysis. The Kolmogorov-Smirnov statistic tests the normality of datasets (SPSS, 2005; Table 9), and I used histograms (Figures 2 and 3) to visually examine the frequency distribution of the data.

Table 9

Kolmogorov-Smirnov Test for Normal Distribution

Statistic		Engagement	AL	Vigor	Dedication	Absorption	Transparency	Ethical	Balance	Self
Normal parameters ^{a,b}	Mean	4.74	3.12	4.61	4.82	4.78	3.16	3.28	3.12	2.91
	Std. deviation	0.92	0.77	1.06	1.06	1.01	0.84	0.74	0.82	0.99
Most extreme differences	Absolute	0.17	0.15	0.18	0.14	0.19	0.17	0.17	0.20	0.14
	Positive	0.09	0.13	0.10	0.13	0.12	0.16	0.17	0.14	0.14
	Negative	-0.17	-0.15	-0.18	-0.14	-0.19	-0.17	-0.16	-0.20	-0.14
Kolmogorov-Smirnov Z		1.73	1.57	1.85	1.47	1.92	1.71	1.72	2.00	1.48
Asymp. sig. (2-tailed)		0.01	0.01	0.00	0.03	0.00	0.01	0.01	0.00	0.03

Note. N = 106.

^aTest distribution is normal. ^bCalculated from data.

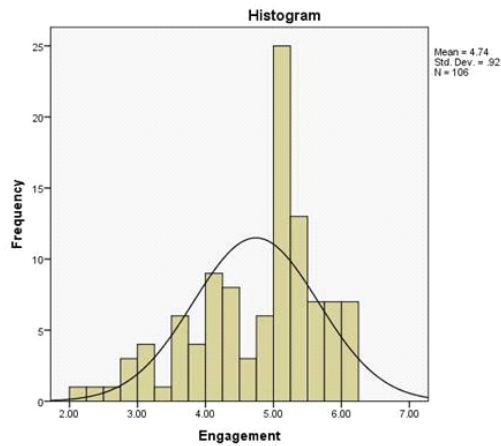


Figure 2. Histogram of UWES scale.

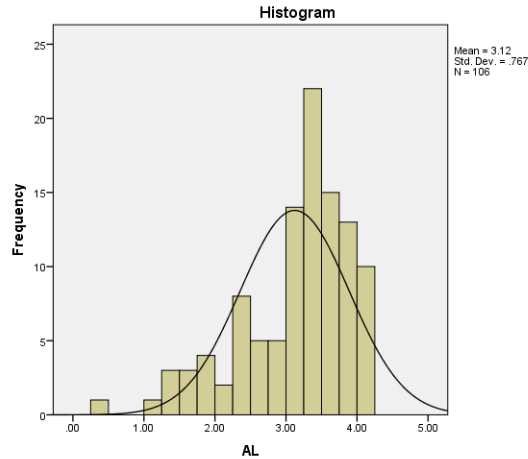


Figure 3. Histogram of ALQ scale.

The results indicate that the research data were normally distributed. The Kolmogorov-Smirnov statistics were normally distributed datasets, as anticipated with the use of Likert-type scales (Creswell, 2005). A visual review of the data in the histograms also indicates normal distribution (Figures 2 and 3). The survey used two scales in Likert-type format; this design usually results in normally distributed data (Creswell, 2005). In cases of normally distributed data, the correlation analysis of the Pearson correlation coefficient can be used.

After I had completed the tests and examined the data for normal distribution (as shown in Figures 2 and 3), I used the Pearson correlation to test the aggregate UWES and AL scores as well as the subscores for each. I used Pearson's r to examine the presence, or lack of presence, of a statistically significant relationship at the $p < .05$ level. The SPSS statistical computer program automatically detected significance levels, and I deduced that that the null hypothesis would have been accepted with the discovery of no

significant relationship between the variables and, conversely, that the respective alternate hypothesis would have been accepted with the discovery of a statistically significant relationship between the variables.

I used Pearson correlation statistical analyses to test the main hypothesis and the 12 subhypotheses in an effort to determine whether a statistical significance existed between the variables. A rejection of the null hypotheses occurs if the correlation probabilities are below the $p < .05$ level of significance. In an analysis in which the significance is less than $p < .05$, moderate evidence against the null hypothesis exists (Creswell, 2005). This level of significance also signifies a less than 5% probability of making a Type I error, which erroneously rejects the null hypothesis. Additionally, a level of significance of $p < .01$ equates to less than a 1% probability of making a Type I error. For this research I set the level of significance, based upon the subject matter, at $p < .05$.

The basis of the analyses was a single main hypothesis with 12 subhypotheses. The first hypothesis addressed the possible relationship between the overall authentic leadership score and the employee engagement score. Analyses of the other subhypotheses addressed individual facets of the authentic leadership score in relation to and individual facets of follower/employee engagement. I used correlational analysis to examine the 12 subhypotheses.

For the current research study I employed a research question to develop the relevant hypotheses. The subsequent research question directed the current study and established the associated hypotheses: Is there a statistically significant relationship

between authentic leadership behaviors and follower/employee engagement while controlling for company type?

Main Hypothesis: Authentic Leadership and Employee Engagement

The main hypothesis, Hypothesis H₀ (null hypothesis), states: There is no statistically significant relationship between authentic leadership behaviors and employee engagement while controlling for company type.

The alternate hypothesis, Hypothesis H_a, maintains: There is a statistically significant relationship between authentic leadership behaviors and employee engagement while controlling for company type.

A test of the aggregate score for the authentic leadership dimensions for correlation with the follower/employee engagement (Table 10) revealed a statistically significant, yet moderate, relationship between authentic leadership and total follower/employee engagement, ($r[106] = .28, p < .01$).

Table 10

Correlation Between Authentic Leadership and Follower/Employee Engagement

	Control variables	Engagement	Authentic leadership
Company	Engagement	1	.28*
	Authentic leadership	.28*	1

*Correlation is significant at 0.01 level.

Subhypotheses

The subhypotheses included the facets of the authentic leadership scale and the follower/employee engagement scales. If a statistically significant relationship existed, the null hypotheses would have been rejected, and the alternate hypotheses would have been accepted.

The subhypotheses state as follows:

Hypothesis H₀₁ (null hypothesis): There is no statistically significant relationship between self-awareness and follower vigor while controlling for company type.

Hypothesis H_{a1} (alternate hypothesis): There is a statistically significant relationship between self-awareness and follower vigor while controlling for company type (Table 11).

Table 11

Correlations Between the Facets of Authentic Leadership and Follower/Employee Engagement

Control variable measure	1	2	3	4	5	6	7
Company							
1. Relational transparency	—	.86**	.75**	.71**	.19*	.23*	.21*
2. Internalized moral perspective	.86**	—	.81**	.68**	.27**	.29**	.24*
3. Balanced processing	.74**	.81**	—	.75**	.21*	.23*	0.19
4. Self-awareness	.71**	.68**	.75**	—	.25*	.23*	.20*
5. Vigor	.19*	.27**	.21*	.25*	—	.77**	.68**
6. Dedication	.23*	.29**	.23*	.23*	.77**	—	.66**
7. Absorption	.21*	.24*	0.19	.20*	.68**	.66**	—

Note. N = 106.

** Correlation is significant at 0.01 level.

* Correlation is significant at 0.05 level.

For the correlation between self-awareness and follower/employee vigor subhypotheses, a statistically significant relationship was identified: ($r[106] = 0.25$, $p < 0.05$) and therefore, the null hypotheses was rejected.

Hypothesis H₀₂ (null hypothesis): There is no statistically significant relationship between self-awareness and follower dedication while controlling for company type.

Hypothesis H_{a2} (alternate hypothesis): There is a statistically significant relationship between self-awareness and follower dedication while controlling for company type (Table 18).

For the correlation between self-awareness and follower/employee dedication subhypotheses, a statistically significant relationship was determined: ($r[106] = 0.23$, $p < 0.05$) and therefore, the null hypothesis was rejected.

Hypothesis H₀₃ (null hypothesis): There is no statistically significant relationship between self-awareness and follower absorption while controlling for company type.

Hypothesis H_{a3} (alternate hypothesis): There is a statistically significant relationship between self-awareness and follower absorption while controlling for company type (Table 10).

For the correlation between self-awareness and follower/employee absorption subhypotheses, a statistically significant relationship was identified: ($r[106] = 0.20$, $p < 0.05$) and hence, the null hypotheses was rejected.

Hypothesis H₀₄ (null hypothesis): There is no statistically significant relationship between relational transparency and follower vigor while controlling for company type.

Hypothesis H_{a4} (alternate hypothesis): There is a statistically significant relationship between relational transparency and follower vigor while controlling for company type (Table 10).

For the correlation between relational transparency and follower/employee vigor subhypotheses, a statistically significant relationship was determined: ($r[106] = 0.19$, $p < 0.05$) and therefore, the null hypothesis was rejected.

Hypothesis H₀₅ (null hypothesis): There is no statistically significant relationship between relational transparency and follower dedication while controlling for company type.

Hypothesis H_{a5} (alternate hypothesis): There is a statistically significant relationship between relational transparency and follower dedication while controlling for company type (Table 10).

For the correlation between relational transparency and follower/employee dedication subhypotheses, a statistically significant relationship was identified: ($r[106] = 0.23$, $p < 0.05$) and so, the null hypothesis were rejected.

Hypothesis H₀₆ (null hypothesis): There is no statistically significant relationship between relational transparency and follower absorption while controlling for company type.

Hypothesis H_{a6} (alternate hypothesis): There is a statistically significant relationship between relational transparency and follower absorption while controlling for company type (Table 18).

For the correlation between relational transparency and follower/employee absorption subhypotheses, a statistically significant relationship was determined: ($r[106] = 0.21, p < 0.05$) and therefore, the null hypothesis was rejected.

Hypothesis H₀₇ (null hypothesis): There is no statistically significant relationship between internalized moral perspective and follower vigor while controlling for company type.

Hypothesis H_{a7} (alternate hypothesis): There is a statistically significant relationship between internalized moral perspective and follower vigor while controlling for company type (Table 8).

For the correlation between internalized moral perspective and follower/employee vigor subhypotheses, a statistically significant relationship was identified: ($r[106] = 0.27, p < 0.01$) and therefore, the null hypothesis was not accepted.

Hypothesis H₀₈ (null hypothesis): There is no statistically significant relationship between internalized moral perspective and follower dedication while controlling for company type.

Hypothesis H_{a8} (alternate hypothesis): There is a statistically significant relationship between internalized moral perspective and follower dedication while controlling for company type (Table 10).

For the correlation between internalized moral perspective and follower/employee dedication subhypotheses, a statistically significant relationship was determined:

$(r[106] = 0.29, p < 0.01)$ and so, the null hypothesis was rejected.

Hypothesis H₀₉ (null hypothesis): There is no statistically significant relationship between internalized moral perspective and follower absorption while controlling for company type.

Hypothesis H_{a9} (alternate hypothesis): There is a statistically significant relationship between internalized moral perspective and follower absorption while controlling for company type (Table 10).

For the correlation between internalized moral perspective and follower/employee absorption subhypotheses, a statistically significant relationship was identified:

$(r[106] = 0.24, p < 0.05)$ and hence, the null hypothesis was rejected.

Hypothesis H₁₀ (null hypothesis): There is no statistically significant relationship between balanced processing and follower vigor while controlling for company type.

Hypothesis H_{a10} (alternate hypothesis): There is a statistically significant relationship between balanced processing and follower vigor while controlling for company type (Table 10).

For the correlation between balanced processing and follower/employee vigor subhypotheses, a statistically significant relationship was identified: $(r[106] = 0.21, p < 0.05)$ and therefore, the null hypothesis was rejected.

Hypothesis H₁₁ (null hypothesis): There is no statistically significant relationship between balanced processing and follower dedication while controlling for company type.

Hypothesis H_{a11} (alternate hypothesis): There is a statistically significant relationship between balanced processing and follower dedication while controlling for company type (Table 10).

For the correlation between balanced processing and follower/employee dedication subhypotheses, a statistically significant relationship was determined: ($r[106] = 0.23, p < 0.05$) and so, the null hypothesis was rejected.

Hypothesis H₁₂ (null hypothesis): There is no statistically significant relationship between balanced processing and follower absorption while controlling for company type.

Hypothesis H_{a12} (alternate hypothesis): There is a statistically significant relationship between balanced processing and follower absorption while controlling for company type (Table 10).

For the correlation between balanced processing and follower/employee absorption subhypotheses, a statistically significant relationship was not discovered: ($r[106] = 0.19$) and therefore, the null hypothesis was accepted. Figure 4 summarizes the correlations.

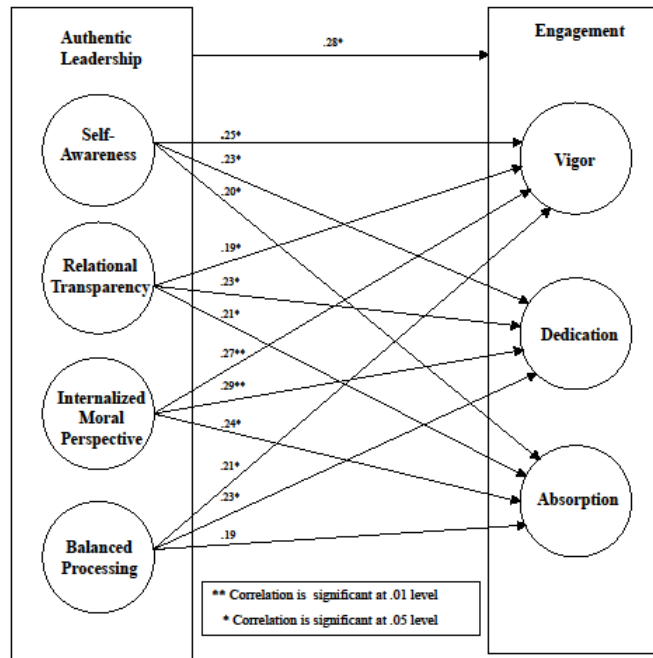


Figure 4. Correlation summary.

Chapter 4 Conclusions

Chapter 4 included the data analyses and results from the current research. An analysis of the demographics of the survey respondents revealed an imbalance of female and male participants, however, no significant relationships while controlling for gender or demographic variables of age and position level. However, significant mean differences between one of the demographic measures (years of service) and engagement were identified. There was also a significant difference in engagement mean with the use of dual data- collection methods; in this case, paper and online surveys. The results of the correlational testing support a moderate, yet, statistically significant relationship between the main variables authentic leadership behaviors and follower/employee engagement

while controlling for company type. Statistically significant relationships were also found in 11 (self-awareness and follower vigor, self-awareness and follower dedication, self-awareness and follower absorption, relational transparency and follower vigor, relational transparency and follower dedication, relational transparency and follower absorption, internalized moral perspective and follower vigor, internalized moral perspective and follower dedication, internalized moral perspective and follower absorption, balanced processing and follower/employee vigor, balanced processing and follower dedication) of the 12 subhypotheses while controlling for company type. Chapter 5 includes an interpretation of the findings from the data analyses, a discussion of the implications of the findings of this and other research, and a discussion of the limitations of the current study. I also make recommendations for future research.

CHAPTER 5. DISCUSSION OF THE RESULTS OF THE STUDY

Chapter 5 contains a discussion of the findings from the data analysis that I detailed in Chapter 4. The Chapter 5 discussion leads into the issues surrounding the current research scope and respective limitations, as well as the theoretical implications and practical application of the findings for further research and the significance of the conclusions for organizations.

Summary of Results

Improving employee engagement has become a major concern for organizational leaders and HR practitioners in recent years, given the benefits of increased engagement (e.g., high levels of employee engagement have been linked to reduced employee turnover and greater financial performance and sales; Harter et al., 2010; Harter et al., 2002) and the prevalence of employee disengagement in organizations today (BlessingWhite, Inc., 2008; Towers Perrin, 2008). Therefore, researchers and practitioners need to understand which factors will optimize follower/employee engagement (Attridge, 2009; Christian et al., 2011; Harter & Blacksmith, 2010; Saks, 2006). There is evidence in the literature that leadership is a key factor in follower outcomes such as engagement (Attridge, 2009; Kahn, 1990; Macey & Schneider, 2008; May et al., 2004; Saks, 2006; Schaufeli & Bakker, 2004a). Authentic leadership development theory is a recently documented theory of leadership. The problem is the

lack of knowledge supporting whether or not a relationship between authentic leadership behaviors and follower/employee engagement exists. Researchers have identified a theoretical link between the two (Avolio, Gardner, Walumbwa, Luthans, & May, 2004; Gardner, Avolio, Luthans, May, & Walumbwa, 2005; Walumbwa et al., 2008), but only a few empirical studies (Giallonardo et al., 2010; Walumbwa, Wang et al., 2010) have tested the direct relationship.

This quantitative, nonexperimental, correlational research study complements previous research based in authentic leadership and employee engagement. The current research increases the limited knowledge on authentic leadership theory and employee engagement by improving the understanding of the correlation among all of the facets of authentic leadership and engagement. The current research also appends quantitative studies on authentic leadership and employee engagement conducted in organizational settings in Canada, because only three Canadian studies (Giallonardo et al., 2010; Wong & Cummings, 2009a; Wong et al., 2010) have been conducted within the same topic. This research study will help to fill the gap in the literature with its finding of a relationship between higher-order authentic leadership behaviors and employee/follower engagement.

Discussion of the Results

In the current research I determined that a relationship exists between authentic leadership behaviors and follower/employee engagement. The results of the data analysis support a significant, yet moderate, correlation between the aggregate scores of authentic leadership behavior and follower/employee engagement, ($r[106] = .28, p < .01$), while

controlling for company type. Although correlation does not imply causation (Creswell, 2005), the statistically significant relationship supports the premise that the employees who perceived their leaders as demonstrating authentic leadership behaviors also reported greater engagement in their work roles. The results of this research, if interpreted strictly by the research-data results, suggest there is a relationship between leaders who demonstrate authentic leadership behaviors and the engagement of the target subjects. This finding would support the initiation or continuation of authentic leadership behaviors for leaders in the target population.

The results from all 12 subhypotheses measured the relationship between the subscales of the ALQ (Walumbwa et al., 2008) and the subscales of the UWES (Schaufeli et al., 2002). The four facets of ALQ (or authentic leadership) included self-awareness, relational transparency, internalized moral perspective, and balanced processing. The three facets of UWES (or engagement) included vigor, dedication, and absorption. The relationship between the facets of authentic leadership and engagement yielded 11 moderate correlations and one facet with no significant correlation (see Figure 4 for details).

Of all the facets of authentic leadership, internalized moral perspective showed the strongest correlations to the engagement dimensions. That is, internalized moral perspective had the strongest relationship with dedication ($r[106] = .29, p < .01$), followed by vigor ($r[106] = .27, p < .01$), and then absorption ($r[106] = .24, p < .05$). Perhaps these positive correlations with internalized moral perspective suggest that the most influential behaviors on engagement, within the authentic leadership definition, are

those guided by the leaders' moral standards and values. Internalized moral-perspective, as defined by the ALQ assessment, measures the leaders' behaviors and decisions guided by their authentic self (values, beliefs, thoughts, and feelings) rather than pressures from the external environment (Gardner et al., 2005; Walumbwa et al., 2008). As with internalized moral perspective, all of the other three facets of authentic leadership—self-awareness, relational transparency, and balanced processing—had the strongest correlation with the dedication dimension of engagement ($r[106] = .23, p < .05$; $r[106] = .23, p < .05$; and $r[106] = .24, p < .05$, respectively). Because a person whose dedication is high finds meaning and purpose in his or her work (Schaufeli & Bakker, 2004b; Schaufeli et al., 2002), the results of the current research suggest that all dimensions of authentic leadership, no matter the facet, have the greatest impact on an individual's dedication (enthusiasm, feeling of pride, or inspiration) to his or her work.

The data analysis contained only one subhypothesis with no statistically significant relationship. Balance processing had no statistically significant relationship with absorption ($r[106] = .19$). This result suggests that the leaders perceived as interpreting all of the relevant information before deciding on a course of action (Gardner et al., 2005; Walumbwa, Wang et al., 2010) and that their followers' immersion in their work (Schaufeli & Bakker, 2004b; Schaufeli et al., 2002), had the weakest relationship of all of the dimensions.

Several limitations could have impacted the results of the current study: those related to the methodology that I used to gather the data (paper and online survey) and the self-report questionnaires. Another possible limitation of the current study is the

transferability of findings to other countries, regions, and industries. Another limitation of the study was the imbalance of female and male participants. Another potential limitation of the study is that the level of engagement was likely to be higher of the participants from Top 50 Best Employers in Canada list than that of employees selected from a random list of Canadian companies. A further potential limitation is the statistical validity associated with the number of responses. Another potential limitation of the research study is that it is a correlational study. Finally, the overall validity of this research is limited to the reliability of the two survey instruments, the ALQ and the UWES. I discuss the limitations in detail in the Limitations section.

This current study bears theoretical implications for the fields of industrial/organizational psychology, occupational health psychology, and positive psychology. The theoretical framework of the current research integrated Walumbwa et al.'s (2008) conceptualization of authentic leadership with Schaufeli and Bakker's (2004a) concept of work engagement. The current study supports the theoretical framework that the demonstrated use of authentic leadership creates authentic relationships and fosters employee engagement in an organizational context. The results from the current research also have practical implications.

The findings from the current study will assist organizational leaders and HR practitioners in identifying the leadership behaviors linked to high levels of employee engagement. This knowledge can be used to shape HR practices in leadership. The results suggest that the leaders who demonstrated the key dimensions of authenticity (self-awareness, relational transparency, internalized moral perspective, and balanced

processing) positively influenced the engagement of individual employees within the framework of the research. A measurement or query concerning the level of demonstrated authentic leadership behaviors of leaders (or potential leaders) may assist HR professionals to select for, further develop, and increase the engagement of employees. One possible implication for organizations is that candidates for leadership roles with well-developed authentic leadership skills might be better suited. HR leaders could include authentic leadership behaviors as a selection criterion for leadership candidates. Also, using the strength of correlation of the facets of authentic leadership, organizational leaders could vary the level of training or selection criteria based on specific factors of authentic leadership (such as internalized moral perspective). Measuring and monitoring the authentic leadership capabilities of individuals in leadership roles will foster training programs that are appropriate to the individual. This could include the level and type of training that individuals require to develop authentic leadership skills as identified by the ALQ scale. With knowledge of the increasing challenge of disengagement in the workforce (BlessingWhite, Inc., 2008; Towers Perrin, 2008), hiring and developing leaders who already demonstrate authentic leadership behaviors should improve organizational outcomes.

Discussion of the Conclusions

The current research contributes to authentic leadership development theory and engagement research in the fields of industrial/organizational psychology, occupational health psychology, and positive psychology. This study adds to the limited body of knowledge in the psychological literature because of its testing of the current theory on

the relationship between authentic leadership and engagement and thereby increases the understanding of the correlation between the two variables. The current research also appends quantitative studies on authentic leadership and employee engagement conducted in organizational settings in Canada.

The data analysis from the current research supported the theory that authentic leadership behaviors increase follower/employee engagement. The current research identified a positive relationship between authentic leadership behaviors and follower/employee engagement ($r[106] = .28, p < .01$). These findings empirically support Avolio et al.'s (2004) assertion that a relationship exists between authentic leadership and employees' attitudes and behaviors. The results also complement Giallonardo et al.'s (2010) and Walumbwa, Wang et al.'s (2010) findings when they tested the direct effects of authentic leadership and follower/employee engagement ($r[170] = .21, p < .01$; $r[387] = .26, p < .01$, respectively). This research relied upon empirical data to support the relationship between the factors of authentic leadership and follower/employee engagement as measured through an appropriate instrument of appended scales.

The statistical results from all 12 subhypotheses that measured the relationship between the facets of authentic leadership and engagement yielded 11 significant relationships; however, one facet had no significant correlation (see Figure 4 for details). Of all of the facets of authentic leadership, internalized moral perspective showed the strongest correlations to the engagement dimensions (dedication: $r[106] = .29, p < .01$), vigor: $r[106] = .27, p < .01$), and absorption ($r[106] = .24, p < .05$). These results

reinforce the findings of Giallonardo et al. (2010), who also found that internalized moral perspective to have the most significant positive relationship with work engagement ($r[170] = r = 0.24, P < 0.01$). These positive correlations with internalized moral perspective imply that the most influential authentic leadership behaviors on engagement, are those directed by the leaders' morals, integrity and values. This increased awareness of understanding the most dominant authentic leadership behaviors on engagement, can be used by organizational leaders to optimize follower/employee engagement. Hence, HR practitioners should design leadership selection and training criteria that emphasize the behaviors of internalized moral perspective over the other facets (self-awareness, relational transparency, and balanced processing) of authentic leadership.

All four facets of authentic leadership—internalized moral perspective, self-awareness, relational transparency, and balanced processing—have the strongest correlation to the dedication dimension of engagement ($r[106] = .23, p < .05$; $r[106] = .23, p < .05$; and $r[106] = .24, p < .05$, respectively). These results are consistent with Giallonardo et al.'s (2010) previous research on authentic leadership and work engagement; they also identified dedication as the facet of work engagement with the highest correlation with authentic leadership ($r[170] = r = 0.31, P < 0.01$). These results suggest that leaders who demonstrate the key dimensions of authenticity will have the most positive relationship with follower/employee engagement facet of dedication. This knowledge suggests that leadership selection and development practices that include all three dimensions of authentic leadership will have the greatest impact on follower dedication. These findings may also reveal that organizational leaders wanting to increase

engagement with the engagement facets of vigor and dedication may have to consider additional interventions.

Only one of the 12 subhypotheses had no significant relationship (balance processing and absorption— $r[106] = .19$). These findings are consistent with those of Giallonardo et al., who found no significant correlation between authentic leadership and the absorption subscale of engagement. These results suggest that of all the factors of authentic leadership and follower/employee engagement, the weakest relationship exists between balanced processing (leaders perceived as considering all of the pertinent information before taking action) and absorption (followers' captivation in their work). These findings may suggest that leadership has the least impact on an individuals' immersion in their job and that organizational leaders will need to consider additional interventions to create a more positive relationship with the absorption dimension of engagement.

As noted above, the aggregate authentic leadership score has a statistically significant relationship with aggregate follower/employee engagement scores. Additionally, all of the four facets of authentic leadership are significantly correlated with the aggregate engagement score: self-awareness ($r[106] = .25, p < .05$), relational transparency ($r[106] = .23, p < .05$), internalized moral perspective ($r[106] = .30, p < .01$), and balanced processing ($r[106] = .25, p < .05$). Although these results are consistent with Giallonardo et al.'s previous research on work engagement, I did not include them in the subhypotheses testing in this research study.

I also did not include any subhypotheses testing for the demographic variables (gender, age, length of service, and position level) in this research study, although statistical tests were conducted. There were no significant relationships found when controlling for age, position level or gender (even though the demographics of the survey respondents revealed an imbalance of female and male participants). These results were consistent with Schaufeli's et al. (2006) review of 27 engagement studies that were carried out in 10 countries ($N = 14,521$) and found that the relationship between engagement and demographic variables (such as gender and age) were weak. Moreover, no gender differences in the engagement dimensions in the participants in the Australian, Canadian, and French samples were observed, slightly higher scores for men than women in the Belgian, German, Finnish, and Norwegian samples; and slightly higher scores for women than men in South African and Dutch samples (Schaufeli et al.).

Only one demographic variable (years of service) had a significant difference with the main study variable (engagement). It was found that the respondents' level of engagement declined as years of service increased in all tenure categories except for those participants having 26 or more years of service. Although previous research (Hallberg, Schaufeli, 2006; Hakanen, Bakker, & Schaufeli, 2006) found no significant differences in tenure and engagement, the results from the current study may suggest that organizational leaders will need to consider the relationship between demographic variables and engagement.

Limitations

Several limitations of the current study could have impacted the results: those related to the methodology that I used to gather the data (paper and online survey) and the self-report questionnaires. At the request of the participating companies, I developed a paper version of the survey that I used in addition to the online version. I found the difference in the mean engagement scores between the paper ($M = 5.10$, $SD = .80 = .92$) and online ($M = 4.56$, $SD = .93$) methods and the participants' level of engagement to be statistically significant: ($t[104] = 2.96$, $p = .00$). Although only 33% of the respondents in the current study answered the paper version of the survey, the results might have been response-biased based on the data-collection method that the respondents chose or because of the use of self-report surveys.

The participants in this study were from only one geographic area, Canada, and worked in organizations that were ranked on the Top 50 Best Employers in Canada list and that were in two different industries. The results of the data collected from the employees of two organizations from this single list might not be transferable to other countries, regions, and industries. Another limitation of the study was the low number of male responses in the study. A study involving more industries, and larger sample of both genders, might result in a better understanding of the true relationship between authentic leadership and follower/employee engagement. Another potential limitation of the study is that the level of engagement of the participants from this list was likely to be higher than that of employees selected from a random list of Canadian companies; the

engagement results are consistent with those of Giallonardo et al. (2010), who reported similar findings in their study of new graduate nurses ($M = 3.98$, $SD = 0.61$)

A potential limitation is also the number of responses. I made attempts to collect more responses from the intended population of 421 participants, which resulted in only 116 responses, and I evaluated 106 of them as valid. After I ran the test statistics and decided to end the data collection at that time, the lesser response rate resulted in a confidence level of 95% and a confidence interval of +/-8%. A larger response to the survey might have resulted in higher statistical significance of the data analysis. Another potential limitation of the research study was that it is a correlational study. A correlational study determines the degree of association between two or more variables and does not imply causation (Creswell, 2005). A different research design, such as experimental (Creswell, 2005) may have determined that the study variables (authentic leadership and engagement) are causally related.

Finally, the validity of this research is limited to the survey instruments, the ALQ and the UWES. Walumbwa et al. (2008) found sufficient evidence from multiple sources that the scale demonstrates empirical validation: construct validity, which includes convergent and divergent validity, and predictive validity, which ranges from .26 to .34 for organizational outcomes (organizational citizenship behaviors, organizational commitment, and followers' satisfaction with their supervisors); as well as internal consistency reliabilities above .70. Schaufeli, Bakker, and Salanova (2006) found support from reviews and analyses of the reliabilities and validities. In Chapter 3 I discussed the reliability and validity of the two instruments that I used for this study.

Recommendations for Future Research

I recommend that further research be conducted on the correlation between authentic leadership behaviors and follower/employee engagement. The hypotheses of the current study focused on the individual facets of authentic leadership and employee engagement. Future research should continue to test the individual dimensions of both study variables but, also, test the aggregate scores of authentic leadership and employee engagement, as well as demographic variables (such as years of service). Including these additional variables in future studies, will provide researchers with an increased understanding of the relationship between the study variables as well as other factors associated with engagement.

I also recommend that further research be conducted to include samples from additional regions. This study included only two participating organizations in Canada, and I recommend that researchers expand the geographic areas to North America or globally. The results could confirm whether the current study results can be applied to other regions and thereby benefit a larger group of organizational leaders and HR professionals. Another recommendation for future research is to include a broader industry sample, which could produce different results, and the transferability of similar findings to different industries can be of benefit to organizational leaders and HR leaders.

Finally, I recommend that future research consider a causal experimental design. The correlational research design selected for this study was consistent with the design methods used in previous studies on authentic leadership and engagement (Alok & Israel, 2012; Gardner et al., 2011; Walumbwa, Wang et al., 2010). Future research on this topic

should continue to use the correlational research design, but should also consider a quasi-experimental design). The quasi-experimental design includes a pretest and a post-test to study differences in the variables as a result of the intervention (Leedy, & Ormrod, 2010). This research approach would increase the understanding of the degree of relationship by assessing the impact of authentic leadership on follower engagement following an intervention (such as leadership training).

Conclusion

The purpose of this quantitative correlational study was to determine the existence, strength and direction of the relationship between authentic leadership behaviors and follower/employee engagement. Chapter 5 contains a discussion of the data analyses as well as an interpretation of the data. The empirical data support relationships among the four facets of authentic engagement and follower/employee engagement as measured through the ALQ and the UWES. These results support the notion that leaders who demonstrate authentic leadership behaviors tend to foster better individual engagement.

The findings of this study fill part of a gap in the body of knowledge with respect to understanding the specific leadership behaviors that increase follower/employee engagement. The assumption of authentic leadership relevance to follower/employee engagement is now confirmed with empirical evidence. The current study also adds to the limited body of knowledge in the psychological literature and quantitative studies conducted in organizational settings in North America by improving the understanding of

the correlation between authentic leadership and engagement and by testing the current theory against the relationship between the two variables. This knowledge may be valuable to organizational and HR leaders who are charged with improving organizational performance.

The potential benefits that organizational leaders would realize from this knowledge were the basis of the need for the study. Organizational leaders are challenged with choosing the most appropriate interventions in an effort to optimize employee engagement. The value of this research resides in the revealing of leadership behaviors that increase employees' engagement. The knowledge gained from the current study can be used to develop HR practices, because having an increased understanding of which leadership behaviors are linked to high levels of employee engagement can shape leadership practices. Authentic leadership behaviors could be included as selection criterion for leadership candidates. Measuring and monitoring the authentic leadership capabilities of individuals in leadership roles could foster training programs that are appropriate to the individual. Hence, adjusting leadership practices in selection and development with respect to the components of authentic leadership could ensure the optimization of leadership behaviors that enhance follower/employee engagement and organizational performance.

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APPENDIX

Utrecht Work Engagement Scale

Work & Well-being Survey (UWES) ©

The following 9 statements are about how you feel at work. Please read each statement carefully and decide if you ever feel this way about your job. If you have never had this feeling, cross the "0" (zero) in the space after the statement. If you have had this feeling, indicate how often you feel it by crossing the number (from 1 to 6) that best describes how frequently you feel that way.

	Almost never	Rarely	Sometimes	Often	Very often	Always
0	1	2	3	4	5	6
Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

1. _____ At my work, I feel bursting with energy
2. _____ At my job, I feel strong and vigorous
3. _____ I am enthusiastic about my job
4. _____ My job inspires me
5. _____ When I get up in the morning, I feel like going to work
6. _____ I feel happy when I am working intensely
7. _____ I am proud of the work that I do
8. _____ I am immersed in my work
9. _____ I get carried away when I'm working

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Study Title: Examining the relationship between authentic leadership and

Work & Well-being Survey (UWES) ©

Instructions:

The following 9 statements are about how you feel at work. Please read each statement carefully and decide if you ever feel this way about your job. If you have never had this feeling, select "Never". If you have had this feeling, indicate how often you feel it by selecting the rating that best describes how frequently you feel that way.

2. At my work, I feel bursting with energy.

Never	Almost never - A few times a year or less	Rarely - Once a month a or less	Sometimes - A few times a month	Often - Once a week	Very often - A few times a week	Always - Every day
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. At my job, I feel strong and vigorous.

Never	Almost never - A few times a year or less	Rarely - Once a month a or less	Sometimes - A few times a month	Often - Once a week	Very often - A few times a week	Always - Every day
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. I am enthusiastic about my job.

Never	Almost never - A few times a year or less	Rarely - Once a month a or less	Sometimes - A few times a month	Often - Once a week	Very often - A few times a week	Always - Every day
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. My job inspires me.

Never	Almost never - A few times a year or less	Rarely - Once a month a or less	Sometimes - A few times a month	Often - Once a week	Very often - A few times a week	Always - Every day
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. When I get up in the morning, I feel like going to work.

Never	Almost never - A few times a year or less	Rarely - Once a month a or less	Sometimes - A few times a month	Often - Once a week	Very often - A few times a week	Always - Every day
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. I feel happy when I am working intensely.

Never	Almost never - A few times a year or less	Rarely - Once a month a or less	Sometimes - A few times a month	Often - Once a week	Very often - A few times a week	Always - Every day
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. I am proud of the work that I do.

Never	Almost never - A few times a year or less	Rarely - Once a month a or less	Sometimes - A few times a month	Often - Once a week	Very often - A few times a week	Always - Every day
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. I am immersed in my work.

Rarely	Almost never - A few times a year or less	Rarely - Once a month a or less	Sometimes - A few times a month	Often - Once a week	Very often - A few times a week	Always - Every day
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Study Title: Examining the relationship between authentic leadership and

10. I get carried away when I'm working.

Rarely	Almost never - A few times a year or less	Rarely - Once a month a or less	Sometimes - A few times a month	Often - Once a week	Very often - A few times a week	Always - Every day
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Authentic Leadership Questionnaire

Capella University Mail - Instructions for downloading pdf files

Page 1 of 1



CAPELLA UNIVERSITY

Debra Wilson <dwilson10@capellauniversity.edu>

Instructions for downloading pdf files

info@mindgarden.com <info@mindgarden.com>
To: dwilson10@capellauniversity.edu

Thu, May 3, 2012 at 8:54 PM

Dear Debra Wilson,

Use the following link(s) to access the file(s) you requested:

Authentic Leadership Questionnaire (ALQ): <http://www.mindgarden.com/docs/ALQForm.pdf>

Sincerely yours,
Mind Garden, Inc.
www.mindgarden.com

<https://mail.google.com/mail/u/1/scnp5kb6s10k/?&v=pt&es=q&q=mindgarden&msg=13715c...> 6/5/2012

Agreement for Permission to Use the Authentic Leadership Questionnaire Self or Rater Survey 2007-Version 1.0

Introduction: The Authentic Leadership Questionnaire (ALQ) has undergone significant validation efforts to demonstrate that it is both reliable and construct valid. Permission to use the ALQ free of charge and for a limited period is provided for research purposes only. Such use is conditional on submitting the Abstract of Research Project and adhering to the following conditions:

Research Use Conditions:

1. The ALQ will be used in its exact form without any changes to the instructions, rating scale/anchors, order or number of items. All of the items listed in survey must be used.
2. If the researcher is translating the ALQ into another language, the ALQ must be back translated into English by an independent specialist and reviewed by Dr. Bruce J. Avolio, bavolio@u.washington.edu, in order to assure the ALQ items have been properly translated. A translation agreement must be signed and sent to Mind Garden, Inc., 855 Oak Grove Ave., Suite 215, Menlo Park, CA 94025, Info@mindgarden.com before starting the translation work.
3. The researchers must submit the Abstract of Research Project form, which is a brief description of their specific use of the ALQ. This description needs to include the following: The main thrust of the research, hypotheses; the sample/organization(s) characteristics including number of participants and demographics, type of organization, country in which data are being collected, language, and how the data were collected such as by paper and pencil survey, Web, etc. If the ALQ is to be put on the Web then the conditions at <http://www.mindgarden.com/how.htm#instrumentweb> need to be met. Where the Web conditions indicate compensating Mind Garden, put that the Abstract of Research Project form has been submitted as the compensation.
4. The researchers agree to use the ALQ only for the specific study that has been requested. There will be no further use of the ALQ without resubmitting the Abstract of Research Project form for additional permission to use the ALQ with additional studies.
5. The researcher will not provide the ALQ to any other researchers without submitting the Abstract of Research Project form for permission.
6. The researcher agrees to provide the raw data collected with the ALQ to Dr. Avolio, bavolio@u.washington.edu, at the Gallup Leadership Institute to be added to the normative data base maintained for use by other researchers. The data set should be in ASCII format, and include just the raw data for the 16 items indicating the following: Those ratings that are self, supervisor, peer, follower, or

other. Code rating level as self = 0, supervisor = 1, peer = 2, follower = 3, other = 4 (and indicate the meaning of "other"). Any additional demographics on the sample that can be included in the data file would be appreciated. Include a full description of the demographic questions and how the responses are coded.

Research Study Survey

Instructions for the Authentic Leadership Questionnaire (ALQ):

The following 16 statements refer to your leader's style, as you perceive it. Judge how frequently each statement fits his or her leadership style.

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

10. My leader says exactly what he or she means.0 1 2 3 4

11. My leader admits mistakes when they are made0 1 2 3 4

12. My leader encourages everyone to speak their mind.....0 1 2 3 4

13.		3 4
14.		3 4
15.		3 4
16.		3 4
17.		3 4
18.	Three Sample Item Permission	3 4
19.		3 4
20.		3 4
21.		3 4
22.		3 4
23.		3 4
24.		3 4
25.		3 4

Please continue to the next page.

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Authors: Bruce J. Avolio, William L. Gardner, and Fred O. Walumbwa

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Sincerely,

A handwritten signature in black ink, appearing to read "Robert Most", with a long horizontal line extending to the right.

Robert Most
Mind Garden, Inc.
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Study Title: Examining the relationship between authentic leadership and

Authentic Leadership Questionnaire (ALQ)

Instructions:

The following 16 statements refer to your leader's style, as you perceive it. Judge how frequently each statement fits his or her leadership style.

11. My leader says exactly what he or she means.

Not at all Once in a while Sometimes Fairly often Frequently, if not always

12. My leader admits mistakes when they are made.

Not at all Once in a while Sometimes Fairly often Frequently, if not always

13. My leader encourages everyone to speak their mind.

Not at all Once in a while Sometimes Fairly often Frequently, if not always

14. M

15. M

16. M

17. M

18. M

19. M

20. M

Three Sample Item Permission

21. F		
22. F		
23. F		
24. F		
25. F		
26. F		

Three Sample Item Permission