# 國立臺灣大學管理學院商學研究所 博士論文

Graduate Institute of Business Administration
College of Management
National Taiwan University
Doctoral Dissertation

誠正領導的前因、調節、過程及後果變數之跨層次研究 Authentic Leadership: A Cross-Level Examination of Its Antecedents, Boundary Conditions, Processes, and

Consequences

梁欣光

Shin-Guang Liang

指導教授: 戚樹誠 博士 Shu-Cheng Chi, Ph.D.

Co-Advisor: Fred O. Walumbwa, Ph.D.

中華民國 101 年 6 月 June, 2012

#### 謝辭 (ACKNOWLEDGEMENTS)

能夠進入臺大商研所博士班就讀,對我而言是一個夢寐以求的夢想,依稀記得剛入學時,手中握著臺大學生證時的興奮與激動;經過四年的努力與淬鍊,如今都已結成纍纍甜美的果實;此刻,心中的激動澎湃,實非隻字片語可以形容。真的很感謝這一路來給予我支持與鼓勵的所有敬愛師長與親朋好友們!

而這本論文得以順利完成,首要感謝的是我敬愛的指導教授戚樹誠老師。戚老師在學術研究上的專業與涵養,讓我在與老師合作研究時深受啟發,每每透過老師嚴謹的指導過程,總是能讓我反思研究上的諸多盲點;而老師對於我的期許與鼓勵,一直都是我向前奮發的動力;衷心感謝老師的督促與鞭策,讓我在四年後能夠有現在的小小進步與成長,也讓我更有信心迎接接下來的學術生涯。再者,想要感謝我的共同指導教授Walumbwa, Fred O. 教授(任職於美國亞利桑那州立大學凱瑞商學院)對於我的悉心指導與建議,並且能夠接受您的指導,對我而言更是莫大的榮幸。在論文口試期間,承蒙黃賀教授、陳銘薰教授、吳玲玲教授、羅新與教授等口試老師的細心指導與精闢建議,讓我可以從多方角度不斷檢視論文,因此這本論文才得以更好的品質呈現在大家面前!

其次,還要感謝國防部與國防大學管理學院運籌管理學系提供的全時進修師資培訓 名額,讓我可以獲得進修深造的機會,將來定當繼續貢獻我的棉薄之力,以感謝國家對 我的培育;感謝碩班指導教授廖國鋒老師,感謝您對我的諄諄教誨,尤其在報考博士班 時,給予我的諸多指導與協助,讓我最後可以如願進入臺大商研所博士班就讀,於光永 銘於心;感謝國防大學管理學院教育長李城保上校,在我擔任學生中隊長期間對我的鼓 勵與啟迪,更由於您的首肯,讓我有機會可以繼續進修,成就了現在的我,於光更是感 恩在心;感謝大學同學靜隆、堯忠與碩班同學志皓,在這段艱辛的博班歲月中,給予我 的慰藉與支持,讓我在遭遇瓶頸與低潮時,可以繼續堅持自己的理想;感謝好友智明、 哲暘及世亨辛苦地幫我發放與回收研究問卷,衷心感謝你們!

最後,想要感謝我最親愛的家人,由於您們無怨無悔的付出與支持,讓我可以無後 顧之憂的全力衝刺,願我這微不足道的成就,能夠讓您們感到欣慰與驕傲;更想把這本 論文,獻給在天國的父親,願我的表現沒有讓您失望!

四年的臺大生活讓我收穫滿溢,更蓄積了走向未來學術生涯的知識與飽滿能量,雖 然即將離開椰林大道,內心充滿諸多不捨,但我將帶著滿載的行囊,繼續昂首闊步向前 走!



梁欣光 謹誌于 國立臺灣大學商學研究所 中華民國一○一年六月

# 中文摘要

本研究運用社會認知理論(social cognitive theory)、社會資訊處理理論(social information processing theory)以及調節焦點理論(regulatory focus theory)探討誠正領導(authentic leadership)的前因、調節、中介以及後果變項。本研究以76個軍事單位(361位成員)做為研究樣本。研究結果發現領導者的道德能力(moral potency)對於單位層次的誠正領導(unit-level authentic leadership)具有正向影響。部屬與主管價值觀適配(person-supervisor value congruence)會部份中介單位層次的誠正領導與個體層次員工建言(employee voice)之間的關係。另外,透過調節式路徑分析(moderated path analysis)發現,當單位的領導強度(leadership strength)和部屬的調節焦點(regulatory focus)都同時很高時,單位層次的誠正領導透過部屬與主管價值觀適配影響單位成員建言的中介效果最強。最後,本研究提出對於理論發展、管理實務以及未來研究方向之相關研究意涵。

**關鍵詞:**誠正領導、道德能力、領導強度、部屬與主管價值觀適配、調節焦點、員工建言

#### **ABSTRACT**

Drawing on the theories of social cognitive, social information processing, and regulatory focus, this field study examines antecedents, boundary conditions, processes, and consequences of authentic leadership. Survey data were collected from multiple sources, comprising 361 supervisor-subordinate dyads in 76 functional units in Taiwanese military. I found that leader moral potency was related to unit-level authentic leadership. Further, my results supported the prediction that person-supervisor value congruence partially mediated the relationship between unit-level authentic leadership and employee voice. In addition, moderated path analysis revealed that the indirect effect of unit-level authentic leadership on promotive voice/prohibitive voice through person-supervisor value congruence was stronger for work units with strong leadership strength and followers with high promotion focus/high prevention focus. Finally, I discussed the implications of these findings for theory, research and practice.

**Keywords:** Authentic leadership, Moral potency, Leadership strength, Person-supervisor value congruence, Regulatory focus, Employee voice.

# TABLE OF CONTENTS

謝辞 (ACKNOWLEDGEMENTS)	i
中文摘要	iii
ABSTRACT	iv
TABLE OF CONTENTS	v
LIST OF TABLES	vii
LIST OF FIGURES	viii
CHAPTER ONE: INTRODUCTION	1
CHAPTER TWO: THEORETICAL DEVELOPMENT AND HYPOTHESE	
I. Conceptualizing Authentic Leadership	8
II. Moral Potency and Authentic Leadership	9
III. Authentic Leadership and Employee Voice	12
IV. Mediating Role of Perceptions of PS Value Congruence	
V. Moderating Role of Leadership Strength	17
VI. Moderating Role of Followers' Regulatory Focus	20
CHAPTER THREE: METHOD	24
I. Research Setting, Participants, and Procedures	24
II. Measures	25
III. Analytical Strategy	29
CHAPTER FOUR: RESULTS	31
I. Descriptive Statistics	31

II. Confirmatory Factor Analyses	34
III. Hypothesis Tests	37
III-1. The Main Effect of Moral Potency	37
III-2. The Main Effect of Authentic Leadership	38
III-3. The Mediating Effect of Perceptions of PS Value Congruence	40
III-4. The Contingent Effect of Leadership Strength	40
III-5. The Contingent Effect of Followers' Regulatory Focus	46
CHAPTER FIVE: DISCUSSION	51
I. Theoretical Implications	51
II. Managerial Implications	53
III. Strengths, Limitations and Future Directions	54
IV. Conclusion	57
REFERENCES	59
APPENDIX A: MEASURE OF MORAL POTENCY	69
APPENDIX B: MEASURE OF AUTHENTIC LEADERSHIP (SAMPLE ITEM	S) 70
APPENDIX C: MEASURE OF PERSON-SUPERVISOR VALUE CONGRUEN	ICE 71
APPENDIX D: MEASURE OF EMPLOYEE VOICE	72
APPENDIX E: MEASURE OF REGULATORY FOCUS	73
APPENDIX F. MEASURE OF LEADER-MEMRER EXCHANGE	74

# LIST OF TABLES

Table 1: Individual-level Descriptive Statistics and Correlations	32
Table 2: Confirmatory Factor Analysis Results	35
Cable 3: Hierarchical Regression Results for Hypothesis 1         Cable 4: Hierarchical Linear Modeling Results for Hypothesis 2-4	
Table 6: Moderated Path Analysis Results for Hypothesis 5	44
Table 7: Moderated Path Analysis Results for Hypothesis 6a	48
Table 8: Moderated Path Analysis Results for Hypothesis 6b	49



# LIST OF FIGURES

#### **CHAPTER ONE: INTRODUCTION**

With the dramatic increase in number of corporate scandals and management malfeasance in institutions and organizations (Walumbwa, Avolio, Gardner, Wernsing, & Peterson, 2008), a more positive form of leadership is urgently needed and highly relevant to restore public confidence and to improve organizational effectiveness. In line with this vein, an authentic leadership development strategy may be particularly important for modern organizations. According to Walumbwa et al. (2008, p. 94), authentic leadership is conceptualized 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." In other words, the authentic leadership process influences self-awareness and self-regulated positive behaviors on the part of both authentic leaders and followers, and it stimulates positive personal growth and self-development (Gardner, Avolio, Luthans, May, & Walumbwa, 2005; Ilies, Morgeson, & Nahrgang, 2005). In addition, ample empirical evidence also supports the assertion that authentic leadership can fundamentally contribute to positive organizational effectiveness such as pro-social and ethical behavior (Hannah, Avolio, & Walumbwa, 2011), organizational citizenship behavior (Walumbwa, Wang, Wang, Schaubroeck, & Avolio, 2010), group performance (Walumbwa, Luthans, Avey, & Oke, 2011), and voice behavior (Hsiung, 2011). It is therefore not surprising that authentic leadership has recently received extensive research and practice attentions (George, 2003; Walumbwa et al., 2010). Having recognized the importance of authentic leadership in achieving significant organizational effectiveness, scholars urged more research on identifying

potential antecedents, boundary conditions, processes, and outcomes of authentic leadership (e.g., Gardner, Cogliser, Davis, & Dickens, 2011; Walumbwa et al., 2011; Walumbwa et al., 2010; Yammarino, Dionne, Schriesheim, & Dansereau, 2008). Hence, in this study, I answer calls by examining *who* is more likely to be perceived as an authentic leader and *whether*, *how*, and *when* authentic leadership is related to employee voice, defined as employees' expression of challenging but constructive opinions, concerns, or ideas about work-related issues (Van Dyne, Ang, & Botero, 2003) and distinguished promotive voice from prohibitive voice (Liang, Farh, & Farh, 2012).

Despite the assumed importance and prominence of authentic leadership in modern organizations, a model for understanding the complex nature of who is able to exhibit authentic leadership behaviors does not yet fully exist. For example, researchers know very little about why some leaders can display authentic leadership behaviors and others cannot. In the current study, I examine antecedents of authentic leadership by testing whether one source of conation for leaders exhibit authentic leadership behaviors arises from a moral capacity approach that scholars (Hannah & Avolio, 2010) refer to as moral potency. According to Hannah and Avolio (2010), moral potency represents an individual's ethical psychological resources and can be developed to enhance an individual's ethical actions. My theoretical model posits that moral potency is a crucial factor in developing leaders to act upon their true values, beliefs, and strengths in the face of adversity and persevere through challenges (Hannah, Avolio, & May, 2011). Identifying moral capacity antecedents assists in the developing of strategies for selecting and developing authentic leaders. Thus, in this study, I examine why moral potency can drive leaders to display authentic leadership behaviors. This part of my model allows me to answer the question of who is capable of exhibiting authentic leadership.

As noted above, in addition to examining the degree to which authentic leadership contributes to employee voice, I also draw on social cognitive theory (Bandura, 1986), which is one of the most dominant theoretical frameworks in leadership research domain (e.g., Brown & Treviño, 2006; Mayer, Aquino, Greenbaum, & Kuenzi, 2012), to offer one theoretical explanation by proposing that the link between authentic leadership and employee voice is mediated by person-supervisor (PS) value congruence that characterizes the extent of congruence between an individual's personal values and those of his or her immediate supervisor (Krishnan, 2002). According to social cognitive theory, values can be developed through imitative processes (Bandura, 1977). Hence, followers may learn appropriate values and behaviors through a role-modeling process by observing and internalizing the values and behaviors of their authentic leaders. More specifically, authentic leaders are theorized to influence and develop their followers (Avolio, Gardner, Walumbwa, Luthans, & May, 2004; Gardner et al., 2005). This connection is very important because, conceptually, PS value congruence is consistently considered to be a central explanatory variable in the leader-follower relationship (Hoffman, Bynum, Piccolo, & Sutton, 2011; Luthans, Norman, & Hughes, 2006). However, empirical evidence of such an effect is lacking in the authentic leadership process. I thus theorize that PS value congruence acts as a connector between authentic leadership and employee voice. This part of my model allows me to answer the question of how authentic leadership might foster employee voice.

In addition, in organizational settings, leadership is widely recognized to be a social process by which situational and individual factors should be taken into consideration in order to understand how leadership functions (Gardner et al., 2011). To address the question of *when* authentic leadership will foster employees to speak up

their ideas or concerns, I introduce two potential boundary conditions into my theoretical model, each at a different level of analysis: leadership strength (work-unit level) and followers' regulatory focus (individual level). First, I examine whether authentic leadership strength can either amplify or inhibit the occurrence of PS value congruence perceptions, a first-stage moderation effect in my model (Edwards & Lambert, 2007). Leadership strength represents the degree of variability in team members' perceptions of the quality of their supervisors' leadership behaviors (Cole, Bedeian, & Bruch, 2011; Hannah, Walumbwa, & Fry, 2011). Leadership strength is considered strong when team members' perceptions of a supervisor's leadership behaviors are highly homogenous. In contrast, leadership strength is considered weak when team members' perceptions of a supervisor's leadership behaviors are highly heterogonous (Cole et al., 2011). Research has suggested that leadership strength plays an important role in explaining the influence of leadership within teams (e.g., Cole et al., 2011; Feinberg, Ostroff, & Burke, 2005). Therefore, I argue that authentic leadership will facilitate members' perceptions of PS value congruence only when all members strongly agree about their supervisor's leadership behaviors. Conversely, weak leadership strength makes it difficult to translate authentic leadership into PS value congruence.

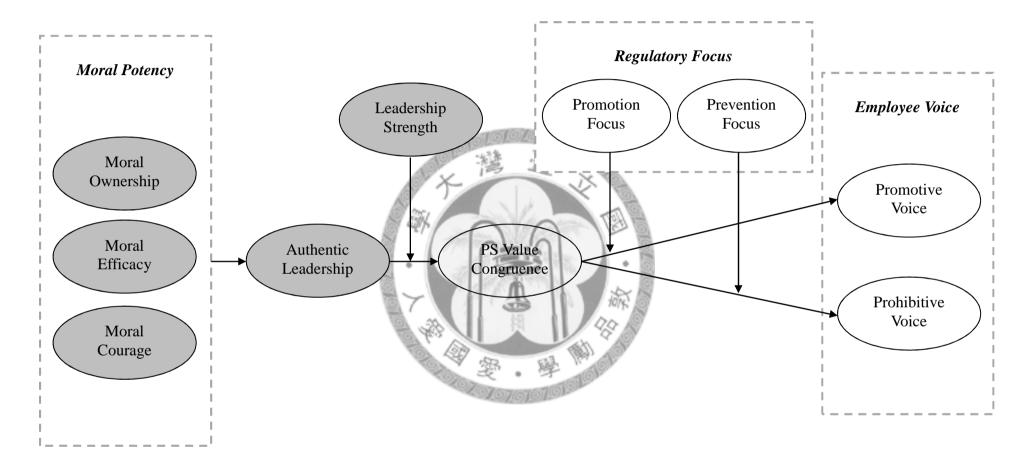
Second, I hypothesize that followers' regulatory focus can serve as a self-regulation mechanism that strengthens the relationship between PS value congruence and employee voice, a second-stage moderation effect in my model.

Researchers have suggested that two distinct kinds of motives are associated with self-regulation strategy: promotion focus and prevention focus (Higgins, 1997, 1998; Higgins et al., 2001). According to the regulatory focus theory (Higgins, 1997, 1998), promotion focus is concerned with gains, ideals, accomplishments and aspirations. This

kind of self-regulation strategy is driven by a need for growth and development. In contrast, prevention focus is concerned with duties, obligations, responsibilities and security. This kind of self-regulation strategy is driven by the need to avoid harm and failure. Each strategy has different consequences for individuals' decision making, behavior and performance (Higgins, 1997, 1998). Johnson, Chang, and Yang (2010) argued that regulatory focus can be viewed both as a situationally induced state and as a chronic individual-difference variable. While prior research has largely examined regulatory focus as a situationally induced state (e.g., Kark & van Dijk, 2007; Neubert, Kacmar, Carlson, Chonko, & Roberts, 2008), I propose that followers' regulatory focus is a dispositional variable and play an important moderating role in explaining the association between PS value congruence and employee voice. Specifically, I seek to understand the extent to which followers' promotion focus enhances the relationship between PS value congruence and promotive voice. Similarly, I seek to understand the extent to which followers' prevention focus amplifies the relationship between PS value congruence and prohibitive voice. Taken together, my model suggests that two boundary conditions are necessary for authentic leadership to foster members to speak up. My effort in this regard further expands the authentic leadership and voice literatures in that I propose two conditions that may explain their relationship. This empirical contribution is significant, as no prior study has examined such cross-level influences of leadership strength and follower's regulatory focus on the authentic leadership process.

In sum, this study contributes to the existing authentic leadership literature in four ways. First, this study extends authentic leadership research by integrating direct consensus (i.e, unit-level authentic leadership) and dispersion (i.e., authentic leadership strength) compositions (Chan, 1998) of authentic leadership within a single framework.

Second, I identify an individual's ethical psychological resources that are expected to influence authentic leadership. I choose to focus on why moral potency relates to followers' ratings of the leader's authentic behaviors, because it is theoretically-relevant to authentic leadership (May, Chan, Hodges, & Avolio, 2003). Third, the current study contributes to the emerging theoretical and empirical research on authentic leadership by examining employee voice that has been established to have important implications for organizational and work unit functioning. Finally, I seek to advance the understanding regarding the mechanisms by examining follower's perceptions of person-supervisor value congruence as a mediator between authentic leadership and employee voice, and by examining unit- and individual-level moderators for this relationship. I integrate these various variables in a theoretical model that I test using data from distinct sources. Figure 1 presents a theoretical model of proposed relationships among this study's primary variables.



<sup>&</sup>lt;sup>a</sup> Shaded ellipses present unit-level constructs; white ellipses present individual-level constructs.

Figure 1: Theoretical Model

#### CHAPTER TWO: THEORETICAL DEVELOPMENT AND HYPOTHESES

# I. Conceptualizing Authentic Leadership

It is generally believed that the notion of *authenticity* (i.e., being one's true self) originates from ancient Greek philosophy ("To thine own self be true"; Harter, 2002, for a review). This notion was first introduced to the leadership research over past two decades ago by Avolio and Gibbons (1988). In further advancing authentic leadership development, Avolio and his colleagues (Avolio & Gardner, 2005; Avolio et al., 2004; Luthans & Avolio, 2003) developed authentic leadership theory based on the principles of positive psychology and positive organizational scholarship. According to this theory, authentic leadership includes four core components: leader self-awareness, relational transparency, internalized moral perspective, and balanced processing (Walumbwa et al., 2008). Leader self-awareness involves the extent to which leaders understand their own strengths, motives, and weaknesses, as well as recognizing how their decisions impact others and how others view their leadership. Relationship transparency focuses on leader behaviors that make self-disclosure, such as openly sharing information and expressing the leader's authentic self to others. Internalized moral perspective refers to leader behaviors that are guided by internal moral standards and values and act according to those, even against external pressure such as group, organizational, and societal pressures. Finally, balanced processing describes the fact that the leaders objectively consider and analyze all relevant information prior to making decisions. Gardner et al. (2005) proposed that the four core components are self-regulatory processes that are governed through the leader's internal standards and therefore share some commonality.

Empirical evidences have shown overwhelmingly that the above four components are highly correlated and reflect the higher-order construct of authentic leadership (e.g., Caza, Bagozzi, Woolley, Levy, & Caza, 2010; Moriano, Molero, & Mangin, 2011; Walumbwa et al., 2008; Walumbwa et al., 2010). More specifically, Walumbwa et al. (2008, p. 96) pointed out,

"we view authentic leadership as being composed of related and substantive dimensions that we believe are all necessary for an individual to be considered an authentic leader." Building on these earlier works (e.g., Hannah, Walumbwa, et al., 2011; Walumbwa et al., 2011), this study focuses on the higher order, multidimensional construct of authentic leadership that is conceptualized at the work-unit level of analysis. Although I focus on the unit-level perspective, I acknowledge the potential for developing more fully the concepts of authentic leadership at multiple levels of analysis in future studies (cf. Yammarino et al., 2008).

#### II. Moral Potency and Authentic Leadership

As argued by Gardner et al. (2005, p. 344), to act authentically, one must "know oneself" and act "in accordance with one's true self." Applied to the leadership context, in order to be perceived as an authentic leader, it is important for the leaders to display consistency between their values, beliefs, and actions beyond knowing themselves (Walumbwa et al., 2008). However, in many circumstances, why are leaders who know what is the right thing to do still fail to take actions based on their true selves? I argue that the gap between knowing and acting one's true self may be accounted for by the concept of moral potency (Hannah & Avolio, 2010). Although the extant literature has not yet examined any empirical link between moral potency and authentic leadership, this study suggests some theoretical logics why moral potency should be included in the nomological network of authentic leadership theory. In the present study, I draw on a social-cognitive notion of moral agency to explain the relationship between moral potency and authentic leadership.

Hannah and Avolio (2010) recently provided a new conceptualization titled moral potency, which they defined as "a psychological state marked by an experienced sense of ownership over the moral aspects of one's environment, reinforced by efficacy beliefs in the capabilities to act to achieve moral purpose in that domain, and the courage to perform ethically in the face of adversity and persevere through challenges" (pp. 291-292). In other

words, moral potency represents an individual's ethical psychological resources and includes three key components: moral ownership, moral efficacy, and moral courage. According to Hannah, Avolio, and May (2011), moral ownership refers to "the degree to which the leaders feel a sense of psychological responsibility over the ethical nature of their own actions, those of others around them, and their organization, or another collective" (p. 674). Moral efficacy is defined as "one's belief in his or her capabilities to organize and mobilize the motivation, cognitive resources, means and courses of action needed to attain moral performance, within a moral domain, while persisting in the face of moral adversity." And building on previous definitions of moral courage, Hannah, Avolio, and Walumbwa (2011) conceptualized moral courage at work as "1) a malleable character strength, that 2) provides the requisite conation needed to commitment to personal moral principles, 3) under conditions where the actors is aware of the objective danger involved in supporting those principles, 4) that enables the willing endurance of that danger, 5) in order to act ethically or resist pressure to act unethically as required to maintain those principles." In their seminal work, Hannah and Avolio (2010) found across two studies that these three components are distinct yet supporting of each other and create a higher order construct of moral potency. In Support of this argument and finding, Osswald, Greitemeyer, Fischer, and Frey (2010) stated that "Before a person can act with moral courage, s/he has to perceive an incident as a situation of moral courage, s/he has to take responsibility and has to feel competent to act" (p. 98). Thus, I argue that feelings of responsibility and competence are required to support an authentic leader with courage to take actions upon his or her true values and beliefs and examine the relationship between authentic leadership and moral potency as a whole.

Scholars (e.g., Hannah & Avolio, 2010; Hannah, Avolio, & May, 2011) have proposed that people differ in the extent to which moral potency is experienced as being central to their self-identity. This difference implies that ethical psychological resources are more cognitively

available for some people than others. Bandura's (1991) moral agency of social cognitive theory may explain why people maintain varying levels of moral potency. According to social cognitive theory (Bandura, 1986), the fundamental mechanism underlying the core features of human agency is people's beliefs in their capacity to exercise some measure of control over their own functioning and life circumstances, meaning that self-regulatory mechanism govern the nature and quality of functioning. Bandura, Barbaranelli, Caprara, and Pastorelli (1996) further pointed out, an agentic theory of morality specifies the mechanisms by which people come to live in accordance with their internalized moral standards. This means that people with high moral agency should be motivated to act in ways that are consistent with their moral standards. If moral potency indeed functions through self-regulatory mechanism whereby moral agency is exercised, the expected relationship between moral potency and authentic leadership is completely straightforward. This logic is also consistent with Avolio and Gardner (2005) who posited that self-regulatory is the underlying mechanism through which authentic leaders align their values with their intentions and actions and subsequently achieve self-consistency.

I reason that leaders with higher levels of moral potency should act in ways that are consistent with their moral standards, values and true self, which in turn should result in their being perceived as authentic leaders. That is, leaders who are high in moral potency are more likely to perceive and believe they have responsibilities, capabilities, and courage to take action based on their appropriate values, beliefs, and attitudes when faced with adversity and ethical challenge in their workplace. Subsequently, when followers perceive their leaders as acting in accordance with their values, beliefs, and attitudes, they tend to regard their leaders as authentic. As argued by Hannah and Avolio (2010, p. 293), "Leader displaying high levels of moral potency will be viewed by their followers as being more authentic in that they take ownership and have the courage and confidence to traverse the influence of group norms and

authority to take the action they deem appropriate to pursue based on their moral values and judgments." This means that the leaders require sufficient levels of all three components to take consistent actions based on their values and beliefs. I therefore expect a positive relationship between moral potency and authentic leadership.

*Hypothesis 1.* Leader moral potency is positively related to authentic leadership.

## III. Authentic Leadership and Employee Voice

Employee voice is conceptualized as the discretionary verbal communication of ideas, suggestions, or opinions with the intent to improve organizational and unit functioning (Morrison, Wheeler-Smith, & Kamdar, 2010). A number of scholars have argued that voice can aid in the early detection of problems and opportunities (Nemeth, 1997), facilitate successful team learning (Edmondson, 1999), and lead to better organizational decision making (Morrison & Milliken, 2000). Van Dyne and LePine (1998, p. 109) defined voice as "promotive behavior that emphasizes expression of constructive challenge intended to improve rather than merely criticize." In a review and analysis of the employee voice literature, Van Dyne et al. (2003) proposed that employee voice included both the speaking up for suggestions as well as concerns. In keeping with Van Dyne et al.'s (2003) seminal conceptualizations of voice, Liang et al. (2012) extended this approach by specifying a more complete set of employee voice that comprised both promotive and prohibitive voice. The former has been defined as employees' expression of novel ideas, information, and suggestions for improving the overall functioning of the work unit or organization (Liang et al., 2012). The latter has been conceptualized as employees' expression of concern about work practices, incidents, or employee behavior that is harmful to the work unit or organization (Liang et al., 2012). In line with this body of research, this study follows Liang et al.'s (2012) taxonomy and definition of voice.

According to Organ, Podsakoff, and MacKenzie (2006), employee voice is an

important aspect of extra-role behavior (i.e., those positive and discretionary behaviors that are not required by the organization but that are necessary to facilitate effective organizational functioning). However, unlike other forms of extra-role behaviors, voice involves inherently challenging and upsetting the organizational or unit status quo and power holders; as a result, may carry some potential benefits and risks to the actor (Detert & Burris, 2007). Because of the potential benefits and risks associated with voice, employees may see the potential costs as outweighing the perceived benefits before speaking up. As Liang et al. (2012) argued, voice is an intentional "planned" behavior occurring in an interpersonal context. Importantly, leader behavior is a significant predictor of this voice calculus (Detert & Burris, 2007; Walumbwa & Schaubroeck, 2009). Therefore, I predict a positive relationship between authentic leadership and employee voice that includes both promotive and prohibitive voice.

Consistent with previous works on authentic leadership (e.g., Avolio et al., 2004; Gardner et al., 2005), I draw on social learning theory (Bandura, 1977, 1986) to clarify the relationship between authentic leadership and employee voice. Social learning theory suggests that when there are credible and attractive role models in the workplace, employees will pay attention to and strive to emulate their behaviors. In addition to direct observation, employees are also influenced by their supervisors through vicarious experience. That is, employees may learn what is expected of them and how to behave appropriately by observing others (Bandura, 1977, 1986). Therefore, within the context of authenticity, if team leaders consistently exhibit behaviors based on their internalized values, members would likely emulate such behaviors through direct or vicarious experiences (Gardner et al., 2005). As such, the process of social learning reflects a significant mechanism through which authentic leaders can develop and influence their followers. I thus argue that when leaders speak their true ideas and concerns, behave in an authentic manner, and communicate the importance of voice, members will more likely to mimic authentic leaders' behaviors, and thereby speaking

up. For example, authentic leaders speak their thoughts in an open and transparent manner and create a fair and open work environment, and this is conducive to members being more willing to engage in voice. Likewise, authentic leaders objectively consider and analyze all relevant information before making decisions, and this action may encourage their followers to share their thoughts and opinions. In keeping with this logic, Hsiung (2011) studied 404 salespersons from a large real estate agent in Taiwan and found that authentic leadership was positively related to employee voice.

Moreover, the link between authentic leadership and employee voice is also consistent with social-information processing literature, which specifies how individuals are influenced by the cognitions and attitudes of others in their social environment (Salancik & Pfeffer, 1978). Employees who work in the same environment will be exposed to similar cues from that environment. These cues may provide unit members with information to interpret events, to develop appropriate behaviors. Given leaders' position in the power hierarchy within work unit, supervisors are often viewed as one important sources of information for effective work unit members' behaviors (Walumbwa et al., 2011). As discussed earlier, because voice involves potential benefits and risks, leadership behavior as a contextual variable might be an important source of this voice calculus. Employees thus turn to their supervisors to "read the wind" (Dutton, Ashford, O'Neill, Hayes, & Wierba, 1997) and determine how favorable it is for them to initiate this important discretionary action. When authentic leaders exhibit a pattern of consistency between their values, beliefs, and actions and express their true thoughts and feelings, members will tend to behave in a fairly homogenous manner in terms of speaking up their ideas and concerns by observing cues from their supervisors. Based on these theoretical arguments, it is reasonable to argue that authentic leadership would promote employee voice (i.e, promotive and prohibitive voice). Accordingly, I propose the following hypothesis:

*Hypothesis* 2. Authentic leadership is positively related to follower voice.

### IV. Mediating Role of Perceptions of PS Value Congruence

In recent years, extensive research has emphasized the importance of congruence between employees' values and those of their immediate supervisors (e.g., Brown & Treviño, 2006, 2009; Hoffman et al., 2011). A substantial number of research has reported that value congruence has a positive impact on individual outcomes (e.g., Edwards & Cable, 2009; Jung & Avolio, 2000; Meglino, Ravlin, & Adkins, 1989). According to Schwartz (1999, pp. 24-25) values can be defined as "conceptions of the desirable that guide the way social actors (e.g., organizational leaders, policy-makers, individual persons) select actions, evaluate people and events, and explain their actions and evaluations." In this vein, people employ their values systems to guide their decisions and actions. Although PS value congruence can be studied as two distinct approach, which are subjective (i.e., perceived) and objective (i.e., actual) value congruence (Kristof-Brown, Zimmerman, & Johnson, 2005), perceived or subjective value congruence is perhaps the most frequently examined conceptualization, producing significant effects on a substantial number of outcomes (e.g., Edwards & Cable, 2009; Hoffman et al., 2011; Kristof-Brown et al., 2005; Meglino et al., 1989). Therefore, in line with previous research, I choose to conceptualize and measure PS value congruence in terms of subjective perception.

As articulated in the previous section, grounded in social learning theory, authentic leaders develop their followers through the process of positive modeling. As suggested by Avolio and Gardner (2005), through positive modeling of the various components of authenticity including self-awareness, self-regulatory processes, positive psychological states, and ethical perspective, authentic leaders' core values and beliefs, honesty, integrity, and high moral standards can impact followers' values and beliefs systems. More specifically, values are inherently learned through socialization processes (Luthans et al., 2006). In other words,

through the process of role modeling, followers will continually perceive and internalize values and beliefs espoused by their leaders over time, which in turn foster greater value congruence. For instance, when leaders interact with their members by exhibiting transparent processing of self-relevant information, personal honesty and integrity, and an authentic relational orientation, these practices should promote followers to identify with the leaders and their values and reciprocate in the form of behaviors that is consistent with the leaders' values (Avolio & Gardner, 2005; Avolio et al., 2004; Gardner et al., 2005; Ilies et al., 2005), and finally achieving strong value congruence. Walumbwa et al. (2011) contended that the higher levels of transparency and disclosures that characterize authentic leaders should foster the development of value congruence between the leaders and their members. I thus expect that authentic leadership would have a positive impact on the level of followers' perceptions of PS value congruence. I examine the following hypothesis:

**Hypothesis 3.** Authentic leadership is positively related to follower person-supervisor value congruence.

Next, I turn to explaining the PS value congruence process through which authentic leadership leads to employee voice. Although the topic of value congruence between leaders and their followers has been extensively investigated in the leader-follower relationship (e.g., Brown & Treviño, 2006, 2009; Hoffman et al., 2011; Jung & Avolio, 2000), less research attention has been devoted to investigating the mediating role of PS value congruence in the authentic leadership process. I believe the effect of authentic leadership on employee voice can be better understood by considering the concept of PS value congruence. As proposed by Luthans et al. (2006), the value congruence between the authentic leaders and their followers is a critical factors for the effectiveness of authentic leadership. Therefore, I expect that authentic leadership would have a positive influence on the level of PS value congruence, and that higher value congruence would promote follower voice.

As mentioned earlier, voice that challenges the organizational or unit status quo and power holders often involves personal benefits and risks. Especially, prohibitive voice concerns harmful practices and incidents, this voice behavior may entail far more personal risks (Liang et al., 2012). Therefore, employees' perception of PS value congruence will influence their voice calculus. Based on social-information processing perspective (Salancik & Pfeffer, 1978), perceptions of PS value congruence could be regarded as "social constructions of information available at the time judgments are made" (Hoffman et al., 2011). When followers perceive that their values are congruent with the leader's values regarding the importance of being authentic at work, this congruent perception would carry critical information, which leads to a positive evaluation of speaking up. The information conveys that the authentic leaders strongly encourage their followers to take actions based on their true selves. Thus, followers will be free of fears and concerns about expressing their new ideas and opinions, the perceived risks or costs of voice should be minimized accordingly. In contrast, when PS value congruence is lacking, this incongruent perception may result in a negative evaluation of voice. Followers may feel that they cannot freely express their opinions and concerns because of the elevation of the perceived risks. Given that authentic leaders promote greater value congruence through positive modeling, and PS value congruence fosters employees to speak up, I argue that PS value congruence plays a mediating role in the relationship between authentic leadership and employee voice. I test the following hypothesis:

Hypothesis 4. Follower person-supervisor value congruence mediates the relationship between authentic leadership and follower voice.

#### V. Moderating Role of Leadership Strength

In the theoretical model associated with Hypothesis 4, I argue that authentic leadership facilitates followers' perceptions of PS value congruence. This, in turn, fosters followers to speak up their ideas and concerns. I further qualify this prediction by proposing that authentic

leadership strength can influence whether this mediating process strongly hold. Specifically, I argue that the mediating effect will be stronger when leadership strength is higher and that the mediating effect will be weaker when leadership strength is lower.

When assessing the emergent properties of group or unit-level phenomena such as leadership, prior research almost focused on the average of all group members' perceptions of their leaders' behaviors. However, this view may lose valuable information regarding the variability of these perceptions (Felfe & Heinitz, 2010). As Hannah, Walumbwa, et al. (2011) suggested, the effects of group composition can be fully represented by examining not only the mean level of a given phenomenon, but also the strength of that phenomenon across the team. Thus, it is necessary for researchers to simultaneously consider these two group composition phenomena. According to Chan's (1998) typology of composition models, the above two group compositions are associated with additive, direct consensus, and dispersion models. Additive models suggest that the meaning of a group or unit-level construct is an average of the individual-level perceptions regardless of the variance among these perceptions. Direct consensus models draws on "within-group agreement of scores to index consensus at the lower level and to justify aggregation of lower level scores to represent scores at the higher level" (Chan, 1998, p. 237). Based on Chan's additive and direct consensus models, I treat unit-level authentic leadership in the current study as shared and within-group agreement of authentic leadership among all members within a unit. In contrast, dispersion models conceptualize within-group variance as a focal construct of theoretical significance rather than merely a statistical prerequisite for aggregation (Chan, 1998). Hence, leadership strength in this study represents the extent to which members agree on the favorability of authentic leadership within the unit. In addition, Leadership researchers have increasingly underscored that leadership behaviors may interact with leadership strength to predict workplace outcomes (e.g., Cole et al., 2011; Felfe & Heinitz, 2010). Thus, leadership strength should play a

prominent role in the study of leadership.

Drawing upon a social influence perspective (Festinger, 1950), Feinberg et al. (2005) showed that followers' attributions of transformational leadership depend on both the extent to which a leaders engages in the appropriate behaviors and the extent to which followers perceive the leader similarly. They further pointed out that leaders who display transformational leadership behaviors and create a consensus or a similar mindset among team members will be perceived as being the most transformational. Social influence theory posits that group members refer to one another to construe their social reality, and that there are strong pressures within a group to establish and maintain consensus. Given leaders play a crucial role in shaping the perceptions of followers regarding the features of the work environment (Piccolo & Colquitt, 2006), Bliese and Britt (2001) echoed this assumption by proposing that the emergence of consensual leadership-climate perceptions represents the quality of a unit's shared work environment. In a similar vein, Hannah, Walumbwa, et al. (2011) also emphasized that authenticity strength can create a strong situational influence, which offer members with clearer norms for what is expected and how to behave appropriately. Conversely, weak situations may produce ambiguity and friction and lead to different interpretations because of unclear behavioral norms.

In line with the above perspectives, I propose that strong leadership strength should augment the likelihood that authentic leaders will transfer their appropriate values and beliefs to their followers and followers will align with their leaders' values and beliefs correspondingly, which in turn facilitate followers to be willing to share their true ideas and concerns. Thus, by modeling authentic values and behaviors, high levels of leadership strength amplify followers' value congruence with their leaders and encourage their followers to speak up based on their values and beliefs. Conversely, when a unit is with a wider polarity of member high and low on perceptions of authentic leadership, I argue that authentic leaders

will hardly transfer their correct values and behaviors to their followers through the processes of positive modeling that make voice more likely because of a lack of clearer behavioral signals and guidelines. Therefore, weak leadership strength may not allow authentic leaders to transfer their values to their followers and subsequently speaking up.

The aforementioned arguments mean that the mediated effect captured in Hypothesis 4 varies over levels of leadership strength within a unit. The positive relationship between authentic leadership and follower voice through person-supervisor value congruence is stronger when leadership strength is higher. Predictions of this pattern are referred to as a first-stage moderated-indirect effect model in which a mediated effect that differs over levels of a moderator that operates at the first stage of the mediated relationship (Edwards & Lambert, 2007). Therefore, I expect the following hypothesis:

Hypothesis 5. The strength of the mediated relationship between authentic leadership and follower voice (via person-supervisor value congruence) will vary depending on the extent of leadership strength; the indirect effect of authentic leadership via person-supervisor value congruence on follower voice will be stronger when leadership strength is higher.

# VI. Moderating Role of Followers' Regulatory Focus

According to my theoretical framework, PS value congruence should be positively related to employees' promotive and prohibitive voice, but not all high perceived value congruence employees will engage in both promotive and prohibitive voice. One possible factor should determine whether higher levels of perceived value congruence employees engage in promotive or prohibitive voice is followers' regulatory focus, which includes both promotion and prevention focus. While researchers have long recognized that regulatory focus may display a direct effect on individuals' decision making, attitude, and behavior (e.g., Friedman & Förster, 2001; Markovits, Ullrich, van Dick, & Davis, 2008; Neubert et al., 2008),

such regulatory focus may also play a moderating role in the relationship between individual factors and behaviors (e.g., Cremer, Mayer, van Dijke, Schouten, & Bardes, 2009). Thus, I propose that followers' regulatory focus may serve as another boundary condition that augments the relationship between PS value congruence and employee voice in my theoretical model.

Higgins (1997, 1998) developed regulatory focus theory, which explains important differences in the processes through which all goal-directed behavior is motivated and regulated by two basic goal-striving strategies: promotion focus and prevention focus. People differ in the chronic accessibility of these two self-regulatory strategy (Shah, Higgins, & Friedman, 1998). Promotion focus regulates the pleasure seeking process that focuses on the accomplishment of rewards and is characterized by setting ideal and hope-for goals, while prevention focus regulates the pain avoidance process that focuses on the avoidance of punishments and is characterized by setting ought and feared goals (Carver & Scheier, 1998; Johnson et al., 2010; Kark & van Dijk, 2007). Higgins (1987) pointed out that there are three basic domains of the self: (a) the actual self, which represents people's beliefs of what they actually possess; (b) the ideal self, represents people's beliefs of what they would like ideally to possess, such as hopes, aspirations, or wishes; and (c) the ought self, which represents people's beliefs of what they should or ought to possess, such as duty, obligations, rules, or responsibilities. In this manner, promotion goals reflect the "ideal self" and prevention goals reflect the "ought self" (Kark & van Dijk, 2007). As noted by Meyer, Becker, and Vandenberghe (2004, p. 996), the conception that "people are motivated to minimize discrepancies between actual and desired end states (i.e., seek pleasure) and to minimize the discrepancies between actual and undesired end states (i.e., avoid pain)" is at the heart of regulatory focus theory. Hence, people who seek to attenuate discrepancies with their "ideal self" are called to possess a promotion focus. Conversely, people who seek to lessen

discrepancies with their "ought self" are named to have a prevention focus.

As I noted earlier, when followers perceive their values are congruent with their supervisors' values, this perception can be construed as an important signal that they can feel freely and safely to express themselves because they clearly understand their supervisors highly encourage them to act according to their true thoughts. Consequently, they are more willing to share information and express concerns. Thus, I argue the positive influence of PS value congruence on the motivation of followers to speak up their ideas (i.e., promotive voice) or concerns (i.e., prohibitive voice) should be most likely to emerge when followers have clear self-regulatory strategy. Following this line of reasoning, I expect that followers high in promotion focus should be motivated the most to speak up their suggestions by the perceptions of PS value congruence. Indeed, followers with a promotion focus are concentrated more on gains, ideals, accomplishments and aspirations. Under such circumstance, when followers perceive that their values are compatible with their supervisors' values, they would have strong desire to share new ideas and express suggestion to improve existing work practices and procedures to benefit the unit. Similarly, followers high in prevention focus should be motivated the most to speak up their concerns by the perceptions of PS value congruence. Followers with a promotion focus are concerned more with duty, obligations, rules, and responsibilities. When followers perceive that their values are consistent with their supervisors' values, they would feel that they ought to speak up their concerns to impede practices, incidents or behaviors that may harm the unit.

The above arguments can be integrated with my theory development in Hypothesis 5 to yield an elaborated process model that accounts for the mediating (i.e., PS value congruence) and moderating (i.e., leadership strength and followers' regulatory focus) mechanisms by which unit-level authentic leadership leads to employee voice (i.e., promotive voice and prohibitive voice). In other words, I propose that the relationship between unit-level

authentic leadership and PS value congruence is stronger when leadership strength is high. However, the relationship between PS value congruence and employee voice can be divided into two different aspects. One is that the relationship between PS value congruence and promotive voice is stronger when followers are high in promotion focus, while the other is that the relationship between PS value congruence and prohibitive voice is stronger when followers are high in prevention focus. Taken together and stated in terms of Edwards and Lambert's (2007) theorizing, the indirect effect of unit-level authentic leadership on employee voice through PS value congruence will be strongest when leadership strength is high (a first-stage moderator) and when followers' regulatory focus is high (a second-stage moderator). The hypotheses are stated below:

Hypothesis 6a. The strength of the mediated relationship between authentic leadership and followers' promotive voice (via person-supervisor value congruence) will vary depending on the extent of leadership strength and followers' promotion focus; the indirect effect of authentic leadership via person-supervisor value congruence on followers' promotive voice will be stronger when both leadership strength and followers' promotion focus are higher.

Hypothesis 6b. The strength of the mediated relationship between authentic leadership and followers' prohibitive voice (via person-supervisor value congruence) will vary depending on the extent of leadership strength and followers' prevention focus; the indirect effect of authentic leadership via person-supervisor value congruence on followers' prohibitive voice will be stronger when both leadership strength and followers' prevention focus are higher.

#### **CHAPTER THREE: METHOD**

# I. Research Setting, Participants, and Procedures

Participants for the current study were recruited from both direct reports and their immediate supervisors of functional units in Taiwanese military. These units are responsible for executing various functional duties, such as personnel, administration, logistics, finance, comptroller, education, law, operations and planning, research and development, and manufacture. Each direct report was required to report to their immediate supervisor on a daily basis. I asked several individuals to serve as contact persons for their functional units and to assist in identifying and recruiting supervisor-subordinate dyads within their units. The survey package—including instructions, supervisor questionnaires, direct report questionnaires, and return envelopes for all of the participants—was hand-distributed and collected directly by these individuals and then returned to the author. During the process, all participants were instructed to seal their completed survey questionnaires into the return envelopes and were assured of complete confidentiality.

Supervisor participants were requested to respond to questions regarding their moral potency (e.g., moral ownership, moral efficacy, and moral courage), their direct reports' voice, and their demographic information (e.g., gender). Direct report participants were asked to respond to questions regarding their supervisors' authentic leadership behaviors, their perceptions regarding value congruence with their supervisors, their regulatory focus, their perceptions regarding exchange quality with their supervisor (i.e., LMX quality), and their demographic information. Four-hundred-and-eighty questionnaires were distributed to the direct reports, and 404 completed surveys were returned (a 84% response rate). Ninety immediate supervisors were approached and asked to complete a rating form for their direct reports, and 82 completed surveys were returned (a 91% response rate). Moreover, according to Liang and Chi's (2012) suggestions, I followed two criteria when selecting and recruiting

my participants. First, I defined a work unit as two or more direct reports reporting to the same supervisor. Second, I excluded supervisors and direct reports who had been in their current positions/units for less than three months. By doing so, I ensured that direct reports fully understood their supervisors' leadership behaviors and also that supervisors understood their direct reports' voice behavior well. Altogether, I had 361 pairs of completely matched and usable dyads from 76 units, for an overall response rate of 75%. On average, 4.75 direct reports (ranging from 3 to 8) were rated by one supervisor. Regarding the direct reports' data, there were 88 female participants (24%) and 273 male participants (76%); their average age was 30.13 years (SD = 3.22); they all had at least an undergraduate degree or higher; their main rank was captain (44%); the next highest rank was major (42%); their average work-unit tenure was 18.84 months (SD = 5.07). Regarding the supervisors' data, participants were primarily men (95%); their average age was 39.32 years (SD = 2.23); their average tenure in their current unit was 18.68 months (SD = 6.62); their main rank was lieutenant colonel (82%); and they all had at least an undergraduate degree or higher.

#### II. Measures

I used five-point Likert-type scales ranging from 1, "strongly disagree," to 5, "strongly agree" for all substantive variables. Since all measures were originally constructed in English, I employed translation and back-translation procedures (Brislin, 1986) to ensure that the English and traditional Chinese versions of all items were comparable at a high degree of accuracy. All items are shown in the Appendix A-F.

Furthermore, I counterbalanced the measure order of direct reports' questionnaires to reduce potential biases caused by item priming effects. According to Podsakoff, MacKenzie, Lee, and Podsakoff (2003), an item priming effect refers to the fact that "asking questions about particular features of the work environment may make other work aspects more salient to respondents than those work aspects would have been if the questions had not been asked

in the first place." For instance, if I ask direct reports to rate their supervisors' authentic leadership behaviors first, the direct reports' subsequent response regarding PS value congruence is primed by the previous ratings of authentic leadership. Hence, I counterbalanced the measure order as follows: the mediating variable (i.e., PS value congruence) items were asked first, followed by those regarding regulatory focus and authentic leadership. In so doing, direct reports' ratings of authentic leadership are unlikely to have impacted their ratings of PS value congruence.

Moral potency. Supervisors responded to an 12-item measure of moral potency developed by Hannah and Avolio (2010). Three items were used to measure moral ownership (e.g., I will... "assume responsibility and take action when I see an unethical act"). Four items were used to measure moral courage (e.g., I will... "confront my peers if they commit an ethical act"). Five items were used to measure moral efficacy (e.g., I am confident that I can... "determine what needs to be done when I face ethical dilemmas").

I conducted a second-order confirmatory factor analysis (CFA) to examine the expected higher order moral potency structure. The CFA results demonstrated that the second-order model provided a good fit to the data ( $\chi^2 = 68.93$ , df = 51, RMSEA = .06, SRMR = .07, GFI = .88, NFI = .88). Based on the second-order CFA results, it should be appropriate to aggregate the scores of the three facets into a total moral potency score. The Cronbach's alpha coefficient for this scale was .84.

Authentic leadership. Direct reports rated their immediate supervisors' level of authentic leadership behaviors using the 16-item the Authentic Leadership Questionnaire (ALQ; Walumbwa et al., 2008). The ALQ assesses four dimensions of authentic leadership and several studies have indicated a high-order factor for this scale (e.g., Hannah, Walumbwa, et al., 2011; Walumbwa et al., 2010). Three items were used to measure balanced processing (e.g., "My supervisor solicits views that challenge his or her deeply held positions"). Four

items were respectively used to measure self-awareness (e.g., "My supervisor is eager to receive feedback to improve interactions with me") and internalized moral perspective (e.g., "My supervisor makes decisions based on his/her core beliefs"). Five items were used to measure relational transparency (e.g., "My supervisor is willing to admit mistakes when they are made").

Because the ALQ measure is relatively new (Hannah, Walumbwa, et al., 2011; Walumbwa et al., 2010), I conducted a second-order CFA to determine whether these facets were nested a second-order factor. Results revealed that the second-order model fit the data well ( $\chi^2 = 394.40$ , df = 100, RMSEA = .09, SRMR = .06, GFI = .88, NFI = .95). These results provided support for aggregating the four facets into a total score of authentic leadership in my study. The Cronbach's alpha coefficient for this scale was .93.

Further, I examined whether authentic leadership could be conceptualized and aggregated into the unit level. To justify the appropriateness of data aggregation, I calculated the inter-rater agreement ( $r_{\rm wg}$ ) and the intraclass correlations (ICCs) for unit-level authentic leadership (Bliese, 2000; James, Demaree, & Wolf, 1984). The results showed that the average of  $r_{\rm wg}$  values was .92, with individual  $r_{\rm wg}$  ranging from .66 to .98, suggesting a high degree of inter-rater agreement for authentic leadership within the work units. Moreover, we calculated the ICCs: ICC(1) equaled .39 and ICC(2) equaled .74, whereas the F value for ANOVA was significant in terms of between-unit variances for authentic leadership (F[75, 285] = 3.93, p < .001). These results indicate that it was appropriate to conceptualize authentic leadership as a unit-level variable.

Leadership strength. Consistent with Chan's (1998) dispersion model and a previous example of leadership strength measure (Hannah, Walumbwa, et al., 2011), leadership strength was calculated using the coefficient of variation (Allison, 1978), which corrects for the lack of independence between measures of central tendency and measures of dispersion. I

first divided the standard deviation for each unit's authentic leadership measure by the unit mean. This value then standardized and its sign was reversed so that higher values represented higher levels of leadership strength.

Person-supervisor value congruence. Consistent with my theorizing of PS value congruence as an individual perception, I adapted Cable and DeRue's (2002) three-item subjective fit measure to assess direct reports' subjective perceptions of PS value congruence. Specifically, I substituted the word "supervisor" for "organization" in the original items. Sample items are "My personal values match my supervisor's values and ideals" and "The things that I value are similar to the things my supervisor values." The Cronbach's alpha coefficient for this scale was .86.

Regulatory focus. I used the 18-item measure (nine items per subscale) developed by Lockwood, Jordan, and Kunda (2002) to assess individuals' chronic regulatory focus strategy. Direct reports were asked to indicate the extent to which these statements are true for them in their daily lives. Sample items for promotion focus are "I frequently imagine how I will achieve my hopes and aspirations" and "I often think about the person I would ideally like to be in the future." Sample items for prevention focus are "In general, I am focused on preventing negative events in my life" and "I frequently think about how I can prevent failure in my life." The Cronbach's alpha coefficients were .77 and .80 for promotion focus and prevention focus, respectively.

Employee voice. I used the ten-item scale (five items per subscale) developed and validated by Liang et al. (2012) to measure supervisor ratings of their direct reports' promotive and prohibitive voice. The items were preceded with the instruction, "Please refer to your employee, \_\_\_\_\_, when answering the following items." Sample items for promotive voice are "Proactively develop and make suggestions for issues that may influence the unit" and "Make constructive suggestions to improve the unit's operation." Sample items for

prohibitive voice are "Advise other colleagues against undesirable behaviors that would hamper job performance" and "Dare to point out problems when they appear in the unit, even if that would hamper relationships with other colleagues." The Cronbach's alpha coefficients were .87 and .89 for promotive voice and prohibitive voice, respectively.

Control variables. I obtained the direct reports' responses of demographic variables such as gender, educational level, age, rank ,and work-unit tenure to control for potential confounding effects on voice behavior (Detert & Burris, 2007; Hsiung, 2011). I also controlled for leader-member exchange (LMX), which might potentially influence the leader-follower relationship in the workplace as well as employee outcomes (Hsiung, 2011). I measured LMX using Graen and Uhl-Bien's (1995) seven-item scale (LMX-7). A sample item is "How well does your supervisor understand your job problems and needs?" The Cronbach's alpha coefficient for this scale was .80.

## III. Analytical Strategy

The first step of my analysis involved a series of confirmatory factor analyses of the seven variables in my study: moral potency, authentic leadership, PS value congruence, promotion focus, prevention focus, promotive voice, and prohibitive voice. I followed recommendations by Anderson and Gerbing (1988) and used maximum likelihood with the software LISREL 8.80 to examine the convergent and discriminant validity of these constructs. Further, because my data were multilevel in nature, the hypotheses testing was conducted by using hierarchical linear modeling (HLM; Bryk & Raudenbush, 1992) analyses with the software HLM 6.08. HLM allows multiple-level testing simultaneously.

Before testing our hypotheses, I ran null models with no predictors at the individual level and the unit level, taking PS value congruence, promotive voice, and prohibitive voice as the dependent variables. This procedure is to examine whether systematic between-unit variances of the mediating variable and the outcome variable exist.

Moreover, Hypothesis 4 suggested a multilevel mediation model, whereby the relationship between authentic leadership and employee voice was mediated by PS value congruence. According to Zhang, Zyphur, and Preacher's (2009) recent recommendations, a 2-1-1 model (i.e., the independent variable is measured at Level 2, while the mediating and the dependent variables are measured at Level 1) may introduce potential confounding effects, but such effects can be decomposed into within- and between-unit mediation effects. A combination of the within- and between-unit effects may result in misrepresentations of mediation effects at the individual level and a biased estimation. Thus, I examined the proposed mediation effect by using CWC(M) (centered within context with reintroduction of the subtracted means at Level 2) mediation analysis (Kreft & de Leeuw, 1998). The CWC(M) approach provides a more precise estimation for within- and between-unit coefficients of the mediator. Specifically, I analyzed the multilevel structure of my data by using a group mean-centering approach to avoid problems of conflated individual- and unit-level effects.

Next, I followed Baron and Kenny's (1986) mediation procedures to test Hypothesis 4.

Finally, I examined my mediated-moderation hypotheses (i.e., Hypothesis 5-7) using Edwards and Lambert's (2007) moderated path analysis approach, which integrates moderated regression procedures into a path-analytic method for the mediation test. Based on this approach, the examination of mediated and moderated effects needs an estimation of product terms such as indirect effects, which are not normally distributed (Shrout & Bolger, 2002). I followed Edwards and Lambert's (2007) suggestions and constructed bias-corrected confidence intervals using a bootstrap procedure with 1,000 samples to examine all hypothesized effects.

### **CHAPTER FOUR: RESULTS**

# **I. Descriptive Statistics**

Table 1 provides means, standard deviations, reliability coefficients, and correlations for all study variables. The signs on the significant correlations suggested that moral potency was positively related to authentic leadership (r = .22, p < .01). Authentic leadership was positively related to PS value congruence (r = .45, p < .01), to promotive voice (r = .28, p < .01), and to prohibitive voice (r = .35, p < .01). Leadership strength was positively related to PS value congruence (r = .51, p < .01), to promotive voice (r = .29, p < .01), and to prohibitive voice (r = .34, p < .01). Also, PS value congruence and promotive voice/prohibitive voice were positively correlated (r = .30, p < .01 and r = .32, p < .01, respectively). Furthermore, subordinates' promotion focus was positively related to promotive voice (r = .29, p < .01). Subordinates' prevention focus was positively related to prohibitive voice (r = .28, p < .01).

Table 1: Individual-level Descriptive Statistics and Correlations

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Gender of subordinate <sup>a</sup>	.76	.43															
2. Education of subordinate <sup>b</sup>	2.50	.50	01														
3. Age of subordinate (years)	30.13	3.22	.02	.67**			a(6)[9	(01010)									
4. Rank of subordinate <sup>c</sup>	3.34	.71	.04	.58**	.91**	<b>4010</b>	灣	臺	STOTOL STOTOL								
5. Work-unit tenure of subordinate (months)	18.84	5.07	02	.16**	.16**	.15**		1	1/2								
6. Group size	4.75	1.32	02	05	03	04	.09+	1.0	E								
7. Leader-member exchange	3.20	.55	01	01	08	05	.04	25**	(.80)	· [6]							
8. Moral potency	3.28	.61	.00	01	00	.01	.12*	07	.08	(.84)							
9. Authentic leadership	3.34	.78	.05	08	07	06	03	34**	.32**	.22**	(.93)						
10. Leadership strength	.10	1.04	.01	05	03	01	08	35**	.29**	.17**	.51**						
11. Person-supervisor value congruence	3.20	1.10	02	00	05	02	08	26**	.45**	.13*	.45**	.51**	(.86)				
12. Promotion focus	2.98	.50	.01	02	.01	.02	01	01	.07	.03	.01	01	.12*	(.77)			
13. Prevention focus	2.96	.59	02	.01	.07	.08	05	.03	06	00	08	.02	08	29**	(.80)		
14. Promotive voice	2.85	.95	07	.03	.06	.07	03	19**	.19**	.12*	.28**	.29**	.30**	.29**	06	(.87)	

15. Prohibitive voice 3.00 .96 -.02 .07 .08 .08 .00 -.25\*\* .25\*\* .10+ .35\*\* .34\*\* .32\*\* .04 .28\*\* .49\*\* (.89)

Note. n = 361; Coefficient alphas are listed in parentheses along the diagonal. Variables 9 and 10 were created at the unit level from individual ratings.

<sup>a</sup>Gender: 0 = female, 1 = male.

<sup>b</sup>Education: 1 = high school, 2 = college degree, 3 = graduate degree.

<sup>c</sup>Rank: 1 = second lieutenant, 2 = lieutenant, 3 = captain, 4 = major, 5 = lieutenant colonel.

 $^{+}$  p < .1;  $^{*}$  p < .05;  $^{**}$  p < .01 (two-tailed tests)



## **II. Confirmatory Factor Analyses**

To ensure the convergent and discriminant validity of the seven variables in my study, I followed Anderson and Gerbing's (1988) recommendation and used the maximum likelihood method with LISREL 8.80 software (Jöreskog & Sörbom, 2006) to conduct a series of confirmatory factor analyses (CFAs). As shown in Table 2, the hypothesized seven-factor model (i.e., moral potency, authentic leadership, PS value congruence, promotion focus, prevention focus, promotive voice, and prohibitive voice) yielded a good fit indices:  $\chi^2$ (1631) = 2740.40, p < .01; root mean square error of approximation (RMSEA) = .04; standardized root mean square residual (SRMR) = .05; goodness of fit index (GFI) = .80; normed fit index (NFI) = .89. In addition, all items were found to be significantly loaded on their respective underlying constructs, indicating convergent validity.

I compared this model to eight alternative measurement models. Results (see Table 2) showed that the hypothesized seven-factor model was by far the best fit to the data. The chi-square differences tests indicated that the fit of the seven-factor model (Model 1) to the sample covariance matrix was significantly better than any alternatives (Model 2-9). The chi-square differences showed that six-factor models (Model 2-6):  $\Delta\chi^2(6)$  ranged from 420.57 to 977.50, all p < .01; five-factor models (Model 7):  $\Delta\chi^2(11) = 1567.13$ , p < .01; three-factor models (Model 8):  $\Delta\chi^2(19) = 2625.00$ , p < .01; one-factor models (Model 9):  $\Delta\chi^2(22) = 4502.62$ , p < .01. Thus, the CFA results lent support for the discriminant and convergent validity of my measures.

Table 2: Confirmatory Factor Analysis Results

Model	Factors	$\chi^2$	df	$\Delta\chi^2$	RMSEA	SRMR	GFI	NFI
Model 1	Hypothesized seven-factor model (all items load on appropriate factors)	2740.40	1631		.04	.05	.80	.89
Model 2	Six-factor model (Moral Potency and Authentic Leadership combined)	3717.90	1637	977.50**	.07	.08	.69	.85
Model 3	Six-factor model (Authentic Leadership and PSVC combined)	3174.84	1637	434.44**	.05	.06	.78	.87
Model 4	Six-factor model (Moral Potency and PSVC combined)	3362.88	1637	622.48**	.05	.08	.76	.86
Model 5	Six-factor model (Promotion Focus and Prevention Focus combined) Authentic Leadership	3160.97	1637	420.57**	.06	.06	.76	.87
Model 6	Six-factor model (Promotive Voice and Prohibitive Voice combined)	3304.44	1637	564.04**	.06	.06	.75	.87
Model 7	Five-factor model (Moral Potency, Authentic Leadership, and PSVC combined)	4307.53	1642	1567.13**	.08	.08	.66	.83
Model 8	Three-factor model (Moral Potency, Authentic Leadership, and PSVC combined; Promotion Focus and Prevention Focus combined; Promotive Voice and Prohibitive	5365.40	1650	2625.00**	.10	.11	.60	.78

Voice combined)

Model 9 One-factor model (all five constructs combined)

7243.02

1653

4502.62\*\*

.13

.13

.47

.71

Note. The  $\chi^2$  difference was compared with the value of the seven-factor model (my hypothesized model). RMSEA refers to root mean square error of approximation; SRMR refers to standardized root mean square residual; GFI refers to goodness of fit index; NFI refers to normed fit index; PSVC refers to person-supervisor value congruence.

\*\* p < .01 (two tailed tests)



## **III. Hypothesis Tests**

Prior to testing my hypotheses, I first examined the degree of between-unit variance for both the mediating variable and the outcome variable. To do so, I used two intraclass correlations (ICCs) for assessing agreement among unit members. ICC(1) suggests the level of agreement among ratings from members of the same unit. ICC(2), on the other hand, indicates whether units can be differentiated on the variables under investigation. For PS value congruence, the ICC(1) and ICC(2) were .23 and .58, respectively. For promotive voice, the ICC(1) and ICC(2) were .16 and .46, respectively. For prohibitive voice, the ICC(1) and ICC(2) were .24 and .59, respectively. The F-value for ANOVA tests was all significant (p < .001). Hence, these findings justified the appropriateness of a cross-level analysis.

### III-1. The Main Effect of Moral Potency

Hypothesis 1 proposed a positive relationship between leader moral potency and authentic leadership. Both the explanatory and criterion variables are in the same level (i.e., Level 2). Therefore, the hypothesized relationship between these two variables was examined using hierarchical regression analyses. As shown in Table 3, leader moral potency was positively related to unit-level authentic leadership ( $\beta$  = .31, p < .01). Therefore, Hypothesis 1 was supported.

Table 3: Hierarchical Regression Results for Hypothesis 1

	Authenti	c Leadership
Variables	β	t
Control variables		
Gender of supervisor	01	06
Education of supervisor	10	76
Age of supervisor	.06	.32
Rank of supervisor	20	98
Work-unit tenure of subordinate	.08	.64
$\Delta R^2$	).	04
Moral potency	.31	2.69**
$\Delta R^2$	).	)9**
$R^2$ for total equation		13

*Note.* n = 76; Standardized coefficients are reported for the final step in each model.

# III-2. The Main Effect of Authentic Leadership

Hypothesis 2 stated a positive relationship between authentic leadership and follower voice. As shown in model 1 and 2 of Table 4, authentic leadership was positively related to promotive voice ( $\gamma = .53$ , p < .01) and prohibitive voice ( $\gamma = .68$ , p < .01), respectively. Therefore, Hypothesis 2 was supported.

Hypothesis 3 predicted a positive relationship between authentic leadership and PS value congruence. As shown in model 3 of Table 4, authentic leadership was positively related to PS value congruence ( $\gamma = .87$ , p < .01). Thus, Hypothesis 3 was supported.

<sup>\*\*</sup> p < .01 (two-tailed tests)

Table 4: Hierarchical Linear Modeling Results for Hypothesis 2-4

	Model 1	Model 2	Model 3	Model 4	Model 5
Level and Variables	Promotive voice	Prohibitive voice	PSVC	Promotive voice	Prohibitive voice
Level 1					
Gender of subordinate	15	04	05	15	04
Education of subordinate	10	09	.09	11	09
Age of subordinate	.04	.05	03	.04	.05
Rank of subordinate	.01	02	.12	.01	02
Work-unit tenure of subordinate	01	00	01	00	.00
Leader-member exchange (LMX)	.16*	.21**	.73**	.07	.13
Person-supervisor value congruence (PSVC)	9. (7	( )	. 8	.12*	.10+
Level 2					
Group size	03	03	04	03	03
Unit-level authentic leadership	.53**	.68**	.87**	.36*	.55**
Unit-level PSVC	1	要。學學	9	.18+	.14
Model deviance	948.56	932.61	967.37	948.12	934.86

*Note.* n = 361 individuals and 76 functional units. Entries presented are estimations of HLM regression coefficients,  $\gamma$ s, with robust standard errors.

 $<sup>^{+}</sup> p < .1; ^{*} p < .05; ^{**} p < .01$ (two-tailed tests)

## III-3. The Mediating Effect of Perceptions of PS Value Congruence

Hypothesis 4 posited that PS value congruence mediates the relationship between authentic leadership and follower voice. As shown in Table 4, the results supported our prediction as follows: (a) in model 1 and 2, authentic leadership was significantly related to promotive voice ( $\gamma = .53$ , p < .01) and prohibitive voice ( $\gamma = .68$ , p < .01), respectively; (b) in model 3, authentic leadership was also significantly related to PS value congruence ( $\gamma = .87$ , p < .01).; and (c) in model 4, both authentic leadership and PS value congruence were significantly related to promotive voice ( $\gamma = .36$ , p < .05 and  $\gamma = .12$ , p < .05, respectively); in model 5, both authentic leadership and PS value congruence were significantly related to prohibitive voice ( $\gamma = .55$ , p < .01 and  $\gamma = .10$ , p < .1, respectively). I found a reduced, but statistically significant, coefficient for authentic leadership in model 4 and 5, i.e., follower PS value congruence partially mediated the relationship between authentic leadership and follower voice. Therefore, Hypothesis 4 was supported.

# III-4. The Contingent Effect of Leadership Strength

Hypothesis 5 proposed that leadership strength moderates the indirect effect of authentic leadership on follower voice via PS value congruence. The HLM results are shown in Table 5, and the path analytic estimates are shown in Table 6. As the HLM results in Table 5 show, when PS value congruence was the outcome variable, both authentic leadership and leadership strength were significantly related in Step 1 ( $\gamma$  = .31, p < .01 and  $\gamma$  = .33, p < .01, respectively). In Step 2 of the PS value congruence equations, the AL × LS interaction term was significant ( $\gamma$  = .24, p < .01). When leadership strength was high, the relationship between authentic leadership and PS value congruence was significant and positive ( $\gamma$ <sub>high</sub> = .48, p < .01), but was not significant when leadership strength was low ( $\gamma$ <sub>low</sub> = -.02, n.s.).

The middle part of Table 5 includes the results when promotive voice was the outcome variable. Authentic leadership was significantly related in step 1 ( $\gamma = .41$ , p < .05). Leadership

strength, in contrast, was not a significant predictor of promotive voice in Step 1 ( $\gamma = .05$ , *n.s.*). In Step 2, PS value congruence was significantly related ( $\gamma = .09$ , p < .1), while promotion focus was also a significant predictor ( $\gamma = .50$ , p < .01).

The right part of Table 5 contains the results when prohibitive voice was the outcome variable. Authentic leadership was significantly related in step 1 ( $\gamma = .61$ , p < .01). Leadership strength, in contrast, was not a significant predictor of prohibitive voice in Step 1 ( $\gamma = .02$ , n.s.). In Step 2, PS value congruence was significantly related ( $\gamma = .12$ , p < .01), while prevention focus was also a significant predictor ( $\gamma = .47$ , p < .01).

Next, I used the information from the HLM results in Table 5 to conduct path moderation analyses at high and low levels of leadership strength. The results are shown in Table 6. The path estimates revealed that the indirect effect of authentic leadership on follower voice via PS value congruence varied across levels of leadership strength. The indirect effect of authentic leadership on promotive voice via PS value congruence was stronger for units with higher levels of leadership strength ( $P_{MX}P_{YIM} = .04$ , p < .05) than for those with lower levels of leadership strength ( $P_{MX}P_{Y1M} = -.00$ , n.s.); the difference between the two effects was significant ([-.00] - [.04] = -.04, p < .05). In addition, the first-stage moderation, indirect effects, and total effects were significantly stronger when leadership strength is high. Likewise, the indirect effect of authentic leadership on prohibitive voice through PS value congruence was stronger for units with higher levels of leadership strength  $(P_{MX}P_{Y2M} = .06, p < .05)$  than for those with lower levels of leadership strength  $(P_{MX}P_{Y2M} =$ -.00, n.s.); the difference between the two effects was significant ([-.00] - [.06] = -.06, p < .05). Moreover, the first-stage moderation, indirect effects, and total effects were significantly stronger when leadership strength is high. Figure 2 and 3 show that the plots of the indirect effects vary across levels of leadership strength (Aiken & West, 1991). The patterns of the moderated indirect effects in Figure 2 and 3 were consistent with Hypotheses 5. Therefore, the results provided evidence for moderated indirect effects via PS value congruence, supporting Hypothesis 5.



Table 5: Hierarchical Linear Modeling Results for Hypothesis 5-6b

	PSVC		P	Promotive voice			Prohibitive voice		
Level and Variables	Step 1	Step 2	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3	
Level 1		_				-			
Gender of subordinate	08	09	15	15	15	04	01	01	
Education of subordinate	.12	.13	09	08	09	09	08	08	
Age of subordinate	05	05	.03	.03	.04	.05	.05	.05	
Rank of subordinate	.19	.18	.02	.00	01	01	09	09	
Work-unit tenure of subordinate	01	01	01	00	00	00	.00	.00	
Leader-member exchange (LMX)	.62**	.63**	.17*	.07	.08	.23**	.18*	.19*	
Person-supervisor value congruence (PSVC)			是到	.09+	.10*		.12**	.11**	
Promotion focus (PROF)				.50**	.49**				
Prevention focus (PREF)			2	1014			.47**	.48**	
$PSVC \times PROF$		# 453 M		15 N	.15**				
$PSVC \times PREF$		2 2	品。學例	1010				.24**	
Level 2		2016	19701919191919	<i>y</i> -					
Group size	00	.00	02	02	02	02	03	02	
Unit-level authentic leadership (AL)	.31**	.21+	.41*	.38**	.39**	.61**	.56**	.59**	
Leadership strength (LS)	.33**	.36**	.05	.04	.03	.01	03	03	
$AL \times LS$		.24**							
Model deviance	946.98	947.33	948.68	919.25	920.99	932.30	895.81	887.95	

*Note.* n = 361 individuals and 76 functional units. Entries presented are estimations of HLM regression coefficients,  $\gamma$ s, with robust standard errors. p < 0.1; p < 0.05; p < 0.01 (two-tailed tests)

Table 6: Moderated Path Analysis Results for Hypothesis 5

	Authentic leadership $(X) \rightarrow PSVC (M) \rightarrow Promotive voice (Y1)$							
	_	Stage		Effect				
Moderator Variable:	First	Second	Direct	Indirect	Total			
Leadership strength	$P_{ m MX}$	P <sub>YIM</sub>	<i>P</i> <sub>Y1X</sub>	$P_{\rm MX}P_{ m Y1M}$	$P_{\rm Y1X} + P_{\rm MX}P_{\rm Y1M}$			
Low leadership strength (-1 s.d.)	02	.09*	.38**	00	.38**			
High leadership strength (+1 s.d.)	.48**	.09*	.38**	.04*	.42**			
Differences between low and high	50*	.00	.00	04*	04*			
		Authentic leadership (X) -	$\rightarrow$ PSVC (M) $\rightarrow$ Pro	ohibitive voice (Y	<b>Y2</b> )			
	E X	Stage	y	Effect				
Moderator Variable:	First	Second	Direct	Indirect	Total			
Leadership strength	$P_{ m MX}$	$P_{ m Y2M}$	$P_{ m Y2X}$	$P_{\mathrm{MX}}P_{\mathrm{Y2M}}$	$P_{\text{Y2X}} + P_{\text{MX}}P_{\text{Y2M}}$			
Low leadership strength (-1 s.d.)	02	.12*	.56**	00	.56**			
High leadership strength (+1 s.d.)	.48**	.12*	.56**	.06*	.62**			
Differences between low and high	50 <sup>*</sup>	.00	.00	06*	06 <sup>*</sup>			

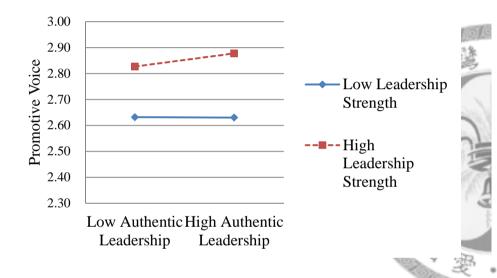
*Note.* n = 361 individuals and 76 functional units.

 $<sup>^{</sup>a}P_{MX}$ : path from authentic leadership to PS value congruence;  $P_{Y1M}$ : path from PS value congruence to promotive voice;  $P_{Y1X}$ : path from authentic

leadership to promotive voice;  $P_{Y2M}$ : path from PS value congruence to prohibitive voice;  $P_{Y2X}$ : path from authentic leadership to prohibitive voice.

<sup>b</sup> Low moderator variable refers to one standard deviation below the mean of the moderator; high moderator variable refers to one standard deviation above the mean of the moderator.

 $^{+} p < .1; ^{*} p < .05; ^{**} p < .01$  (two-tailed tests)



3.00 2.90 Prohibitive Voice 2.80 Low Leadership 2.70 Strength 2.60 **---** High 2.50 Leadership 2.40 Strength 2.30 Low Authentic High Authentic Leadership Leadership

Figure 2: Moderated indirect effect of authentic leadership on promotive voice (via person-supervisor value congruence) at low and high levels of leadership strength

Figure 3: Moderated indirect effect of authentic leadership on prohibitive voice (via person-supervisor value congruence) at low and high levels of leadership strength

## III-5. The Contingent Effect of Followers' Regulatory Focus

Hypothesis 6a and 6b proposed that both leadership strength and promotion focus/prevention focus moderate the indirect effect of authentic leadership on promotive voice/prohibitive voice via PS value congruence. The results in the Step 3 of middle/right part of Table 5 also show that the relationship between PS value congruence and promotive voice/prohibitive voice was moderated by the level of followers' promotion focus and prevention focus ( $\gamma = .15$ , p < .01 and  $\gamma = .24$ , p < .01, respectively). Summaries that include path analytic estimates for Hypothesis 6a and 6b are reported in Table 7 and 8. Here, the direct and indirect effects of authentic leadership on promotive voice/prohibitive voice varied across levels of the first-stage moderator (i.e., leadership strength) and the second-stage moderator (i.e., promotion focus/prevention focus).

Regarding Hypothesis 6a, as shown by Table 7, the effects of authentic leadership on promotive voice differed across levels of both the first- and second-stage moderators. Specifically, the indirect and total effects of authentic leadership on promotive voice via PS value congruence were significantly stronger when both leadership strength and promotion focus were high ( $P_{MX}P_{YIM} = .30$ , p < .01 and  $P_{YIX} + P_{MX}P_{YIM} = .69$ , p < .01, respectively) compared to other conditions, as predicted. Although a similar pattern was observed when leadership strength was high and promotion focus was low, the difference of indirect effect between the two conditions was significant ([.23] – [.30] = -.07, p < .05). Thus, Hypothesis 6a was supported.

Similarly, regarding Hypothesis 6b, as shown by Table 8, the effects of authentic leadership on prohibitive voice also varied across levels of both the first- and second-stage moderators. Particularly, the indirect and total effects of authentic leadership on prohibitive voice via PS value congruence were significantly stronger when both leadership strength and prevention focus were high ( $P_{MX}P_{Y2M} = .47$ , p < .01 and  $P_{Y2X} + P_{MX}P_{Y2M} = 1.06$ , p < .01,

respectively) compared to other conditions, as anticipated. Although a similar pattern was also observed when leadership strength was high and prevention focus was low, the difference of indirect effect between the two conditions was significant ([.33] – [.47] = -.14, p < .01). Hence, Hypothesis 6b was supported.

Figure 4 and 5 present the plots of the indirect effect of authentic leadership on promotive voice/prohibitive voice via PS value congruence for the four combination of low and high leadership strength and promotion focus/prevention focus. As the figures illustrate, the indirect effect was significant stronger only under the combination of high leadership strength and high promotion focus/high prevention focus.



Table 7: Moderated Path Analysis Results for Hypothesis 6a

	Authentic leadership $(X) \rightarrow PSVC (M) \rightarrow Promotive voice (Y1)$							
_	St	age		Effect				
<del>-</del>	First	Second	Direct	Indirect	Total			
	$P_{ m MX}$	$P_{ m Y1M}$	$P_{ m Y1X}$	$P_{\mathrm{MX}}P_{\mathrm{Y1M}}$	$P_{\rm Y1X} + P_{\rm MX}P_{\rm Y1M}$			
Low leadership strength, low promotion focus	02	.47**	.39**	01	.38*			
Low leadership strength, high promotion focus	02	.62**	.39**	01	.38+			
High leadership strength, low promotion focus	.48**	.47**	.39**	.23**	.62**			
High leadership strength, high promotion focus	.48**	.62**	.39**	.30**	.69**			
Differences between low and high promotion focus	.00	15*	.00	07*	07*			

Note. n = 361 individuals and 76 functional units.  $P_{MX}$ : path from authentic leadership to PS value congruence;  $P_{Y1M}$ : path from PS value congruence to promotive voice;  $P_{Y1X}$ : path from authentic leadership to promotive voice.

 $^{+}$   $p < .1; ^{*}$   $p < .05; ^{**}$  p < .01 (two-tailed tests)

Table 8: Moderated Path Analysis Results for Hypothesis 6b

	Authentic leadership $(X) \rightarrow PSVC (M) \rightarrow Prohibitive voice (Y2)$							
_	St	tage		Effect				
-	First	Second	Direct	Indirect	Total			
	$P_{ m MX}$	$P_{ m Y2M}$	$P_{ m Y2X}$	$P_{\mathrm{MX}}P_{\mathrm{Y2M}}$	$P_{\text{Y2X}} + P_{\text{MX}}P_{\text{Y2M}}$			
Low leadership strength, low prevention focus	02	.68**	.59**	01	.58**			
Low leadership strength, high prevention focus	02	96	.59**	02	57+			
High leadership strength, low prevention focus	.48**	.68**	.59**	.33**	.92**			
High leadership strength, high prevention focus	.48**	.96**	.59**	.47**	1.06**			
Differences between low and high prevention focus	.00	28**	.00	14**	14**			

Note. n = 361 individuals and 76 functional units.  $P_{MX}$ : path from authentic leadership to PS value congruence;  $P_{Y2M}$ : path from PS value congruence to prohibitive voice;  $P_{Y2X}$ : path from authentic leadership to prohibitive voice.

 $<sup>^{+}</sup>$   $p < .1; ^{*}$   $p < .05; ^{**}$  p < .01 (two-tailed tests)

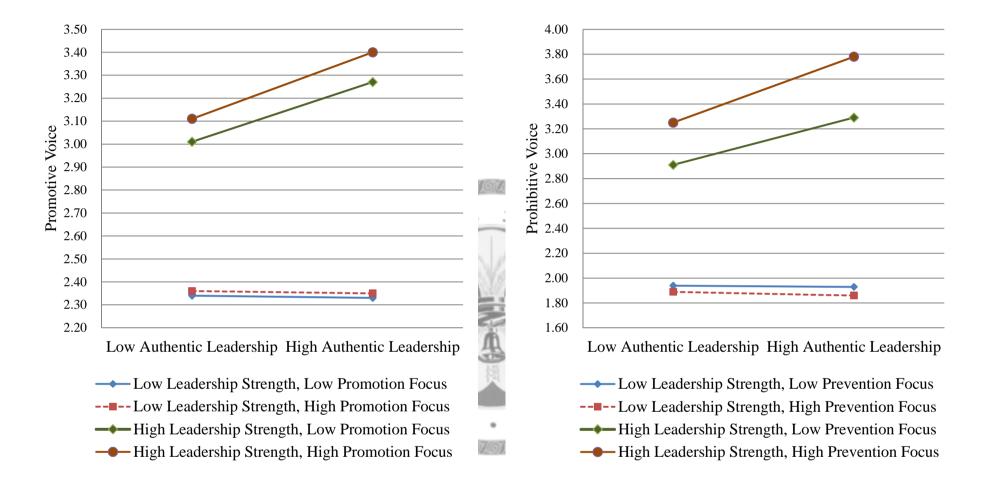


Figure 4: Moderated indirect effect of authentic leadership on promotive voice (via person-supervisor value congruence) at low and high levels of leadership strength and promotion focus

Figure 5: Moderated indirect effect of authentic leadership on prohibitive voice (via person-supervisor value congruence) at low and high levels of leadership strength and prevention focus

#### **CHAPTER FIVE: DISCUSSION**

The primary objective of this study was to develop and examine a model of the individual-, unit-, cross-level relationships that explicates who is more likely to be perceived as an authentic leader and whether, how, and under what circumstances authentic leadership may enhance employee voice. In support of our conceptual analysis, I found that leader moral potency had a positive impact on unit-level authentic leadership. In addition, as hypothesized, I found that unit-level authentic leadership exerted a positive main effect on individual-level PS value congruence and employee voice (i.e., promotive voice and prohibitive voice). Further, PS value congruence mediated the relationship between authentic leadership and employee voice. I also found support for our hypothesis that the mediated relationship was stronger when leadership strength was strong. In contrast, person-supervisor value congruence did not occur when leadership strength was weak. I further extended this finding and showed that the indirect effect of authentic leadership on promotive voice/prohibitive voice via PS value congruence was stronger when both leadership strength and promotion focus/prevention focus were high. The results of this research yield several valuable insights with interesting theoretical and managerial implications.

# I. Theoretical Implications

My study contributes to the authentic leadership literature by extending previous research in the following ways. First, the present study advances the literature on authentic leadership by exploring the antecedent of authentic leadership. Although research and practice interests in authentic leadership have grown, little is known about what factor promotes authentic leadership. Extending this research stream, I answer calls for examining the prerequisite that develop authentic leadership (e.g., Gardner et al., 2011; Peus, Wesche, Streicher, Braun, & Frey, 2012). My findings suggest that leader moral potency may be a pivotal factor in promoting leader authentic leadership, through the mechanisms of social

cognitive theory. Therefore, this finding is a valuable addition to the authentic leadership literature in explication of what leads to authentic leadership.

Second, although past empirical research found that authentic leadership was positively associated with voice behavior (e.g., Hsiung, 2011), I extend the literature on authentic leadership by including both promotive and prohibitive dimensions of voice as criterion variables. My results suggest that authentic leadership was positively related to both promotive and prohibitive voice. This addition to previous efforts is important because promotive and prohibitive voice have different implications for organizational and work unit functioning.

Third, the current study advances our understanding of the role of PS value congruence as a proximal predictor of willing to speak up. The effects of authentic leadership on employee voice were partially mediated by followers' PS value congruence. My findings introduces the potential mechanisms whereby authentic leadership influences employee voice. To my knowledge, this is perhaps the first study to use PS value congruence as an intervening mechanism of the authentic leadership-behavioral response relationship. Thus, this study extends previous studies by demonstrating the intervening mechanism of PS value congruence in the relationship between authentic leadership and voice. By doing so, my model draws attention to the role that authentic leadership plays in shaping cognitive processes and, ultimately, such extra-role behavior.

Fourth, my model makes a significant contribution to authentic leadership theory by integrating direct consensus and dispersions of authentic leadership within a theoretical model. As suggested by Feinberg et al. (2005), a strong leader creates consensus and a similarity of perceptions among followers. However, previous research did not simultaneously consider these two group composition phenomena of authentic leadership. My findings confirm that the indirect effect of authentic leadership on follower voice via PS value congruence would be

strengthened by leadership strength. This pattern suggests that leadership strength deserves more attention, as it may help to explain the effects of authentic leadership and can provide a more complete picture of authentic leadership.

Finally, the important contribution of my work is the introduction of a theoretical model that proposes a nuanced explanation of whether, how, and under what circumstances authentic leadership may enhance employee voice. My model differs from previous theories of authentic leadership in that I suggest that the process leading from authentic leadership to employee voice partly depends on employees' value congruence with their authentic leaders. In addition, my model goes even further by contending that PS value congruence as a response to authentic leadership can be strengthened by leadership strength. Finally, my model proposes a second moderator in the process that leads from authentic leadership to employee voice by highlighting the role that followers' regulatory focus (i.e., promotion focus and prevention focus) plays in further enhancing the link between authentic leadership and promotive voice/prohibitive voice. Thus, my model that explains how authentic leadership results in employee voice, involves two stages in which PS value congruence can be reinforced by contextual and individual differences factors.

### **II. Managerial Implications**

This study has a number of implications for managers and their organizations. First, since the scope and scale of greed and malfeasance in modern organizations is escalating (George, 2007), organizations need to develop the moral capacity of their employees to face the complexity of organizational challenges. My finding that leaders with high levels of moral potency are most likely to display authentic leadership behaviors suggests that moral potency can be an important force in promoting such behaviors. Thus, organizations may want to invest more in related manager training programs to develop their moral potency capacity.

Second, authentic leaders can have significant effects on employee voice through PS

value congruence. Thus, by demonstrating PS value congruence as an important mediating mechanism my results suggest that when determining how to promote employee voice, managers should consider how to elevate their direct reports' value congruence with them.

Once value congruence is achieved, employees will feel free and safe to voice, thereby speaking up their concerns and ideas based on their true selves.

Third, the current results also suggest that the effects of authentic leadership on subordinates' PS value congruence and, ultimately, on employee voice would be amplified by leadership strength. This implies that leaders may play a pivotal role in shaping the perceptions of subordinates with respect to the features of the work environment. Accordingly, managers should engage in a set of leadership behaviors that foster a similar mindset or similar perceptions among direct reports to be viewed as authentic leaders that can facilitate followers' PS value congruence and, subsequently, voice behavior.

Finally, my study findings highlight the significant role of followers' regulatory focus (i.e., promotion focus and prevention focus), which could amplify the link between PS value congruence and promotive voice/prohibitive voice. Managers could benefit substantially from an understanding of the individual differences of their subordinates. In particular, my study shows that PS value congruence interacted with promotion focus to be related to promotive voice, and PS value congruence interacted with prevention focus to be related to prohibitive voice. An awareness of subordinates' regulatory focus would help managers understand their direct reports' voice preference. Hence, it is crucial for managers to know their subordinates' levels of regulatory focus to give them a better idea of how to encourage their direct reports to voice.

### **III. Strengths, Limitations and Future Directions**

The present study has several strengths. First, I addressed a research gap in the authentic leadership literature by examining leader moral potency as an important antecedent

of authentic leadership. Second, I examined the effects of authentic leadership on an important organizational outcome (i.e., employee voice), capturing both promotive and prohibitive dimensions of voice. Third, I proposed PS value congruence as an intervening mechanism of the authentic leadership-behavioral response relationship. Fourth, I introduced two different stage (i.e., first- and second-stage) moderators in the process through which authentic leadership influences employee voice. Fifth, given the difficulty, stemming from possible social desirability bias, in assessing employee voice using self-reports, I choose to measure employee voice using supervisor reports. Sixth, I tested my theoretical model using data collected solely from the military. It can serve as a source of strength because supervisors and subordinates performed relatively similar duties and responsibilities across the units, allowing fairly equal comparisons.

Despite these strengths, several limitations of this study remain. First, although I employed a supervisor-subordinate-dyads design to address issues of common method variance (Podsakoff et al., 2003), this approach does not completely rule out the possibility of the inflating effects of common-source bias. However, several factors can help reduce the threat of common method variance. First, I used procedural design remedies (e.g., the assurances of complete confidentiality and anonymity, counterbalancing the measure order of questionnaires, and distinct questionnaire sections and instructions) to alleviate the vulnerability of my data to common method variance. Second, the data of authentic leadership and leadership strength were calculated and aggregated from unit members' perceptions.

These variables are less subject to subjective bias, and distinct from individual-level variables. Third, the high-order interactions were not susceptible to common method variance (Duffy, Scott, Shaw, Tepper, & Aquino, In press). Thus, common method variance is not likely to be a plausible alternative explanation for the present set of findings.

Second, because the current study is cross-sectional by design, I cannot completely

rule out alternative causal mechanisms to the ones I proposed. For example, while this research proposes that employees' perceptions of value congruence with their leaders enhance their voice behaviors, it is plausible that an employee's active opinion expression and interaction with his/her leaders promotes his/her value congruence with his/her leaders. To make stronger causal inferences, future longitudinal and experimental research would clearly help strengthen the inferences drawn from this study.

A third issue, which is both a strength and limitation, pertains to the generalizability of my findings. As mentioned earlier, I examined my hypotheses by collecting a sample from military units in Taiwan. The benefit of having data from a single organization is the ability to control for organizational confounding variables. However, this restriction of range might have constricted the relationship observed in the present study. Therefore, future research may want to collect data from other different organizational contexts, such as healthcare, high-tech companies, and insurance institutions where issues of authentic leadership can be equally important drivers of voice behaviors.

Fourth, aside from leader-member exchange (LMX), it is plausible that other forms of leadership constructs can influence follower outcomes. Future research could benefit by collecting measures of other related leadership styles that have been found to positively relate to authentic leadership to examine whether authentic leadership explains additional unique variance above and beyond other positive forms of leadership theories such as transformational and ethical leadership.

Fifth, expanding my model to include a broader array of antecedents of authentic leadership would be worthwhile endeavor. For example, an individual being perceived as an authentic leader among subordinates can be predicted using his/her personal characteristics such as conscientiousness and neuroticism. Further, future research could also examine how the psychological mechanisms of value congruence interact with followers' regulatory focus

and subsequently influence a wider range of positive workplace behaviors such as creativity and "in-role" performance. I might expect that PS value congruence interacts with promotion focus to be more closely related to creativity, and PS value congruence interacts with prevention focus to be more closely related to in-role performance. Hence, in future work, it will be significant to expand the nomological work of authentic leadership by considering these potential independent and dependent variables.

Last but not least, another important next step for future research is to investigate whether my findings can be extended to other cultural contexts. Although my intention was not to conduct a cross-cultural comparison research, examining my theoretical model in the Chinese context may have influenced my results nonetheless. Given that Chinese society is characterized as high power distance (Aryee, Sun, Chen, & Debrah, 2008), employees in the Chinese context are more likely to maintain a formal relationship with their leaders that could restrict their meaningful interactions with authentic leaders (Walumbwa et al., 2010) and regard voice as a particularly risky behavior (Liang et al., 2012). As a result, authentic leadership may have less influence on employee voice. I suggest that future research should cross-validate the present findings using samples from different cultures to see whether the pattern of my findings is unique to my research context.

#### IV. Conclusion

For the last decade, authentic leadership has gradually received extensive research and practice attentions. The rises of these attentions urged the need for theoretical advancement and the identification of its antecedents, boundary conditions, processes and outcomes. The present study thus contributes to this research stream by exploring the association between leader moral potency and authentic leadership. Moreover, I also provide empirical support for the link between authentic leadership and employee voice by integrating social cognitive, social information processing, and regulatory focus theories to show that PS value congruence

plays a mediating mechanism that links these two variables and to demonstrate multiple-stage boundary conditions under which this mediating relationship strongly holds. As such, this study offers a more complete picture of authentic leadership. I hope the unique theoretical implications of my study can encourage future research endeavors to advance our understanding of the authentic leadership process in different cultural contexts.



### REFERENCES

- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Thousand Oaks, CA: Sage.
- Allison, P. D. (1978). Measures of inequality. American Sociological Review, 43, 865-880.
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, *103*, 411-423.
- Aryee, S., Sun, L. Y., Chen, Z. X. G., & Debrah, Y. A. (2008). Abusive supervision and contextual performance: The mediating role of emotional exhaustion and the moderating role of work unit structure. *Management and Organization Review, 4*, 393-411.
- Avolio, B. J., & Gardner, W. L. (2005). Authentic leadership development: Getting to the root of positive forms of leadership. *The Leadership Quarterly*, *16*, 315-338.
- Avolio, B. J., Gardner, W. L., Walumbwa, F. O., Luthans, F., & May, D. R. (2004). Unlocking the mask: A look at the process by which authentic leaders impact follower attitudes and behaviors. *The Leadership Quarterly*, 15, 801-823.
- Avolio, B. J., & Gibbons, T. C. (1988). Developing transformational leaders: A life span approach. In J. A. Conger & R. N. Kanungo (Eds.), *Charismatic leadership: The elusive factor in organizational effectiveness* (pp. 276-308). San Francisco, CA: Jossey-Bass.
- Bandura, A. (1977). Soical learning theory. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A. (1986). Social foundations of thought and action: A social cognitive theory.

  Englewood Cliffs, NJ: Prentice Hall.
- Bandura, A. (1991). Social cognitive theory of moral thought and action. In W. M. Kurtines & J. L. Gewirtz (Eds.), *Handbook of moral behavior and development* (Vol. 1, pp. 45-103). Hillsdale, NJ: Erlbaum.

- Bandura, A., Barbaranelli, C., Caprara, G. V., & Pastorelli, C. (1996). Mechanisms of moral disengegement in the exercise of moral agency. *Journal of Personality and Social Psychology*, 71, 364-374.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical consideration. *Journal of Personality and Social Psychology*, *51*, 1173-1182.
- Bliese, P. D. (2000). Within-group agreement, non-independence, and reliability: Implications for data aggregation and analysis. Multilevel theory, research, and methods in organizations: Foundations, extensions, and new directions. In K. J. Klein & S. W. J. Kozlowski (Eds.), *Multilevel theory, research, and methods in organizations:*Foundations, extensions, and new directions (pp. 349-381). San Francisco:

  Jossey-Bass.
- Bliese, P. D., & Britt, T. W. (2001). Social support, group consensus and stressor-strain relationships: Social context matters. *Journal of Organizational Behavior*, 22, 425-436.
- Brislin, R. W. (1986). The wording and translation of research instruments. In W. J. Lonner & J. W. Berry (Eds.), *Field methods in cross-cultural research* (pp. 137-164). Thousand Oaks, CA: Sage.
- Brown, M. E., & Treviño, L. K. (2006). Socialized charismatic leadership, values congruence, and deviance in work groups. *Journal of Applied Psychology*, *91*, 954-962.
- Brown, M. E., & Treviño, L. K. (2009). Leader-follower values congruence: Are socialized charismatic leaders better able to achieve it? *Journal of Applied Psychology*, 94, 478-490.
- Bryk, A. S., & Raudenbush, S. W. (1992). *Hierarchical linear models*. Newbury Park, CA: Sage.

- Cable, D. M., & DeRue, D. S. (2002). The convergent and discriminant validity of subjective fit perceptions. *Journal of Applied Psychology*, 87, 875-884.
- Carver, C. S., & Scheier, M. F. (1998). *On the self-regulation of behavior*. New York: Cambridge University Press.
- Caza, A., Bagozzi, R. P., Woolley, L., Levy, L., & Caza, B. B. (2010). Psychological capital and authentic leadership: Measurement, gender, and cultural extension. *Asia-Pacific Journal of Business Administration*, 2, 53-70.
- Chan, D. (1998). Functional relations among constructs un the same content domain at different levels of analysis: A typology of composition models. *Journal of Applied Psychology*, 83, 234-246.
- Cole, M. S., Bedeian, A. G., & Bruch, H. (2011). Linking leader behavior and leadership consensus to team performance: Integrating direct concensus and dispersion models of group composition. *The Leadership Quarterly*, 22, 383-398.
- Cremer, D. D., Mayer, D. M., van Dijke, M., Schouten, B. C., & Bardes, M. (2009). When does self-sacrificial leadership motivate prosocial behavior? It depends on followers' prevention focus. *Journal of Applied Psychology*, 94, 887-899.
- Detert, J. R., & Burris, E. R. (2007). Leadership behavior and employee voice: Is the door really open? *Academy of Management Journal*, *50*, 869-884.
- Duffy, M. K., Scott, K. L., Shaw, J. D., Tepper, B. J., & Aquino, K. (In press). A social context model of envy and social undermining *Academy of Management Journal*.
- Dutton, J. E., Ashford, S. J., O'Neill, R. M., Hayes, E., & Wierba, E. E. (1997). Reading the wind: How middle managers assess the context for selling issues to top managers.

  Strategic Management Journal, 18, 407-425.
- Edmondson, A. (1999). Psychological safety and learning behavior in work teams. *Adminstrative Science Quarterly*, 44, 350-383.

- Edwards, J. R., & Cable, D. M. (2009). The value of value congruence. *Journal of Applied Psychology*, 94, 654-677.
- Edwards, J. R., & Lambert, L. S. (2007). Methods for Integrating Moderation and Mediation:

  A General Analytical Framework Using Moderated Path Analysis. *Psychological Methods*, 12, 1-22.
- Feinberg, B. J., Ostroff, C., & Burke, W. W. (2005). The role of within-group agreement in understanding transformational leadership. *Journal of Occupational and Organizational Psychology*, 78, 471-488.
- Felfe, J., & Heinitz, K. (2010). The impact of consensus and agreement of leadership perceptions on commitment, organizational citizenship behaviour, and customer satisfaction. *European Journal of Work and Organizational Psychology, 19*, 279-303.
- Festinger, L. (1950). Informal social communication. Psychological Review, 57, 271-282.
- Friedman, R. S., & Förster, J. (2001). The effects of promotion and prevention cues on creativity. *Journal of Personality and Social Psychology*, 81, 1001-1013.
- Gardner, W. L., Avolio, B. J., Luthans, F., May, D. R., & Walumbwa, F. (2005). "Can you see the real me?" A self-based model of authentic leader and follower development. *The Leadership Quarterly*, 16, 343-372.
- Gardner, W. L., Cogliser, C. C., Davis, K. M., & Dickens, M. P. (2011). Authentic leadership:

  A review of the literature and research agenda. *The Leadership Quarterly*, 22,

  1120-1145.
- George, B. (2007). *True north: Discover your authentic leadership*. Ssn Francisco: Jossey Bass.
- George, W. (2003). Authentic leadership: Rediscovering the secrets to creating lasting value.

  San Francisco: Jossey-Bass.
- Graen, G. B., & Uhl-Bien, M. (1995). Relationship-based approach to leadership:

- Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective *The Leadership Quarterly*, 6, 219-247.
- Hannah, S. T., & Avolio, B. J. (2010). Moral potency: Building the capacity for character-based leadership. *Consulting Psychology Journal: Practice & Research*, 62, 291-310.
- Hannah, S. T., Avolio, B. J., & May, D. R. (2011). Moral maturation and moral conation: A capacity approach to explaining moral thought and action. *Academy of Management Review*, *36*, 663-685.
- Hannah, S. T., Avolio, B. J., & Walumbwa, F. O. (2011). Relationships between authentic leadership, moral courage, ethical and pro-social behaviors. *Business Ethics Quarterly*, 21, 555-578.
- Hannah, S. T., Walumbwa, F. O., & Fry, L. W. (2011). Leadership in action teams: Team leader and members' authenticity, authenticity strength, and team outcomes. *Personnel Psychology*, 64, 771-802.
- Harter, S. (2002). Authenticity. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of positive* psychology (pp. 382-394). Oxford, UK: Oxford University Press.
- Higgins, E. T. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review*, *94*, 319-340.
- Higgins, E. T. (1997). Beyond Pleasure and pain. American Psychologist, 52, 1280-1300.
- Higgins, E. T. (1998). Promotion and prevention: Regulatory focus as a motivational principle.

  \*Advances in experimental Social Psychology, 30, 1-46.
- Higgins, E. T., Friedman, R. S., Harlow, R. E., Idson, L. C., Ayduk, O. N., & Taylor, A. (2001).
  Achievement orientations from subjective histories of success: promotion pride versus prevention pride. *European Journal of Social Psychology*, 31, 3-23.

- Hoffman, B. J., Bynum, B. H., Piccolo, R. F., & Sutton, A. W. (2011). Person-organization value congruence: How transformational leaders influence work group effectiveness.

  \*\*Academy of Management Journal, 54, 779-796.
- Hsiung, H. H. (2011). Authentic leadership and employee voice: A multi-level psychological process. *Journal of Business Ethics*.
- Ilies, R., Morgeson, F. P., & Nahrgang, J. D. (2005). Authentic leadership and eudaemonic well-being: Understanding leader-follower outcomes. *The Leadership Quarterly*, *16*, 373-394.
- Jöreskog, K., & Sörbom, D. (2006). Lisrel 8.80. Chicago: Scientific Software International.
- James, L. R., Demaree, R. G., & Wolf, G. (1984). Estimating within-group interrater reliability with and without response bias. *Journal of Applied Psychology*, 69, 85-98.
- Johnson, R. E., Chang, C. H., & Yang, L. Q. (2010). Commitment and motivation at work:

  The relevance of employee identity and regulatory focus. *Academy of Management Review*, 35, 226-245.
- Jung, D. I., & Avolio, B. J. (2000). Opening the black box: An experimental investigation of the mediating effects of trust and value congruence on transformational and transactional leadership. *Journal of Organizational Behavior*, 21, 949-964.
- Kark, R., & van Dijk, D. (2007). Motivation to lead, motivation to follow: The role of the self-regulatory focus in leadership processes. *Academy of Management Review*, 32, 500-528.
- Kreft, I., & de Leeuw, J. (1998). Introducing multilevel modeling. Thousand Oaks, CA: Sage.
- Krishnan, V. R. (2002). Transformational leadership and value system congruence. *International Journal of Value-Based Management*, 15, 19-33.
- Kristof-Brown, A. L., Zimmerman, R. D., & Johnson, E. C. (2005). Consequences of individuals' fit at work: A meta-analysis of person-job, person-organization,

- person-group, and person-supervisor fit. Personnel Psychology, 58, 281-342.
- Liang, J., Farh, C. I. C., & Farh, J.-L. (2012). Psychological antecedents of promotive and prohibitive voice: A two-wave examination. *Academy of Management Journal*, *55*, 71-92.
- Liang, S.-G., & Chi, S.-C. S. (2012). Transformational leadership and follower task performance: The role of susceptibility to positive emotions and follower positive emotions. *Journal of Business and Psychology*.
- Lockwood, P., Jordan, C. H., & Kunda, Z. (2002). Motivation by positive or negative role models: Regulatory focus determines who will best inspire us. *Journal of Personality and Social Psychology*, 83, 854-864.
- Luthans, F., & Avolio, B. J. (2003). Authentic leadership: A positive developmental approach.

  In K. S. Cameron, J. E. Dutton & R. E. Quinn (Eds.), *Positive organizational*scholarship: Foundations of a new discipline (pp. 241-261). San Francisco:

  Barrett-Koehler.
- Luthans, F., Norman, S., & Hughes, L. (2006). Authentic leadership: A new approach for a new time. In R. J. Burke & C. L. Copper (Eds.), *Inspiring leaders* (pp. 84-104).London: Routledge, Taylor & Francis.
- Markovits, Y., Ullrich, J., van Dick, R., & Davis, A. J. (2008). Regulatory foci and organizational commitment. *Journal of Vocational Behavior*, 73, 485-489.
- May, D. R., Chan, A. Y. L., Hodges, T. D., & Avolio, B. J. (2003). Developing the moral component of authentic leadership. *Organizational Dynamics*, *32*, 247-260.
- Mayer, D. M., Aquino, K., Greenbaum, R. L., & Kuenzi, M. (2012). Who displays ethical leadership, and why does it matter? An examination of antecedents and consequences of ethical leadership. *Academy of Management Journal*, *55*, 151-171.
- Meglino, B. M., Ravlin, E. C., & Adkins, C. L. (1989). A work values approach to corporate

- culture: A field test of the value congruence process and its relationship to individual outcomes. *Journal of Applied Psychology*, 74, 424-432.
- Meyer, J. P., Becker, T. E., & Vandenberghe, C. (2004). Employee commitment and motivation: A conceptual analysis and integrative model. *Journal of Applied Psychology*, 89, 991-1007.
- Moriano, J. A., Molero, F., & Mangin, J. P. L. (2011). Authentic leadership. Concept and validation of the ALQ in Spain. *Psicothema*, 23, 336-341.
- Morrison, E. W., & Milliken, F. J. (2000). Organizational silence: A barrier to change and development in a pluralistic world. *Academy of Management Review*, 25, 706-725.
- Morrison, E. W., Wheeler-Smith, S. L., & Kamdar, D. (2010). Speaking up in groups: A cross-level study of group voice climate and voice. *Journal of Applied Psychology*, 96, 183-191.
- Nemeth, C. J. (1997). Managing innovation: When less is more. *California Management Review*, 40, 59-74.
- Neubert, M. J., Kacmar, K. M., Carlson, D. S., Chonko, L. B., & Roberts, J. A. (2008).

  Regulatory focus as a mediator of the influence of initiating structure and servant leadership on employee behavior. *Journal of Applied Psychology*, 93, 1220-1233.
- Organ, D. W., Podsakoff, P. M., & MacKenzie, S. B. (2006). *Organizational citizenship behavior: Its nature, antecedents, and consequences*. Thousand Oaks, CA: Sage.
- Osswald, S., Greitemeyer, T., Fischer, P., & Frey, D. (2010). What is moral courage?

  Definition, explication, and classification of a complex construct. In C. L. S. Pury & S.

  J. Lopez (Eds.), *The psychology of courage: Modern research on an ancient virtue* (pp. 149-164). Washington, DC: American Psychological Association.
- Peus, C., Wesche, J. S., Streicher, B., Braun, S., & Frey, D. (2012). Authentic leadership: An empirical test of its antecedents, consequences, and mediating mechanisms. *Journal of*

- Business Ethics, 107, 331-348.
- Piccolo, R. F., & Colquitt, J. A. (2006). Transformational leadership and job behaviors: The mediating role of core job characteristics. *Academy of Management Journal*, 49, 327-340.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88, 879-903.
- Salancik, G. R., & Pfeffer, J. (1978). A social information processing approach to job attitudes and task design. *Adminstrative Science Quarterly*, 23, 224-253.
- Schwartz, S. H. (1999). A theory of cultural values and some implications for work. *Applied Psychology: An International Review, 48*, 23-47.
- Shah, J., Higgins, E. T., & Friedman, R. S. (1998). Performance incentives and means: How regulatory focus influences goal attainment. *Journal of Personality and Social Psychology*, 74, 285-293.
- Shrout, P. E., & Bolger, N. (2002). Mediation in experimental and nonexperimental studies:

  New procedures and recommendations. *Psychological Methods*, 7, 422-445.
- Van Dyne, L., Ang, S., & Botero, I. C. (2003). Conceptualizing employee silence and employee voice as multidimensional constructs. *Journal of Management Studies*, 40, 1359-1392.
- Van Dyne, L., & LePine, J. A. (1998). Helping and voice extra-role behaviors: Evidence of construct and predictive validity. *Academy of Management Journal*, 41, 108-119.
- Walumbwa, F. O., Avolio, B. J., Gardner, W. L., Wernsing, T. S., & Peterson, S. J. (2008).
  Authentic leadership: Development and validation of a theory-based measure. *Journal of Management*, 34, 89-126.
- Walumbwa, F. O., Luthans, F., Avey, J. B., & Oke, A. (2011). Authentically leading groups:

- The mediating role of collective psychological capital and trust. *Journal of Organizational Behavior*, 32, 4-24.
- Walumbwa, F. O., & Schaubroeck, J. (2009). Leader personality traits and employee voice behavior: Mediating roles of ethical leadership and work group psychological safety. *Journal of Applied Psychology*, 94, 1275-1286.
- Walumbwa, F. O., Wang, P., Wang, H., Schaubroeck, J., & Avolio, B. J. (2010). Psychological processes linking authentic leadership to follower behaviors. *The Leadership Quarterly*, 21, 901-914.
- Yammarino, F. J., Dionne, S. D., Schriesheim, C. A., & Dansereau, F. (2008). Authentic leadership and positive organizational behavior: A meso, multi-level perspective. *The Leadership Quarterly*, 19, 693-707.
- Zhang, Z., Zyphur, M. J., & Preacher, K. J. (2009). Testing multilevel mediation using hierarchical linear models: Problems and solutions. *Organizational Research Methods*, 12, 695-719.

### APPENDIX A: MEASURE OF MORAL POTENCY

### I will...

- 1. confront my peers if they commit an unethical act.
- 2. confront a leader if he/she commits an unethical act.
- 3. always state my views about an ethical issue to my leaders.
- 4. go against the group's decision whenever it violates my ethical standards.
- 5. assume responsibility to take action when I see an unethical act.
- 6. not accept anyone in my group behaving unethically.
- 7. feel that it is my job to address ethical issues when I know someone has done something wrong.

# I am confident that I can...

- 8. confront others who behave unethically to resolve the issue.
- 9. readily see the moral/ethical implications in the challenges I face.
- 10. work with others to settle moral/ethical disputes.
- 11. take decisive action when addressing a moral/ethical decision.
- 12. determine what needs to be done when I face moral/ethical dilemmas.

Source: Hannah, S. T., & Avolio, B. J. (2010). Moral potency: Building the capacity for character-based leadership. *Consulting Psychology Journal: Practice & Research*, 62, 291-310.

# APPENDIX B: MEASURE OF AUTHENTIC LEADERSHIP (SAMPLE ITEMS)

# My supervisor...

- 1. Says exactly what he or she means.
- 2. Is willing to admit mistakes when they are made.
- 3. Demonstrates beliefs that are consistent with actions.
- 4. Makes decisions based on his/her core beliefs.
- 5. Solicits views that challenge his/her deeply held positions.
- 6. Listens carefully to different points of view before coming to conclusions.
- 7. Seeks feedback to improve interactions with others.
- 8. Accurately describes how others view his/her capabilities.

Source: Walumbwa, F. O., Avolio, B. J., Gardner, W. L., Wernsing, T. S., & Peterson, S. J. (2008). Authentic leadership: Development and validation of a theory-based measure. *Journal of Management*, *34*, 89-126.

# APPENDIX C: MEASURE OF PERSON-SUPERVISOR VALUE CONGRUENCE

- 1. My personal values match my supervisor's values and ideals.
- 2. The things that I value in life are similar to the things my supervisor values.
- 3. My supervisor's values provide a good fit with the things I value.

Source: Cable, D. M., & DeRue, D. S. (2002). The convergent and discriminant validity of subjective fit perceptions. *Journal of Applied Psychology*, 87, 875-884.



### APPENDIX D: MEASURE OF EMPLOYEE VOICE

## Your employee, \_\_\_\_

- 1. Proactively develop and make suggestions for issues that may influence the unit.
- 2. Proactively suggest new projects which are beneficial to the work unit.
- 3. Raise suggestions to improve the unit's working procedure.
- 4. Proactively voice out constructive suggestions that help the unit reach its goals.
- 5. Make constructive suggestions to improve the unit's operation.
- 6. Advise other colleagues against undesirable behaviors that would hamper job performance.
- 7. Speak up honestly with problems that might cause serious loss to the work unit, even when/though dissenting opinions exist.
- 8. Dare to voice out opinions on things that might affect efficiency in the work unit, even if that would embarrass others.
- 9. Dare to point out problems when they appear in the unit, even if that would hamper relationships with other colleagues.
- 10. Proactively report coordination problems in the workplace to the management.

Source: Liang, J., Farh, C. I. C., & Farh, J. L. (2012). Psychological antecedents of promotive and prohibitive voice: A two-wave examination. *Academy of Management Journal*, *55*, 71-92.

#### APPENDIX E: MEASURE OF REGULATORY FOCUS

- 1. In general, I am focused on preventing negative events in my life.
- 2. I am anxious that I will fall short of my responsibilities and obligations.
- 3. I frequently imagine how I will achieve my hopes and aspirations.
- 4. I often think about the person I am afraid I might become in the future.
- 5. I often think about the person I would ideally like to be in the future.
- 6. I typically focus on the success I hope to achieve in the future.
- 7. I often worry that I will fail to accomplish my job goals.
- 8. I often think about how I will achieve job success.
- 9. I often imagine myself experiencing bad things that I fear might happen to me.
- 10. I frequently think about how I can prevent failures in my life.
- 11. I am more oriented toward preventing losses than I am toward achieving gains.
- 12. My major goal in school right now is to achieve my job ambitions.
- 13. My major goal in school right now is to avoid becoming a job failure.
- 14. I see myself as someone who is primarily striving to reach my "ideal self"—to fulfill my hopes, wishes, and aspirations.
- 15. I see myself as someone who is primarily striving to become the self I "ought" to be—to fulfill my duties, responsibilities, and obligations.
- 16. In general, I am focused on achieving positive outcomes in my life.
- 17. I often imagine myself experiencing good things that I hope will happen to me.
- 18. Overall, I am more oriented toward achieving success than preventing failure.

Source: Lockwood, P., Jordan, C. H., & Kunda, Z. (2002). Motivation by positive or negative role models: Regulatory focus determines who will best inspire us. *Journal of Personality and Social Psychology*, 83, 854-864.

### APPENDIX F: MEASURE OF LEADER-MEMBER EXCHANGE

- 1. Do you know where you stand with your leader...do you usually know how satisfied your leader is with what you do?
- 2. How well does your leader understand your job problems and needs?
- 3. How well does your leader recognize your potential?
- 4. Regardless of how much formal authority he/she has built into his/her position, what are the chances that your leader would use his/her power to help you solve problems in your work?
- 5. How would you characterize your working relationship with your leader?
- 6. I have enough confidence in my leader that I would defend and justify his/her decision if he/she were not present to do so?
- 7. Again, regardless of the amount of formal authority your leader has, what are the chances that he/she would "bail you out," at his/her expense?

Source: Graen, G. B., & Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective. *Leadership Quarterly*, 6, 219-247.