A CONCEPTUAL AND EMPIRICAL INVESTIGATION OF LEADER

VIRTUES AND VIRTUOUS LEADERSHIP

BY

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ABSTRACT

The significance of the role of virtues in guiding people's behaviours has been extensively discussed in the ethics literature. In leadership research, however, the concept of virtues has not been systematically examined. In this thesis, I propose two concepts, leader virtues and virtuous leadership, positioning the former as antecedent to the latter. I then identify six cardinal leader virtues (i.e., courage, temperance, justice, prudence, humanity and truthfulness) and develop an 18-item scale to measure them. Furthermore, I propose and empirically test a virtues-based model of leadership. Based on a sample of 230 leader-follower dyads, I found that virtuous leadership associates positively with followers' perceptions of ethical leadership and leader effectiveness, and with follower ethical behaviours and in-role and extra-role performance as evaluated by leaders. Moreover, virtuous leadership positively predicts leader and follower self-reported happiness and life satisfaction. A discussion of the limitations to this research, applied implications of my findings, and future research directions conclude this thesis.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDIXES

CHAPTER 1: INTRODUCTION

1.1 Background of the Research

During the past six decades, the focus of leadership research has experienced many changes, from leadership traits in the 1940s to leadership behaviours in the 1960s, from situational and contingent leadership in the 1970s to transactional and transformational leadership in the 1980s (House & Podsakoff, 1994). A recent trend in leadership research is to study leadership ethics (Margaret, 2003; Storr, 2004). For example, Ciulla (1998) found over 1,800 article abstracts on leadership ethics from a diversity of disciplines. My Google search using the terms of "ethics" and "leadership" produced more than 25 million "hits", including 3,930 books.

However, current research on leadership ethics has received much criticism for method biases (see Newton, 1992; Palanski & Yammarino, 2007; Shanahan & Hyman, 2003) and limited practical usefulness for controlling the widespread wrongdoings of business leaders (Bragues, 2008). Consequently, an increasing number of scholars are turning to the importance of virtues in guiding leaders' behaviours, and calling for the application of virtues ethics (a school of moral philosophy) in leadership research. For example, Manz et al. (2008) insist that the concept of virtues holds considerable promise for understanding and fostering exemplary leadership, and that the consideration of virtues in organizational practices can address the root of those ethical challenges that contemporary leaders are facing. Flynn (2008) argued that the application of

virtue ethics in the domain of business provides an appropriate ethical framework to leaders and possibly ripostes to the serious financial scandals currently affecting business globally.

Although there is increasing research attention to virtues, the study of virtues in the leadership domain is still at an early stage. In undertaking an exhaustive review of the leadership literature, four limitations stand out. All of them are therefore addressed in my thesis.

First, the concept of leader virtues has not been systematically defined. In the leadership literature, virtues have been treated as disposition/character trait (Fry, 2003; Hanbury, 2004; Smith, 1995), personal emotions (Solomon, 1998), personality traits (Brown & Treviño, 2006a), capabilities/competencies/skills (Bass, 1990a), or personal values (House & Podsakoff, 1994; Murphy & Roberts, 2008; Sama & Shoaf, 2008). Many key questions related to leader virtues remain unanswered. I offer a definition of leader virtue and discuss its four key characteristics. Specifically I address: What are leader virtues? How are these virtues acquired? How are they linked to leader behaviours? In what contexts are they most likely to be enacted? I further identify six cardinal leader virtues commonly mentioned in the leadership literature: courage, temperance, justice, prudence, humanity and truthfulness; and note their key behavioural indicators.

Second, the concept of virtuous leadership has not been theoretically grounded. In the leadership literature, I found only three studies addressing virtuous leadership. Cameron and Caza (2002) suggested that virtuous leadership

can move an organization forward even when the organization is facing severe organizational problems. Margaret (2003) argued that the latest trend in leadership research is toward virtue leadership. Sarros et al. (2006) tested the Virtuous Leadership Scale (which measures leader character), and found that self-assessed character of business managers in Australia varies across specific demographics (gender, age, level of seniority, and years as an executive). But none of these studies was founded on a theoretically derived conceptualization of virtuous leadership. In short, virtuous leadership, as a construct, is ill-defined in the literature, treated mostly as an antecedent or consequence of other variables, and lacks a clear, widely accepted and theoretically grounded definition of the construct itself. My thesis addresses this limitation through proposing a concept of virtuous leadership, which comprises three essential elements (i.e., leader virtues, leader virtuous behaviours, and contexts within which leader virtuous behaviours are expressed) and two underlying processes (i.e., perception based, and modeling based). Attribution theory and social learning theory are applied to explain these two processes.

Third, there is an absence of a compelling theoretical framework for explaining the effects of virtuous leadership. In my review of over 200 studies on virtues and leadership, I was unable to find a theoretical (explanatory) framing of how virtuous leadership, or even leader virtues, affect leaders and followers. Consistent with my focus on the conceptualization of leader virtues and virtuous leadership, I propose a virtues-based model of leadership, and provide a

theoretical explanation why virtuous leadership will affect both leaders and their followers.

Fourth, there are few empirical studies of virtues and leadership, likely resulting from a lack of reliable and valid instruments for measuring leader virtues. After an extensive review of the leadership literature, I found that three scales have been used to assess virtues, including a scale used by Shanahan and Hyman (2003), the Values in Action Inventory of Strengths developed by Peterson and Seligman (2004), and the Virtuous Leadership Scale developed by Sarros et al. (2006). All three of these scales use self-assessments, and the first two were not originally designed to assess leaders. Because I will define virtuous leadership in terms of the perception of followers, it should be assessed by followers rather than through self assessments. In addition, the individual virtues being examined in the three scales are not comprehensive. Accordingly, I develop a new scale for measuring virtuous leadership, and I provide psychometric data in support of its reliability and validity. Using this new scale, I then assess my proposed virtues-based model of leadership.

1.2 Research Objectives

My thesis has four primary objectives: (1) to define the concept of leader virtue (as distinct from virtuous leadership) and identify a core list of leader virtues; (2) develop a clear and theoretically grounded conceptualization of virtuous leadership; (3) develop a scale for measuring virtuous leadership; and (4)

assess the content, convergent, discriminant, and predictive validity of this new scale within the context of testing a proposed model of virtuous leadership.

1.3 Organization of the Thesis

My thesis is organized into five chapters. The first introduces how my thesis addresses four limitations of research on virtues in the leadership literature, concluding with a summary of the key objectives of my thesis. Chapter 2 reviews two streams of literature (i.e., virtue ethics, and leadership) pertinent to this thesis, and reports a comparative analysis of Aristotelianism and Confucianism (two dominant philosophies in virtue ethics) that serves as the basis for developing my concept of leader virtues and for identifying cardinal virtues. Chapter 3 presents the two concepts of leader virtues and virtuous leadership, and proposes a virtues-based model of leadership with nine hypotheses. Chapter 4 describes the research methodology and reports results of my data analysis. Finally, Chapter 5 discusses research findings and limitations, and offers practical implications and paths for future research.

CHAPTER 2: REVIEW OF THE LITERATURE

This chapter consists of two sections. The first section provides a review of ethics research (particularly the three moral philosophies of deontology, teleology and virtue ethics), followed by a comparative analysis of Aristotelianism and Confucianism (two dominant schools in virtue ethics). The aim of this analysis is to identify commonalities between Aristotelian and Confucian thoughts of virtues, which then serve as the basis for developing my concept of leader virtues and for identifying cardinal leader virtues. The second section reviews the leadership research, beginning with four leadership research schools (trait, behavioural, situational and contingency, and neo-charismatic approach) and then seven leadership paradigms (moral, ethical, servant, spiritual, charismatic, transformational, and visionary leadership)[1]. The results from this review are then used to identify where individual virtues have been linked to leadership, and to justify my selection of cardinal leadership virtues.

2.1 Ethics Research

2.1.1 An Overview of Deontology, Teleology and Virtue Ethics

As a major branch of philosophy, ethics research focuses mainly on such topics as rights, duties, moral acts, welfare, liberty, equality, reciprocity, rules and the social order (Kohlberg, 1976), with an aim to answer two fundamental

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[1] In my thesis, leadership schools focus on leadership theories, and classify various leadership studies based on what leadership theories (e.g., trait theories, or behaviour theories) these studies applied; leadership paradigms focus on leadership conceptions, and classify various leadership studies based on what leadership conceptions (e.g., transformational leadership, or visionary leadership) these studies examined.

questions: what humans ought to be and what humans ought to do as members of a group or a society (Ciulla, 2004). Table 2.1 provides definitions of several key ethics concepts used throughout my thesis (e.g., ethics, morality, moral reasoning, moral judgment, moral development, morally right, excellence, and common good).

The contemporary investigation of leadership ethics has relied mainly on three schools of moral philosophies: deontology, teleology, and virtue ethics (Garofalo, 2003; Resick et al., 2006). A brief review of these three moral philosophies is provided as follows.

2.1.1.1 Deontology

According to the On-Line Stanford Encyclopedia of Philosophy (Alexander & Moore, 2007), the word "deontology" derives from the Greek words "deon" (duty) and "logos" (science or study). As a school of moral philosophy, deontology provides answers to questions about what people ought to do and how to judge a moral right or wrong act (Arjoon, 2000). The basic premises of deontology are summarized as follows: (i) humans, as rational beings, value rationality and reason over pleasure (Knights & O'Leary, 2006); (ii) whether or not an act is morally right is judged by the nature of the act and what is intended (Resick et al., 2006), regardless of its consequences (Johnson, 2001); and (iii) there are a set of universal rules or principles that should be followed for a person to behave morally (Garofalo, 2003).

With respect to the application of deontology in leadership research, Resick et al. (2006, p. 348) asserted that "deontology is embodied in the entire notion of ethical leadership". Whetstone (2001) suggested that Greenleaf's servant leadership has a deontological focus on obligations (i.e., duty) to act. Furthermore, Kohlberg's six-stage model of moral development (Kohlberg, 1976) assumes that moral judgments are based on both deontological and teleological criteria (Shanahan & Hyman, 2003). Kohlberg's framework of moral development has been applied widely in leadership research. For example, Rost (1991, p. 125) asserted that "Burns based his concept of transformational leadership on only the moral development of the leaders and followers". Graham (1995) concluded that servant leaders, charismatic leaders, and transformational leaders all exhibit a higher level of moral development. Thus, all of these leadership paradigms (i.e., ethical, servant, charismatic, and transformational leadership) have conceptual links with deontology.

2.1.1.2 Teleology

According to the On-Line Stanford Encyclopedia of Philosophy (Falcon, 2008), the word "teleology" is derived from the Greek words "telos" (end), and "logos" (science or study). As a school of moral philosophy, teleology addresses what people ought to do, and how to judge whether an act is morally right or wrong, but does so differently than does deontology (Arjoon, 2000). The basic premises of teleology include: (i) humans are pleasure-seeking beings (Knights & O'Leary, 2006), and always consider the likely consequences of their decisions

when determining what to do (Johnson, 2001); (ii) whether or not an act of a person is morally right is judged solely upon the consequence resulting from the act (Garofalo, 2003); and (iii) a person ought to perform an act if it produces more advantageous consequences (i.e., the greatest pleasure and the least pain, or the greatest likelihood of achieving goals) for the largest number of people in society than any alternative acts (Aronson, 2001; MacIntyre, 1984).

With respect to the application of teleology in leadership research, Whetstone (2001) suggested that Burns and Bass' transformational leadership incorporates teleology and that Greenleaf's servant leadership has a teleological focus on an act's consequences. Furthermore, Resick et al. (2006, p. 348) suggested that teleology "is evident in the notion of using one's social power to benefit the greater good, and in the community/people-orientation, motivational, and encouraging/empowering aspects of ethical leadership". Because spiritual leadership, servant leadership, charismatic leadership, transformational leadership, and visionary leadership all emphasize people-oriented, motivational and empowering means to achieve positive effects on followers, organizations and the community (Bass, 1985; Bennis & Nanus, 1985; Fry, 2003; Greenleaf, 2002; House & Shamir, 1993; Sashkin, 1986), all of these leadership paradigms have some elements of a teleological focus.

2.1.1.3 Virtues Ethics

According to the Blackwell Dictionary of Western Philosophy (Bunnin & Yu, 2004), the word "virtue" is derived from the Greek word "arete" (excellence),

and is a transliteration of the Latin word "virtus" (manliness). In the western world, virtue ethics has its roots in ancient Greek civilization, particularly in Aristotelianism (Arjoon, 2000; MacIntyre, 1984). Confucianism defines a system of virtue ethics (Chan, 2003; Wang, 2006). Although some western ethics researchers, such as Ciulla (2004), Johnson (2001), and Vera and Rodriguez-Lopez (2004), have recognized unique contributions of Confucianism, the main body of the virtue ethics literature does not address Confucianism. As a result, the following review of the moral philosophy of virtue ethics is Western-based.

Historically, virtue ethics predominated in the moral philosophy until the Renaissance, and then gradually left the dominant role to deontology and teleology (MacIntyre, 1984). In the mid-twentieth century, however, there was a dramatic resurgence of virtue ethics (Flynn, 2008; Tjeltveit, 2003); likely resulting from the increasing frustration with the disappointing results of modern ethical practices (Palanski & Yammarino, 2007).

As a school of moral philosophy, virtue ethics focuses mainly on the following: what people ought to be (Palanski & Yammarino, 2007), how to judge a morally right or wrong act (Taylor, 2006), and how to make human life worth living (Flynn, 2008). The basic premises of virtue ethics include: (i) virtues predispose a person to do right things (Resick et al., 2006); (ii) whether an act of a person is morally right is to be judged solely upon the character of the person who performs the act, rather than on the act itself or its consequences (Taylor, 2006); (iii) a person ought to be virtuous, which is achieved by gradual and continual

exercise of virtuous acts (MacIntyre, 1984); and (iv) virtues make human life worth living, and a person living virtuously throughout his/her lifetime reaches the highest good/the greatness happiness (Flynn, 2008).

Regarding the linkages between virtue ethics and leadership, Whetstone (2001) noted that Burns and Bass's transformational leadership and Greenleaf's servant leadership emphasize the development of leader character, and thus reflect a virtue ethics perspective. Resick et al. (2006) asserted that virtue ethics is embodied in ethical leadership. However, I have drawn different conclusions from an examination of representative definitions of transformational leadership, servant leadership, and ethical leadership (See Table 3.3 for these definitions).

Transformational leadership, as defined by Burns (1978) and Bass (1985), does have a deontological focus on obligations to act (i.e., emphasizing that leaders ought to recognize followers' needs and to motivate followers through enabling and empowering practices), and a teleological focus on the consequences of acts (i.e., emphasizing that leaders ought to satisfy higher needs of followers, raise self and followers to higher levels of motivation and morality, and ensure followers perform beyond expectation). Servant leadership, as defined by Greenleaf (2002) and Spears (1998), also has a deontological focus on obligations to act (i.e., emphasizing that leaders ought to help others to move in constructive directions, and to demonstrate ethical and caring behaviours); and a teleological focus on the consequences of acts (i.e., emphasizing that leaders ought to help others to become healthier, wiser, freer, more autonomous and more like

themselves, and ought to enhance the personal growth of workers while improving the caring and quality of their employing organization). Meanwhile, the concept of servant leadership is centralized around a strong ethical person who, by nature, is disposed to serving. There is no theoretical explanation provided that clarifies what personal dispositions account for servant leadership. Similar to transformational and servant leadership, ethical leadership defined by Brown et al. (2005) and Rost (1991) is deontology- and teleology- oriented. An underlying premise of ethical leadership is that leaders should ensure that their followers agree freely with the changes the leader intends to implement through them, and that the leader should demonstrate normatively appropriate conduct in his/her change efforts. In conclusion, current concepts of transformational leadership, servant leadership and ethical leadership are all deontology- and teleology- oriented; none of them reflects virtue ethics per se.

2.1.2 A Comparative Analysis of Aristotelianism and Confucianism

It is commonly agreed that the concept of virtues is sensitive to cultural differences. Mele (2005) argued that virtues are virtues only if they are accepted in a particular context or culture. Hursthourse (2007) suggested that the virtues themselves are not relative to culture, but the understanding of virtues differs with different cultures. Because Aristotelianism and Confucianism dominate the western and eastern societies respectively, I define the concept of leader virtue and identify individual leader virtues based on the commonalities between the

two[2]. In doing so, I believe that my concept of leader virtue and those individual leader virtues present in my thesis can be applicable to both Western- and Eastern-based organizations.

The main body of Aristotelianism is comprised of four texts: "The Nicomachean Ethics", "The Eudemian Ethics", "The Magna Moralia or Great Ethics", and "On Virtues and Vices" (Broadie & Rowe, 2002). Among them, "The Nicomachean Ethics" is considered the canonical text for Aristotle's account of the virtues (MacIntyre, 1984). Confucianism also has four texts: "The Analects", "The Mencius", "The Great Learning", and "The Doctrine of the Mean" (Mu, 1986). Among these texts, "The Analects" that records the sayings and teachings of Confucius, and "The Mencius" in which Confucius' thoughts are interpreted and expanded by another ancient Confucian thinker Mencius, are considered the most fundamental texts of Confucianism (Chan, 2008; Wong, 2008).

The original Aristotelian texts are written in Greek, and the Confucian texts are written in ancient Chinese, so it is inevitable that many inaccuracies and inconsistencies appear in various English editions of these texts. Accordingly, I selected "The Nicomachean Ethics" translated by Terence Irwin (1999), "The Analects" by Chichung Huang (1997), and "The Mencius" by Harvey Bobson (1963) for the comparative analysis that follows. For some obvious translation

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[2] I acknowledge that there are non-Aristotelian and non-Confucian conceptualizations of virtues (e.g., Deontological, and Aboriginal), but I am not focusing on them in my thesis.

errors, especially in "The Analects" (Huang, 1997), corrections are provided in parenthesis.

The comparative analysis of Aristotelian and Confucian virtue thoughts is conducted around three key questions: What are virtues? How are virtues acquired? In what contexts are virtues most likely to be enacted? The results around these three questions are then used to define my concept of leader virtue. Further, I examine the overlap between Aristotelian and Confucian cardinal virtues, which serves as the basis for identifying six cardinal leader virtues.

2.1.2.1 What Are Virtues?

Aristotelianism presents two types of virtues: moral virtue and intellectual virtue (MacIntyre, 1984). According to Aristotle, moral virtue has three characteristics.

First, moral virtue is the *mean* between the extremes. In "The Nicomachean Ethics", Aristotle stated: "virtue of character [moral virtue] is a mean …; that it is a mean between two vices, one of excess and one of deficiency; and that it is a mean because it aims at the intermediate condition in feelings and actions" (1109a20-25). Thus, the mean, according to Aristotle, is the intermediate condition in feelings and actions.

Second, moral virtue is a *state of human character*. In "The Nicomachean Ethics", Aristotle stated: "We assume, then, that virtue is the sort of state that does the best actions concerning pleasures and pains, and that vice is the contrary state" (1104b20-25). This statement implies that moral virtue is a state of human

character concerning pleasures and pains. Furthermore, Aristotle clearly distinguished the four concepts of virtue, action, feeling and capacity (capability) by stating: "By feelings I mean appetite, anger, fear, confidence, envy, joy, love, hate, longing, jealousy, pity, and in general whatever implies pleasure or pain. By capacities I mean what we have when we are said to be capable of these feelings, capable of being angry, for instance, or of being afraid or of feeling pity. By states I mean what we have when we are well or badly off in relation to feelings. If, for instance, our feeling is too intense or slack, we are badly off in relation to anger, but if it is intermediate, we are well off …" (1105b20-30). The preceding quote implies that virtue is a state of character, which leads to the "best" actions in light of certain feelings of pleasure or pain; capacity refers to a person's capability to express feelings.

Third, moral virtue is demonstrated by *voluntary actions*. In "The Nicomachean Ethics", Aristotle stated: "Virtue, then, is about feelings and actions. These receive praise or blame if they are voluntary, but pardon, sometime even pity, if they are involuntary." (1109b30-35), and "As I said before, I say that an action is voluntary just in case it is up to the agent, who does it in knowledge, and [hence] not in ignorance of the person, instrument, and goal, and [does] each of these neither coincidentally nor by force." (1135a25-35). The above two statements imply that moral virtues are demonstrated by voluntary actions – carried out knowingly, and not compelled by external forces nor coincidently.

With respect to intellectual virtue (Aristotelianism presents two intellectual virtues of prudence and wisdom), Aristotle stated: "First of all, let us state that both prudence and wisdom must be choice worthy in themselves, even if neither produces anything at all; for each is the virtue of one of the two [rational] parts [of the soul]" (1144a1-5); "… prudence is a state grasping the truth, involving reason, concerned with action about things that are good or bad for a human being" (1140b5-10); and "For since wisdom is a part of virtue as a whole, it makes us happy because it is a state that we possess and activate" (1144a5-10). The above three statements imply that intellectual virtue has two characteristics: it is a state demonstrated by voluntary actions and it reflects reasoning and a grasping for truth.

Confucianism regards all virtues as moral virtues. In Chinese, virtue is transliterated as "De", which means human moral character acquired in one's mind through cultivation (Huang, 1997). According to Confucianism, moral virtue has two characteristics.

First, virtue is a *state of human character*. In "The Analects" (12.19), Confucius argued that De (virtue) is by definition the state of human character of a virtuous person. In "The Mencius" (4.11/6.39), Mencius further emphasized that De (virtue) forms the essence of human nature that guides people to do "good", and is related to the human mind. Thus, Confucianism defines De (virtue) as a state of human character, which is related to the human mind and guides people to do "good".

Second, virtue is demonstrated by *voluntary actions*. In "The Analects" (4.24/12.1), Confucius argued that a virtuous person demonstrates virtuous actions voluntarily. Moreover, I found more than one hundred clauses in "The Analects" that discussed actions reflecting individual virtues. Thus, I concluded that Confucian virtue is demonstrated by the voluntary actions of virtuous persons.

However, Confucianism does not define virtue as a mean between the extremes, but instead defines the mean between extremes as an individual virtue called Zhongyong, which has been translated as "moderation" (Yearley, 2003). Thus, this characteristic of Aristotelian virtue (i.e., virtue is a mean between the extremes) is not considered in my conceptualization of leader virtues.

In summary, both Aristotelianism and Confucianism suggest that virtue is a state of human character (i.e., a character trait), and is demonstrated through voluntary actions.

2.1.2.2 How Are Virtues Acquired?

Aristotelianism provides clear answers to this question. In "The Nicomachean Ethics", Aristotle stated: "Virtue of thought [intellectual virtues] arises and grows mostly from teaching; …. Virtue of character [moral virtues] results from habit [ethos]; …" (1103a15-20); "… a state [of character] results from [the repetition of] similar activities" (1103b20-25); and "For each of us seems to possess his type of character to some extent by nature; for in fact we are just, brave, prone to temperance, or have another feature, immediately from birth.

But we still look for some further condition to be full of goodness, and we expect to possess these features in another way" (1144b5-10). The above three statements imply that a person possesses moral virtues to some extent from birth, but acquires these virtues more fully by repetitively practicing them until they are developed into a habit; on the other hand a person acquires intellectual virtues from learning and experience.

Confucianism has also addressed this question. In "The Analects" (12.1/12.10/17.8), Confucius argued that a person acquires virtue (De) by self-learning and continuously practicing it. In "The Mencius" (4.7/6.39), Mencius further argued that a person possesses De (virtue) inherently, but has to continuously practice virtue (De) in order to maintain it. Thus, Confucianism advocates that a person possesses virtues from birth, but maintains these virtues by continuously practicing them; once a person loses a virtue, it can be acquired through self-learning and practice.

In summary, both Aristotelianism and Confucianism suggest that a person acquires virtues by continuously practicing them, and with education and self-learning.

2.1.2.3 In What Contexts Are Virtues Most Likely to Be Enacted?

All Aristotelian virtues are described in accordance with specific situations. In "The Nicomachean Ethics", for example, courage is discussed with respect to situations in which people are likely to experience fear; temperance is discussed in situations wherein people battle forces that bring bodily pleasure and

pain; justice is discussed in the situations where the distribution of "good" and "bad" things is involved, whether between oneself and others or between others; and prudence is discussed in situations wherein people must make decisions.

Some Confucian virtues (including all cardinal virtues) are also discussed in relation with specific situations. In "The Analects" and "The Menius", the virtue of Ren (humanity) is discussed with respect to five social relationships (i.e., ruler and those he rules, friend and friend, father and son, elder brother and younger brother, and husband and wife); the virtue of Yi (righteousness) is discussed with respect to war, while the virtue of Li (the rituals) is viewed in the context of people involved in a ceremony; the virtue of Zhi (wisdom) is discussed with respect to a person's need to learn, to make decisions, or to speak about something, and finally; the virtue of Xin (truthfulness) is considered within the context of people making promises.

In summary, both Aristotelianism and Confucianism suggest that virtues are defined contextually (i.e., with regard to specific situations).

2.1.3 The Overlap between Aristotelian and Confucian Cardinal Virtues

In "The Nicomachean Ethics", Aristotle discussed thirteen moral virtues and two intellectual virtues, including the four cardinal virtues of courage, temperance, justice and prudence. Confucianism addresses at least fifty-one virtues. Among them, the virtues of Ren (humanity), Yi (righteousness), Li (the rituals), Zhi (wisdom), and Xin (truthfulness) are considered cardinal. A complete list of the two schools of virtues is shown in Table 2.2.

I examined virtue-related discussions in Aristotelianism and Confucianism as well as relevant findings of contemporary scholars, and found significant overlaps between Aristotelian virtues and Confucian cardinal virtues (see Table 2.3), which are discussed below:

2.1.3.1 Aristotelian Courage versus Confucian Yong (Courage), Ren (Humanity), Yi (Righteousness), and Li (The Rituals)

The Aristotelian virtue of courage is one of the cardinal virtues. In "The Nicomachean Ethics" (1116a10-15/1115b10-20), Aristotle defined courage as a moral virtue overcoming the fear derived from doing the right things in the right way at the right time for the right end. The Confucian virtue of Yong is one of corresponding virtues, which has been translated as "courage" (Huang, 1997; Lau, 1979). In "The Analects" (8.2/9.29/14.4/17.22), Confucius argued that Yong (courage) helps people to overcome fear, and that the virtues of Ren (humanity), Yi (righteousness), and Li (the rituals) together ensure the virtue of Yong (courage) is practiced for the right things in the right way at the right time for the right end.

Thus, the Aristotelian virtue of courage overlaps highly with the Confucian virtue of Yong (courage), and is also associated with the Confucian virtues of Ren (humanity), Yi (righteousness), and Li (the rituals).

2.1.3.2 Aristotelian Temperance and Proper Indignation versus Confucian Zhongyong (Moderation)

Aristotelianism presents two moral virtues dealing with personal

emotional reactions: temperance, a cardinal virtue concerning the pleasure and pain resulting from self; and proper indignation, an ordinary moral virtue concerning the pleasure and pain resulting from others. In "The Nicomachean Ethics" (1107b5-10/1108b1-5/1119a10-20/1119b15-20), Aristotle argued that both temperance and proper indignation emphasize control of emotional reactions toward pleasure and pain, and avoidance of personal tendencies toward the extreme; but temperance deals with pleasure and pain resulting from self-health, fitness and appetite, and proper indignation deals with the achievements of others.

Confucianism presents a virtue called Zhongyong (moderation). Yearley (2003) suggests that the Confucian virtue of Zhongyong (moderation) enables people to control emotional reactions and to modulate their normal desires for things that are attractive either for biological reasons or cultural reasons. Kok and Chan (2008) concluded that Confucian Zhongyong (moderation) emphasizes avoidance of personal tendencies toward the extreme, and guards against objects of pleasure. Thus, the Confucian virtue of Zhongyong (moderation) emphasizes the control of emotional reactions toward pleasure and pain regardless of its sources.

In conclusion, the Aristotelian virtues of temperance and proper indignation overlap highly with the Confucian virtue of Zhongyong (moderation).

2.1.3.3 Aristotelian Justice versus Confucian Yi (Righteousness)

The Aristotelian virtue of justice is one of the cardinal virtues. In "The Nicomachean Ethics" (1134a1-10), Aristotle defined justice as a moral virtue telling people what is the right thing to do (treating others fairly). Confucianism presents a cardinal virtue Yi, which has also been translated as "righteousness" (Huang, 1997). Yearley (2003) suggested that Confucian Yi (righteousness) may be a form of justice in the Western tradition. Cua (2003) and Taylor (2004) suggested that Confucian Yi (righteousness) concerns whether an action is morally right or wrong, and informs people as to what is right to do. Thus, Confucian Yi (righteousness) also tells people what is the right thing to do.

In conclusion, the Aristotelian virtue of justice overlaps highly with the Confucian virtue of Yi (righteousness).

2.1.3.4 Aristotelian Prudence and Wisdom versus Confucian Zhi (Wisdom) and Ren (Humanity)

Aristotelianism presents two intellectual virtues related to the rational part of the human soul, demonstrated by voluntary actions that reflect reasoning and the grasping for truth. The first is prudence, a cardinal virtue; the second is wisdom, one ordinary virtue. In "The Nicomachean Ethics" (1140b20-25/1141a10-15/1141b1-15/1142b25-35), Aristotle argued that both prudence and wisdom concern assessing the environment, identifying the truth, and making judgment of actions; but prudence emphasizes right (or good) actions, and wisdom emphasizes practical actions.

Confucianism presents a cardinal virtue Zhi, which has been translated as "wisdom" (Strom, 2003). In "The Analects" (4.1/6.22/9.8/9.29/15.8/15.33), Confucius argued that Zhi (wisdom) concerns assessing the environment, identifying the truth, and making judgment of right and/or practical actions, and a person can acquire and maintain the virtue of Zhi (wisdom) only if he possesses the virtue of Ren (humanity).

Thus, the Aristotelian virtues of prudence and wisdom overlap highly with the Confucian virtues of Zhi (wisdom), and are also associated with the Confucian virtue of Ren (humanity).

2.1.3.5 Aristotelian Truthfulness versus Confucian Xin (Truthfulness)

Truthfulness is one of the moral virtues in Aristotelianism. In "The Nicomachean Ethics" (1108a20-25/1127a20-25), Aristotelian emphasized that truthfulness helps people remain honest and to tell truths. Confucianism presents a cardinal virtue Xin, which has been translated as "truthfulness" (Huang, 1997). In "The Analects" (1.4/13.20), Confucius suggested that Xin (truthfulness) emphasizes keeping honest and telling the truth.

Thus, the Aristotelian virtue of truthfulness has a high degree of overlap with the Confucian virtue of Xin (truthfulness).

2.1.3.6 Aristotelian Friendliness versus Confucian Ren (Humanity)

Friendliness is one of the moral virtues in Aristotelianism. In "The Nicomachean Ethics" (1108a25-30/1126b20-25/1126b25-35), Aristotle argued that friendliness allows people to do "good" to others. Confucianism presents a

cardinal virtue Ren, which has been translated as "humanity" (Ching, 2003). In "The Analects" (4.3/12.2/13.19), Confucius emphasized that Ren (humanity) allows people to do "good" to others.

In conclusion, the Aristotelian virtue of friendliness highly overlaps with the Confucian virtue of Ren (humanity).

2.1.3.7 Aristotelian Generosity and Magnificence versus Confucian Yi (Righteousness)

Aristotelianism presents two moral virtues about taking and giving wealth. The first virtue is generosity and pertains to receiving and dispensing wealth in small amounts. The second virtue is magnificence, relating to taking and giving wealth in large amounts. In "The Nicomachean Ethics" (1107b15-20/1120b25-35/1122a25-30), Aristotle argued that generosity and magnificence emphasize taking and giving wealth in the right way (i.e., in the right amount). The Confucian virtue of Yi (righteousness) has the same focus as the Aristotelian virtues of generosity and magnificence. In "The Analects" (4.16/14.12/14.13), Confucius suggested that Yi (righteousness) allows people to take and give wealth (e.g., profit) in the right way no matter how large the wealth is.

Thus, the Aristotelian virtues of generosity and magnificence overlap highly with the Confucian virtue of Yi (righteousness).

2.1.3.8 Aristotelian Mildness versus Confucian Yi (Righteousness) and Yong (Courage)

Mildness is one of the moral virtues in Aristotelianism. In "The Nicomachean Ethics" (1125b25-35), Aristotle argued that mildness is concerned with anger over what one perceives as being wrong, and taking actions against the wrong thing. The Confucian virtues of Yi (righteousness) and Yong (courage) have the same effect as the Aristotelian virtue of mildness. In "The Analects" (2.24), Confucius emphasized that Yi (righteousness) allows people to know something is not right and to become angry with it, and Yong (courage) enables a person to stand up "to do what he ought to do".

Thus, it can be concluded that the Aristotelian virtue of mildness overlaps the Confucian virtues of Yi (righteousness) and Yong (courage).

2.1.3.9 Aristotelian Prone to Shame versus Confucian Yi (Righteousness)

Aristotelian prone to shame is one of the moral virtues. In "The Nicomachean Ethics" (1108a30-35/1128b25-30), Aristotle argued that the virtue of prone to shame concerns the feeling of shame (i.e., a person who possesses this virtue will feel shame if he/she is to do a disgraceful action). In "The Mencius" (4.11/6.1), Mencius emphasized that the virtue of Yi (righteousness) concerns the feeling of shame, and enables people to feel shame about their wrongdoing.

Thus, it would appear that the Aristotelian virtue of prone to shame overlaps the Confucian virtue of Yi (righteousness).

2.1.3.10 Confucian Li (The Rituals)

Confucianism presents a cardinal virtue Li, which has been translated as "the rituals" (Huang, 1997). Lau (1979) suggested that the Confucian virtue of Li

(the rituals) concerns the compliance of a body of rules governing actions in every aspect of life. Chaihark (2003) suggested that Confucian Li (the rituals) is a personal character of learning and following norms to reach ritually proper conduct. The above review indicates that Confucian Li (the rituals) is a virtue of complying with certain rules and institutions, and abiding by certain duties. Aristotelianism does not present a similar virtue.

I further examined the moral philosophy of deontology, and found that the Confucian virtue of Li (the rituals) is closer to the deontological concept of virtues wherein virtues constitute an inner disposition of people to abide by certain rational duties (Gotsis & Kortezi, 2008).

2.1.4 A Summary of Commonalities between Aristotelian and Confucian Virtue Thoughts

As seen in the above comparative analysis, there is a significant overlap between Aristotelian and Confucian thinking on virtues, and between Aristotelian and Confucian cardinal virtues. In short, Aristotelianism and Confucianism have shared the following commonalities: (i) virtue is a character trait demonstrated by voluntary actions; (ii) a person acquires virtues by repetitively practicing them until they are developed into a habit, and with education and self-learning; (iii) virtues are defined contextually (i.e., with regard to specific situations). All of these commonalities provide the philosophical foundation for my concept of leader virtues. Furthermore, the overlap between Aristotelian and Confucian

cardinal virtues (see Table 2.3) will be used to identify six cardinal leader virtues as discussed in the following chapter.

2.2 Leadership Research

It is very common that some virtue terms (e.g., courage, justice, prudence, and temperance) are discussed in the leadership literature without being referred to as virtues per se. Thus, I compiled a list of professional virtues from the review of ethics research (see Table 2.4). As most leaders typically belong to a profession (e.g., business, public administration, or education), it is appropriate to use this list of professional virtues as a framework for identifying those virtue-related discussions within the leadership literature.

2.2.1 An Overview of Four Leadership Schools

Approaches to leadership have been categorized in various ways. House and Aditya (1997), and House and Podsakoff (1994) divided leadership research into four groupings: the trait approach, the behavioural approach, the situational and contingency approach, and the neo-charismatic approach. The above framework is adopted here and structures my review below.

Both the leadership trait approach and the leadership behavioural approach are weak in their theoretical foundations (House & Aditya, 1997; House & Podsakoff, 1994; Yukl, 2010).

With respect to the situational and contingency approach, two comprehensive reviews (House & Aditya, 1997; Yukl, 2010) together introduced eleven prevailing situational and contingency theories, including LPC

Contingency Theory (Fiedler, 1974), Cognitive Resource Theory (Fiedler, 1986), Managerial Grid Theory (Blake & Mouton, 1985), Path-Goal Theory (House, 1971), Normative Decision Theory (Vroom & Yetton, 1973), Leader-Member Exchange Theory/Vertical Dyad Linkage Theory (Dansereau et al., 1975; Graen & Uhl-Bien, 1995), Situational Leadership Theory/Life Cycle Theory (Hersey & Blanchard, 1979), Leadership Substitutes Theory (Kerr & Jermier, 1978), Multiple Linkage Model (Yukl, 1989), Implicit Leadership Theory (Lord & Maher, 1993), and Leader-Environment-Follower-Interaction Theory (Wofford, 1982). My review of the fundamental assumptions and underlying processes of the above eleven situational and contingency theories revealed that none of them directly discuss virtues. Although Graen and Uhl-Bien's Leader-Member Exchange Theory (Graen & Uhl-Bien, 1995) assumes that the development of LMX partnerships is dependent on the respect and trust between the leader and the follower, it does not discuss what leader character is likely to garner respect and trust.

With respect to the neo-charismatic approach, scholars have proposed many theories. Most of these theories remain in the developing stage or are not widely accepted in the field. Thus, I selected for review seven of the most cited leadership theories drawn from the reviews by House and Aditya (1997), Kanungo (1998), Sashkin (2004) and Yukl (1999). These consist of Self-Concept Charismatic Theory (House, 1977), Attributional Theory of Charismatic Leadership (Conger & Kanungo, 1987), Transforming Leadership Theory (Burns,

1978), Theory of Transformational Leadership (Bass, 1990b), Effective Leadership Theory (Bennis & Nanus, 1985), Exemplary Leadership Theory (Kouzes & Posner, 2002), and Visionary Theory (Sashkin, 1986). Some non-charismatic based leadership theories have addressed virtues, even though virtues and virtuous behaviours are not central to them.

Both Burns' Transforming Leadership Theory (Burns, 1978) and Bass' Theory of Transformational Leadership (Bass, 1990b) discuss the virtues of equality, fairness, honesty, liberty, justice, and responsibility, but define them as personal values of leaders. Kouzes and Posner's Exemplary Leadership Theory (Kouzes & Posner, 2002) addresses the two virtues of credibility and honesty, and defines them as leader characteristics. Sashkin and Sashkin's Visionary Theory (Sashkin, 1986) emphasizes two leadership behaviours as demonstrating trustworthiness and respect for others, which can be linked to the virtues of trustworthiness and respect for others.

In summary, the above review reveals that none of the prevailing leadership theories have explained relationships among leader virtues, leader virtuous behaviours, and specific situations for the expression of virtues. Nor do they explain the underlying processes by which leader virtues influence followers' behaviours. However, I endeavour to clarify these relationships and processes through introducing my concept of virtuous leadership, which draws both from the philosophy and leadership literatures.

2.2.2 A Review of Seven Leadership Paradigms

In conducting an extensive review of the leadership literature it became evident that virtues are mainly discussed either as an antecedent or as a consequence of seven leadership paradigms (i.e., moral, ethical, servant, spiritual, charismatic, transformational, or visionary leadership). Thus, I reviewed these leadership paradigms more closely to identify what individual virtues have been linked with leadership. Because my concept of leader virtue is derived from the Aristotelian and Confucian perspectives on virtues (i.e., virtue is a character trait demonstrated by voluntary actions), my review of the seven leadership paradigms only covered those virtues that were studied as leader character traits and/or behaviours.

In summary, my review revealed sixty-two virtues having been linked to leadership in one way or another (see Table 2.5 for a summary of my review findings). Among these virtues, nine (caring, courage, honesty, integrity, justice, prudence, responsibility, temperance, and trustworthiness) are associated with all seven leadership paradigms. In addition, I identified the overlap between Aristotelian and Confucian cardinal virtues and virtues noted in the leadership literature. Table 2.6 shows that the four Aristotelian cardinal virtues (courage, temperance, justice, and prudence), and the five Confucian cardinal virtues of Ren (humanity), Yi (righteousness), Li (the rituals), Zhi (wisdom), and Xin (truthfulness), are linked to all seven leadership paradigms. This suggests that Aristotelian and Confucian cardinal virtues are important attributes of an effective leader that are generalizable across Eastern and Western cultures.

CHAPTER 3: CONCEPTUALIZATION AND HYPOTHESIS

DEVELOPMENT

This chapter presents two concepts. The first is leader virtue, which is drawn from the commonalities between Aristotelian and Confucian perspectives on virtues, as well as twenty-two definitions of virtues retrieved from contemporary ethics research. I then propose six cardinal leader virtues identified through the overlap between Aristotelian and Confucian cardinal virtues. The second concept is virtuous leadership, which is defined upon my concept of leader virtue, the nature (conceptualization) of leadership, and forty-seven leadership concepts retrieved from the contemporary leadership literature. By applying attribution theory and social learning theory, I then explain two processes (i.e., perception based, and modeling based) underlying the effects of virtuous leadership. Specifically, I argue that virtuous leadership affects both leaders and their followers, and derive and test nine hypotheses based on my proposed model.

3.1 Conceptualization of Leader Virtues

3.1.1 Definition of Leader Virtue

The comparative analysis of Aristotelianism and Confucianism in the previous chapter suggested that both schools advocate that virtue is a character trait demonstrated by voluntary actions; a person develops virtues through education, self-learning and continuous practice. Moreover, virtues are defined contextually (i.e., with regard to specific situations).

In contrast to significant commonalities between Aristotelian and

Confucian thinking on virtues, contemporary ethics research is unable to unify the many different and incompatible concepts of virtue (MacIntyre, 1984; Moberg, 1997; Tjeltveit, 2003). I gathered twenty-two definitions of virtue from the ethics literature, and found that virtue is defined variously as a character trait, disposition, settled disposition of character, correctives to human nature, personal quality, pattern of behaviours, personal value, psychological process, qualitative characteristic, human condition, norm of conduct, or habit of action (see Table 3.1 for these definitions). Among these definitions, twelve treated virtue as a character trait and/or disposition, consistent with the Aristotelian and Confucian account of virtues.

Thus, I define leader virtue as a disposition: "a character trait that is acquired through learning and continuous practice and demonstrated through voluntary actions undertaken in specific situations". Overall, leader virtue indicates four key characteristics.

3.1.1.1 Leader virtue is a disposition or character trait of leaders.

As a disposition, leader virtue is distinguishable from the concept of personal character. According to the Cambridge Dictionary of Philosophy (Audi, 1999), character is a comprehensive set of ethical and intellectual dispositions of a person; disposition is a tendency of a person to act or react in characteristic ways in certain situations. According to virtue ethics, virtues help form the "good character" of a person (Hartman, 1998). Thus, virtue is a component of personal

character likened to a character trait. There are many types of character traits, and virtues collectively make up "good" character.

As a character trait, leader virtue differs from the concept of personality. Petrick and Quinn (1997, p. 51) suggested that personal character is different from personality "in that the former provides the substantive moral foundation for one's actions, whereas the latter projects the psychosocial image that creates surface impressions". Thus, leader virtue provides the moral foundation for action, and is more proximally related to such action than is personality.

According to virtue ethics, leader virtue is also distinguishable from such concepts as actions, feelings, skills/capabilities/competencies, and values. As noted in the previous chapter, Aristotle suggested that virtue is a state of character, which leads to the "best" actions in light of certain feelings of pleasure or pain. Broadie and Rowe (2002) argued that virtues are concerned with feelings and actions of an "excellent person", whereas skills, capabilities and competencies reflect an ability to feel and act as an "expert" in a particular domain. With respect to values, Ciulla (2004) noted that they can be held without practice (e.g., a person has certain value but may or may not behave upon the value), whereas virtues are sustained only by practice (e.g., a person has certain virtue only if he/she practices the virtue). In summary, leader virtues underlie the feelings and actions of an "excellent person", and lead to the "best" actions in light of certain feelings of pleasure or pain; whereas skills/capabilities/ competencies represent an ability to feel and act as an "expert". While leader

virtue requires practice to be sustained, values can be held in the absence of practice.

3.1.1.2 Leader virtue is acquired through learning and continuous practice.

As noted in the previous chapter, both Aristotle and Confucius advocated that individuals develop and sustain virtues through learning and continuous practice. This has been described as a habituation process (Bragues, 2006; Klein, 2002), wherein people continuously learn and practice a virtue until it becomes habitual.

Cardona (2000) suggested that a habit is more consistent than behaviour that is exclusively based on a sentiment. Verplanken et al. (2005) suggested that a habit can be lost if a person stops exercising the habit for some time. Thus, defining the acquisition of virtues as a habitation process has three important implications: (i) people must continuously practice virtues from early youth until they are developed into habits; (ii) once people have developed a virtue into a habit, they will exemplify this virtue consistently; (iii) once people acquire a virtue, it is sustained through continuous practice. The virtue is lost, however, in the absence of practice.

3.1.1.3 Leader virtue is demonstrated through voluntary actions of leaders.

As noted in the previous chapter, both Aristotle and Confucius advocated that virtue is demonstrated through voluntary actions. Hart (2001) and Whetstone (2001) further argued that a virtuous action has three characteristics: Firstly, it is intentional. The person who is taking a virtuous action knows the pertinent facts

and the practical wisdom needed for this action. Secondly, it is undertaken for intrinsic reasons. The motive underlying a virtuous action is simply that it is virtuous, neither for personal advantage nor resulting from external rules and controls or any degree of compulsion. Thirdly, virtuous action is expressed consistently over time. Accordingly, a leader who possesses a virtue will display that virtue intentionally, consistently, and for intrinsic reasons.

If leader virtues are demonstrated through voluntary actions, then, there is an important implication. Because a leader demonstrates a virtue through intentional and consistent actions, such actions could be taken as an indication by others that this leader possesses that virtue. This sentiment is echoed in the On-Line Stanford Encyclopedia of Philosophy, which suggests that a virtue will be attributed to one person based on a single observed action or a series of similar actions (Hursthourse, 2007). In other words, whether or not a leader is virtuous can be assessed by those virtuous actions that the leader displays. Thus, the conceptual foundation is laid for developing a behaviourally-based scale to measure virtuous leadership.

3.1.1.4 Leader virtue is defined with regard to specific situations.

As noted in the previous chapter, all Aristotelian virtues and many Confucian virtues (including all cardinal virtues) are discussed in accordance with specific situations. Some contemporary ethics scholars have provided further explanations to this characteristic of virtues. For example, Johnson (2001) suggested that a virtue may be expressed differently in different contexts (i.e.,

what is virtuous in one situation may not be in the next). Whetstone (2001) argued that virtues can be fully understood only by considering the context of the virtuous act, because what is "right to do" depends on the situation. Drawing from the above, I contend that there are a set of specific situations for defining leader virtues; outside these particular situations, the same actions may not be considered virtuous. Thus, the virtue of courage is exemplified in situations that induce fear. In the absence of fear, the same behaviour may not be considered courageous.

The definition of leader virtues with regard to specific situations has an important implication. The domain of virtues ethics rests on the fundamental premise that a virtuous act is judged solely on the character of a person; a virtuous act is done only by a virtuous person (Taylor, 2006). However, a virtuous person is not always known to others. As a result, whether a person is perceived as virtuous depends on how the person behaves. Because virtues are defined in specific contexts, the perception of a virtuous leader must be viewed within the context that the leader demonstrates virtues. Thus, any scale to measure virtuous leadership should make reference to context.

3.1.2 Six Cardinal Leader Virtues

The comparative analysis of Aristotelian and Confucian cardinal virtues in the previous chapter notes the significant overlap between these two groups of virtues (see Table 2.3). The four Aristotelian cardinal virtues of courage, temperance, justice and prudence highly overlap with the two Confucian corresponding virtues Yong (courage) and Zhongyong (moderation), and the two

Confucian cardinal virtues Yi (righteousness) and Zhi (wisdom). On the other hand, the two Confucian cardinal virtues Ren (humanity) and Xin (truthfulness) highly overlap with the two Aristotelian ordinary virtues friendliness and truthfulness. Thus, I combine Aristotelian and Confucian cardinal virtues to create a list of six virtues, including courage, temperance, justice, prudence, humanity, and truthfulness. I further define these six virtues as leader virtues, which have four characteristics in common.

First, all six leader virtues are considered cardinal. Although two of the six virtues (i.e., humanity and truthfulness) are not cardinal virtues in Aristotelianism, both are considered to be cardinal by contemporary ethics scholars. For example, MacIntyre (1984) defined truthfulness/ honesty as a cardinal virtue in modern practices. Hart (2001) suggested the virtue of humanity/ benevolence is cardinal in ethical practices. Because all six leader virtues are cardinal in modern ethical practices, they together could determine all the other virtues. According to Aristotelianism, cardinal virtues are fundamental in the sense that all other virtues are closely tied to them (Arjoon, 2000). According to Confucianism, all the other corresponding virtues are determined by cardinal virtues (Huang, 1997). In conclusion, these six leader virtues are all cardinal, and together determine all the other virtues.

Second, all six leader virtues are culturally universal. It is commonly agreed that virtues are culturally sensitive (Hursthourse, 2007; Mele, 2005). Because Aristotelianism and Confucianism have dominated the western and

eastern societies respectively, these six leader virtues identified from the overlap between Aristotelian and Confucian cardinal virtues are applicable in both Western and Eastern cultures. Furthermore, contemporary studies have provided evidence of the culturally universal feature of these six virtues. For example, Peterson and Seligman (2004) reported that a number of historical surveys found the virtues of courage, temperance, justice, wisdom (prudence), and humanity are cross-culturally universal. Tuana (2003) and Walker et al. (2007) suggested that the virtues of justice/fairness and truthfulness/ honesty are shared across cultures. In conclusion, all six leader virtues are culturally universal, and could be studied in multi-cultural settings.

Third, all six leader virtues interact with each other. Cavanagh and Bandsuch (2002) and MacIntyre (1984) suggested that cardinal virtues are intimately related to each other, which together enable people to be "good". Palanski and Yammarino (2007) suggested that a set of virtues forms a good character, and none of these virtues is found in isolation. Drawing from the above review, I conclude that all six leader virtues are interrelated and often demonstrated simultaneously if required. For example, if leaders possess the virtues of courage and justice, they will demonstrate both virtues simultaneously when dealing with a situation requiring them.

Fourth, all six virtues are associated with leadership traits and/or behaviours across seven leadership paradigms (i.e., moral, ethical, servant, spiritual, charismatic, transformational, or visionary leadership). The review of

the leadership literature in Chapter 2 has found that all Aristotelian and Confucian cardinal virtues are discussed as leadership traits and/or behaviours across the seven paradigms of leadership research (see Table 2.6). Derived from Aristotelian and Confucian cardinal virtues, these six leader virtues are also related to all seven leadership paradigms. Thus, the relevance of these six leader virtues to leadership is clearly established.

In summary, the six leader virtues of courage, temperance, justice, prudence, humanity, and truthfulness are cardinal, cross-culturally universal (at least consistent with Eastern and Western philosophically based notions of virtues), interrelated, and leadership-related. In the following section, these six leader virtues are defined individually along with a set of behavioural indicators. These behavioural indicators serve as the basis for developing a pool of items for measuring virtuous leadership.

Both Aristotle and Confucius lived in a world quite different from the modern one. In order to ensure the definition of each leader virtue reflects the needs of modern practices, I define each leader virtue and identify its behavioural indicators based upon contemporary ethics and leadership literature.

3.1.2.1 Courage

Courage represents the Aristotelian virtue courage and the Confucian virtue Yong (courage). According to the On-line Oxford English Dictionary (Simpson, 2009), courage is "The quality of mind which shows itself in facing danger without fear or shrinking; bravery, boldness, valour." Messick (2006, p.

106) defined courage as "the conviction to do what one believes is the right thing despite the risk of unpleasant consequences". With respect to the Confucian virtue Yong (courage), Yearley (2003, p. 144) defined it as a personal quality "that allows people to overcome or control fear, especially those fears that impede people from doing what they wish to do or think they should do." Thus, I define courage as a disposition; a character trait enabling leaders to do without fear what they believe is "right".

Contemporary scholars have discussed a number of behaviours as displayed by courageous leaders, which are summarized in Table 3.2. With respect to context, Solomon (1999) suggested that courage is required when a manager is facing the threat of being fired or not being promoted. Barker and Coy (2003) suggested that courage is required in the face of calculated personal risks that could harm a leader's career, tarnish friendships and lead to accusations of disloyalty (e.g., traitor). The above review suggests that a leader demonstrates courage in the face of personal risks, such as being fired, not being promoted, losing friends, or being regarded as a traitor.

3.1.2.2 Temperance

Temperance represents the Aristotelian virtue temperance and the Confucian virtue Zhongyong (moderation). According to the On-line Oxford English Dictionary (Simpson, 2009), temperance is "The practice or habit of restraining oneself in provocation, passion, desire, etc.; rational self-restraint." Sison (2003) defined temperance as a positive character trait reflecting control of

desire for instant gratification. With respect to the Confucian virtue Zhongyong (moderation), Yearley (2003, p. 150) defined it as a personal quality "that enables people to control emotional reactions and, in some fashion, to modulate their normal desires for things that are attractive either for biological reasons (e.g., good) or cultural reasons (e.g., fame)." Thus, I define temperance as a disposition; a character trait helping leaders control their emotional reactions and desires for self gratification.

Contemporary scholars have discussed a number of behaviours as displayed by temperate leaders, which are summarized in Table 3.2. With respect to context, Walton (1988) suggested that temperance is particularly required when leaders encounter unanalyzed opportunities, or when no others can impose restraint on their actions. Kanungo and Mendonca (1996) suggested that temperance is needed in the face of the temptation to overindulge in hedonistic behaviours. The above review suggests that a leader demonstrates temperance in the interest of prioritizing organizational gains over self-gain, such as career success, awards, honour, pleasure, or better relationships with followers or friends.

3.1.2.3 Justice

Justice represents the Aristotelian virtue justice and the Confucian virtue Yi. According to the On-line Oxford English Dictionary (Simpson, 2009), justice is "The quality of being (morally) just or righteous". MacIntyre (1984) defined justice as a disposition that underlies the respectful treatment of others. Sison

(2003, p. 160) defined justice as a positive character trait that disposes a person to "respect the rights of others and to establish harmony in human relationships such that equity and the common good are promoted." Yearley (2003) suggested that Yi (the Confucian virtue of righteousness) is a form of justice in the Western tradition. Thus, I define justice as a disposition; a character trait motivating respectful recognition and protection of rights of others to be treated fairly, in accordance with uniform and objective standards.

Contemporary scholars have discussed a number of behaviours as displayed by just leaders, which are summarized in Table 3.2. With respect to context, Kohlberg (1976) implied that justice is required when a person is facing conflicts of interest, or is distributing duties among others. Bragues (2006) suggested that justice is required during the allocation of resources that people value, such as money, property, sex, offices, power, and status. The above review suggests that a leader demonstrates justice when facing conflicts of interest, allocating responsibilities, allocating valued resources, and/or excising his/her power.

3.1.2.4 Prudence

Prudence represents the Aristotelian virtue prudence and the Confucian virtue Zhi. According to the On-line Oxford English Dictionary (Simpson, 2009), prudence is "The ability to recognize and follow the most suitable or sensible course of action; good sense in practical or financial affairs; discretion, circumspection, caution." Sison (2003, p. 161) defined prudence as a positive

character trait that: "disposes practical reason to discern the true good in every circumstance and to choose the right means of achieving it". With respect to the Confucian virtue Zhi (wisdom), Gardner (2003) defined it as the intention or inclination of the mind, which can help guide the mind in the right direction. Thus, I define prudence as a disposition: a character trait enabling leaders to make "right" judgments and choose the "right" means to achieve the "right" goals[3].

Contemporary scholars have discussed a number of behaviours as displayed by prudent leaders, which are summarized in Table 3.2. With respect to context, Walton (1988) suggested that prudence is required when making assessments of opportunities and evaluating likely consequences. Kanungo and Mendonca (1996) suggested that prudence is practiced when a leader is making a judgment or a decision. Dyck and Kleysen (2001) suggested that prudence is required in the face of complexities associated with a plurality of different stakeholders. Sison (2003) suggested that prudence is practiced in the financial setting when leaders decide on the appropriate investment bonds, administer resources, govern assets or patrimony, and balance the inevitable conflicts of interest among collaborators and other parties. The above review suggests that a leader demonstrates prudence when making an assessment, judgment, and/or decision.

3.1.2.5 Humanity

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[3] Following Fry and Slocum (2008) and MacIntyre (1984), I define "right" as something that can meet generally accepted societal values, or universal rules or principles.

Humanity represents the Confucian virtue Ren (humanity) and the Aristotelian virtue friendliness. According to the On-line Oxford English Dictionary (Simpson, 2009), humanity is "The quality of being humane; (now) spec. kindness, benevolence". Chan (2003) defined Ren (humanity) as a disposition to care for and sympathize with others, and to show concern for relationships with others. Regarding the Aristotelian virtue friendliness, Bragues (2006) defined it as a good-natured disposition, motivating people to adjust their manners as appropriate to different people (e.g., a friend, an acquaintance, or a conversational partner); and desiring to please others and protect them from pain. Thus, I define humanity as a disposition; a character trait underlying leaders' love, care and respect of others.

Contemporary scholars have discussed a number of behaviours as displayed by humane leaders, which are summarized in Table 3.2. With respect to context, Bragues (2006) suggested that humanity (friendliness) is required when a manager is interacting with others (e.g., customers, supervisors, peers, and subordinates). In addition, Confucianism advocates that the virtue Ren (humanity) is practiced in five cardinal social relations as ruler and ruled, friend and friend, father and son, elder brother and younger brother, and husband and wife (Xing, 1995; Chan, 2008). Aristotelianism suggests that the virtue friendliness is manifested in the five types of friendships, at two levels: equality of status (e.g., friend-friend); and inequality of status (e.g., father-son, older-younger, man-woman, and ruler-ruled). The above review suggests that a leader has the

opportunity to demonstrate humanity when interacting with followers, peers, superiors, and/or outside customers and community members.

3.1.2.6 Truthfulness

Truthfulness represents the Confucian virtue Xin (truthfulness) and the Aristotelian virtue truthfulness. According to the On-line Oxford English Dictionary (Simpson, 2009), truthfulness is "A disposition to tell the truth; veracity." Lau (1979) defined Xin (truthfulness) as the personal character that underlies "promise-keeping" and reliability. Thus, I define truthfulness as a disposition; a character trait that is reflected in leaders' telling the truth and keeping promises.

Contemporary scholars have discussed a number of behaviours as displayed by honest leaders, which are summarized in Table 3.2. With respect to context, Solomon (1999) suggested that truthfulness is practiced when people communicate honestly with others (e.g., no deception or falsehoods). Taylor (2006) suggested that people can demonstrate truthfulness after they have unintentionally made a misstatement. Palanski and Yammarino (2007) suggested that people demonstrate truthfulness by honouring promises. The above review suggests that a leader demonstrates truthfulness when communicating with others, correcting unintentionally made misstatements, and/or following through promises.

3.2 Conceptualization of Virtuous Leadership

During the past two decades, some leadership scholars have attempted to generalize some common understandings of the nature of leadership. For example, Bass (1990b, p. 19) conducted an extensive review of the definitions of leadership which appeared in the leadership literature, and concluded that "leadership is an interaction between two or more members of a group that often involves a structuring or restructuring of the situation and the perceptions and expectations of the members." Conger and Kanungo (1998) suggested that researchers in social and organizational psychology have come to agree that leadership is both a relational and an attributional phenomenon, and that followers' attitudes and behaviours are influenced by leader behaviours within a group or organization. Drawing from the above review, I propose that leadership inherently entails a leader-follower relationship involving an alignment of expectations of the two parties wherein leader behaviours influence followers' attitudes and behaviours. My conceptualization of virtuous leadership is founded on this view of leadership.

There are many leadership concepts used in the leadership literature. I identify forty-seven such concepts and analyzed them (see Table 3.3 for these leadership concepts) with the view to identify how each might be helpful in developing an understanding of virtuous leadership. Kanungo (1998, p. 75) suggested that the concept of leadership can be understood by analyzing two aspects of the leadership phenomenon: "contents (behaviours representing leadership roles and other attributes of leaders, followers and situational contexts)

and processes (the social influence processes and underlying psychological dynamics)". Thus, I analyze the definitions of forty-seven leadership concepts with respect to contents and processes, and find that: (i) all forty-seven leadership concepts emphasize certain leader *behaviours*; (ii) leader traits addressed in various leadership concepts include personal qualities, disposition, values, beliefs, skills, attitudes, feelings, moods, motives, needs, power, and aspirations; (iii) subordinate traits studied include values, knowledge, skills, abilities, capacity, attitudes, feelings, moods, motives, needs, aspirations, consciousness, self-esteem, self-awareness, self-perceptions, self-interest, and status; (iv) seven leadership concepts address organizational, social, and cultural contexts, environmental constraints, and resources; and (v) forty-four leadership concepts emphasize that leadership entails *influencing* others; among these concepts, thirty-two suggest that the influence process is uni-directional (i.e., leaders influencing over followers), twelve suggest the bi-directional process (i.e., leaders influencing subordinates with subordinates also influencing the behaviours of their leaders), two (steward leadership and contextual leadership) suggest a uni-directional influence from leader to organization, while one (i.e., charismatic leadership) suggests that leadership entails leaders influencing their subordinates, based on the behaviours that subordinates *observe* in their leaders. In conclusion, none of the leadership concepts specifically addresses virtues (character traits), which means that no existing leadership concept can be adapted to virtuous leadership.

What is required is a new leadership concept based firmly in leader virtues and virtuous behaviours.

Given the concept of leader virtues articulated earlier, and the common understandings of the nature of leadership (as well as forty-seven leadership concepts), I define virtuous leadership as a leader-follower relationship in which a leader's situationally appropriate exemplification of virtues (e.g., courage, temperance, justice, prudence, humanity, and truthfulness) causes followers to (a) perceive their leader as virtuous, and then (b) learn and practice these behaviours modeled by the leader.

Overall, my concept of virtuous leadership includes three essential elements: leader virtues, leader virtuous behaviours, and contexts (specific situations defining virtuous behaviours of the leader); and two fundamental processes: a perceptual process in which followers perceive a leader to be virtuous based on the leader's actions, and a modeling process in which followers change their behaviours to emulate their leader. A detailed discussion of these two fundamental processes follows.

3.2.1 The Perception of Virtuous Leadership

My concept of leadership entails perceptual processes. Lord and Maher (1993) argued that the leadership process is one in which a person is perceived by others as a leader. These perceptions are based on how the leader behaves with others. Antonakis et al. (2004, p. 5) also suggested that the leadership process can be explained by "the leader's dispositional characteristics and behaviours,

follower perceptions and attributions of the leader, and the context in which the influencing process occurs." Because my concept of virtuous leadership consists of three essential elements (i.e., leader virtues [dispositional character traits], leader virtuous behaviours, and contexts defining leader virtuous behaviours), it is reasonable to define the virtuous leadership process as founded in perception processes. In the text to follow, I apply attribution theory to explain this process of perception.

Attribution theory assumes that people make causal judgments of a person's motives from the observed behaviours of the person (Pelletier & Bligh, 2008). As noted in my discussion of the concept of leader virtue (i.e., leader virtue is demonstrated through voluntary actions of leaders), a leader who possesses a virtue will behave consistently with that virtue, for intrinsic reasons. Thus, followers judge whether a leader possesses a virtue simply by observing the leader's behaviour. Attribution theory also suggests that people determine the cause of an observed behaviour of a person based on that behaviour's consistency (how often the person has behaved this way in the past), distinctiveness (how often the person behaves this way in other situations), and consensus (how often other people behave the same way in similar situations; Kelley, 1972).

Then, with respect to virtuous leadership, attribution theory implies that followers rely on these three features of behaviour to determine whether a leader virtue underlies that behaviour. In other words, followers attribute a virtue to a leader based on the consistency, distinctiveness, and consensus of the observed

actions as expressed by the virtue. Because leader virtue is defined with regard to specific situations (the fourth characteristic of the concept of leadership virtue), the extent to which followers attribute a virtue to a leader is dependent on the frequency that followers observe this leader displaying actions expressive of this virtue in those specific situations which define this virtue in the past (consistency), on the frequency that followers observe this leader displaying actions expressive of this virtue outside those specific situations defining this virtue (distinctiveness), as well as on the frequency that followers observe the other leaders displaying actions expressive of this virtue in those specific situations that define this virtue (consensus).

In consideration of more than one virtue a leader might possess, I further propose that followers perceive a leader to be virtuous based on the attribution to their leader of the six leader virtues. The extent to which a leader is perceived as virtuous depends on the number of virtues attributed to the leader by followers; the more leader virtues that are attributed to a leader, the more likely the leader will be perceived as virtuous.

3.2.2 The Modeling of Virtuous Leadership

Leaders can positively influence their followers' behaviours through modeling virtues. This effect has been addressed by both virtue ethics scholars (Durand, 2008; Kok & Chan, 2008; Walton, 1988) and leadership researchers (Ciulla, 2004; House & Podsakoff, 1994; Khuntia & Suar, 2004). Thus, modeling

can explain the influence that leaders have on their followers. Moreover, I apply social learning theory to explain this modeling process.

Social learning theory assumes that modeling is an indispensable aspect of learning, and people learn by observing models' behaviour (Bandura, 1976). In the leadership literature, it is commonly agreed that leaders are important role models to their followers due to their role, status and power (Brown et al., 2005). An important type of leader power is called referent power, which is derived from respect and trust (Yukl, 2010); the more a leader is respected and trusted, the higher referent power this leader possesses. Arjoon (2000), Durand (2008), and Khuntia and Suar (2004) have argued that by practicing virtues people can gain trust and respect from others. Thus, it can be concluded that virtuous leaders will gain increasing trust and respect from their followers by continuously practicing virtues, which in turn increases their referent power. Compared with non-virtuous leaders in a similar role and level of status, virtuous leaders are more likely to become role models for their followers due to their higher referent power.

Social learning theory also suggests that learning from models is reinforced by extrinsic and intrinsic rewards derived from modeling other's behaviours (Bandura, 1976). With respect to virtuous leadership, I argue that intrinsic rewards reinforce followers' learning from virtuous leaders. The effect of intrinsic reward is premised in the concept of internalization, which is used to explain the process by which leaders influence followers (Yukl, 2010). According to Kelman (1958), internalization occurs when a person accepts influence from

others because the desired behaviours are congruent with his/her own values and belief system. It is widely accepted in both Western and Eastern cultures that virtues are "good" for everyone (MacIntyre, 1984) and are the most desirable personal qualities (Sison, 2003). Through formal moral education and informal self-learning from everyday practice, followers come to know and accept that virtues and virtuous behaviours are socially desirable. Thus, they observe and imitate virtuous behaviours of their virtuous leaders because such behaviours are congruent with their own values.

In summary, the complete modeling process of virtuous leadership can be described as follows: a virtuous leader models virtues; followers observe and imitate the leader's virtuous behaviours because such behaviours are congruent with their values; followers continuously practice these behaviours learned from their virtuous leader; when these behaviours become habitual through practice, followers acquire them. In short, the virtuous leader's capacity to be a role model allows for followers to practice virtuous behaviours and to acquire virtues.

3.3 Effects of Virtuous Leadership on Leaders and Followers

As a type of character trait associated with "good" character, virtues influence people in many ways. Based on a review of the virtue ethics research, I identify three major effects of virtues on people; that is, being ethical, being happy, and performing roles well.

3.3.1 Being Ethical

It is a long-standing belief of virtue ethics scholars that virtues guide

people to behave ethically. In "The Nicomachean Ethics" (1099a20-25/1159b5-10), Aristotle suggested that those actions in accordance with virtues are good and pleasant, and virtuous people are enduringly right. By expanding the above Aristotelian thought, Cavanagh and Bandsuch (2002), and Hartman (1998) argued that virtuous persons are naturally inclined to behave ethically and to enjoy behaving that way. Therefore, the statement that a virtuous person behaves ethically is justified in the virtue ethics domain.

Furthermore, I examine the contemporary ethics literature, and find that four criteria have been used commonly to judge whether or not an action is ethical, including: (i) the character of the person performing the action (i.e., an ethical action must be performed by a person with the good character; Taylor, 2006); (ii) the motive of the action (i.e., an ethical action must be motivated for the sake of asserting and reinforcing the common good of the community rather than the desires to satisfy one's own interests; Broadie & Rowe, 2002); (iii) the action itself (i.e., an ethical action in and of itself must be morally right in nature; Resick et al., 2006); and (iv) the consequence of the action (i.e., an ethical action must lead to advantageous consequences in terms of the greatest happiness; Aronson, 2001). Virtuous actions can meet all these four criteria. First, virtues are the character traits forming the good character, so virtuous people who possess virtues have the good character. Second, virtuous actions are voluntary, which means that the motive underlying the action is simply that it is virtuous and that its aim is for the common good of the community. Third, virtuous actions endure

as morally right (Irwin 1999). Fourth, the practice of virtues maximizes goodness and happiness in a person's life (Arjoon, 2000; Hanbury, 2004; Flynn, 2008). Thus, virtuous actions are ethical.

With respect to virtuous leadership, attribution theory implies that followers will perceive whether or not a leader is ethical, based on the observed actions of this leader. Because leader virtuous actions (which are also ethical) are used by followers to judge both a virtuous leader and an ethical leader, it can be concluded that the more a leader's virtuous actions are observed by followers, the more likely this leader is perceived as virtuous as well as ethical. Thus, it is hypothesized that:

> *(H1a): The more that a leader is perceived as virtuous by his/her*
> *followers, the more that this leader is perceived as ethical by these*
> *followers.*

In the discussion of the modeling process of virtuous leadership, I have argued that virtuous leaders are more likely to become role models for their followers, due to their higher referent power (Arjoon, 2000; Brown et al., 2005; Yukl, 2010). By following the modeling process, followers observe and imitate the virtuous actions of their leaders. Consequently, virtuous actions (these actions are also ethical) that these followers exhibit are observed and used by leaders in making judgments about how ethical their followers are. In summary, the more a leader is perceived as virtuous, the more likely his/her followers are to regard him/her as a role model and imitate his/her virtuous actions. Furthermore, the

more followers perform virtuous actions learned from their virtuous leaders, the more likely they are to be perceived as ethical by their leaders. Thus, it is hypothesized that:

> *(H1b): The more that a leader is perceived as virtuous by his/her followers, the more that his/her followers are perceived as ethical by the leader.*

3.3.2 Being Happy

One of the basic premises of virtue ethics is that practicing virtues helps people achieve the greatest happiness. In "The Nicomachean Ethics" (1099a20-25/1177a1-5), Aristotle suggested that practicing virtues provides people with the happiness that amusement cannot provide, and the happy life is a life in accordance with virtues. MacIntyre (1984) further argued that virtues enable people to achieve happiness; Hanbury (2004) and Flynn (2008) suggested that virtuous actions lead to happiness in a person's life. Thus, the statement that practicing virtues helps people achieve happiness is justified in the virtue ethics domain.

Aristotelian happiness has been expressed as affective happiness and life satisfaction in the psychological literature. According to DeNeve and Cooper (1998), affective happiness is a non-cognitive evaluation of one's life situation and represents the preponderance of positive moods and emotions over negative moods and emotions; life satisfaction is a cognitive evaluation of the quality of one's experiences, spanning an individual's entire life. Moreover, Diener et al.

(1999) has identified two sources of affective happiness and life satisfaction, including: the prompt satisfaction of individual needs; and successfully attaining individual goals.

Practicing virtues can produce both sources of happiness. First, Whetstone (2001) suggested that virtues can meet a person's holistic needs in terms of understanding himself/herself and developing the moral capacities to live and work well in all situations. Furthermore, Bass and Steidlmeier (1999) suggested that practicing virtues can provide meaning to one's work and life. Thus, I argue that practicing virtues provides individuals with meaning with respect to their work and life and satisfies their holistic needs. This, in turn, is likely to increase their affective happiness and life satisfaction.

Second, Arjoon (2000) and MacIntyre (1984) argued that practicing virtues enables people to achieve internal goals that are intrinsically valuable to them, and the achievement of internal goals drives the achievement of external goals in terms of profits, honour, fame, prestige, and material wealth. Thus, practicing virtues can help a person successfully attain his/her internal and external goals, and in turn increase affective happiness and life satisfaction of the person. In summary, practicing virtues (i.e., virtuous actions) produces two sources of affective happiness and life satisfaction, and thus facilitates the achievement of both states.

Hypothesis 2: The more that a leader is perceived as virtuous by his/her followers, the more that this leader is to be happy (H2a), and to experience high levels of life satisfaction (H2b).

Leaders behaving virtuously are likely to be modelled by their followers, given the referent power held by the leaders (Arjoon, 2000; Brown et al., 2005; Yukl, 2010). Followers, when modelling the virtuous actions of their leader, are likely to experience happiness and life satisfaction. These affective states result from modeling behaviours that satisfy their internal needs (i.e., understanding themselves and developing the moral capacities to live and work well; Whetstone, 2001) and that fulfill their personal goals (Diener et al., 1999). In summary, the more a leader is perceived as virtuous, the more followers are likely to imitate his/her virtuous actions. By so doing, followers will experience increased happiness and life satisfaction. Thus, it is hypothesized that:

The more that a leader is perceived as virtuous by his/her followers, the more followers will experience happiness (H2c) and heightened levels of life satisfaction (H2d).

3.3.3 Performing Roles Well

Virtue ethics suggests that virtues help people perform their roles well. In "The Nicomachean Ethics", Aristotle stated: "It should be said, then, that every virtue causes its possessors to be in a good state and to perform their functions well" (1106a15-20). By expanding from the above Aristotelian thought, Ciulla (2004) suggested that virtuous people will become excellent in performing their

jobs, because they strive to be competent and do what is required in the job in the right way. In consideration of the roles of leaders and followers in modern organizations, I argue that, for leaders, good role performance entails demonstrating effective leadership; for followers, it is reflected in follower in-role and extra-role performance.

Virtues are likely to positively influence leadership effectiveness through three means. First, Yukl (1989) suggested that leadership effectiveness is influenced by the amount of power possessed by leaders and by the means by which they exercise that power. As discussed earlier, practicing virtues significantly increases a leader's referent power. Meanwhile, virtues can guide leaders to properly exercise power in terms of maintaining a good balance between power and self-aggrandizement (Bass & Steidlmeier, 1999), between the needs of the individual and those of the community (Kouzes & Posner, 2003). Thus, a leader who practices virtues will achieve desired effectiveness through increased referent power and the proper exercise of power.

Second, Bass and Riggio (2006) suggested that those leaders who are trusted and respected by followers have a great deal of idealized influence on followers and are thus highly effective. As mentioned earlier, virtue ethics scholars have argued that practicing virtues can help people gain trust and respect from others. Thus, a leader who practices virtues can achieve desired effectiveness through their idealized influence on followers.

Third, Bass and Riggio (2006) argued that those leaders who display inspirational motivation behaviours are effective, because such behaviours motivate and inspire their followers by providing meaning to their followers' work. Bass and Steidlmeier (1999) asserted that practicing virtues generates authentic inspirational motivation and such inspiration simply relies on the truth that virtue is its own reward. I concur with Bass and Steidlmeier, and argue further that virtuous leaders enhance inspirational motivation of their followers by modeling virtuous behaviours. Thus, a leader who practices virtues will achieve desired effectiveness through enhancing inspirational motivation of his/her followers.

In summary, a virtuous leader will achieve desired effectiveness through the following three means: firstly, increasing his/her referent power and the proper exercise of that power; secondly, enhancing idealized influence on his/her followers, and thirdly, enhancing the inspirational motivation of his/her followers. Thus, it is hypothesized that:

(H3a): The more that a leader is perceived as virtuous by his/her followers, the more that this leader is perceived as effective.

With regard to followers, virtuous leaders can enhance their followers' in-role and extra-role performance, both of which are two broad aspects of job performance. In-role performance refers to the effectiveness of performing those activities that contribute to the organization's technical core; extra-role performance (also called organizational citizenship behaviour) refers to the

effectiveness of performing those activities that contribute to an organization's social and psychological context. This context serves as the catalyst for task activities and processes (Borman & Motowidlo, 1997). I argue that virtuous leaders can enhance follower in-role and extra-role performance by enhancing follower inspirational motivation and by increasing follower perception of organizational support.

Bass and Riggio (2006) suggested that a leader practicing virtuous behaviours can generate inspirational motivation among his/her followers because such behaviours instil a sense of meaning in their work. Bass (1985) argued that inspirational motivation facilitated by a leader can stimulate enthusiasm among followers for their work and build their confidence in their ability to successfully perform their jobs, which in turn enhances their job performance. Moreover, Avolio et al. (2004) asserted that employees deriving a greater sense of meaning from their work would have higher levels of commitment to their organization, and can therefore reach a high level of job performance. The positive relationship between leader inspirational motivation and follower in-role and extra-role performance has been justified empirically (Bass, 1985; Howell & Frost, 1989; MacKenzie et al., 2001). Thus, I conclude that, by practicing virtues, a leader generates inspirational motivation among followers, which in turn enhances followers' in-role and extra-role performance through stimulating their enthusiasm for their work, building their confidence in successfully performing their jobs, and increasing their commitment to the organization.

Shanock and Eisenberger (2006) suggested that leader support in terms of showing care for follower well-being and valuing follower contributions is positively associated with follower perceptions of organizational support (POS), which in turn enhance follower in-role and extra-role performance. In the POS literature, two theories have been applied to explain the positive relationships between POS and employee in-role and extra-role performance. According to social exchange theory, if employees perceive their organization providing more support to them, they will offer more work effort and loyalty to their organization in exchange, which leads to higher levels of in-role and extra-role job performance (Lynch et al., 1999). According to expectancy theory, employees' perception of organizational support will strengthen their beliefs that their organization recognizes and rewards good performance (i.e., increasing instrumentality), which will motivate them to exert more work effort and increase their in-role and extra-role performance (Rhoades & Eisenberger, 2002). The positive relationships between POS and employee in-role and extra-role performance are largely supported by empirical evidence (see the meta-analyses by LePine et al., 2002, and Rhoades & Eisenberger, 2002).

Arjoon (2000), MacIntyre (1984) and Solomon (1992) have argued that virtues enable people to direct their behaviours toward realizing the common good of the community, which is characterized as the largest number of people in the community having the greatest happiness. The philosophical concept of happiness is interchangeable with the psychological concept of subjective well-being being

(Diener et al., 1999). Because an organization can be considered a specific community (Solomon, 1992), virtues enable a leader to care about the well-being of his/her followers who represent a large number of community members, and to show these followers support. It is this leader support that enhances followers' perception of organizational support, and in turn motivates them to exert more work effort and increases their in-role and extra-role performance.

In summary, a virtuous leader will enhance the inspirational motivation and perceived organizational support of his/her followers, which in turn will increase followers' in-role and extra-role performance. Thus, it is hypothesized that:

(H3b): The more that a leader is perceived as virtuous by his/her followers, the higher will be followers' in-role performance.

(H3c): The more that a leader is perceived as virtuous by his/her followers, the higher will be followers' extra-role performance.

The proposed research model is shown in Figure 3.1.

CHAPTER 4: METHODOLOGY AND RESULTS

One of the primary objectives of the current study was to develop a new scale for measuring virtuous leadership. In developing this virtuous leadership scale I followed a multi-step approach as suggested by Hinkin (1998). Specifically, the steps followed included: item generation, initial item reduction, confirmatory factor analysis, final item selection, and scale validation, including assessment of the scale's content, discriminant, convergent, and predictive validity (see Figure 4.1 for the multi-step research process). In the text to follow, I describe sampling and data collection procedures, data analysis methods, and results.

4.1 Phase 1 (Item Generation)

As noted in the previous chapter, I established an initial pool of 89 behaviours related to the six cardinal leadership virtues that were identified from my extensive review of the ethics and leadership literatures (see Table 3.2). In Phase 1, I selected two focus groups of ten PhD students (five students per group) who were registered in the PhD program at the DeGroote School of Business. All students met the relevant requirements for the pre-development of the virtuous leadership scale (i.e., good writing skills, familiarity with writing items and scale development, and having applied work experience and representing various cultural backgrounds). To develop a scale for use in the multi-cultural workplace, I selected participants for each focus group using two criteria. First, I selected no more than two participants from each of four PhD research disciplines, since

research discipline may reflect differences in work experience. Second, I checked the cultural backgrounds of selected participants (i.e., country of birth) to ensure no more than two participants were from the same country. Consequently, participants in this phase of study varied in research interests and disciplines and in the countries in which they were born.

In Focus Group 1, two students were studying organizational behaviour and human resources management, and the other three were students in Information Systems, Management Science, or Finance. The five focus group participants were born in different countries, including Canada, China, Pakistan, Poland, and Turkey. Among the five PhD students in Focus Group 2, two were studying organizational behaviour and human resources management, and the other three were studying Information Systems, Management Science, and Finance; two were born in China, and the other three in Canada, Pakistan, or Thailand.

The first focus group of five PhD students received an e-mail from me, in which they were asked to write down six behaviours expressive of each of the six cardinal leader virtues. Definitions of the six virtues were provided along with the instruction set. I stressed to the participants that the example behaviours they provide should be based as much as possible on their actual experiences with one or more leader (not to be "made up"). I then content analyzed the behaviours generated in Focus Group 1, removing duplicates. I then compared these behaviours to those that I had identified from my review of the literature,

identifying the ones that were very similar across both sources. 78 behaviours common to the two sources (Focus Group 1 and the literature review) were retained for translation into behaviourally-based scale items for purposes of assessing the six cardinal leader virtues.

Focus Group 2 was then presented with the 78 randomized behaviours and definitions of the six core leadership virtues and asked to re-assign the behaviours to their respective definitions. 54 items were appropriately re-assigned at a rate of 80% or more. Sample items among these 54 items are: "Speaking up on matters of injustice and personal conviction" and "Acting with sustained initiative" for assessing Courage; "Behaving unselfishly", and "Avoiding indulging personal desires" for assessing Temperance; "Respecting individual interests and rights when allocating responsibilities" and "Allocating valued resources based on merit" for assessing Justice; "Grasping the complexity of most situations" and "Exercising sound reasoning in deciding on the optimal courses of action" for assessing Prudence; "Surpassing what can be reasonably expected when helping others in their time of need" and "Satisfying subordinates' needs in a morally upright fashion" for assessing Humanity; "Consistently communicating truthful information" and "Avoiding communications intended to deceive or distort the truth, including the omission of important factual information" for assessing Truthfulness.

To ensure the clarity and fluency of these items, I asked the three members of my thesis supervisory committee to independently review them and to make

further revisions to enhance clarity. This resulted in Draft 1 of the Virtuous Leadership Questionnaire (VLQ-1), which I then pretested on undergraduate business students. Sample items of the VLQ-1 are: "This leader does what is considered right to do, despite risking negative career consequences", and "This leader rejects directives of an unethical/immoral authority, despite risking discipline".

4.2 Phase 2 (Initial Item Reduction)

4.2.1 Participants and Procedure

432 first-year undergraduate students taking a human resources management course at the DeGroote School of Business participated in this round of study. These students received an e-mail recruitment letter from the course instructor (someone other than me; see Appendix A). The letter explained that I would administer an in-class survey to measure virtuous leadership, and that their participation was voluntary and anonymous. During the survey, 25 students declined to participate. Due to incomplete data 59 more responses were excluded from analyses, resulting in a final sample of 348 participants (an 80.56% effective response rate).

Among these participants, 303 referred to a leader under whom they worked in a paid employment situation when filling the survey, whereas the other 45 referred to a leader under whom they worked on a volunteer job. I used the independent-samples t test to examine the between-group differences in the mean response for each survey item, and found mean differences for only two of 54

items (less than 4%): "This leader allocates valued resources in a fair manner (justice)"; and "This leader rewards subordinates commensurate with their performance contributions (justice)". Thus, I combined all item responses from the two groups for Phase 2 of my analysis.

4.2.2 Analysis Method

In Phase 2, two sets (two in each set) of exploratory factor analyses (EFA) were performed to evaluate item responses with respect to their loadings and item total-scale correlations. As a general guideline, an item was retained if it loaded most heavily on the factor for which it was written with a factor loading approximating at least .30 (a threshold commonly accepted in the field; Meyers et al., 2006). Further, the item had to show minimal cross-loading (typically a *difference* of at least .10 between its loading on its own factor and its loading on another factor). Because I have argued that the six leader virtues are intercorrelated, I employed principal axis factoring with an oblique rotation (direct oblimin, which allows for correlations among the extracted factors; Brown et al., 2005). The Statistical Packages for the Social Sciences (SPSS 19.0) software was used to perform these analyses.

4.2.3 Results

Because I expected the VLQ-1 to measure six leader virtues, I ran an EFA which forced a six factor solution. The Kaiser-Meyer-Olkin measure of sampling adequacy was .94 and Bartlett's test of sphericity was significant ($p < .001$), indicating the data suitable for an EFA (Kaiser, 1974). A summary of items and

factor loadings are shown in Table 4.1. The EFA results reveal that the 54 items in the VLQ-1 loaded heavily on five factors; that is, all ten items written for humanity loaded (.36-.78) on Factor 1; all ten items for courage loaded (.25-.60) on Factor 2; six out of eight items for justice loaded (.37-.54) on Factor 4; six out of eight items for temperance loaded (.30-.56) on Factor 5; and five out of eight items for prudence loaded (.26-.50) on Factor 6. However, the ten items written for truthfulness cross-loaded on the above five factors. In other words, the EFA analysis yielded a five-factor solution.

I ran the second EFA on the same dataset and extracted factors with eigenvalues greater than 1.0. This analysis yielded a 12 factor solution accounting for 59.39% of the common variance (the factor loadings are shown in Table 4.2). By examining the 12-factor EFA results, I identified six virtue factors, each of which had loadings from at least four items written to define a common factor. They are: Factor 1 for prudence (4 items, .27-.61), Factor 3 for humanity (6 items, .35-.65), Factor 4 for justice (5 items, .35-.70), Factor 5 for temperance (5 items, .28-.53), and Factors 2 and 10 for courage (4 items, .30-.59; 4 items, .32-.55, respectively). However, items written for truthfulness loaded on multiple factors, with no more than two items loading on the same factor (factor loadings > .30). I further examined the Scree Plot of the 12-factor EFA (see Figure 4.2), which suggested retention of six factors.

The results from the above two factor analyses suggest that truthfulness is not independent from the other five first-order cardinal virtues. There is one

potential explanation for this. I defined truthfulness as a cardinal leader virtue based on the significant overlap between the Aristotelian virtue of truthfulness and the Confucian virtue of Xin (truthfulness). Although truthfulness is considered cardinal in Confucianism, Aristotelianism defines it as an ordinary moral virtue (Irwin, 1999). Virtue ethics assumes that ordinary virtues are derived from, and are closely tied to, the cardinal virtues (Arjoon, 2000; Hart, 2001). My EFA results reported above seem to support this assumption; that is, the virtue of truthfulness corresponds with the other five cardinal leader virtues, and a leader who exercises truthfulness may also be inclined to display courage, temperance, justice, prudence, and/or humanity. These results are also consistent with previous research findings. Based on a comprehensive literature review, Palanski and Yammarino (2007) found conceptual and empirical evidence to support positive associations between truthfulness and each virtue of courage, justice, and/or humanity. They concluded that a person who exemplifies truthfulness is also likely to display these virtues. In their empirical study, Peterson and Seligman (2004) found that the ratings of the truthfulness items contained within their scale of personal virtues loaded heavily on the courage factor, and thus defined truthfulness as a component of the virtue of courage.

Consequently, I removed all items written for truthfulness, and then re-ran an EFA using the remaining 44 items measuring courage, temperance, justice, prudence, and humanity. This EFA again employed the principal axis factoring method extracting eigenvalues greater than 1.0, and applying an oblimin (oblique)

rotation. An 11-factor solution was obtained. The results are reported in Table 4.3. Although 11 factors were extracted, six factors were interpretable and uniquely defined by the items, including courage (factor 2; 5 items, .29-.60), temperance (factor 10; 3 items, .29-.64), justice (factor 4; 5 items, .36-.74), prudence (factor 5; 4 items, .39-.54), and two humanity factors (factor 3; 4 items, .34-.70, and factor 7; 6 items, .39-.59).

Because I expected the 44-item VLQ-1 to measure five leader virtues, I ran another EFA on the same 44 items, this time forcing a five-factor extraction, followed by an oblimin rotation. A summary of items and factor loadings are shown in Table 4.4 and the inter-factor and inter-scale correlation matrices are reported in Tables 4.5 and 4.6. This forced five-factor EFA solution yielded five clear virtue factors. Six items (19-24) written for justice loaded most heavily (.39-.66) on Factor 1; seven items (3-5 and 7-10) for courage loaded most heavily (.37-.60) on Factor 2; seven items (35, 36, 38-40, 43 and 44) for humanity loaded most heavily (.43-.79) on Factor 3; four items (11, and 13-15) for temperance loaded most heavily (.37-.47) on Factor 4; and five items (27-31) for prudence loaded most heavily (.31-.79) on Factor 5. All 29 of these items were retained for subsequent testing using CFA on data collected from a separate independent sample. These 29 items were ordered randomly to comprise Draft 2 of the VLQ (VLQ-2). Sample items of the VLQ-2 are: "This leader leads fundamental change though it may entail personal sacrifice and personal risk", and "This leader

distributes rewards in a manner consistent with promoting a climate of equal opportunity".

4.3 Phase 3 (Confirmatory Factor Analysis)

4.3.1 Participants and Procedure

An on-line survey based on Draft 2 of the VLQ (VLQ-2) was set up on the website of FluidSurveys, an Ottawa-based firm which provides web survey tools for customers to create their own on-line surveys, collect data from respondents, and analyze results. 503 graduate students currently in the MBA programs at the DeGroote School of Business received an e-mail recruitment letter from a senior administrator of the school (see Appendix B for the recruitment letter). In the letter, these MBA students were told that I would administer an on-line survey to measure virtuous leadership, and that their participation was completely voluntary and anonymous. The letter also mentioned that each participant had the chance to win one of five $100 bookstore gift certificates selected by a random draw. 194 MBA students completed the on-line survey (102 males and 92 females), and 37 of them had missed some questions. An analysis of the thirty-eight survey items found that none of these items had missing data exceeding 3.09% of the sample. According to the general rule that an item containing less than 5% missing data can be "ignored" (Meyers et al., 2006), I used the mean substitution method to cover those missing item responses, resulting in a final sample size of 194 (a 38.57% effective response rate).

Among these 194 participants, 179 referred to a leader under whom they worked in a paid employment situation when filling the survey, whereas the remaining 15 referred to a leader under whom they worked on an unpaid job (e.g., volunteer, etc.). I used the independent-samples t test to examine the between-group differences in responses on each survey item, and found that only one out of thirty-eight items (less than 3%) showed a statistically significant difference between the two groups (i.e., contrasting those completing items with reference to a leader in a paid versus unpaid/volunteer job). This item is: "This leader prioritizes organizational interests over self interests (temperance)". Thus, I combined item responses from these two groups of participants for further data analyses, including responses to the item on which group differences were found.

4.3.2 Analysis Method

I expected the VLQ-2 to measure the five leader virtues as expressed in a five-factor solution. Thus, I used confirmatory factor analysis (CFA) with maximum likelihood estimation to test the proposed five-factor model. When evaluating model fit, the following three aspects of fit indices were used: (i) *absolute fit*, Chi-Square Test ($\chi2$), and Root Mean Square Error of Approximation (RMSEA); (ii) *relative/comparative fit*, Incremental Fit Index (IFI), Normed Fit Index (NFI), Relative Fit Index (RFI), Comparative Fit Index (CFI) and Tucker-Lewis Index (TLI); and (iii) *parsimonious fit*, Parsimony Normed Fit Index (PNFI), and Parsimony Comparative Fit Index (PCFI).

4.3.3 Results

Using SPSS Amos 19.0, I ran a CFA based on a five-factor solution on the 29 items of the VLQ-2. Model fit indices for this model are shown in row 1 of Table 4.7, which indicates that the model did not fit the data particularly well. Based on the Modification Indices, I removed two items ("This leader shares an unpopular perspective; challenges the status quo, despite risking personal costs"; and "This leader surpasses what can be reasonably expected when helping others in need"). I then ran another CFA using the remaining 27 items, but the model also did not fit the data particularly well (see row 2 of Table 4.7).

Researchers have not reached agreement on optimum scale length. If a scale is too short, its reliability will be compromised (Devellis, 1991). However, a long scale has received much criticism for application deficiencies (see Sheatsley, 1983 for a review). Hinkin (1995) reviewed 277 scales published in the organizational behaviour literature, and found 101 of them (37%) were comprised of 3-4 items. In the leadership literature, many measures (dimensions/sub-dimensions) also are comprised of three or four items, including the short-form Multifactor Leadership Questionnaire (MLQ; Bass & Avolio, 1995), the Leader-Member Exchange Multidimensional Measure (LMX-MDM; Liden & Maslyn, 1998), the Shared Leadership Scale (Acar, 2010), and the Directive Leadership Scale (Hansen & Villadsen, 2010). Accordingly, I aimed to select 3-4 items to measure each of the five leader virtues in Phase 3. Drawing from the standardized factor loadings obtained for the 27 items on which I had run the CFA specifying a five-factor model (see Table 4.8), I selected the four items loading most heavily

on the virtue for which they were originally written (20 items in total), and ran another CFA to identify a five-factor solution yielding a best fitting model with three or four items loading on each leader virtue. Following Worthington and Whittaker (2006), I ran a series of CFAs[4] and found that a five-factor model with 18 items (four separate items loading on each of courage, temperance and prudence; and three separate items loading on each of justice and humanity) fitted the data best. Model fit indices for this model are shown in row 3 of Table 4.7. The standardized factor loadings of the 18 items are seen in Table 4.8. The inter-factor correlations and internal consistency reliabilities (Cronbach's alpha) are shown in Table 4.9.

According to the commonly accepted standards (Meyers et al., 2006), eight fit indices reported in Table 4.7 suggest that the five-factor model fit the data adequately. These indices are the Root Mean Square Error of Approximation (RMSEA) = .04, the Incremental Fit Index (IFI) = .98, the Normed Fit Index (NFI) = .91, the Relative Fit Index (RFI) = .89, the Comparative Fit Index (CFI) = .98, the Tucker-Lewis Index (TLI) = .97, the Parsimony Normed Fit Index (PNFI) = .74, and the Parsimony Comparative Fit Index (PCFI) = .80. However, the Chi-Square Test index (χ^2 = 164.49; df = 125) is significant (p = .010), indicating a poor model fit. Bentler (1990) and Conger and Kanungo (1998) all argued that the Chi-Square Test index is sensitive to sample size, and an increase in sample size

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[4] These CFAs were run on 15-20 items. Each CFA included three separate items with the highest loadings on the virtue for which they were originally written (3 items x 5 virtues = 15 items in total), as well as a combination of 0 to 5 separate items (each of these five items having the fourth highest loading on the virtue it was written for). There are 32 different combinations among the five items so that 32 CFAs were run to identity the best five-factor model.

will increase its power. Thus, it could reject a good-fitting model only for trivial differences between the predicted model and actual data. Kenny (2010) also found that large correlations between factors generally caused Chi-Square to be statistically significant. Table 4.9 did indicate large correlations among the five factors, which possibly account for the statistical significance of Chi-Square. All the other eight fit indices (except the Chi-Square Test index) shown in Table 4.7 suggested that the five-factor model with 18 items provided good fit to the data.

To assess possible effects of common-method bias (i.e., common method variance driving CFA; Malhotra et al., 2006), I ran another CFA with all the above 18 items loading on one factor. The Model fit indices for this one-factor model are shown in row 4 of Table 4.7. Through a comparative analysis of model fit indices, the five-factor model proved superior to the one-factor model. Thus, there is little evidence to support common-method bias.

As shown in Table 4.9, Factor 3 (justice) has high correlations with Factor 2 (temperance; $r = .74$), Factor 4 (prudence; $r = .74$), and Factor 5 (humanity; $r = .72$). The other seven correlates range from .48 to .69. However, the magnitude of inter-factor correlations of the 18-item CFA solution is acceptable compared with the other widely-used multi-dimensional leadership scales, such as the Multifactor Leadership Questionnaire measuring transformational and transactional leadership (inter-factor correlations $r = .74 - .82$; Avolio et al., 1999), and the C-K Scale measuring charismatic leadership (inter-factor correlations $r = .06 - .81$; Deluga, 1995). Furthermore, the large correlations between some factors (virtues) are

consistent with my conceptualization of the five leader virtues. That is, all five leader virtues are interrelated and together determine virtuous leadership. Such high between-factor correlations suggest that aggregating the five leader virtues for measuring an overall coherent construct of virtuous leadership is reasonable conceptually and empirically. This approach of deriving one overall score from summing items from highly correlated factors mirrors the approach taken with many leadership scales (see Brown et al., 2005 for the Ethical Leadership Scale measuring ethical leadership; Conger & Kanungo, 1998 for the C-K Scale measuring charismatic leadership; and Judge & Piccolo, 2004 for the Multifactor Leadership Questionnaire measuring transformational and transactional leadership).

Seen from Table 4.9, the internal consistency reliabilities (Cronbach's alpha) of those items measuring each leader virtue are .73 for courage, .79 for temperance, .81 for justice, .77 for prudence, and .83 for humanity. All of these reliability values are above or close to the generally accepted standard of .70-.80 (Pedhazur & Schmelkin, 1991). In other words, all items measuring each leader virtue have good internal consistency. Moreover, the overall internal consistency reliability of the 18-item scale is .93.

In summary, the CFA has confirmed a reasonably good model fit of the proposed five-factor model in which 18 items are used to measure five leader virtues, and also supported aggregating the scores of all 18 scale items for measuring virtuous leadership. I randomly ordered these 18 items to form Draft 3

of the VLQ (VLQ-3). Sample items of the VLQ-3 are: "This leader acts with sustained initiative, even in the face of incurring personal risk" (Courage), "This leader avoids indulging his/her desires at the expense of others" (Temperance), "This leader allocates valued resources in a fair manner" (Justice), "This leader exercises sound reasoning in deciding on the optimal courses of action" (Prudence), and "This leader shows concerns for subordinates' needs" (Humanity).

4.4 Phase 4 (Scale Validation and Hypothesis Testing)

4.4.1 Participants and Procedure

In this phase of research, two surveys were uploaded onto the website of FluidSurveys. One was open to people holding a manager/supervisor position under a paid employment situation; the other was open to their direct subordinates. I used the StudyResponse Center for Online Research (StudyResponse) to help recruit participants in the two surveys. StudyResponse facilitates online research by distributing email participation requests to individuals who have given their consent to participate in on-line research studies. It is hosted by the School of Information Studies at Syracuse University and has received institutional review board approval (#07199; renewed from 2008).

StudyResponse initiated *four* rounds of participant recruitment for my study. The first two started with inviting a manager/supervisor, and then asked the manager/ supervisor to invite one of his/her direct subordinates. Once a pair of manager/supervisor and subordinates had agreed to participate in my study,

StudyResponse sent an e-mail recruitment letter to the manager/supervisor and the subordinate separately to acquire their formal consent (see Appendix C for the e-mail recruitment letter to managers/supervisors, and Appendix D for the one to subordinates). The latter two rounds invited a subordinate firstly and asked the subordinate to recruit his/her direct supervisor secondly, following the same procedure set for the first two rounds of recruitment. During data analyses, I used the paired identification numbers assigned to a leader and his/her direct subordinate by StudyResponse to match the item responses of a leader with those of his/her subordinate.

381 pairs of leaders and followers agreed to participate in my study after four rounds of recruitment. 286 managers/supervisors completed the leader survey. Among them, 19 do not live in English-speaking countries. Because my study has focused on the English-speaking countries only, I excluded these 19 leader respondents. Moreover, 55 respondents missed several questions, and six of them had four or more questions unanswered, above the commonly acceptable standard of 5% missing data (the leader survey had 61 questions, including 8 demographic questions). These six respondents were also removed. With respect to the follower survey, 300 subordinates filled the survey. Among them, 21 are not resident in English-speaking countries and five had more than 5% missing data. All of them were excluded in my data analyses. An examination of the paired identification numbers assigned to the remaining 261 leader respondents

and 274 follower respondents resulted in selection of 230 leader-follower dyads for further analysis (a 60.37% effective response rate).

Within the final sample of 230 leader-follower dyads, 49 leader respondents and 42 follower respondents had less than 5% missing data. I used the mean substitution method to cover those missing item responses. I then conducted an independent-samples t test on leader respondents to identify any significant differences between a sample without any missing data (N = 181) and a sample with all missing data replaced by the mean value of the item (N = 230). A similar independent-samples t test was also run on follower respondents (N = 181 for the sample without missing data; and N = 230 for the sample with all missing data recovered). Both t tests did not reveal any significant differences in item responses between groups with and without the mean substitution. Further, I ran another independent-samples t test against all research variables (independent, control, and dependent), and did not find any statistically significant between-sample differences. I also ran structural equation modeling over the three samples (i.e., a sample with all missing data recovered, a leader sample and another follower sample without any missing data) to achieve path coefficients between independent and dependent variables. By examining these path coefficients, I found no statistically significant between-sample differences. Thus, recovering missing data in the sample of 230 leader-follower dyads by mean substitution is unlikely to have a significant impact on the results of my data analysis.

The final sample of 230 leader-follower dyads included 131 male and 99 female managers/supervisors (57%: 43%), as well as 129 male and 101 female subordinates (56%: 44%). A majority of respondents listed English as their first language (approximately 98% of managers/supervisors and 99% of subordinates). 218 managers/supervisors (95%) and 217 subordinates (94%) lived in the United States; seven managers/supervisors (3%) and eight subordinates (4%) lived in Canada, and the other five managers/supervisors (2%) and five subordinates (2%) lived in the United Kingdom. With respect to leader respondents, 50% of them were 31-40 years of age, 71% attained at least a graduate degree, 57% had no more than 20 direct subordinates, and nearly 64% had less than 15 years of a working relationship with the subordinate with whom they were paired for this study. For subordinate respondents, 52% of them were 31-40 years of age, 58% had at least a graduate degree, and about 39% of them had no more than 20 co-workers. Moreover, the final sample of this phase of research employed a cross-sectional design, with 112 leader-follower dyads (49%) currently working in business services, 71 dyads (31%) in the manufacturing industry, 39 dyads (17%) in public administration and services, and 8 dyads (3%) in the mining, oil and gas industry.

4.4.2 Research Variables and Measures

4.4.2.1 Independent Variables

Virtuous Leadership. This was assessed by followers using the VLS-3 to evaluate their leader. The VLS-3 consisted of 18 items measuring five cardinal

leader virtues (i.e., courage, temperance, justice, prudence, and humanity). Each leader virtue was rated using its three or four defining items, and then averaged to yield a virtue score. An overall virtuous leadership score was then derived by summing the averaged scores for each of the five leader virtues. As noted earlier, this approach is supported by the CFA results from Phase 3, and has also been followed with respect to the ethical (Brown et al., 2005), charismatic (Conger & Kanungo, 1998), and transformational and transactional (Judge & Piccolo, 2004) leadership literatures. All 18 items of the VLS-3 used a five-point Likert-type response format (1= Never; 5 = Always).

4.4.2.2 Leader-Referent Dependent Variables

Ethical Leader. This was assessed by followers using ten items adapted from the Ethical Leadership Scale (Brown et al., 2005; Cronbach's $\alpha = 0.90$-0.94). Sample items are: "Conducts his/her work life in an ethical manner"; "Discusses success not just by results but also by the way that they are obtained". Scores on the ten items of the scale were averaged to derive an overall score.

Leader Happiness. This was assessed by leaders themselves using five items adapted from the Personal State Questionnaire (Brebner et al., 1995; Cronbach's $\alpha = 0.93$). Sample items are: "I always laugh these days"; "Things always work out the way I want them to". Scores of the five items were averaged to derive an overall score.

Leader Life Satisfaction. This was assessed by leaders themselves using a five-item scale called the Satisfaction with Life Scale (Diener et al., 1985;

Emmons & Diener, 1985; Cronbach's α = 0.86-0.90). Sample items are: "In most ways my life is close to my ideal"; "The conditions of my life are excellent". Scores of the five items were averaged to derive an overall score.

Leader Effectiveness. This was assessed by followers using four items adapted from the MLQ (Bass & Avolio, 1995; Lowe et al., 1996; Cronbach's α = 0.87-0.93). Sample items are: "Is effective in meeting others' job related needs"; "Is effective in representing their group to higher authority". Scores of the four items were averaged to derive an overall score.

All the above twenty-two items used a five-point Likert-type response format (1=Strongly Disagree; 5=Strongly Agree).

4.4.2.3 Follower-Referent Dependent Variables

Ethical Follower: This was assessed by leaders using six items adapted from the scale used by Singer (2000; Cronbach's α = 0.84-0.91), which is one of a few scales for measuring employee ethics based on positive behavioural traits (most published scales for measuring workplace ethics have relied on negative behavioural traits). Sample items are: "Is honest"; "Can be trusted". Scores on the six items were averaged to derive an overall score.

Follower Happiness. This was assessed by followers themselves using five items adapted from the Personal State Questionnaire (Brebner et al., 1995; Cronbach's α = 0.93). Sample items are: "I always laugh these days"; "Things always work out the way I want them to". Scores of the five items were averaged to derive an overall score.

Follower Life Satisfaction. This was assessed by followers themselves using a five-item scale called the Satisfaction with Life Scale (Diener et al., 1985; Emmons & Diener, 1985; Cronbach's α = 0.86-0.90). Sample items are: "In most ways my life is close to my ideal"; "The conditions of my life are excellent". Scores of the five items were averaged to derive an overall score.

Follower In-Role Performance. This was assessed by leaders using four items adapted from the scale originally developed by Williams and Anderson (1991) and further used by Lynch et al. (1999; Cronbach's α = 0.91). Sample items are: "Fulfills responsibilities specified in job description"; "Performs tasks that are expected of him/her". Item scores were averaged to derive an overall score.

Follower Extra-Role Performance. This was assessed by leaders using six items adapted from the scale originally developed by Williams and Anderson (1991) and further used by Lynch et al. (1999; Cronbach's α = 0.88) in their study of the effects of perceived organizational supports (POS). Because POS contributed to the theoretical foundation of my arguments linking leader virtues and follower in-role and extra-role performance, the Williams and Anderson scale was particularly appropriate to measure extra-role performance. Sample items are: "Helps co-workers who have been absent"; "Helps co-workers who have heavy workloads". Item scores were averaged to derive an overall score.

All the above twenty-six items used a five-point Likert-type response format (1=Strongly Disagree; 5=Strongly Agree).

4.4.2.4 Control Variables

When testing hypotheses, I controlled for the influence of demographic variables, including age, gender, education, and relationship tenure (in years) as they are likely to influence the perception of ethical behaviours (Daulatram, 2000; Lopez et al., 2005; Mayer et al., 2009; Selvarajan & Cloninger, 2009) and of effectiveness (Hooijberg et al., 2010; Neufeld et al., 2010; Parker et al., 2009). Furthermore, the demographic variables of age, gender and education are likely to influence self-assessments of happiness and life satisfaction (Becchetti et al., 2008; Kim & Kim, 2009).

Age. Both leader and follower respondents selected one of four age categories. Age was controlled in my analyses because it has been found to associate negatively with one's perceptions of others' ethical behaviours (Detert et al., 2007; Selvarajan & Cloninger, 2009), with one's perceptions of others' effectiveness (Hooijberg et al., 2010), and with self-reported happiness and satisfaction (Kim & Kim, 2009). Age was categorized as: 4 = Less than 30; 3 = 31-40; 2 = 41-50; and 1 = More than 50.

Gender. Both leader and follower respondents selected one of two choices, and I then coded each choice as: 1 = Male; and 2 = Female, following Brown et al. (2005), Kim and Kim (2009), and Parker et al. (2009).

Education. Both leader and follower respondents selected one of four choices, and I then coded each educational choice as: 1 = High School; 2 =

Undergraduate; 3 = Graduate; and 4 = Doctorate, following Daulatram (2000), Hooijberg et al. (2010), and Kim and Kim (2009).

Relationship Tenure. Both leader and follower respondents selected one of six choices. I controlled for relationship tenure because it has been found to associate positively with perceived ethical behaviours of leaders/followers (Mayer et al., 2009), and with perceived effectiveness of leaders/followers (Neufeld et al., 2010). This variable was coded as: 1 = Less than 1 Year; 2 = 1-5 Years; 3 = 6-10 Years; 4 = 11-15 Years; 5 = 16-20 Years; 6 = More than 20 Years.

4.4.2.5 Demographics

I also collected data on language and number of co-workers/direct reports.

4.4.3 Measures Used for Assessing Convergent/Discriminant Validity

Hinkin (1998) suggested that a new scale should show convergent validity. That is, the scale should correlate positively with scales measuring similar constructs, and negatively with scales measuring constructs with which it is expected to relate negatively. The new scale should also show discriminant validity, demonstrated by the absence of significant correlations with measures of dissimilar constructs. Four scales were used here to assess the convergent validity of the VLQ-3.

The first of these four scales is the seven-item Virtuous Leadership Scale (VLS; Sarros et al., 2006), which was completed by leaders themselves. As I described in Chapter 1, VLS was originally designed as a self-report scale to measure manager character. It is based on the seven virtues of humility, courage,

integrity, compassion, humour, passion, and wisdom. The VLQ-3 measured five cardinal virtues, which are fundamental in the sense that all other virtues are closely related to them (Arjoon, 2000), including the seven virtues measured by the VLS. Thus, I expected the VLQ-3 to correlate positively with the VLS. Sample items of VLS are: "I consistently adhere to a moral or ethical code or standard" and "I invoke laughter and see the funny side of a painful predicament". All used a five-point Likert-type response format (1= Never; 5 = Always).

The second benchmark scale was completed by followers to measure socialized charismatic leadership, a form of charismatic leadership that "(a) is based on egalitarian behaviour, (b) serves collective interests and is not driven by the self-interest of the leader and (c) develops and empowers others" (House & Howell, 1992, p. 84). In the leadership literature, many scholars (e.g., Howell, 1988; Howell & Avolio, 1992; Shamir et al., 1993) have argued that socialized charismatic leadership is ethical. Because virtuous leadership also has positive effects on leader ethical behaviours, virtuous leadership was expected to relate positively with socialized charismatic leadership. Brown and Trevino (2006b; 2009) and Galvin et al. (2010) have used a scale that is comprised of the eight idealized influence and inspirational motivation items in the short-form MLQ to measure socialized charismatic leadership. Thus, I expected the VLQ-3 to positively correlate with this eight-item scale for measuring socialized charismatic leadership. Sample items of the scale for measuring socialized charismatic leadership are: "My supervisor talks about his/her most important values and

beliefs", and "My supervisor specifies the importance of having a strong sense of purpose". All items of the scale used a five-point Likert-type response format (1= Never; 5 = Always).

The third benchmark scale was completed by followers to measure personalized charismatic leadership, defined as a form of charismatic leadership that "(a) is based on personal dominance and authoritarian behaviour, (b) serves the self-interest of the leader and is self-aggrandizing and (c) is exploitive of others" (House & Howell, 1992, p. 84). Howell (1988), Howell and Avolio (1992), and Shamir et al. (1993) have argued that personal charismatic leadership is unethical. Because exercising virtuous leadership steers leaders away from exercising unethical behaviours, I expected virtuous leadership to associate negatively with personal charismatic leadership. In the leadership literature, personalized charismatic leadership has been measured by a five-item scale constructed and validated by Neeman (1998) and Popper (2002). It should correlate negatively with the VLQ-3. Sample items of the scale for measuring personalized charismatic leadership are: "My supervisor uses his/her influence for personal benefit", and "My supervisor uses the team to promote his/her personal success". All items of the scale used a five-point Likert-type response format (1= Never; 5 = Always).

The fourth and final benchmark scale is the 20-item Machiavellianism IV Scale (Christie & Geis, 1970) which was completed by leaders themselves to measure Machiavellianism, a highly power-oriented personal disposition to use

manipulation and deceit to maximize one's self-interest at the expense of others (House & Howell, 1992). In the literature, Machiavellianism has been discussed as a negative character trait leading to unethical behaviours (Aronson, 2001; Bedell et al., 2006; Walter & Bruch, 2009). Because the VLQ-3 measures five leader virtues that are of positive character traits disposing a person to behave ethically, it should correlate negatively with Machiavellianism. Sample items of the Machiavellianism IV Scale are: "Never tell anyone the real reason you did something unless it is useful to do so", and "The best way to handle people is to tell them what they want to hear". The Machiavellianism IV Scale used a five-point Likert-type response format (1=Strongly Disagree; 5=Strongly Agree).

To test the discriminant validity of the VLQ-3, I examined three measures, age, gender and education of leaders, following Brown et al. (2005). Because virtuous leadership is assessed by followers based on the perceived virtuous actions of their leader, I did not expect age, gender, or education of leaders to correlate with followers' perception of virtuous leadership.

4.4.4 Analysis Methods

In Phase 3 of my research, I examined the content validity of the VLQ-3 using a student sample. Here, in Phase 4, I investigated the content validity of the VLQ-3 using a sample of 230 subordinates who held a paid job in one or more organizations. CFA with maximum likelihood estimation was used to test the proposed five-factor model. When evaluating the model fit, the same set of fit indices and relevant evaluation standards as used in Phase 3 were assessed. I also

examined the internal consistency reliabilities (Cronbach's alpha) of the three or four items measuring each leader virtue and of all 18 items measuring virtuous leadership.

Bivariate correlations between the VLQ-3 and the four benchmark scales (and the three demographic measures) were used to assess convergent (discriminant) validity. To assess the predictive validity of the VLS-3, multiple regression analysis was used as the primary analysis for testing hypotheses (1a, 1b, 2a, 2b, 2c, 2d, 3a, 3b, and 3c), which address nine proposed effects of virtuous leadership on leaders and followers. When examining perceived ethical leader and leader effectiveness as the dependent variables, I first entered the four control variables of *follower* age, gender, education and relationship tenure-supervisor (i.e., subordinate's report of years working with the *supervisor)* as a set of independent variables (Step 1), followed by the aggregated score of virtuous leadership (Step 2). When examining leader happiness and life satisfaction as the dependent variables, I first entered the three control variables of *leader* age, gender and education in Step 1, and the aggregated score of virtuous leadership in Step 2. When examining perceived ethical follower and follower in-role and extra-role performance as the dependent variables, I first entered the four control variables of *leader* age, gender, education and relationship tenure-subordinate (i.e., supervisor's report of years working with the *subordinate)* as a set of independent variables (Step 1), followed by the aggregated score of virtuous leadership (Step 2). Finally, when examining follower happiness and life

satisfaction as the dependent variables, I first entered the three control variables of *follower* age, gender and education in Step 1, followed by the aggregated score of virtuous leadership in Step 2.

4.4.5 Results

4.4.5.1 Content Validity

Using the sample of 230 subordinates, a five-factor solution with 18 items loading on the five virtue factors (three or four items on each virtue factor) fitted the data adequately. The model fit indices for the five-factor model are shown in row 5 of Table 4.7. The standardized factor loadings of the 18 items are seen in Table 4.8. The inter-factor correlations among the five virtues factors and internal consistency reliabilities are shown in Table 4.10.

According to the commonly accepted standards (Meyers et al., 2006), eight fit indices reported in Table 4.7 suggest that the five-factor model fit the data adequately. These indices are the Root Mean Square Error of Approximation (RMSEA) = .05, the Incremental Fit Index (IFI) = .98, the Normed Fit Index (NFI) = .94, the Relative Fit Index (RFI) = .93, the Comparative Fit Index (CFI) = .98, the Tucker-Lewis Index (TLI) = .97, the Parsimony Normed Fit Index (PNFI) = .77, and the Parsimony Comparative Fit Index (PCFI) = .80. However, the Chi-Square Test index (χ^2 = 199.71; *df* = 125) is significant (p = .000), indicating a poor model fit. Compared with the relevant results in Phase 3, three fit indices (NRI, RFI, and PNFI) increased slightly from Phase 3 to Phase 4, whereas four (IFI, CFI, TLI, and PCFI) remained the same, implying that the five-factor model

has a slightly better fit with the dataset of Phase 4 than that of Phase 3. However, the Chi-Square Test index remained significant. As noted earlier, the Chi-Square Test index is sensitive to sample size (Bentler, 1990; Conger & Kanungo, 1998), and could reject a good-fitting model only for trivial differences between the predicted model and actual data. Thus, given the other eight fit indices (excepting the Chi-Square Test index) reported in Table 4.7, I concluded that the five-factor model with 18 items fits the data adequately.

To assess possible effects of common-method bias (i.e., common method variance driving CFA; Malhotra et al., 2006), I ran another CFA with all above 18 items loading on one factor. The Model fit indices for this one-factor model are shown in row 6 of Table 4.7. Through a comparative analysis of model fit indices, I found that the five-factor model was superior to the one-factor model. Thus, there is little evidence to support common-method bias.

Table 4.10 shows that justice has the high correlation with prudence ($r =$ .85), and with humanity ($r = .83$), and all the other eight correlates ranged from .71 to .79. Once again, the large correlations between the five factor virtues support aggregating scores across the five leader virtues to obtain an overall virtuous leadership score. Comparing these correlations with those reported from Phase 3, the correlation data shown in Table 4.10 suggest that collinearity among VLQ scales was moderately higher in Phase 4.

Seen from Table 4.10, the internal consistency reliabilities (Cronbach's alpha) of items measuring each leader virtue are .90 for courage, .84 for

temperance, .86 for justice, .88 for prudence, and .87 for humanity. The overall internal consistency reliability (Cronbach's alpha) for the 18-item scale is .96. All of these reliabilities are well above the generally accepted standard of .70-.80 (Pedhazur & Schmelkin, 1991), and are much higher than those reported in Phase 3. In summary, results support the internal consistency reliability of the VLQ-3.

4.4.5.2 Convergent/Discriminant Validity

The means, standard deviations and correlations between all research variables/measures, including the VLQ, the four benchmark scales, and the three measures of leader age, gender and education, are shown in Table 4.11.

As predicted, VLQ-3 correlated positively with VLS ($r = .64$; $p < .001$) and with socialized charismatic leadership ($r = .83$; $p < .001$). It correlated negatively with the Machiavellianism IV Scale ($r = -.37$; $p < .001$). However, VLQ also correlated positively with personalized charismatic leadership ($r = .17$; $p < .05$), contrary to my predictions. Further, consistent with my predictions, virtuous leadership did not correlate with leader age ($r = -.05$; $p > .05$), and gender ($r = -.03$; $p > .05$), or education ($r = -.03$; $p > .05$). In general, the above results provide evidence of the convergent and discriminant validity of the VLQ-3.

4.4.5.3 Predictive Validity (Hypothesis Testing)

To assess the predictive validity of the VLQ-3 with reference to hypotheses 1a, 1b, 2a, 2b, 2c, 2d, 3a, 3b and 3c proposed in Chapter 3, a series of multiple regression analyses were conducted (see Table 4.12 for results).

For the leader-referent dependent variables, separate regressions were run in which *follower* age, gender, education and relationship tenure (i.e., years working with the supervisor) were first entered as controls; virtuous leadership predicted ethical leader ($\beta = .79$, $p < .001$) and leader effectiveness ($\beta = .70$, $p < .001$), thereby supporting H1a and H3a, respectively. When *leader* age, gender and education were entered as controls, virtuous leadership predicted leader happiness ($\beta = .57$, $p < .001$) and life satisfaction ($\beta = .49$, $p < .001$), thereby supporting H2a and H2b, respectively.

For the follower-referent dependent variables, separate regressions were run in which *leader* age, gender, education and relationship tenure (i.e., years working with the subordinate) were entered first as controls; virtuous leadership predicted ethical follower ($\beta = .49$, $p < .001$), follower in-role performance ($\beta = .42$, $p < .001$) and extra-role performance ($\beta = .50$, $p < .001$), thereby supporting H1b, H3b and H3c, respectively. When *follower* age, gender, and education were controlled, virtuous leadership predicted follower happiness ($\beta = .61$, $p < .001$) and life satisfaction ($\beta = .54$, $p < .001$), thereby supporting H2c and H2d, respectively.

CHAPTER 5: DISCUSSION

The significance of the role of virtues in guiding people's behaviours has been discussed extensively in the ethics literature (MacIntyre, 1984; Moberg, 1997; Solomon, 1999). The study of virtues in the leadership domain, however, is still at an early stage (Thompson & Riggio, 2010). Thus, the purpose of this thesis was to advance this stream of the leadership research by: (i) defining two concepts, leader virtues and virtuous leadership, positioning the former as antecedent to the latter; (ii) developing and testing an 18-item scale (VLQ-3) for measuring five cardinal leader virtues (i.e., courage, temperance, justice, prudence, and humanity); and (iii) proposing and empirically testing a model of virtuous leadership.

Following a multi-step approach as suggested by Hinkin (1998), the content, convergent, discriminant, and predictive validity of the VLQ-3 was established. Virtuous leadership positively predicted leader/follower ethical behaviours, leader/follower happiness and life satisfaction, and leader/follower effectiveness. In the following section, I outline the important theoretical implications of: my conceptualization of leader virtues and virtuous leadership; my development and validation of the VLQ-3; and the corroboration of my model, linking my findings to the literatures on ethics, happiness and life satisfaction, and performance. I then discuss the implications of the study's

findings for practice, and conclude with a commentary of the study's limitations and recommendations for future research.

5.1 Leader Virtues

I defined leader virtues as a disposition: a character trait that is acquired through learning and continuous practice and demonstrated through voluntary actions undertaken in specific situations. This study is the first attempt to define systematically the concept of leader virtues, and to provide answers to at least four key questions concerning leader virtues: (i) What are they? (Leader virtues are dispositions or character traits of leaders); (ii) How are they acquired? (Leader virtues are acquired through learning and continuous practice); (iii) How are they associated with leader behaviours? (Leader virtues are demonstrated through intentional and consistent actions of leaders); (iv) In what contexts are they most likely enacted? (Leader virtues are enacted in the specific situations for which they are defined). In advancing a concept of leader virtues I have provided a foundation for future studies of leader virtues. I also offer a behaviourally-based measure to assess leader virtues. Because a leader demonstrates a virtue through intentional and consistent actions, such actions could be taken as an indication by others that this leader possesses that virtue. By assessing the virtuous actions that a leader displays, it can be known whether or not this leader is virtuous.

This thesis also offers a conceptual distinction between leader virtues and other leadership attributes (i.e., personality, personal emotions, capabilities/ competencies/skills, and values). In the leadership literature, virtues have been

treated as dispositions/character traits (Fry, 2003; Hanbury, 2004; Smith, 1995), personal emotions (Solomon, 1998), personality traits (Brown & Treviño, 2006a), capabilities/competencies/skills (Bass, 1990), or personal values (House & Podsakoff, 1994; Murphy & Roberts, 2008; Sama & Shoaf, 2008). Whetstone (2001; 2003) thus raised his concerns over the various definitions of virtues offered by scholars with different backgrounds, and concluded that it is presumptuous to adopt any a priori list of virtue terms to define personal qualities of leaders. This thesis is likely to ease the above concerns by distinguishing conceptually leader virtues from personality, personal emotions, capabilities/ competencies/skills, and values. Generally speaking, leader virtues provide the moral foundation for actions and are more proximally related to such actions than is *personality*, which "projects the psychosocial image that creates surface impressions" (Petrick & Quinn, 1997, p. 51). Leader virtues lead to the "best" actions in light of certain *personal emotions* (e.g., feelings of pleasure or pain; Irwin, 1999). Leader virtues are concerned with feelings and actions of an "excellent person", whereas *skills, capabilities and competencies* reflect an ability to feel and act as an "expert" in a particular domain (Broadie & Rowe, 2002). Values can be held without practice (i.e., a person has certain value but may or may not behave upon the value), whereas leader virtues are sustained only by practice (i.e., a person has certain virtue only if he/she practices the virtue; Ciulla, 2004). Distinguishing between leader virtues and other leader attributes also provides the conceptual foundation for studying the independent effects of leader

virtues on leader attitudes and behaviours, as well as of interactive effects of leader virtues with other leader attributes (e.g., personality, and personal values) on leadership ethics and effectiveness.

Furthermore, the current study has shed light on a new research direction; that is, to apply virtue ethics within the domain of leadership research. In the face of much criticism of method biases and application deficiencies inherent in much of current leadership ethics research (Bragues, 2008; Newton, 1992; Palanski & Yammarino, 2007; Shanahan & Hyman, 2003), scholars have called for applying virtues ethics in leadership research (see Flynn, 2008; Manz et al., 2008). I have responded to these calls by conceptualizing leader virtue drawing on commonalities between Aristotelian and Confucian perspectives on virtues, and by identifying six cardinal leader virtues (i.e., courage, temperance, justice, prudence, humanity, and truthfulness). Although Aristotelianism and Confucianism are considered two major schools of virtue ethics (Arjoon, 2000; Wang, 2006), Confucianism has been addressed sparsely in the leadership literature. For example, Bass and Steidlmeier (1999) suggested that transformational leaders demonstrate Confucian virtues of Ren (humanity) and Yi (righteousness). Ciulla (2004) argued that ethical leaders are characterized as the Confucian virtue of Shu (altruism). Zhang and Chua (2009) asserted that the ideal leader cultivates Confucian virtues to positively influence his/her followers. Thus, the current study is the first to apply both Confucianism and Aristotelianism to the empirical study of leader virtues. By doing so, the concept of leader virtue and the

six cardinal leader virtues proposed in this thesis, is likely applicable to both Western- and Eastern-based organizations.

5.2 Virtuous Leadership

I defined virtuous leadership as a leader-follower relationship in which a leader's situationally appropriate exemplification of virtues (e.g., courage, temperance, justice, prudence, humanity, and truthfulness) causes followers to (a) perceive their leader as virtuous, and then (b) learn and practice these behaviours modeled by the leader. In the current literature, three studies (Cameron & Caza, 2002; Margaret, 2003; Sarros et al., 2006) addressed virtuous leadership, but none of them provided a theoretically derived conceptualization of virtuous leadership. This thesis has addressed this limitation by defining the concept of virtuous leadership, which consists of three key components (i.e., leader virtues, leader virtuous behaviours, and their context for expression), as well as two underlying processes (i.e., a perceptual process in which followers perceive a leader to be virtuous based on the leader's actions, followed by modeling process, wherein followers change their behaviours to emulate their leader. Although there are a large number of leadership concepts discussed in the leadership literature (including the 47 prevailing leadership concepts reviewed in this thesis), the concept of virtuous leadership proposed here is unique in that it is centered on leader virtues and virtuous behaviours.

I have also advanced the leadership literature by proposing a virtues-based model of leadership explaining theoretical linkages among leader virtues, virtuous

behaviours, contexts that help define virtuous behaviours, virtuous leadership, and the effects of virtuous leadership on leaders and followers (i.e., leader/follower ethical behaviours, happiness and life satisfaction, leader effectiveness, and follower in-role and extra-role performance). Both the concept and the theoretical framework of virtuous leadership are important because they provide a solid theoretical foundation for future studies of virtuous leadership. Research can now explore the other underlying processes of virtuous leadership, investigate influences of virtuous leadership at the group- and organization-level, and examine potential theoretically compelling mediators/ moderators of the relationships between virtuous leadership and leader/follower attitudes and behaviours. An ongoing program of theory-driven empirical studies of virtuous leadership has tremendous potential to create a new school of leadership research, identifying the antecedents, consequences and underlying processes of virtuous leadership.

5.3 The Virtuous Leadership Questionnaire (VLQ-3)

A key contribution of the current study is the development and validation of the VLQ-3, an 18-item scale to assess virtuous leadership. Employing a theoretically-driven, multi-step approach as suggested by Hinkin (1998), the content, convergent, discriminant, and predictive validity of the VLQ-3 was established. The VLQ-3 follows three other attempts to measure leader virtues. The first scale relies on self assessments of one's personal beliefs about the virtuous qualities of business people (Shanahan & Hyman, 2003). The second is

the Values in Action Inventory of Strengths (VIA–IS) scale, a self-assessment instrument for measuring six virtues (i.e., wisdom and knowledge, courage, humanity, justice, temperance, and transcendence) as defined from 24 character strengths of people (Peterson & Seligman, 2004). The third is the Virtuous Leadership Scale (VLS), a self-assessment tool used to measure seven character attributes (i.e., humility, courage, humour, passion, wisdom, integrity and compassion) of Australian managers (Sarros et al., 2006). Compared with these three virtue scales, the VLQ-3 is unique in that it asks followers to rate their leaders on 18 behaviourally-based items tapping five cardinal leader virtues (i.e., courage, temperance, justice, prudence, and humanity). In other words, the VLQ-3 is the first scale for measuring virtuous leadership from a subordinate's perspective. A series of empirical studies of virtuous leadership can now be undertaken using the VLQ-3 to explore antecedents and consequents of virtuous leadership, and to examine the links between virtuous leadership and the other forms of leadership (e.g., transformational, and charismatic leadership). The findings from these studies can further contribute to developing a more complete theory of virtuous leadership.

An unexpected positive correlation was found between the VLQ-3 and personalized charismatic leadership (PCL). Because exercising virtuous leadership steers leaders away from exercising unethical behaviours, I expected virtuous leadership to relate negatively with personal charismatic leadership, which had been considered unethical (see Howell, 1988; Howell & Avolio, 1992;

Shamir et al., 1993). Accordingly, the VLQ-3 should correlate negatively with this PCL scale. However, some researchers have argued that personalized charismatic leaders may behave ethically when their organizations are facing crises (Fatt, 2000), or when their self interests are consistent with the collective interests of the group (Deluga, 2001). This may help explain the positive correlation between the VLQ-3 and the PCL scale since both are measuring the ethical face of leadership. Moreover, the positive correlation between the PCL and socialized charismatic leadership (SCL) found in the current study also runs contrary to expectations and previous empirical findings (Howell, 1988; Ligon et al., 2008; Popper, 2002). These positive relationships, both unexpected, add to an on-going debate in the literature on charismatic leadership; that is, whether or not the conceptual distinctions between personalized and socialized charismatic leadership are clear-cut (Brown et al, 2005; Deluga, 2001; Howell & Avolio, 1992). As suggested by the findings of the current study, leaders may exhibit socialized and personalized charismatic leadership simultaneously. Accordingly, the stark distinction between personalized and socialized charismatic leadership requires further examination, conceptually and empirically.

When examining the discriminant validity of the VLQ-3, a positive and higher than expected correlation was observed between the VLQ-3 and the SCL scale. The eight items of the SCL scale were written originally to measure two dimensions of transformational leadership, idealized influence and inspirational motivation (Brown & Trevino, 2006b; 2009). Idealized influence involves role

modeling (Bass, 1997), and transformational leaders can exemplify such virtues as courage, temperance, prudence, justice, and humanity to become role models for their followers (Bass, 1990a; Bass & Steidlmeier, 1999). Providing meaning and challenge to followers' work inspires them (Bass & Riggio, 2006). Virtues have considerable moral meaning, enhancing self-knowledge and knowledge of what is "good" (MacIntyre, 1984) and they provide a socially desirable means to achieving high levels of happiness and life satisfaction (Arjoon, 2000; Flynn, 2008). By practicing and promoting virtues, transformational leaders can enhance the moral meaning of followers' work and thereby increase followers' inspirational motivation. In summary, a leader's virtuous behaviours are fundamental to idealized influence and inspirational motivation. This may accordingly explain the high positive correlation between the VLQ-3 (measuring five leader virtues) and the SCL scale (measuring idealized influence and inspirational motivation). Results from the current research provide further support for the positive association between behaviours expressive of transformational leadership and virtues (especially behaviours related to idealized influence and inspirational motivation). Research should continue to explore these associations.

5.4 Ethical Leader/Follower

Positive associations were observed between leader ethical behaviours and virtuous leadership as measured by the VLQ-3. Researchers of ethical leadership have commonly agreed that a leader's personal character accounts for his/her

ethical behaviours (Bass & Steidlmeier, 1999; Fry & Slocum, 2008). Meanwhile, an increasing number of researchers have discussed key roles of the "good" character in guiding ethical leadership behaviours; whereas only a few of them addressed how the "good" character of ethical leaders is formed and how it influences ethical leadership behaviours. For example, Treviño et al. (2000) suggested that such personal traits as honesty, trustworthiness and integrity underlie the character of ethical leaders. Hart (2001) argued that moral virtues are essential to the development of the "good" character of leaders. Thus, the current study enriches the literature on ethical leadership by addressing the two questions noted above; that is, leader virtues, as positive character traits (Hartman, 1998), make up the "good" character of ethical leaders, and dispose leaders to behaving ethically (Hart, 2001; Whetstone, 2001). The entire process can be described as: (i) a leader acquires virtues by continuously learning and practicing them until they become habitual; (ii) his/her character is then centralized around these virtues and thus becomes of "good character"; (iii) he/she takes ethical actions intentionally, consistently and for intrinsic reasons (consistency with his/her self-concept).

In the literature on ethical leadership, researchers have proposed many approaches (e.g., laws, regulations, checks and balances) to enhance leader ethical behaviours (Hanbury, 2004), but their effectiveness has received much criticism (Bragues, 2008). All of these approaches have one characteristic in common; that is, focusing solely on external forces (e.g., external rules and controls) for guiding

leader ethical behaviours. However, the virtues-oriented approach tested in the current study puts more emphasis on the leader, relying on leader's cultivating virtues into developing "good" character; and attributing the behavioural expression of virtues to internal motivational forces. Alternatively stated, leaders act ethically mostly because they are virtuous, rather than for personal gain or because of externally imposed pressures. Future research should employ multiple research designs (e.g., case study, experiment, survey, and meta-analysis) to investigate advantages of this virtues-oriented approach over other approaches to fostering ethical leadership.

A further contribution of the current study lies in showing associations between the five leader virtues (i.e., courage, temperance, prudence, justice, and humanity) and subordinates' perception of ethical leadership. In the research on ethical leadership, some individual virtues have been examined empirically. For example, Resick et al. (2006) found that integrity characterizes ethical leaders across cultures. Using a sample of 396 managers in India, Khuntia and Suar (2004) found that ethical leaders are characterized as patient, persistent, proud, and prudent. In another survey of 181 executives in Australia, Sarros and Santora (2001) found the positive relationships between leader self-assessments of benevolence and honesty and ethical leadership behaviours. However, I am the first to examine associations between the set of five cardinal virtues and subordinates' perceptions of ethical leadership. All five of these virtues are

cardinal in the sense that all other virtues are closely tied to them (Arjoon, 2000). They are also applicable to both Western- and Eastern-based organizations.

This study also found positive relationships between virtuous leadership and supervisor-rated ethical behaviours of followers. In the literature no study has investigated empirically the relationships between virtuous leadership and follower attitudes and/or behaviours. Thus, I am the first to show perceived virtuous leadership by followers predicted supervisor ratings of follower ethical behaviours. The strength of the findings reported here lies in not relying on self-reported assessments of either virtuous leadership (i.e., obtaining subordinates' ratings) or follower ethical behaviours (i.e., obtaining supervisors' ratings), thereby avoiding common method bias. These findings are also important because they imply that, by exercising virtuous leadership, both leaders and their followers will behave ethically. Research should continue to explore the underlying processes by which virtuous leadership influences follower ethical behaviours.

5.5 Leader/Follower Happiness and Life Satisfaction

Positive organizational behaviour (POB) scholars (e.g., Luthans, 2002; Luthans & Avolio, 2009; Seligman et al., 2005) have highlighted the importance of studying individual happiness and life satisfaction and called for more research linking leadership to these two constructs. The current study responds to these calls in developing and testing a model in which subordinate rated virtuous leader behaviours predict perceptions of virtuous leadership by subordinates, which further positively predict individual happiness and life satisfaction of both

leader and follower.

Although virtue ethicists have argued that practicing virtues helps people achieve the greatest happiness (Flynn, 2008; Hanbury, 2004; MacIntyre, 1984), the POB literature has focused predominantly on personal traits and/or contextual factors (other than personal virtuous behaviours) as antecedents to personal happiness and life satisfaction, including: cognitive abilities (Spielberger et al., 1995), personality traits (DeNeve & Cooper, 1998), personal values (Georgellis et al., 2009), cultural capital (Kim & Kim, 2009), character strengths[5] (Peterson et al., 2005), income, working conditions, and job design (Diener et al., 1999; Ledford, 1999). The current study therefore uniquely adds to this literature in showing that leader self-reported happiness and life satisfaction is positively predicted by subordinate perceptions of leader behavioural expression of courage, temperance, prudence, justice and humanity. These findings are important because they imply that one's behaviours (other than personal traits and contextual factors) can affect one's own happiness and life satisfaction. Research should continue to explore how these effects occur.

In the literature some personal traits and behaviours of leaders have also been linked to their followers' happiness and life satisfaction. For example, Ilies et al. (2005) discussed theoretically the links between four components of

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[5] Peterson and Seligman (2004, p.13) defined character strengths as "the psychological ingredients– processes or mechanisms– that define the virtues", which are distinguishable from my concept of leader virtues. I defined leader virtues as the character traits that are acquired through learning and continuous practice and demonstrated through voluntary actions undertaken in specific situations. The voluntary actions that are expressive of leader virtues are further used for follower perceptions of virtuous leadership.

authentic leadership (i.e., leader self-awareness, relational orientation, authentic behaviours, and unbiased processing of self-relevant information) and follower happiness and life satisfaction. Fairholm and Fairholm (2009) argued that spiritual leaders enhance follower happiness by promoting spirituality (which is defined as the source of personal meaning, values, and/or life purposes) among their followers. However, the current study is the first to show that follower perceptions of leader virtuousness (comprised of a composite of the five cardinal leader virtues) predicted follower self-reported happiness and life satisfaction. The findings reported here suggest that leader practising virtues can be an effective means of enhancing follower happiness and life satisfaction.

In addition, the findings of the current study are consistent with a social learning theory explanation of why virtue behaviours of leaders should positively predict subordinates' personal happiness and life satisfaction. Specifically, subordinates who model the virtuous behaviours of their leader are likely to experience happiness and life satisfaction. These affective states result from modeling behaviours that satisfy internal needs (i.e., understanding oneself and developing the moral capacities to live and work well; Whetstone, 2001) and that help fulfill personal goals (Diener et al., 1999). Future research could explore potential moderators/ mediators of the relationships between leader virtuous behaviours and follower happiness and life satisfaction. Such moderators/ mediators might include those personal attributes that researchers have found to influence personal happiness and life satisfaction, such as: follower cognitive

abilities (Spielberger et al., 1995), personality traits (DeNeve & Cooper, 1998), personal values (Georgellis, et al., 2009), and cultural capital (Kim & Kim, 2009).

5.6 Leader Effectiveness, Follower In-Role and Extra-Role Performance

In this study, virtuous leadership positively predicted follower perceptions of leader effectiveness. Accordingly, this study adds to other established predictors of leader effectiveness, which include ethical leadership (Brown et al., 2005), servant leadership (Dennis & Winston, 2003), spiritual leadership (Reave, 2005), charismatic leadership (De Hoogh et al., 2004), and transformational and transactional leadership (Lowe et al., 1996). My contribution here lies in linking leader behaviours that exemplify each of the five cardinal virtues (courage, temperance, prudence, justice and humanity) to subordinates' ratings of leader effectiveness.

Because the above five cardinal virtues, as positive character traits, form the "good" character of leaders (Hartman, 1998), the findings of the current study further imply that a leader's positive character associates positively with his/her leadership effectiveness as perceived by followers. Though researchers (e.g., Barlow et al., 2003; Bragues, 2008; Sanders et al., 2003) have highlighted the important roles of leader character in leadership effectiveness, the research of leader character as a predictor of effective leadership is scanty (Sarros et al., 2006). One exception is a study reported by Peterson and Nansook (2006), which found the personal character of love (i.e., love of people) predicts one's accomplishment as a leader. Thus, the unique contribution of the current study

lies in showing that a leader characterized as virtuous (which is perceived by followers based on the leader's behavioural expression of the five cardinal virtues of courage, temperance, prudence, justice, and humanity) is perceived effective by his/her followers. Moreover, I suggested three routes by which leader virtues are likely to positively influence follower perceptions of leadership effectiveness; that is, increasing his/her referent power (Durand, 2008) and the proper exercise of that power (Kouzes & Posner, 2003), enhancing idealized influence on followers (Bass & Riggio, 2006), and enhancing the inspirational motivation of followers (Bass & Steidlmeier, 1999). Research can now explore a theoretical framework to explain how a leader's positive character (which is centralized on virtues) influences his/her effectiveness.

One aspect of leader effectiveness is the extent to which leaders can enhance the performance (in-role and extra-role) of their followers (Bass, 1990b; Podsakoff et al., 1996; Yukl, 2010). There is considerable research evidence on the effects of a variety of leader traits and/or behaviours on follower in-role and extra-role performance (see Bass & Avolio, 1994, and Yukl, 2010 for the comprehensive review). However, the current study is the first to show the positive associations between follower perceptions of leader virtuousness and leader perceptions of follower in-role and extra-role performance. These findings reported here do not rely on self-reported assessments of leader virtuousness and of follower performance, thereby avoiding common method bias.

In addition, the literature on in-role and extra-role performance has focused predominantly on examining which leader behaviours influence follower performance and how. For example, House (1977) argued theoretically that charismatic leaders promote an appealing mission and values that have ideological significance for followers, which in turn enhances follower motivation and performance. The lab study of Howell and Frost (1989) provided support for House's theoretical work. MacKenzie et al. (2001) found that transformational leaders clarify role requirements for followers and build up leader-follower mutual trust so as to increase follower in-role and extra-role performance, which is also consistent with the theoretical framework proposed by Bass (1985). However, no study in the literature has investigated what character traits dispose leaders to engage in those behaviours that are likely to enhance follower in-role and extra-role performance. Thus, the findings of the current study are important because they imply that the five cardinal virtues (i.e., courage, temperance, prudence, justice, and humanity) are the character traits that dispose leaders to behave in ways that enhance their followers' performance. By practising these cardinal virtues, leaders instil a sense of meaning into their followers' work (Bass & Riggio, 2006), and show support for their followers (MacIntyre, 1984; Shanock & Eisenberger, 2006). This, in turn, increases follower inspirational motivation and perception of organizational support, and further enhances follower in-role and extra-role performance. Future research should explore other theoretical

explanations for the links between leader virtues/character traits and follower performance.

5.7 Implications for Practice

Behaviours by leaders that exemplify the five cardinal virtues of courage, temperance, prudence, justice, and humanity positively predict a number of important leader and follower outcomes as shown in Figure 3.1. These findings have direct implications for leadership practices in organizations.

First, highly publicized business and political scandals have raised considerable public concern over leadership ethics. Also, current approaches, such as laws, regulations, checks and balances, have failed to control the wrongdoings of business and political leaders (Bragues, 2008). Accordingly, we need to explore new approaches to strengthen ethical leadership. For example, incorporating assessment of virtues in leadership selection practices, augmented by virtue development workshops for leaders could prove effective. Further, assessment of leader virtues should be incorporated into leader performance evaluations; and educational programs to our leaders of tomorrow (e.g. the M.B.A.) should incorporate virtues into their curriculum. The central role of virtues in organizational cultures can be emphasized through code of conduct policies and mission value statements. All of these actions hold considerable promise for enhancing leaders' ethical behaviours, and for rebuilding public confidence with current leadership in both business and public administration.

Second, although leadership scholars have come to agree that effective and ethical leadership can coexist (Dickson et al., 2001; Treviño et al., 2003; Rhode, 2006), the actual application of leadership concepts in organizational practice is not convincing. The findings from the current study suggest a morally upright form of leadership, virtuous leadership, which is built through displays of behaviour that exemplify each of the five cardinal values identified here. They further suggest that leader effectiveness need not come at the expense of leader ethics, or vice versa; the two can work in harmony. Also, the findings suggest that the behavioural display of virtues by leaders is also beneficial to the overall well-being of leader and follower, in terms of personal happiness and life satisfaction.

5.8 Research Limitations

Overall, the current study has four main limitations.

First, this thesis has focused on the development of the concept of virtuous leadership. I provided theoretical arguments for the effects of virtuous leadership on leaders and their followers, but these arguments themselves are incomplete insofar as offering a theory of virtuous leadership. A more complete theory of virtuous leadership than offered here is called for, one that elaborates in more detail other potential antecedents of leader virtuousness, and mediators and moderators of the relationship between leader virtuousness and individual and organizational outcomes.

Second, participants were sampled across a variety of industries in three major English-speaking countries (the United States, Canada, and the United

Kingdom).   The generalizability of these findings to non-English-speaking countries would be premature. At the same time, such a diverse sample involving major English speaking nations affords more generalizability than would be the case with having sampled from a single organization, which is typical of much of the empirical literature on leadership.

Third, the current research involved a cross-sectional design, which precludes definitive statements on causality. According to my concept of virtuous leadership, it takes time for a leader to be perceived as virtuous and as worthy to be modelled. Additional time is required for the role modelling to "kick in", and still more time for followers to experience the personal and career related benefits of this modelling. My research does not definitively address whether the behavioural expression of leader virtues temporally precedes the individual and organizational level outcomes studied. For example, it may be that happy, life satisfied and ethical followers have a tendency to see their leader as behaving virtuously.

Fourth, I collected data on the independent variable (virtuous leadership) and four of the dependent variables (ethical leader, leader effectiveness, and follower happiness and life satisfaction) from one source (subordinates), which could generate common method bias (Podsakoff et al., 2003). However, the independent variable of virtuous leadership is an aggregate of the averaged subordinate ratings of the five leader virtues (i.e., courage, temperance, justice, prudence, and humanity) across different contexts. More specifically, the two

leader-referent dependent variables, ethical leader and leader effectiveness, were measured from subordinates' perceptions, while the other two follower-referent dependent variables, follower happiness and life satisfaction were assessed from the followers' perspective (self-report). Moreover, virtuous leadership was assessed by followers, and leaders assessed follower's in-role and extra-role behaviours. Accordingly, concerns over common method bias are diminished (Podsakoff et al., 2003; Spector, 2006).

5.9 Future Research Directions

In light of the study's findings as well as its limitations noted above, I offer eight directions for future research.

The first avenue for future research is to enrich the theoretical foundation of the concept of virtuous leadership. Social identity theory proposes that an individual's self-concept is composed of multiple identities, and each identity can serve as a self regulatory mechanism that motivates individual behaviour (Skarlicki et al., 2008; Tajfel & Turner, 1979). As one of the identities comprising an individual's social identity, moral identity is organized around a set of moral traits and acts as a social-psychological motivator of one's ethical conduct (Aquino & Reed, 2002). Blasi (2005) and Weaver (2006) suggested that virtues provide people with moral meaning, with respect to what defines a moral person, including attitudes and actions, and are therefore likely to comprise an important part of a leader's moral identity. Thus, leaders/ followers center their moral identity on a set of virtues, and then build their moral identity to become a more

salient component of self identity. This in turn provides the motivational underpinning of one's ethical actions; such actions serve to maintain and affirm this salient identity. Future research should delve more deeply into the viability of these social-cognitive processes in explaining this study's findings.

The second avenue for future research is to study the incremental validity of leader virtues for predicting leader ethical behaviours, happiness, and effectiveness. This thesis has distinguished conceptually leader virtues from the other three leader attributes of personalities, values, and competencies. In the literature, there is empirical evidence to support the links of leader personalities, values, and competencies with leader ethical behaviours (Ford & Richardson, 1994; Hood, 2003), with leader happiness (DeNeve & Cooper, 1998; Emmons & Diener, 1985; Georgellis et al., 2009), and with leader effectiveness (Jung & Avolio, 2000; Ross & Offermann, 1997; Wofford et al., 1998). Thus, it may be valuable for future research to examine the incremental validity of leader virtues over the other three leader traits for predicting leader ethical behaviours, happiness, and effectiveness. Such research findings could also help justify the conceptual distinctions between leader virtues and the other three leader traits.

The third avenue for future research is to identify and examine empirically potential mediators/moderators of the effects of virtuous leadership on leaders and followers. This thesis has addressed four variables (age, gender, education, and relationship tenure) that are likely to influence the perception of ethical behaviours (Brown et al., 2005; Detert et al., 2007) and of effectiveness (Elliot &

McGregor, 2001; Parker et al., 2009), and to influence self-assessments of happiness and life satisfaction (Becchetti et al., 2008; Kim & Kim, 2009). All of these variables were controlled for the primary study. However, some other factors could intervene with the effects of virtuous leadership on leaders and followers. For example, when developing my hypotheses, I argued that virtues are likely to positively influence leadership effectiveness through: (i) increasing his/her referent power (Arjoon, 2000; Durand, 2008) and the proper exercise of that power (Bass & Steidlmeier, 1999; Kouzes & Posner, 2003), (ii) enhancing idealized influence on followers (Bass & Riggio, 2006), and (iii) enhancing the inspirational motivation of followers (Bass & Steidlmeier, 1999). I also argued that virtuous leaders can enhance follower in-role and extra-role performance by enhancing follower inspirational motivation (Avolio et al., 2004; Bass, 1985; Bass & Riggio, 2006) and by increasing follower perception of organizational support (Diener et al., 1999; MacIntyre, 1984; Shanock & Eisenberger, 2006). Thus, it is theoretically reasonable to expect that a leader's referent power, exercising power, idealized influence, and inspirational motivation could positively moderate/mediate the effects of virtuous leadership on leader effectiveness, and that a follower's inspirational motivation and perception of organizational support could positively moderate/ mediate the effects of virtuous leadership on follower in-role and extra-role performance. I also noted earlier that some personal traits of

followers (e.g., character strengths, Big-Five personality traits [6], cognitive abilities, personal values, and cultural capital) might positively moderate/ mediate the relationships of leader virtuous behaviours with follower happiness and life satisfaction, and/or follower in-role and extra-role performance. Thus, future studies of virtuous leadership should examine these and other potential positive mediators and moderators of the effects of leader virtuousness on individual and organizational outcomes.

The fourth avenue for future research is to use other methods to collect data on ethical leader and effectiveness, and on follower happiness and life satisfaction, to limit the common method bias. For example, a scenario-based self assessment tool (the Defining Issues Test, Rest, 1979) has been used to measure leader ethical behaviours (Gaertner, 1991; Schminke et al., 2005). A diagram-based self assessment tool (Larsen et al., 1985) and the experience sampling method (Csikszentmihalyi & Hunter, 2003) have been used to measure personal happiness. In the leadership literature, leader effectiveness was also assessed by a number of objective measures, such as: organizational profits, revenue, and productivity (Howell et al., 2005), growth rate in sales (Ensley et al., 2006), follower performance ratings (Bass et al., 2003) and turnover rate (Kleinman, 2004). In summary, all these assessment tools/methods and objective measures could be used in future research of the effects of virtuous leadership. In a field study, for example, leaders can be asked to fill the Defining Issues Test (Rest,

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[6] Big-Five personality traits consist of extraversion, agreeableness, conscientiousness, neuroticism, and openness.

1979) for assessing their ethical leadership, and to complete the diagram-based self assessment (Larsen et al., 1985) for measuring their own happiness. Another alternative of assessing leader happiness is to use the experience sampling method; that is, asking these leaders to write down their daily activities and then identifying from among these activities the ones that are associated with varying degrees of happiness (see Csikszentmihalyi & Hunter, 2003 for an explanation of the experience sampling method). Leader effectiveness is assessed by objective measures (e.g., their organizations' profits, revenue, and productivity). At the same time, followers can be asked to complete the VLQ-3 to assess leader virtuous leadership so as to eliminate the common method bias.

The fifth potential avenue for future research is to study virtuous leadership using a multi-level approach. This thesis examined nine individual-level effects of virtuous leadership conceptually and empirically. However, positive psychological behaviour scholars (e.g., Cameron et al., 2004; Luthans, 2002; Peterson & Seligman, 2004) have discussed the positive effects of virtues on the group and on the organization. Thus, it is reasonable to expect that virtuous leadership, which is conceptualized in terms of leader virtues, will influence positively group and/or organizational ethics, well being, and effectiveness. Starting from the theoretical framework of virtuous leadership proposed in this thesis, future research could investigate how virtuous leadership influences positively group well-beings and performance, as well as organizational ethics (measured by the Corporate Social Responsibility; Victor & Cullen, 1988), and

organizational effectiveness (measured by such objective measures as profits, revenue, and productivity).

The sixth avenue for future research is to include more scales for studying the convergent and discriminant validity of the VLQ-3. Peterson and Seligman (2004) developed and validated a 240-item self-report scale to measure twenty-four character strengths of people around the six virtues of wisdom and knowledge, courage, humanity, justice, temperance, and transcendence. Shanahan and Hyman (2003) developed a 45-item self-report scale to measure the six virtuous qualities of empathy, incorruptibility, piety, protestant work ethic, reliability, and respect. The VLQ-3 measures five cardinal virtues, which are fundamental in the sense that all other virtues are closely related to them (Arjoon, 2000), including those virtues assessed by the above two scales. Thus, there could be positive correlations between the VLQ-3 and these two scales. In the leadership literature, two leadership concepts (destructive leadership and directive leadership) have been linked to unethical leadership behaviours, and authentic leadership has been considered ethical and effective. I would expect negative correlations between the VLQ-3 and the Destructive Leadership Scale (Ashforth, 1994) and the Directive Leadership Scale (Hansen & Villadsen, 2010). Moreover, I would expect positive correlations of the VLQ-3 with the Authentic Leadership Questionnaire (Walumbwa et al., 2008). In short, further data supporting the convergent and discriminant validity of the VLQ-3 are required.

The seventh avenue for future research is to extend the predictive validation to other populations of employees. For example, although I have argued here that all five leader virtues used to measure virtuous leadership are cardinal and could be studied in multi-cultural settings, some scholars (Hursthourse, 2007; Mele, 2005) have suggested that virtues are culturally dependent. Thus, future research should recruit diverse cultural samples (e.g., Chinese, Indian, Egyptian, Russian, American, South African, etc.), and examine whether the predictive power of virtuous leadership over leader/follower ethics, happiness and life satisfaction, and effectiveness are generalizable cross-culturally. Moreover, future research should recruit another sample of employees with multicultural backgrounds from a large organization, and ask these employees to evaluate the same leader (e.g., the CEO) using the VLQ-3 to identify whether employees with different cultural backgrounds rate this leader differently. The Global Leadership and Organizational Behaviour Effectiveness Research Project (GLOBE; De Luque & Javidan, 2004; Kabasakal & Bodur, 2004) has found that people in eastern countries (e.g., China, Japan, and South Korea) considered humanity a more important attribute, and courage a less important attribute, of an effective leader than did people from western countries (e.g., Germany, the U.K. and the U.S.). Thus, I would expect higher correlations between humanity and leader effectiveness but lower correlations between courage and leadership effectiveness as rated by employees with eastern cultural backgrounds than by those with western cultural backgrounds. In addition, using

the above two samples, the truthfulness items can be tested again to verify whether they can be discriminated from those items for the other leader virtues.

The eighth avenue for future research is to conduct a longitudinal study to test how perceived virtuous leadership by followers varies over time. I have argued that leader virtues are acquired through a habituation process; that is, to acquire virtues, people must continuously practice them from early youth until they are developed into habits; whereas people will lose an acquired virtue if they stop practicing it for some time. In short, both acquiring and losing a virtue will take time. Once a leader has acquired a virtue, he/she will display this virtue voluntarily and such voluntary actions, over time, will affect others' perceptions of that leader's virtuousness. Thus, the perception of a leader as virtuous could change with time due to this habituation process. Future research should justify this temporal feature of virtuous leadership empirically.

5.10 Conclusions

A leader acquires virtues through learning and continuous practice and demonstrates them through voluntary actions undertaken in specific situations. By exemplifying the five cardinal virtues of courage, temperance, justice, prudence, and humanity, a leader is perceived as virtuous and ethical by followers, achieves high levels of happiness and life satisfaction, and demonstrates effective leadership. By learning and practicing those behaviours modeled by the leader, followers also behave ethically, experience happiness and life satisfaction, and enhance in-role and extra-role performance. Drawing on the

conceptual and empirical evidence from this thesis, virtuous leadership represents a morally upright form of leadership in which effective and ethical leadership can coexist.

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Table 2.1 Some Key Concepts in the Ethics Research

Concepts	Definitions
Ethics versus Morality (Boyle et al., 2001; Aronson, 2001; Cameron & Caza, 2002; Ciulla, 2004; Storr, 2004; Bunnin & Yu, 2004; Rhode, 2006)	Ethics in English is a general term that translates the Greek word ethikos; morality in English is a transliteration of Latin moralis, which is translated from the Greek word ethikos. Thus, etymologically ethics and morality mean the same thing. In current ethical research, the terms ethics and morality are commonly used interchangeably. However, some philosophers and ethics scholars attempt to distinguish ethics from morality, and their thoughts are summarized as follows. **Ethics** is a general guide to behaviours that an individual adopts as his own guide to life. Ethics concerns about social values, and the criteria upon which ethical judgments should be based. Ethics is often defined as a code that acts as a guide to conduct. The research in ethics mainly answers the following questions what is my obligation, and how harm can be avoid. In addition, the word of ethics is commonly used by philosophers when discussing the study of morality. **Morality** is a code of conduct put forward by a society, a religion, or all rational persons for governing the behaviour of all people. Morality concerns about personal values, the effects of actions on other people. The research in morality mainly answers the following questions what is right and what is moral. In addition, the word of morality is commonly used by philosophers when discussing general principles of right and wrong.
Moral Reasoning (Bandura, 1991; Sivanathan & Fekken, 2002)	**Moral reasoning** is one's conceptual and analytical ability to frame socio-moral problems using one's standards and values in order to make moral judgment of the proper course of action. Moral reasoning involves interpreting available information in moral predicaments against personal standards and situational circumstances for evaluating the rightness or wrongness of conduct.
Moral Judgment (MacIntyre, 1984; Mele, 2005)	**Moral judgment** is one's capacity to judge which alternatives are ethically acceptable and which are not and to determine the uprightness of the intention. Moral judgment is one of two forms of evaluative judgments that are the expression of preference and the expression of attitude or feeling. Moral judgments are neither true nor false, and the agreement in moral judgment is to be secured not by any rational method but by certain non-rational effects on the emotions or attitudes of those who disagree with one.
Moral Development (Kohlberg, 1976; Rest, 1976; Turner et al., 2002)	**Moral development** is successive transformations of personal moral judgment, which reflects the change of personal concerns about moral rules, duty, role, motives, conscience, the welfare of others and self, and a broader conception of fairness. Moral development explains how people think (or reason) about interacting with their social environment.
Morally Right (MacIntyre, 1984; Fry &Slocum, 2008)	**Morally right** means something that is considered right based on generally accepted societal values, or universal rules or principles.
Excellence (Hart, 2001)	**Excellence** is the end of the cultivation of virtues, i.e., the continuous cultivation of virtues leads to excellence in those areas essential for living a good life.

Table 2.1 Some Key Concepts in the Ethics Research (Con't)

Concepts	Definitions
Common Good (Arjoon, 2000)	**Common good** means the good of the individual human person and human family. It is an order of rights and duties based on justice, and a social situation in which every person in society have maximum opportunities to develop himself/herself to the full (materially, culturally, spiritually, etc.)

Table 2.2 Individual Aristotelian and Confucian Virtues

Individual Virtues	

Aristotelian Virtues	*Moral Virtues:* **Cardinal** – Courage, Temperance, and Justice **Ordinary** – Generosity, Magnificence, Magnanimity, Mildness, Truthfulness, Wit, Friendliness, Prone to Shame, Proper Indignation, and One Nameless Virtue (dealing with small honor) *Intellectual Virtues:* **Cardinal** – Prudence **Ordinary** – Wisdom
Confucian Virtues	*Moral Virtues:* **Cardinal** – Ren (humanity) , Yi (rightousness), Li (the rituals), Zhi (wisdom), and Xin (truthfulness) **Corresponding** – Ca (perception), Cheng (honesty), Cheng (sincerity), Ci (loving), Du (devotion), Fang (four-squareness), Gang (staunchness), Gong (respectfulness), Guang (broad-mindedness), Gui (dignity), He (harmoniousness), Hui (beneficence), Jin (self-exteem), Jing (reverence), Jue (resoluteness), Kezhi (restraint), Kuan (lenience), Li (courtesy), Li (discretion in speech), Liang (benevolence), Min (briskness in action), Mu (simplicity), Na (reticence), Jian (frugality), Qian (humility), Qin (industry), Quan (expediency), Rang (deference), Shan (kindness), Shen (discreetness), Shu (like-hearted considerateness), Shun (compliance), Tai (self-possession), Ti (brotherly obedience), Wei (awesome), Wen (gentleness), Wen (refinement), Xiao (filial piety), Yi (stamina/constancy), Yong (courage), Yu (desirousness), Zhe (principledness), Zheng (firmly upright), Zhi (straightforwardness), Zhizhong (gravity), and Zhong (wholehearted sincerity/loyalty)

Table 2.3 Overlap between Aristotelian and Confucian Cardinal Virtues [a]

Aristotelian Virtues	Confucian Virtues							
	Ren (humanity)	**Yi (righteousness)**	**Li (the rituals)**	**Zhi (wisdom)**	**Xin (truthfulness)**	**Yong (courage)**	**Zhongyong (moderation)**	**All Relevant Virtues**
Courage	x	x	x			xx		Yong (courage); Ren (humanity); Yi (righteousness); Li (the rituals)
Temperance							xx	Zhongyong (moderation)
Justice		xx						Yi (righteousness)
Prudence	x			xx				Zhi (wisdom); Ren (humanity)
Truthfulness					xx			Xin (truthfulness)
Friendliness	xx							Ren (humanity)
Generosity		xx						Yi (righteousness)
Magnificence		xx						Yi (righteousness)
Mildness		x				x		Yi (righteousness); Yong (courage)
Proper Indignation							xx	Zhongyong (moderation)
Prone to Shame		x						Yi (righteousness)
Wisdom	x			xx				Zhi (wisdom); Ren (humanity)
Magnanimity								None
Nameless (Small Honour)								None
Wittiness								None

[a] "xx" means a high degree of overlap; "x" means some degree of overlap.

Table 2.4 One Hundred and Eight Professional Virtues

Professional Virtues		
Ability	Diligence	Obedience
Acceptance	Discipline	Openness
Agreeableness	Dissemination of Economic Information	Passion
Ambition	Eloquence	Patience
Amiability	Empathy	Perseverance/Persistence
Articulateness	Enthusiasm	Practical Judgment
Attentiveness	Entrepreneurship	Practical Wisdom
Autonomy	Equity	Pride
Benevolence	Faith/Faithfulness	Professional Will
Caring	Fidelity	Prudence
Caution	Friendliness	Reasonableness
Charisma	Generosity	Reliability
Charitableness	Gracefulness	Resourcefulness
Cheerfulness	Graciousness	Respect
Civility	Gratitude	Responsibility/Duty/ Accountability
Cleanliness	Greatness of Mind	Reverence
Commitment to Justice	Helpfulness	Saintliness
Compassion	Heroism	Self-Control
Competence	Honesty	Self-Effacement
Competitiveness	Honour/Pride	Self-Sacrifice
Concern for Others	Hopefulness	Service to the Common Good
Confidentiality	Hospitality	Shame
Conflict Avoidance	Humility	Sociability
Consciousness	Humour	Spirit/Spirituality
Consideration	Independence	Style
Consistency	Integrity	Tactfulness
Contentment	Justice/Fairness	Temperance
Cool-Headedness	Kindness	Tolerance
Cooperativeness	Legality	Toughness
Courage	Liberality	Trustworthiness/Trust
Creativity	Liveliness	Truthfulness
Decency	Love	Value Sensitivity
Decisiveness	Loyalty	Warmth
Dedication	Magnanimity	Wisdom
Dependability	Magnificence	Wittiness
Determination	Modesty	Zeal

Table 2.5 Sixty-Two Individual Virtues Discussed in Seven Leadership Paradigms [a]

Virtues	Moral Leadership	Ethical Leadership	Spiritual Leadership	Servant Leadership	Charismatic Leadership	Transformational Leadership	Visionary Leadership
Ability				Greenleaf (2002)			
Acceptance				*Sendjaya et al. (2008)*			
Ambition							Kouzes & Posner (2002)
Autonomy							Bennis (2003)
Benevolence				Welchman (1999)		Bass & Steidlmeier (1999); Sarros & Santora (2001); *Bass (1985)*	
Caring	*Walker et al. (2007)*	*Ciulla (2004)*	Korac-Kakabadse et al. (2002); *Reave (2005); Fairholm & Fairholm (2009)*	*Zauderer (2006)*	*Howell (1988)*	*Sashkin (2004)*	Kouzes & Posner (2002); *Sashkin (2004)*
Charisma					Conger et al. (2000)	Bass & Avolio (1993)	Sashkin (2004)
Cleanliness		Bragues (2008)					
Compassion	Sison (2003)	De Hoogh & Den Hartog (2008)	Korac-Kakabadse et al. (2002); Fry & Slocum (2008); *Reave (2005)*	Greenleaf (2002)	Sankar (2003)		*Kouzes & Posner (2002)*
Competence	Haraway & Kunselman (2006)						Bennis (2003)

[a] Those references in italics have studied virtues as behavioural constructs; the others have treated virtues as character traits.

155

Table 2.5 Sixty-Two Individual Virtues Discussed in Seven Leadership Paradigms (Con't) [a]

Virtues	Moral Leadership	Ethical Leadership	Spiritual Leadership	Servant Leadership	Charismatic Leadership	Transformational Leadership	Visionary Leadership
Concern For Others		De Hoogh & Den Hartog (2008)	*Reave (2005)*	Greenleaf (2002)	*Howell (1988); Conger & Kanungo (1998)*		
Consciousness		De Hoogh & Den Hartog (2008)					
Consideration						*Sashkin (2004)*	
Consistency					Bryman (1992)		
Cooperativeness							Kouzes & Posner (2002)
Courage/ Fortitude	Walton (1988); Hanson (2006); Haraway & Kunselman (2006)	Khuntia & Suar (2004); Treviño et al. (2003); Brown (2007); Nash (1990); Spangenberg & Theron (2005)	Sanders et al. (2003); Whittington et al. (2005); Johnson (2007)	Melrose (1998); Greenleaf (2002)	Howell & Avolio (1992; 1995); Sankar (2003); House & Shamir (1993); Kanungo & Mendonca (1996)	*Burns (1978); Bass (1990a; 1997)*	Bennis & Nanus (1985); Kouzes & Posner (2002)
Creativity					House & Shamir (1993); Gardner & Avolio (1998)	Bass & Steidlmeier (1999)	Bennis (1997)
Dedication							Bennis (*1990*; 1997)
Dependability		De Hoogh & Den Hartog (2008)		Greenleaf (2002)			Kouzes & Posner (2002)
Determination		Khuntia & Suar (2004)				Burns (1978); Bass (1990a; 1997)	Kouzes & Posner (2002)

[a] Those references in italics have studied virtues as behavioural constructs; the others have treated virtues as character traits.

Table 2.5 Sixty-Two Individual Virtues Discussed in Seven Leadership Paradigms (Con't) [a]

Virtues	Moral Leadership	Ethical Leadership	Spiritual Leadership	Servant Leadership	Charismatic Leadership	Transformational Leadership	Visionary Leadership
Discipline				Greenleaf (2002); *Batten (1998)*	*Howell (1988); Conger & Kanungo (1998); Conger et al. (2000)*		Bennis & Nanus (1985)
Empathy		Nash (1990)		Greenleaf (2002); Spears (1998)	*Oberg (1972); Nadler & Tushman (1990)*		Bennis (2003)
Enthusiasm		Khuntia & Suar (2004)					Kouzes & Posner (2002)
Equity				Williams & Gilchrist (2004); *Sendjaya et al. (2008)*		*Bass (1985)*	
Faithfulness/ Faith/Loyalty	*McCoy (2007)*	*Neubert et al. (2009)*	Fry (2003); Sanders et al. (2003)				
Fidelity		*Murphy & Enderle (1995)*	Fairholm & Fairholm (2009)				Bennis (1997)
Forgiveness			Fry & Slocum (2008)	Sarayrah (2004)			
Friendliness						Bass (1985)	
Generosity				Sarayrah (2004)			

[a] Those references in italics have studied virtues as behavioural constructs; the others have treated virtues as character traits.

Table 2.5 Sixty-Two Individual Virtues Discussed in Seven Leadership Paradigms (Con't) [a]

Virtues	Moral Leadership	Ethical Leadership	Spiritual Leadership	Servant Leadership	Charismatic Leadership	Transformational Leadership	Visionary Leadership
Honesty	*Sison (2003); Walker et al. (2007)*	*Treviño et al. (2000; 2003); Khuntia & Suar (2004); Brown & Treviño (2006a); Ciulla (2004); Spangenberg & Theron (2005); De Hoogh & Den Hartog (2008)*	Cavanagh & Bandsuch (2002); Reave (2005); Korac-Kakabadse et al. (2002)	Greenleaf (2002)	Bryman (1992)	Sarros & Santora (2001); Bass & Riggio (2006)	Kouzes & Posner (2002); Bennis (1990)
Honour				Mitchell & Scott (1987)			
Hope			Fry (2003); Sanders et al. (2003)				Bennis (2003)
Human-Heartedness						Bass & Steidlmeier (1999)	
Humility	Robinson (2009)	Khuntia & Suar (2004); Bragues (2008)	Korac-Kakabadse et al. (2002); Reave (2005)	Grahm (1991); Sarayrah (2004); *Zauderer (2006); Sendjaya et al. (2008)*			Bennis (1997)
Independence							Kouzes & Posner (2002)

[a] Those references in italics have studied virtues as behavioural constructs; the others have treated virtues as character traits.

Table 2.5 Sixty-Two Individual Virtues Discussed in Seven Leadership Paradigms (Con't) [a]

Virtues	Moral Leadership	Ethical Leadership	Spiritual Leadership	Servant Leadership	Charismatic Leadership	Transformational Leadership	Visionary Leadership
Integrity	Kouzes & Posner (2003)	Smith (1995); Treviño et al. (2000; 2003); Khuntia & Suar (2004); Resick et al. (2006); Keating et al. (2007); Nash (1990); Murphy & Enderle (1995); Storr (2004); Brown et al. (2005)	Cavanagh & Bandsuch (2002); Reave (2005); Whittington et al. (2005); Cardona (2000); Korac-Kakabadse et al. (2002);	Greenleaf (2002); Batten (1998); Sendjaya et al. (2008)	Howell & Avolio (1992; 1995); Sankar (2003); House & Shamir (1993); House (1995); Jacobsen & House (2001); Kanungo & Mendonca (1996); Kanungo (1998)	Parry & Proctor-Thomas (2002); Avolio et al. (2004); Bass & Riggio (2006)	Bennis (1990; 1997)
Justice/Fairness	Walton (1988); *Walker et al.* (2007)	Gonzalez & Guillen (2002); Klein (2002); Khuntia & Suar (2004); Bragues (2008); Murphy & Enderle (1995); Treviño et al. (2000; 2003); Ciulla (2004); De Hoogh & Den Hartog (2008); Neubert et al. (2009)	Sanders et al. (2003); Reave (2005); Fernando (2007)	Williams & Gilchrist (2004); Greenleaf (2002)	Howell & Avolio (1992; 1995); Howell (1988); Kanungo & Mendonca (1996); Kanungo (1998); Kets de Vries (1988)	Parry & Proctor-Thomas (2002)	Kouzes & Posner (2002)
Kindness				Williams & Gilchrist (2004)			

[a] Those references in italics have studied virtues as behavioural constructs; the others have treated virtues as character traits.

Table 2.5 Sixty-Two Individual Virtues Discussed in Seven Leadership Paradigms (Con't) [a]

Virtues	Moral Leadership	Ethical Leadership	Spiritual Leadership	Servant Leadership	Charismatic Leadership	Transformational Leadership	Visionary Leadership
Love	McCoy (2007)	Neubert et al. (2009)	Sanders et al. (2003); Fry & Slocum (2008)		Sankar (2003)	Bass & Steidlmeier (1999)	Kouzes & Posner (2002)
Loyalty		De Hoogh & Den Hartog (2008)	Cavanagh & Bandsuch (2002)	Welchman (1999)			Kouzes & Posner (2002)
Magnanimity							Bennis (*1990*; 1997)
Modesty				Sarayrah (2004)			
Openness							Bennis (*1990*; 1997)
Passion	McCoy (2007)						Bennis (2003); Kouzes & Posner (2002)
Patience		Khuntia & Suar (2004); Kanungo & Mendonca (1998)	Fry & Slocum (2008)	Sarayrah (2004); Melrose (1998)	Sankar (2003)		
Perseverance/ Persistence		Khuntia & Suar (2004); Kanungo & Mendonca (1998)	Whittington et al. (2005)	Melrose (1998)		Burns (1978); Bass (1990a; 1997)	Bennis & Nanus (1985)

[a] Those references in italics have studied virtues as behavioural constructs; the others have treated virtues as character traits.

Table 2.5 Sixty-Two Individual Virtues Discussed in Seven Leadership Paradigms (Con't) [a]

Virtues	Moral Leadership	Ethical Leadership	Spiritual Leadership	Servant Leadership	Charismatic Leadership	Transformational Leadership	Visionary Leadership
Pride		Khuntia & Suar (2004); Kanungo & Mendonca (1998)					
Prudence	Robinson (2009); Walton (1988); Jeannot (1989)	Klein (2002); Hanbury (2004); Khuntia & Suar (2004); Kanungo & Mendonca (1998)	Sanders et al. (2003)	Greenleaf (2002)	Kanungo & Mendonca (1996); Kanungo (1998)	Tichy & Devanna (1986)	Nanus (1992)
Reliability		De Hoogh & Den Hartog (2008)					Bennis & Nanus (1985)
Respect For Others	*Walker et al. (2007)*	Nash (1990); Ciulla (2004); Spangenberg & Theron (2005)	Reave (2005)	Williams & Gilchrist (2004)			
Responsibility/ Accountability/ Duty	Kouzes & Posner (2003); *Walker et al. (2007)*	Khuntia & Suar (2004)	Fry & Slocum (2008)	Mitchell & Scott (1987); Lore (1998); Sendjaya et al. (2008)	Sankar (2003)	Burns (1978)	Bennis & Nanus (1985)
Righteousness					Sankar (2003)	Bass & Steidlmeier (1999)	
Self-Sacrifice		Nash (1990)	Cardona (2000)	Greenleaf (2002)	House & Shamir (1993); Jacobsen & House (2001)	Bass & Avolio (1993)	Sashkin (2004)

[a] Those references in italics have studied virtues as behavioural constructs; the others have treated virtues as character traits.

Table 2.5 Sixty-Two Individual Virtues Discussed in Seven Leadership Paradigms (Con't) [a]

Virtues	Moral Leadership	Ethical Leadership	Spiritual Leadership	Servant Leadership	Charismatic Leadership	Transformational Leadership	Visionary Leadership
Sensitivity		*Spangenberg & Theron (2005)*	Korac-Kakabadse et al. (2002)				
Service To The Common Good				Russell & Stone (2002); *Sendjaya et al. (2008)*			
Spirit/Spirituality			Cavanagh & Bandsuch (2002)	Grahm (1991); *Sendjaya et al. (2008)*			
Temperance/ Moderation/ Self-Control	Walton (1988)	Bragues (2008); *Murphy & Enderle (1995); Neubert et al. (2009)*	Sanders et al. (2003)	Molyneaux (2003)	*Howell (1988); Kanungo & Mendonca (1996); Kanungo (1998)*	Burns (1978)	Kouzes & Posner (2002)
Tolerance		Khuntia & Suar (2004)	Fry & Slocum (2008)				
Toughness				Greenleaf (2002)			

[a] Those references in italics have studied virtues as behavioural constructs; the others have treated virtues as character traits.

Table 2.5 Sixty-Two Individual Virtues Discussed in Seven Leadership Paradigms (Con't) [a]

Virtues	Moral Leadership	Ethical Leadership	Spiritual Leadership	Servant Leadership	Charismatic Leadership	Transformational Leadership	Visionary Leadership
Trustworthiness	Sison (2003)	Hanbury (2004); Treviño et al. (2000; 2003); Brown & Treviño (2006a); *Murphy & Enderle (1995); De Hoogh & Den Hartog (2008)*	Cavanagh & Bandsuch (2002)	Mitchell & Scott (1987); Greenleaf (2002); *Melrose (1998); Sendjaya et al. (2008)*	House & Shamir (1993); Gardner & Avolio (1998); Sankar (2003)	Bass & Steidlmeier (1999)	Bennis & Nanus (1985); *Sashkin (2004)*
Truthfulness	Sison (2003)				Sankar (2003)		
Wisdom			Sanders et al. (2003); *Korac-Kakabadse et al. (2002)*	Greenleaf (2002); Barbuto & Wheeler (2006)		Bass & Steidlmeier (1999)	Bennis (2003)

[a] Those references in italics have studied virtues as behavioural constructs; the others have treated virtues as character traits.

Table 2.6 Aristotelian and Confucian Cardinal Virtues and Seven Leadership Paradigms

Aristotelian Virtues (Various Translations)	Moral Leadership	Ethical Leadership	Spiritual Leadership	Servant Leadership	Charismatic Leadership	Transformational Leadership	Visionary Leadership
Courage (Fortitude)	Courage/ Fortitude	Courage	Courage/ Fortitude	Courage	Courage/ Fortitude	Courage/ Fortitude	Courage
Justice (Fairness)	Justice/ Fairness	Justice/ Fairness	Justice/ Fairness	Justice/ Fairness	Justice/ Fairness	Justice	Fairness
Prudence (Practice Wisdom)	Prudence	Prudence/ Practical Wisdom	prudence	Prudence	Prudence	Prudence	Prudence
Temperance (Discipline/ Moderation/ Patience/Self-Control)	Temperance/ Patience	Temperance/ Moderation/ Patience	Temperance/ Patience	Temperance/ Discipline/ Patience/ Self-Control	Temperance/ Discipline/ Patience/ Self-Control	Temperance	Discipline/ Self-Control
Confucian Virtues (Various Translations)	**Moral Leadership**	**Ethical Leadership**	**Spiritual Leadership**	**Servant Leadership**	**Charismatic Leadership**	**Transformational Leadership**	**Visionary Leadership**
Ren (Humanity/ Benevolence/ Love/ Human-Heartedness)	Love	Love	Love	Benevolence	Love	Benevolence/ Love/ Human-heartedness	Love
Yi (Rightousness/ Fairness/Justice)	Justice/ Fairness	Justice/ Fairness	Justice/ Fairness	Justice/ Fairness	Justice/ Fairness/ Righteousness	Justice/ Righteousness	Fairness
Li (The Rituals/ Accountability/ Duty/ Responsibility)	Responsibility	Responsibility	Responsibility	Responsibility/ Accountability	Duty	Responsibility	Responsibility

Table 2.6 Aristotelian and Confucian Cardinal Virtues and Seven Leadership Paradigms (Con't)

Confucian Virtues (Various Translations)	Moral Leadership	Ethical Leadership	Spiritual Leadership	Servant Leadership	Charismatic Leadership	Transformational Leadership	Visionary Leadership
Zhi (Wisdom/Prudence)	Prudence	Prudence	Wisdom/ Prudence	Wisdom/ Prudence	Prudence	Wisdom/ Prudence	Wisdom/ Prudence
Xin (Truthfulness/Faith/ Faithfulness/Honesty/ Integrity/Loyalty/Trust/ Trustworthiness)	Truthfulness/ Honesty/ Integrity/ Trustworthiness	Faithfulness/ Honesty/ integrity/ Loyalty/ Trust/ Trustworthiness	Faith/ Honesty/ integrity/ Loyalty/ trustworthiness	Honesty/ integrity/ Loyalty/ Trust/ Trustworthiness	Truthfulness/ Honesty/ integrity/ Trust/ Trustworthiness	Honesty/ Integrity/ Trustworthiness	Honesty/ Integrity/ Loyalty/ Trust/ Trustworthiness

Table 3.1 Twenty-Two Definitions of Virtues

No	Definition	Sources
1	Virtue is a *character trait* that disposes a person to do what can be independently identified as morally required or what is best for self/others.	The Cambridge Dictionary of Philosophy
2	Virtue is an excellent combination of *characteristics or traits*— usually understood as dispositions— of persons, which is significant in the discovery of truth and in leading a good life.	The Dictionary of World Philosophy
3	Virtue is a *settled disposition of character* willingly to do things admired by the society in a regular way.	The Blackwell Dictionary of Western Philosophy
4	Virtue is a *character trait*— that is, a disposition which is well entrenched in its possessor, which is concerned with actions, with emotions and emotional reactions, choices, values, desires, perceptions, attitudes, interests, expectations and sensibilities.	The On-Line Stanford Encyclopedia of Philosophy
5	Virtue is a *disposition* regulated by a desire to act from the corresponding moral principle.	Moberg (1997)
6	Virtue is a necessary *corrective to human nature*.	Moberg (1997)
7	Virtue is a *trait of character* necessary or desirable for human flourishing.	Moberg (1997)
8	Virtue is a *personal quality* that serves as reasons for preference in the ordinary and not-so-ordinary exigencies of life.	Moberg (1997)
9	Virtue is a *disposition* to desire an action that is favorable for the well-being of the society or for the flourishing of self for its own sake.	Moberg (1997)
10	Virtue is a personal *disposition* that forms basic components of good *character*, sustains practices and enables people to achieve the good internal and external to the practices, and furnishes people with increasing self-knowledge and knowledge of the good.	MacIntyre (1984)
11	Virtue is the life-giving *pattern of behaviours*.	Bass (1990b)
12	Virtue is a good moral *quality of people*, such as being truthful or habitually refusing to steal, torture, and so on.	Kupperman (1991)
13	Virtue is a pervasive *trait of character* that allows one to fit into a particular society, even to excel in it, and is in essence a *value* embodied and built into action.	Solomon (1999)
14	Virtue is a *personal quality* that enables people to direct their behaviours toward the common good.	Arjoon (2000)
15	Virtue is any *psychological process* that consistently enables a person to think and act to yield benefits to self and to the society.	McCullough & Snyder (2000)
16	Virtue is a *qualitative characteristic* that is generally considered part of a person's character— something within the person, and is closer to an internal value— something of the spiritual essence of the person.	Whetstone (2001)
17	Virtue is a settled moral *disposition* towards ends a person ought to pursue, i.e., toward one's primary values.	Whetstone (2003)
18	Virtue is a relatively stable, praiseworthy *personal quality*, and is about the excellence of the person's qualities.	Tjeltveit (2003)

Table 3.1 Twenty-Two Definitions of Virtues (Con't)

No	Definition	Sources
18	Virtue is a relatively stable, praiseworthy *personal quality*, and is about the excellence of the person's qualities.	Tjeltveit (2003)
19	Virtue is the best of the *human condition*, the most ennobling behaviours and outcomes, the excellence and essence of humankind, and the highest aspirations of human beings.	Cameron (2003)
20	Virtue is a *character trait* that, like psychological dispositions, is unique to a person's personality but not immutable, so it can be modified or trained by habit and education.	Dawson (2005)
21	Virtue is a *trait of character* or *intellect* that is morally laudable.	Flynn (2008)
22	Virtue is the *norms of conduct* or *the habits of action*.	Coloma (2009)

Table 3.2 Eighty-Nine Behaviours Related to Six Leadership Virtues

No	Behaviours	Sources
	Courage	
1	Speaking up on matters of injustice and personal conviction.	Dyck & Kleysen (2001); Howell & Avolio (1995)
2	Resisting acting in ways that are personally considered inappropriate.	Solomon (1999)
3	Resisting the ongoing pressure for impression management, job-hopping and self-aggrandizement.	Dyck & Kleysen (2001)
4	Acting with sustained initiative.	Koestenbaum (2002)
5	Defending personal beliefs and actions thought to be "right".	Barker & Coy (2003)
6	Addressing individuals engaged in ethical misconduct.	Barker & Coy (2003)
7	Leading fundamental change though it may entail personal sacrifice and personal risk.	Barker & Coy (2003)
8	Leading and acting with integrity.	Barker & Coy (2003)
9	Adopting a new vision and strategy.	Barker & Coy (2003)
10	Initiating a long-term and worthwhile project, despite risking personal reputation.	Sison (2003)
11	Experimenting and trying new things.	Bennis (2003); Treasurer (2009)
12	Implementing an ethical vision and/or strategy.	Spangenberg & Theron (2005)
13	Rejecting directives of an unethical/immoral authority.	Messick (2006)
14	Sharing an unpopular perspective; challenging the status quo.	Messick (2006)
15	Doing what is considered right to do.	Brown (2007)
16	Showing confidence in subordinates, even when they are likely to falter.	Treasurer (2009)
17	Supporting subordinates who are doing the "right" thing.	Treasurer (2009)
	Temperance	
18	Deploying organizational financial, physical and human resources responsibly.	Walton (1988)
19	Executing authority over others with composure, care and sensitivity.	Walton (1988)
20	Behaving unselfishly.	Kanungo & Mendonca (1996)
21	Avoiding indulging personal desires.	Kanungo & Mendonca (1996)
22	Downplaying personal successes to avoid discomforting less successful others.	Kanungo & Mendonca (1996)
23	Behaving assertively rather than aggressively.	Dyck & Kleysen (2001)
24	Preserving resources to protect the environment.	Dyck & Kleysen (2001)
25	Communicating to followers in such a way as to keep them focused on the larger vision rather than the details.	Dyck & Kleysen, 2001)

Table 3.2 Eighty-Nine Behaviours Related to Six Leadership Virtues (Con't)

No	Behaviours	Sources
26	Prioritizing organizational interests over self interests in decision making.	Barlow et al. (2003)
27	Behaving proactively with an apparent "purpose" of benefitting others.	Barlow et al. (2003)
28	Facilitating the sharing of experiences and accepting advice.	Molyneaux, 2003)
29	Exercising power with discernment.	Molyneaux (2003)
30	Balancing longer and shorter term goals in the interest of others.	Sison (2003)
31	Resolving problems in ways that promote organizational gain over self-gain.	Sison (2003)
32	Maintaining emotional composure/control against "opponents".	Sison (2003)
33	Balancing the use and enjoyment of goods with hard work and discipline.	Sison (2003)
Justice		
34	Respecting individual interests and rights when allocating responsibilities.	Howell & Avolio (1995)
35	Protecting the rights and entitlements of stakeholders (e.g., employees, shareholders, community, customers, and suppliers), especially in times of conflicting interests.	Howell & Avolio (1995); Kanungo & Mendonca (1996; 1998)
36	Avoiding infringing on the rights of others when carrying out one's responsibilities.	Howell & Avolio (1995); Kanungo & Mendonca (1996; 1998)
37	Setting aside personal biases and honours principles in decisions and actions.	Howell & Avolio (1995)
38	Allocating valued resources based on merit.	Solomon (1999)
39	Distributing rewards in a manner consistent with promoting a climate of equal opportunity.	Solomon (1999)
40	Rewarding subordinates commensurate with their performance contributions.	Solomon (1999)
41	Providing career enhancing opportunities to subordinates commensurate with their contributions to the organization.	Solomon (1999)
42	Allocating responsibilities based on merit or entitlement.	Solomon (1999)
43	Fulfilling personal responsibility for the organization and external community.	Dyck & Kleysen (2001)
44	Resolving conflicts in a fair and objective fashion.	Barlow et al. (2003)
45	Treating all subordinates in an equitable, impartial, and just manner.	Barlow et al. (2003)
46	Protecting subordinates from unfair criticism/discipline.	Barlow et al. (2003)
47	Treating others in an equitable, impartial, and just manner.	Barlow et al. (2003)
Prudence		
48	Behaving in ways that suggest that personal decisions are ethically well grounded.	Walton (1988)
49	Welcoming challenges to personal ideas, judgments, and decisions.	Walton (1988)

Table 3.2 Eighty-Nine Behaviours Related to Six Leadership Virtues (Con't)

No	Behaviours	Sources
50	Encouraging the advice of others on decisions that are likely to affect them.	Walton (1988)
51	Routinely assessing situations and problems in light of standards of "right" and "wrong".	Kanungo & Mendonca (1998)
52	Grasping the complexity of most situations.	Arjoon (2000)
53	Exercising sound reasoning in deciding on the optimal courses of action.	Arjoon (2000)
54	Efficiently and effectively assessing requirements demanded by any given situation.	Arjoon (2000)
55	Using only the resources necessary in responding to the demands of any given situation.	Arjoon (2000)
56	Making decisions that balance long-term and short-time goals.	Arjoon (2000)
57	Instantiating the various virtues in situations that particularly call for them.	Arjoon (2000)
58	Making decisions that reflect a careful consideration of how they might affect others.	Sison (2003)
59	Protecting the welfare of all stakeholders.	Sison (2003)
60	Maximizing stakeholder benefits when making decisions.	Bragues (2006)
61	Discerning ethical from unethical when making decisions that affect others.	Flynn (2008)

Humanity

No	Behaviours	Sources
62	Staying in love with leading others, with their organization's products and service, and with people.	Hart (2001); Kouzes & Posner (1992)
63	Surpassing what can be reasonably expected when helping others in their time of need.	Chan (2003)
64	Satisfying subordinates' needs in a morally upright fashion.	Cua (2003); Fry (2003)
65	Accommodating subordinates who have special requests (e.g., rescheduling of work hours).	Cua (2003); Fry (2003)
66	Respecting individual differences (e.g., gender, culture, religion).	Fry (2003)
67	Showing concern and care for peers.	Fry (2003)
68	Taking care of "new comers".	Fry (2003)
69	Showing respect and appreciation for relationships with customers.	Fry (2003); Ho (2003)
70	Treating people outside of the organization in a friendly and compassionate manner.	Fry (2003); Ho (2003)
71	Showing concern and care for members of the broader community.	Fry (2003); Ho (2003)
72	Protecting the welfare of others as a priority.	Fry (2003); Ho (2003)
73	Sharing feelings and/or experiences with others to offer comfort in times of need.	Taylor (2004)
74	Voluntarily helping less fortunate others.	Taylor (2004)
75	Expressing concern for the misfortunes of others.	Taylor (2004)

Table 3.2 Eighty-Nine Behaviours Related to Six Leadership Virtues (Con't)

No	Behaviours	Sources
	Truthfulness	
76	Consistently communicating truthful information.	Barlow et al., (2003); Solomon (1999)
77	Avoiding communications intended to deceive or distort the truth, including the omission of important factual information.	Barlow et al., (2003); Solomon (1999)
78	Showing openness to sharing information when addressing subordinates' concerns.	Barlow et al., (2003); Solomon (1999); Taylor (2006)
79	Informing all stakeholders of organizational problems that are likely to affect them.	Barlow et al., (2003); Solomon (1999); Taylor (2006)
80	Communicating expectations to subordinates using plain and straightforward language.	Barlow et al., (2003); Solomon (1999)
81	Improving the ethical culture of organizations.	Russell & Stone (2002)
82	Correcting misstatements when factually correct information becomes known.	Taylor (2006)
83	Demonstrating candidness when making personal statements.	Taylor (2006)
84	Routinely admitting personal mistakes.	Taylor (2006)
85	Apologizing for personal "miss-steps" and self-created problems.	Taylor (2004)
86	Avoiding presentation of misleading, inaccurate, or incomplete information when defending personal ideas, judgments, decisions, or actions.	Palanski & Yammarino (2007); Taylor (2006)
87	Making realistic promises.	Palanski & Yammarino (2007)
88	Following through and honours personal promises.	Palanski & Yammarino (2007)
89	Admitting when unable to follow through on a promise.	Palanski & Yammarino (2007)

Table 3.3 Forty-Seven Leadership Concepts

Leadership Concept	Definition	Sources
Achievement-Oriented Leadership	*Achievement-oriented leadership* is a leadership style, which "is characterized by a leader who "sets challenging goals, expects subordinates to perform at their highest level, continuously seeks improvement in performance and shows a high degree of confidence that the subordinates will assume responsibility, put forth effort and accomplish challenging goals. This kind of leader constantly emphasizes excellence in performance and simultaneously displays confidence that subordinates will meet high standards of excellence."	House & Mitchell (1974, p.83)
Authentic Leadership	*Authentic leadership* is "a process that draws from both positive psychological capacities and a highly developed organizational context, which results in both greater self-awareness and self-regulated positive behaviours on the part of leaders and associates, fostering positive self-development."	Luthans & Avolio (2003, p.243)
Charismatic Leadership	*Charismatic leadership* is "an attribution based on followers' perceptions of their leader's behaviour". Charismatic leaders critically assess the existing situation or status quo in terms of environmental constraints, resources, and follower needs, "effectively articulate inspirational vision that is highly discrepant from status quo yet within latitude of acceptance", and "convey goals, demonstrate means to achieve these goals, build follower trust and motivate followers by personal example, risk taking, and countercultural, empowering and impression management practices".	Conger & Kanungo (1998 p.47/50)
Charismatic Leadership	*Charismatic leadership* is "an interaction between leaders and their followers that results in (1) making followers' self-esteem contingent on their involvement in the vision and the mission articulated by the leader, (2) strong internalization of the leaders' values and goals by the followers, (3) strong personal or moral (as opposed to calculative) commitment to these values and goals, and (4) a willingness on the part of followers to transcend their own self-interests for the sake of the collective (team or organization)."	House & Shamir (1993, p.83)
Collective Leadership	*Collective leadership* is a collective process involving an entire team or organization, the epicentre of which is "the interaction of team members to lead the team by sharing in leadership responsibilities."	Hiller et al. (2006, p.388)
Consultative Leadership	*Consultative leadership* is a leadership style, by which "the supervisor consults with subordinates before deciding what is to be done."	Bass (1990b, p.436)
Contextual Leadership	*Contextual leadership* is "the incremental influence of position holders exercised via direct and indirect means to maintain and/or alter the existing dynamics in and of a system", and "an emerging social construction embedded in a unique organization".	Osborn et al. (2002, p.803/ 804/832)

Table 3.3 Forty-Seven Leadership Concepts (Con't)

Leadership Concept	Definition	Reference
Cultural Leadership	*Cultural leadership* is a leadership process in which "leaders influence the understandings and networks of meanings that others hold and express through their actions", and can be categorized into two types of leadership as cultural innovation leadership and cultural maintenance leadership in consideration of the following nine elements: personal qualities, perceived situation, vision and mission, follower attributions, leader behaviours, performance, administrative actions, use of cultural forms, and use of tradition. Cultural leaders "originate or recognize rationales that reduce people's uncertainties, make them understandable and convincing, and communicate them widely and repeatedly so that others come to share the same understandings".	Trice & Beyer (1990, p.150/151)
Delegative Leadership	*Delegative leadership* is a leadership style, by which "the supervisor delegates the task and how it is to be handled to the subordinates, and the supervisor's own participation is minimal", and "within the constraints set, whatever the subordinates decide is acceptable" to the supervisor".	Bass (1990b, p.436)
Democratic Leadership	*Democratic leadership* is a leadership style which "influence people in a manner consistent with and/or conductive to basic democratic principles and processes, such as self-determination, inclusiveness, equal participation, and deliberation". Democratic leaders distribute responsibility within a given democratic group, empower the membership, and aid the group in its deliberations.	Gastil (1997, p.158)
Directive Leadership	*Directive leadership* is a leadership style, which "is characterized by a leader who lets subordinates know what is expected of them, gives specific guidance as to what should be done and how it should be done, makes his or her part in the group understood, schedules work to be done, maintains definite standards of performance and asks that group members follow standard rules and regulations."	House & Mitchell (1974, p.83)
Discretionary Leadership	*Discretionary leadership* is a type of leadership which "is conceptualized as a temporary property of the person or a transient phenomenon, one which can be practised equally well by different individuals, depending on the circumstances and their strength of ideas.", and "discretionary leaders concern themselves with tasks such as setting agendas and vision, and the establishment and maintenance of relationships".	Korac-Kakabadse & Korac-Kakabadse (1997, p.433/ 434/441)
Distributed Leadership	*Distributed leadership* is a process which "involves collaborative relationships that lead to collective action grounded in the shared values of people who work together to effect positive change." Distributed leadership is divided into three forms as delegated leadership, co-leadership, and peer-leadership based on leader roles and behaviours.	Astin & Astin (1996, p.16); House & Aditya (1997)

Table 3.3 Forty-Seven Leadership Concepts (Con't)

Leadership Concept	Definition	Reference
E-Leadership	*E-leadership* is a social influence process "mediated by AIT (Advanced Information Technology) to produce a change in attitudes, feelings, thinking, behaviour, and/or performance with individuals, groups, and/or organizations. E-leadership can occur at any hierarchical level in an organization and can involve one-to-one and one-to-many interactions within and across large units and organizations. It may be associated with one individual or shared by several individuals as its locus changes over time."	Avolio et al. (2000, p.617)
Emotional Leadership	*Emotional leadership* is a leadership style by which a leader "can monitor his or her moods through self-awareness, change them for the better through self-management, understand their impact through empathy, and act in ways that boost others' moods through relationship management."	Goleman et al. (2001, p.48)
Ethical Leadership	*Ethical leadership* is "the demonstration of normatively appropriate conduct through personal actions and interpersonal relationships, and the promotion of such conduct to followers through two-way communication, reinforcement, and decision-making."	Brown et al. (2005, p.130)
Ethical Leadership	*Ethical leadership* is a leader-follower relationship in which both leaders and followers freely agree that the intended changes fairly reflect their mutual purposes, and increase their autonomy and value without sacrificing integrity.	Rost (1991)
Ethically Neutral Leadership	*Ethically neutral leadership* is a type of leadership in which the leader "lacks ethical awareness and cares mostly about himself or herself and the organization's bottom line rather than other people".	Treviño et al. (2003, p.34)
Exemplary Leadership	*Exemplary leadership* is a leader-follower relationship and an set of skills and practices, and visionary leaders exercise five practices as modeling the way, inspiring a shared vision, challenging the process, enabling others to act, and encouraging the heart.	Kouzes & Posner (2002)
Human Resource Leadership	*Human resource leadership* is a leadership style by which the leader "believes that people are the center of any organization", and "works on behalf of both the organization and its people, seeking to serve the best interests of both." The human resource leader "empowers through participation and inclusion ensuring that people have the autonomy and support needed to do their job."	Bolman & Deal (1991, p.331)
Imaging Leadership	*Imaging leadership* is a type of leadership in a postmodern era, which "involves asserting our identities while recognizing the ways in which these identities are linked to difference, then the "different voice" becomes an important voice to explore", and "may be a route to understanding that all dialogic identities are fictive, and that we can reconstruct relationships on different models than powered/disempowered".	Fisher & Fowler (1995, p.37/38)
Instrumental Leadership	*Instrumental leadership* is a leadership style, which "focuses on the management of teams, structures, and managerial processes to create individual instrumentalities". Instrumental leaders "build competent teams, clarify required behaviours built in measurement, and administer rewards and punishments so that followers perceive that behaviour consistent with the change is central for them in achieving their own goals."	Nadler & Tushman (1990, p.85)

Table 3.3 Forty-Seven Leadership Concepts (Con't)

Leadership Concept	Definition	Reference
Laissez-Faire Leadership	*Laissez-faire leadership* is leader-follower relations, in which leaders do not make necessary decisions, delay actions, ignore responsibilities of leadership, and remain authority unused, and "avoid taking stands on issues, do not emphasize results, refrain from intervening, and fail to perform follow-up."	Bass & Riggio (2006, p.8/9/206)
Lateral Leadership	*Lateral leadership* is the process of "creating shared understanding, changing power games, and generating trust for one's own purposes", in which leaders "disrupt rigid patterns of thought, combine the divergent interests of the people involved, and build trust".	Kühl et al. (2005, p.177)
Legacy Leadership	*Legacy leadership* is a model of spiritual leadership, in which a leader, with pure, authentic/sincere, follower-centered, affectionate and emotional motives, changes lives of those to whom he ministered through those methods characterized as worthy of imitation, boldness amid opposition, influence without asserting authority, vulnerable and transparent, and active, not passive.	Whittington et al. (2005)
Moral Leadership	*Moral leadership* is a leader-follower relationship based on not only power but also mutual needs, aspirations, and values, and in such a relationship leaders "take responsibility for their commitments- if they promise certain kinds of economic, social, and political change, they assume leadership in the brining about of that change", and followers, in responding to leaders, "have adequate knowledge of alternative leaders and programs and the capacity to choose among those alternatives".	Burns (1978, p.4)
Negotiative Leadership	*Negotiative leadership* is a leadership style, by which "the supervisor accompanies his or her directions with detailed explanations and expects to persuade and manipulate the subordinates or to bargain with them".	Bass (1990b, p.436)
Network Leadership	*Network leadership* is "the development and maintenance of interpersonal ties up and across individual position holders within and outside the system", and as "an informational dimension of leadership".	Osborn et al. (2002, p.811/ 818)
Participative Leadership	*Participative leadership* is a leadership style, which "is characterized by a leader who consults with subordinates, solicits their suggestions and takes these suggestions seriously into consideration before making a decision".	House & Mitchell (1974, p.83)
Political Leadership	*Political leadership* is a leadership style by which the leader "believes that managers have to recognize political reality and know how to deal with conflict." The political leader will "build a power base and use power carefully", "create arenas where groups can negotiate differences and come up with a reasonable compromise", and "work at articulating what everyone has in common".	Bolman & Deal (1991, p.333/334)
Prudent Leadership	*Prudent leadership* is a type of leadership "in which the leaders would test/communicate, consolidate/accelerate, and forge their strategies when seeking for higher performance."	Zhang & Chua (2009, p.200)
Servant Leadership	*Servant-leadership* is a type of leadership conducted by "strong ethical persons- those who by nature are disposed to be servants (in the sense of helping others to become healthier, wiser, freer, more autonomous and more likely themselves to be servants) and who there can help others to move in constructive directions".	Greenleaf (2002, p.238)

Table 3.3 Forty-Seven Leadership Concepts (Con't)

Leadership Concept	Definition	Reference
Shared Leadership	*Shared leadership* is "a dynamic, interactive influence process among individuals in groups for which the objective is to lead one another to the achievement of group or organizational goals or both. This influence process often involves peer, or lateral, influence and at other times involves upward or downward hierarchical influence."	Pearce & Conger (2003, p.1)
Spiritual Leadership	*Spiritual leadership* comprises of "the values, attitudes, and behaviours that are necessary to intrinsically motivate one's self and others so that they have a sense of spiritual survival through calling and membership. This entails: 1. creating a vision wherein organization members experience a sense of calling in that their life has meaning and makes a difference; 2. establishing a social/organizational culture based on altruistic love whereby leaders and followers have genuine care, concern, and appreciation for both self and others, thereby producing a sense of membership and feel understood and appreciated."	Fry (2003, p.694/695)
Steward Leadership	*Steward leadership* is a form of leadership by which leaders may establish environments "that promote values-based practices that embody values, including respect for persons' dignity and self-determination, as well as equity and fairness."	Murphy & Roberts (2008, p.244)
Strategic Leadership	*Strategic leadership* is a leadership style "that gives purposes, meaning, and guidance to collectivities by articulating a collective vision that appeals to ideological values, motives, and self-perceptions of followers resulting in (1) the infusion of values into organizations and work, (2) unusual levels of effort on the part of followers above and beyond their normal role or position requirements, and (3) follower willingness to forgo self-interest and make significant personal sacrifices in the interest of a collective vision."	House (1995, p.413)
Structural Leadership	*Structural leadership* is a leadership style "which emphasizes the fundamental roles of leaders in clarifying goals, attending to the relationship between structure and environment, and developing a clearly defined array of roles and relationships appropriate to what needs to be done." The structural leader "is not rigidly authoritarian and does not attempt to solve every problem by issuing orders. Instead, the leader tries to design and implement a process or architecture appropriate to the circumstances."	Bolman & Deal (1991, p.329)
Supervisory Leadership	*Supervisory leadership* is a type of leadership style, which "intended to provide guidance, support, and corrective feedback for the day-to-day activities of work unit members".	House (1995, p.413)
Supportive Leadership	*Supportive leadership* is a leadership style, which "is characterized by a friendly and approachable leader who shows concern for the status, well-being and needs of subordinates. Such a leader does little things to make the work more pleasant, treats members as equals and is friendly and approachable."	House & Mitchell (1974, p.83)

Table 3.3 Forty-Seven Leadership Concepts (Con't)

Leadership Concept	Definition	Reference
Symbolic Leadership	*Symbolic leadership* is a leadership style by which the leader "believes that the most important part of a leader's job is inspiration-giving people something they can believe in." "Symbolic leaders are sensitive an organization's history and culture. They seek to use the best in an organization's traditions and values as a base for building a culture that has cohesiveness and meaning. They articulate a vision that communicates the organization's unique capabilities and mission."	Bolman & Deal (1991, p.336)
Transactional Leadership	*Transactional leadership* is leaders' relations with subordinates in which the leader recognizes what his/her subordinates want to get from their work and try to see that they get what they want if their performance warrants it, exchanges rewards and promises of reward for his subordinates' effort, and is responsive to his/her subordinates' immediate self-interests if they can be met by their getting the work done. The transactional leader "pursues a cost-benefit, economic exchange to meet subordinates' current material and psychic needs in return for 'contracted' services rendered by the subordinate." Transactional leadership consists of two leadership styles as contingent reward leadership and management-by-exception leadership.	Bass (1985, p.14); Bass & Riggio (2006)
Transcendental Leadership	*Transcendental leadership* is a contribution-based exchange relationship, in which "the leader promotes unity by providing fair extrinsic rewards, appealing to the intrinsic motivation of the collaborators, and developing their trascendent motivation", and the transcendental leader "centers his or her managerial work on the needs of the collaborators" and "is concerned with the people themselves and tries to contribute to their personal development".	Cardona (2000, p.204/205)
Transformational Leadership	*Transformational leadership* is leaders' relations with subordinates in which the leader motivate the followers to perform beyond expectation by raising his/her subordinates' level of awareness, level of consciousness about the importance and value of designated outcomes, and ways of reaching them, by getting his/her subordinates to transcend their own self-interest for the sake of the team, organization, or larger polity, or by altering his/her subordinates' need level or expanding his/her subordinates' portfolio of needs and wants. Transformational leadership consists of three leadership styles as inspirational, intellectual, and individualized consideration leadership.	Bass (1985, p.20); Bass & Riggio (2006)
Transforming Leadership	*Transforming leadership* is leader-follower relations in which the leader not only "recognizes and exploits an existing need or demand of a potential follower", but also "looks for potential motives in followers, seeks to satisfy higher needs, and engages the full person of the follower", and such leadership "occurs when one or more persons engage with others in such a way that leaders and followers raise one another to higher levels of motivation and morality."	Burns (1978, p.4/20)

Table 3.3 Forty-Seven Leadership Concepts (Con't)

Leadership Concept	Definition	Reference
True Leadership	*True leadership* is "the pivotal force behind successful organizations and that to create vital and viable organizations", which is "necessary to help organizations develop a new vision of what they can be, then mobilize the organization to change toward the new vision", and true visionary leaders "empower others to translate intention into reality and sustain it."	Bennis & Nanus (1985, p.2/3/74)
Values-Oriented Leadership	*Values-oriented leadership* is "the process through which leaders use their beliefs and values to inspire others to behave and grow in certain ways". Values-oriented leadership consists of five levels as leadership as (scientific) management, leadership as excellence management, values leadership, trust culture leadership, and spiritual (whole-soul) Leadership.	Fairholm & Fairholm (2009, p.83)
Visionary Leadership	*Visionary leadership* is a type of leadership, in which the leader "is able to develop long-range visions of what his or her organization can and should become," and "understands the key elements of a vision, what must be included in a vision if it is to direct the organization into the future", and "can communicate his or her visions in ways that are compelling, ways that make people want to buy in to the leader's vision and help make it happen".	Sashkin (1986, p.58/59)

Table 4.1 Forced Six-Factor EFA Results for Phase 2 [a]

Item ID Number (Leader Virtues)[b]	Factor 1 (Humanity)	Factor 2 (Courage)	Factor 3	Factor 4 (Justice)	Factor 5 (Temperance)	Factor 6 (Prudence)
Item 39 (Humanity)	**.78**	.02	-.12	.10	.00	-.01
Item 38 (Humanity)	**.69**	.07	-.08	.05	.00	-.01
Item 44 (Humanity)	**.66**	.06	.13	-.05	-.05	-.06
Item 40 (Humanity)	**.64**	.05	-.03	.07	.01	-.03
Item 42 (Humanity)	**.54**	-.03	.12	-.06	-.11	-.08
Item 35 (Humanity)	**.48**	.13	-.09	.14	-.09	-.16
Item 43 (Humanity)	**.42**	.06	.11	-.12	-.02	-.32
Item 47 (Truthfulness)	.39	.07	.19	.05	.06	-.34
Item 37 (Humanity)	**.39**	-.09	.05	.21	-.15	.07
Item 36 (Humanity)	**.37**	.11	-.04	.16	-.11	-.14
Item 45 (Truthfulness)	.37	.04	.26	.00	-.17	-.13
Item 41 (Humanity)	**.36**	-.06	.16	.19	-.07	.04
Item 50 (Truthfulness)	.29	.09	.16	.10	-.12	-.28
Item 52 (Truthfulness)	.27	.14	.21	.09	-.22	-.07
Item 4 (Courage)	.18	**.60**	.00	.06	.03	-.01
Item 5 (Courage)	.02	**.58**	.17	.13	.13	.15
Item 7 (Courage)	.04	**.47**	-.10	-.03	-.12	-.20
Item 3 (Courage)	.05	**.44**	.04	-.23	-.06	.11
Item 8 (Courage)	-.05	**.43**	-.16	-.05	-.25	-.13
Item 10 (Courage)	.09	**.41**	-.08	.06	-.17	-.04
Item 9 (Courage)	.13	**.40**	-.14	.07	-.08	-.02
Item 2 (Courage)	-.13	**.36**	.17	.03	-.03	-.14
Item 6 (Courage)	-.09	**.29**	.11	.17	.01	-.13
Item 1 (Courage)	-.05	**.25**	.07	.09	-.25	-.07
Item 31 (Prudence)	.04	.07	.32	.02	-.10	-.04
Item 20 (Justice)	.17	.08	-.05	**.54**	-.12	.02
Item 23 (Justice)	.19	.03	-.03	**.49**	-.04	-.14
Item 19 (Justice)	.09	.03	-.06	**.49**	-.04	-.20
Item 22 (Justice)	-.05	.03	.17	**.48**	-.06	.08
Item 21 (Justice)	.24	.11	-.04	**.40**	-.02	.00
Item 17 (Temperance)	.12	-.06	-.09	.40	-.18	-.09
Item 24 (Justice)	.15	-.02	-.08	**.37**	-.11	-.34
Item 16 (Temperance)	.00	.01	.07	.37	-.28	-.01
Item 30 (Prudence)	.07	-.01	.31	.36	-.09	-.13
Item 29 (Prudence)	.06	.03	.30	.31	-.12	-.20
Item 53 (Truthfulness)	.17	-.03	.15	-.07	-.75	.13
Item 54 (Truthfulness)	.30	.04	.16	-.08	-.58	.05
Item 13 (Temperance)	.07	.05	-.01	.09	**-.56**	-.07
Item 15 (Temperance)	.02	.09	.02	.08	**-.51**	-.03
Item 14 (Temperance)	-.09	.06	.08	.12	**-.51**	-.13
Item 11 (Temperance)	-.04	.02	-.07	.05	**-.46**	-.11
Item 12 (Temperance)	-.01	.05	-.05	.07	**-.33**	.02
Item 51 (Truthfulness)	.19	-.08	.23	.06	-.32	-.21
Item 46 (Truthfulness)	.12	.10	.28	.00	**-.30**	-.17
Item 18 (Temperance)	.03	-.06	-.01	.23	-.26	-.11
Item 33 (Prudence)	.19	-.01	-.23	.02	-.23	**-.50**

[a] N = 348.
[b] Item ID number is same as that shown in the VLQ-1 (Appendix A).

Table 4.1 Forced Six-Factor EFA Results for Phase 2 (Con't) [a]

Item ID Number (Leader Virtues)[b]	Factor 1 (Humanity)	Factor 2 (Courage)	Factor 3	Factor 4 (Justice)	Factor 5 (Temperance)	Factor 6 (Prudence)
Item 48 (Truthfulness)	.15	.09	.16	-.02	.06	-.50
Item 49 (Truthfulness)	.00	.01	.17	.02	-.25	-.47
Item 32 (Prudence)	.05	-.16	.02	.08	-.15	**-.46**
Item 34 (Prudence)	.00	.08	.04	.05	.00	**-.41**
Item 25 (Justice)	.19	.02	-.09	.27	-.17	-.39
Item 26 (Justice)	.31	.13	-.10	.09	-.03	-.35
Item 28 (Prudence)	.21	.03	.22	.18	-.09	**-.27**
Item 27 (Prudence)	.20	.02	.21	.11	.00	**-.26**
Eigenvalues	16.28	2.44	1.97	1.56	1.51	1.45
% of Variance	30.14	4.52	3.65	2.89	2.80	2.69

[a] N = 348.
[b] Item ID number is same as that shown in the VLQ-1 (Appendix A).

Table 4.2 Twelve-Factor EFA Results for Phase 2 [a]

Item ID Number (Leader Virtues)[b]	Factor 1 (Prudence)	Factor 2 (Courage 1)	Factor 3 (Humanity)	Factor 4 (Justice)	Factor 5 (Temperance)	Factor 6	Factor 7	Factor 8	Factor 9	Factor 10 (Courage 2)	Factor 11	Factor 12
Item 30 (Prudence)	**.61**	.09	.12	.16	.04	-.03	-.02	.05	.02	-.05	.13	.09
Item 29 (Prudence)	**.57**	.02	-.08	.09	-.03	-.04	.13	-.04	.04	.08	.00	.00
Item 28 (Prudence)	**.45**	.11	-.13	.07	.01	-.07	.00	.07	.18	-.08	.00	.08
Item 46 (Truthfulness)	.35	-.02	-.21	-.01	-.27	.01	-.07	.04	.13	.09	-.07	.07
Item 31 (Prudence)	**.27**	.01	-.01	-.09	-.07	.16	.04	-.04	.11	.13	.19	-.04
Item 16 (Temperance)	.25	.00	.14	.08	-.13	-.04	.24	.24	.02	.07	-.01	.05
Item 52 (Truthfulness)	.19	.15	-.17	.06	-.12	.13	.08	.09	.15	-.01	.11	.10
Item 9 (Courage)	.01	**.59**	-.01	.10	.05	.01	.06	.00	.00	-.04	.06	.02
Item 10 (Courage)	.16	**.58**	-.09	.11	-.07	-.02	.00	-.07	-.03	-.03	-.06	-.03
Item 8 (Courage)	-.02	**.49**	.08	-.08	-.11	-.09	.06	.04	.09	.07	-.04	.08
Item 3 (Courage)	-.03	**.30**	-.01	-.13	-.08	.10	-.21	.05	-.01	.17	.05	.05
Item 44 (Humanity)	.08	.04	**-.65**	.08	-.05	.03	.09	.02	-.04	-.02	.13	.04
Item 43 (Humanity)	-.02	-.02	**-.57**	.05	-.03	-.02	.05	-.12	.21	.01	.00	.14
Item 38 (Humanity)	.02	.19	**-.39**	.08	.04	-.02	.08	.29	.12	-.09	.15	-.14
Item 39 (Humanity)	-.02	.08	**-.37**	.13	.01	-.17	.03	.32	.01	.01	.30	-.09

[a] N = 348.
[b] Item ID number is same as that shown in the VLQ-1 (Appendix A).

Table 4.2 Twelve-Factor EFA Results for Phase 2 (Con't) [a]

Item ID Number (Leader Virtues)[b]	Factor 1 (Prudence)	Factor 2 (Courage 1)	Factor 3 (Humanity)	Factor 4 (Justice)	Factor 5 (Temperance)	Factor 6	Factor 7	Factor 8	Factor 9	Factor 10 (Courage 2)	Factor 11	Factor 12
Item 35 (Humanity)	.00	.08	**-.36**	.11	-.03	-.13	.15	.26	.13	.06	-.03	.03
Item 36 (Humanity)	.10	.07	**-.35**	.11	-.04	-.13	.17	.15	.02	.06	-.07	.04
Item 20 (Justice)	.01	.03	-.05	**.70**	-.11	.00	-.03	.04	-.02	.04	.01	.06
Item 21 (Justice)	.08	.09	-.13	**.58**	-.07	-.01	-.12	.01	.02	.04	.02	-.09
Item 19 (Justice)	-.06	.15	.10	**.48**	.11	-.07	.24	-.08	.08	-.04	.20	.21
Item 23 (Justice)	.08	-.02	-.03	**.40**	.03	-.10	.11	.18	.09	.03	.00	.15
Item 22 (Justice)	.16	-.08	.05	**.35**	-.02	.24	.21	.05	.09	.09	-.05	-.04
Item 53 (Truthfulness)	.07	.11	-.13	.02	-.54	.17	.11	.13	.01	-.23	.03	.25
Item 13 (Temperance)	.08	-.07	-.10	.14	**-.53**	-.22	-.02	.09	-.07	.14	-.06	.15
Item 14 (Temperance)	.17	.09	.00	.12	**-.44**	-.10	.11	-.22	-.03	.11	.09	.02
Item 54 (Truthfulness)	.03	.12	-.17	.01	-.42	.18	.07	.18	.13	-.15	.13	.20
Item 11 (Temperance)	-.10	.09	.05	.13	**-.42**	-.09	.11	-.16	.07	.06	.18	-.01
Item 15 (Temperance)	.11	.06	-.11	-.01	**-.37**	-.09	.20	.08	-.06	.08	-.11	.12
Item 12 (Temperance)	.03	.09	.08	.05	**-.28**	-.01	.04	.11	.10	.04	.01	-.12
Item 33 (Prudence)	.00	.13	-.07	-.06	-.12	-.43	.16	.06	.26	.02	.09	-.01
Item 24 (Justice)	.20	.00	-.08	.30	-.04	-.31	.06	.11	.12	.01	-.09	.10
Item 25 (Justice)	.10	.02	-.17	.25	-.09	-.31	.10	.06	.16	.02	-.07	.14
Item 26 (Justice)	.08	.12	-.26	.04	.02	-.30	.11	.07	.10	.08	-.01	.09

[a] N = 348.
[b] Item ID number is same as that shown in the VLQ-1 (Appendix A).

Table 4.2 Twelve-Factor EFA Results for Phase 2 (Con't) [a]

Item ID Number (Leader Virtues) [b]	Factor 1 (Prudence)	Factor 2 (Courage 1)	Factor 3 (Humanity)	Factor 4 (Justice)	Factor 5 (Temperance)	Factor 6	Factor 7	Factor 8	Factor 9	Factor 10 (Courage 2)	Factor 11	Factor 12
Item 18 (Temperance)	-.02	.05	-.09	-.09	-.06	.03	.75	-.03	.02	.02	.03	-.02
Item 17 (Temperance)	.03	-.02	.07	.16	-.02	-.15	.33	.24	.02	.01	.05	.13
Item 37 (Humanity)	.04	-.15	-.04	.13	-.12	-.02	.01	.43	.08	.05	.19	.01
Item 34 (Prudence)	.02	.03	.01	.00	.03	.03	.07	.05	.63	.05	-.06	-.08
Item 48 (Truthfulness)	.03	-.03	-.18	.11	.04	-.01	-.11	-.08	.52	.04	.02	.16
Item 32 (Prudence)	.15	.03	.14	-.01	-.05	-.24	.03	.03	.40	-.12	.18	.05
Item 49 (Truthfulness)	.23	-.03	-.10	-.05	-.16	-.13	.08	-.01	.34	.05	-.07	.14
Item 47 (Truthfulness)	.11	.04	-.24	.08	.09	-.05	-.01	.02	.24	.01	.22	.22
Item 6 (Courage)	.04	-.09	.05	.06	-.04	-.07	.03	-.04	.05	**.55**	.07	.01
Item 5 (Courage)	.00	.16	-.06	.01	.11	.26	.06	.12	-.02	**.47**	-.04	.09
Item 4 (Courage)	-.02	.28	-.06	.02	.04	.01	-.09	.26	.06	**.38**	-.03	.15
Item 7 (Courage)	-.14	.28	-.10	.06	-.14	-.04	.00	-.06	.20	**.32**	.00	-.04
Item 41 (Humanity)	.13	-.01	-.05	.05	.00	-.01	.14	.11	-.08	.06	.43	.05
Item 42 (Humanity)	.01	-.05	-.32	.05	-.13	-.06	-.06	.07	.04	.05	.34	.05
Item 40 (Humanity)	.18	.15	-.31	.02	.04	-.25	.00	.20	-.15	.04	.32	-.07

[a] N = 348.
[b] Item ID number is same as that shown in the VLQ-1 (Appendix A).

Table 4.2 Twelve-Factor EFA Results for Phase 2 (Con't) [a]

Item ID Number (Leader Virtues)[b]	Factor 1 (Prudence)	Factor 2 (Courage 1)	Factor 3 (Humanity)	Factor 4 (Justice)	Factor 5 (Temperance)	Factor 6	Factor 7	Factor 8	Factor 9	Factor 10 (Courage 2)	Factor 11	Factor 12
Item 27 (Prudence)	.18	.00	-.19	.07	.02	-.05	.13	-.22	.07	.14	.26	.03
Item 45 (Truthfulness)	.12	-.01	-.19	.08	-.13	.06	-.09	.10	.17	.00	.24	.23
Item 51 (Truthfulness)	.10	-.06	-.09	.06	-.16	-.03	.09	-.01	.06	-.10	.21	.47
Item 50 (Truthfulness)	.05	-.01	-.08	.00	.01	-.13	.07	.15	.14	.09	.23	.42
Item 1 (Courage)	-.03	.10	.06	.12	-.16	.01	-.04	.06	.04	.12	-.02	.36
Item 2 (Courage)	.15	.16	-.04	-.06	.06	.00	.04	-.10	-.06	.20	-.13	.36
Eigenvalues	16.28	2.44	1.97	1.56	1.51	1.45	1.25	1.21	1.16	1.13	1.07	1.03
% of Variance	30.14	4.52	3.65	2.89	2.80	2.69	2.31	2.25	2.15	2.09	1.99	1.90

[a] N = 348.
[b] Item ID number is same as that shown in the VLQ-1 (Appendix A).

Table 4.3 Eleven-Factor EFA Results for Phase 2 [a]

Item ID Number (Leader Virtues)[b]	Factor 1	Factor 2 (Courage)	Factor 3 (Humanity 1)	Factor 4 (Justice)	Factor 5 (Prudence)	Factor 6	Factor 7 (Humanity 2)	Factor 8	Factor 9	Factor 10 (Temperance)	Factor 11
Item 33 (Prudence)	0.57	-0.03	-0.08	-0.05	-0.08	0.06	0.15	0.08	0.16	0.11	0.00
Item 32 (Prudence)	0.52	-0.13	0.00	0.01	0.26	0.00	0.02	0.02	0.07	0.00	0.13
Item 25 (Justice)	0.37	-0.01	-0.17	0.25	0.00	0.22	0.07	0.00	0.04	0.09	-0.13
Item 24 (Justice)	0.35	-0.04	-0.11	0.31	0.09	0.20	0.04	-0.01	-0.06	0.05	-0.07
Item 26 (Justice)	0.34	0.08	-0.26	0.09	-0.03	0.04	0.11	0.07	0.02	0.06	-0.12
Item 34 (Prudence)	0.33	0.14	-0.07	0.03	0.12	-0.08	-0.07	0.02	0.01	0.10	0.12
Item 5 (Courage)	-0.14	**0.60**	-0.06	0.04	0.05	-0.05	-0.05	0.09	-0.07	0.09	-0.01
Item 4 (Courage)	0.13	**0.54**	-0.04	0.04	-0.01	0.11	0.10	0.15	-0.13	-0.09	-0.01
Item 6 (Courage)	0.05	**0.41**	0.04	0.07	0.08	0.10	0.02	-0.14	0.18	0.01	-0.02
Item 7 (Courage)	0.19	**0.41**	-0.05	0.07	-0.15	0.01	0.00	0.16	0.25	-0.03	0.00
Item 3 (Courage)	-0.06	**0.29**	0.01	-0.14	0.02	0.05	0.06	0.23	0.02	-0.21	0.06
Item 44 (Humanity)	-0.11	-0.02	**-0.70**	0.05	0.08	0.04	0.19	0.05	0.01	0.04	0.02
Item 43 (Humanity)	0.08	0.02	**-0.65**	0.03	0.04	0.06	-0.05	-0.01	0.05	0.03	-0.04
Item 35 (Humanity)	0.25	0.15	**-0.36**	0.14	-0.08	0.04	0.17	0.04	-0.10	0.14	0.05

[a] N = 348.
[b] Item ID number is same as that shown in the VLQ-1 (Appendix A).

Table 4.3 Eleven-Factor EFA Results for Phase 2 [a] (Con't)

Item ID Number (Leader Virtues)[b]	Factor 1	Factor 2 (Courage)	Factor 3 (Humanity 1)	Factor 4 (Justice)	Factor 5 (Prudence)	Factor 6	Factor 7 (Humanity 2)	Factor 8	Factor 9	Factor 10 (Temperance)	Factor 11
Item 36 (Humanity)	0.13	0.06	**-0.34**	0.11	-0.01	0.12	0.13	0.06	0.06	0.16	-0.05
Item 20 (Justice)	-0.04	0.03	-0.04	**0.74**	-0.04	0.08	0.03	0.06	0.07	-0.02	0.05
Item 21 (Justice)	0.01	0.03	-0.11	**0.57**	0.04	-0.01	0.05	0.09	0.06	-0.11	0.05
Item 19 (Justice)	0.13	-0.03	0.03	**0.43**	0.03	-0.01	0.06	0.13	0.10	0.20	-0.08
Item 23 (Justice)	0.16	0.03	-0.05	**0.39**	0.06	0.15	0.13	-0.01	-0.09	0.12	-0.05
Item 22 (Justice)	-0.11	0.12	0.01	**0.36**	0.18	-0.03	-0.05	-0.03	-0.02	0.26	0.07
Item 30 (Prudence)	0.15	-0.05	0.07	0.23	**0.54**	0.04	0.12	0.09	-0.02	-0.05	-0.08
Item 29 (Prudence)	0.09	0.01	-0.09	0.11	**0.45**	0.11	0.09	0.03	0.05	0.12	-0.13
Item 28 (Prudence)	0.25	-0.04	-0.17	0.08	**0.42**	0.11	0.09	0.09	-0.08	-0.01	-0.09
Item 31 (Prudence)	-0.03	0.13	-0.09	-0.11	**0.39**	-0.03	0.03	-0.01	0.09	0.04	0.16
Item 13 (Temperance)	0.04	-0.02	-0.17	0.11	0.00	0.63	0.06	-0.06	0.13	-0.04	0.17
Item 15 (Temperance)	-0.02	-0.02	-0.17	-0.03	0.03	0.45	0.02	0.10	0.04	0.21	0.10
Item 1 (Courage)	0.01	0.17	0.03	0.10	0.02	0.38	0.04	0.07	0.03	-0.03	-0.11
Item 39 (Humanity)	0.10	0.02	-0.25	0.11	-0.09	0.00	**0.59**	0.05	-0.04	-0.02	0.06

[a] N = 348.
[b] Item ID number is same as that shown in the VLQ-1 (Appendix A).

Table 4.3 Eleven-Factor EFA Results for Phase 2 [a] (Con't)

Item ID Number (Leader Virtues)[b]	Factor 1	Factor 2 (Courage)	Factor 3 (Humanity 1)	Factor 4 (Justice)	Factor 5 (Prudence)	Factor 6	Factor 7 (Humanity 2)	Factor 8	Factor 9	Factor 10 (Temperance)	Factor 11
Item 41 (Humanity)	-0.09	0.00	0.07	-0.01	0.16	0.01	**0.58**	0.00	0.14	0.16	-0.07
Item 40 (Humanity)	0.04	-0.05	-0.18	0.02	0.06	0.00	**0.57**	0.14	0.03	-0.06	-0.05
Item 38 (Humanity)	0.08	0.01	-0.29	0.05	-0.03	-0.06	**0.44**	0.16	-0.14	0.05	0.12
Item 37 (Humanity)	0.07	0.10	-0.02	0.15	0.04	0.12	**0.41**	-0.15	-0.13	0.02	0.25
Item 42 (Humanity)	0.04	0.03	-0.28	0.04	0.05	0.05	**0.39**	-0.06	0.15	-0.09	0.03
Item 10 (Courage)	-0.07	-0.07	-0.12	0.10	0.12	0.07	-0.06	0.66	0.02	-0.01	0.05
Item 9 (Courage)	0.02	0.05	0.02	0.11	-0.02	-0.09	0.07	0.56	0.02	0.04	-0.03
Item 8 (Courage)	0.18	0.15	0.08	-0.12	-0.05	0.14	0.01	0.45	0.03	0.08	0.01
Item 11 (Temperance)	0.10	-0.02	0.02	0.11	-0.05	0.16	0.03	0.07	0.41	0.07	0.14
Item 14 (Temperance)	-0.03	-0.09	-0.04	0.10	0.13	0.33	0.01	0.14	0.38	0.10	0.06
Item 27 (Prudence)	0.08	0.09	-0.15	0.10	0.19	-0.16	0.18	-0.02	0.34	0.09	-0.19
Item 18 (Temperance)	0.04	-0.01	-0.12	-0.07	-0.01	-0.01	0.03	0.06	0.10	**0.64**	0.02
Item 17 (Temperance)	0.14	0.00	0.11	0.15	-0.03	0.16	0.28	0.00	-0.08	**0.35**	-0.04
Item 16 (Temperance)	0.07	0.03	0.10	0.07	0.20	0.23	0.14	0.04	-0.11	**0.29**	0.13

[a] N = 348.
[b] Item ID number is same as that shown in the VLQ-1 (Appendix A).

Table 4.3 Eleven-Factor EFA Results for Phase 2 [a] (Con't)

Item ID Number (Leader Virtues)[b]	Factor 1	Factor 2 (Courage)	Factor 3 (Humanity 1)	Factor 4 (Justice)	Factor 5 (Prudence)	Factor 6	Factor 7 (Humanity 2)	Factor 8	Factor 9	Factor 10 (Temperance)	Factor 11
Item 12 (Temperance)	0.07	0.02	0.01	0.05	0.05	0.13	-0.02	0.10	0.05	0.05	0.35
Item 2 (Courage)	-0.04	0.21	-0.07	-0.08	0.14	0.29	-0.09	0.12	-0.02	0.04	-0.31
Eigenvalues	12.46	2.41	1.90	1.45	1.35	1.24	1.18	1.16	1.13	1.07	1.04
% of Variance	28.31	5.48	4.31	3.30	3.06	2.82	2.68	2.63	2.57	2.42	2.35

[a] N = 348.
[b] Item ID number is same as that shown in the VLQ-1 (Appendix A).

Table 4.4 Forced Five-Factor EFA Results for Phase 2 [a]

Item ID Number (Leader Virtues)[b]	Factor 1 (Justice)	Factor 2 (Courage)	Factor 3 (Humanity)	Factor 4 (Temperance)	Factor 5 (Prudence)
Item 20 (Justice)	**.66**	.08	-.11	-.05	-.10
Item 23 (Justice)	**.54**	.00	-.19	-.10	.00
Item 22 (Justice)	**.48**	.02	.08	.07	.20
Item 19 (Justice)	**.46**	.00	-.08	-.20	.03
Item 21 (Justice)	**.45**	.08	-.21	.00	-.05
Item 17 (Temperance)	.39	-.08	-.13	-.20	.02
Item 24 (Justice)	**.39**	-.04	-.22	-.30	.00
Item 16 (Temperance)	.33	.01	.00	-.21	.19
Item 4 (Courage)	.12	**.60**	-.18	.06	-.04
Item 5 (Courage)	.13	**.57**	.01	.26	.12
Item 3 (Courage)	-.19	**.47**	-.05	.06	-.01
Item 7 (Courage)	.00	**.46**	-.09	-.24	-.06
Item 8 (Courage)	-.07	**.44**	.02	-.35	-.06
Item 10 (Courage)	.01	**.40**	-.11	-.20	.02
Item 9 (Courage)	.05	**.37**	-.13	-.11	-.07
Item 2 (Courage)	.02	**.37** [c]	.07	-.05	.19
Item 1 (Courage)	.20	**.30** [d]	.05	-.17	.04
Item 6 (Courage)	.12	**.28** [d]	.05	-.06	.18
Item 39 (Humanity)	.11	-.01	**-.79**	.03	-.09
Item 44 (Humanity)	-.05	.07	**-.72**	.04	.15
Item 38 (Humanity)	.06	.05	**-.71**	.05	-.06
Item 40 (Humanity)	.00	.02	**-.69**	.02	.06
Item 42 (Humanity)	-.04	-.01	**-.58** [c]	-.04	.11
Item 35 (Humanity)	.18	.12	**-.53**	-.13	-07
Item 43 (Humanity)	-.08	.08	**-.52**	-.12	.10
Item 36 (Humanity)	.16	.10	**-.43**	-.14	.02
Item 26 (Justice)	.08	.10	-.41	-.24	-.03
Item 41 (Humanity)	.11	-.07	**-.37** [c]	.02	.26
Item 37 (Humanity)	.28	-.06	**-.37** [c]	.01	.01
Item 33 (Prudence)	-.03	-.04	-.32	-.57	-.06
Item 14 (Temperance)	.09	.09	.04	**-.47**	.23
Item 11 (Temperance)	.05	.05	.02	**-.47**	.05
Item 32 (Prudence)	.03	-.17	-.15	-.44	.14
Item 13 (Temperance)	.18	.12	-.11	**-.42**	.04
Item 25 (Justice)	.30	.01	-.28	-.37	-.01
Item 15 (Temperance)	.10	.15	-.07	**-.37**	.11
Item 18 (Temperance)	.13	-.07	-.07	**-.29** [d]	.18
Item 12 (Temperance)	.09	.08	.02	**-.27** [d]	.01
Item 34 (Prudence)	.07	.05	-.10	-.23	.09
Item 29 (Prudence)	.19	.01	-.15	-.12	**.49**
Item 31 (Prudence)	-.08	.08	-.09	-.03	**.42**
Item 30 (Prudence)	.28	-.01	-.12	-.06	**.40**
Item 27 (Prudence)	.02	.00	-.29	-.10	**.31**
Item 28 (Prudence)	.13	.02	-.30	-.15	**.31**
Eigenvalues	12.46	2.41	1.90	1.45	1.35
% of Variance	28.31	5.48	4.31	3.30	3.06

[a] N = 348.
[b] Item ID number is same as that shown in the VLQ-1 (Appendix A).

[c] These items were not retained for Phase-3 study because they were not loaded heavily on their respective virtue factors in the 12-factor EFA (see Table 4.3), a decision rule that I used initially for item reduction in Phase 2. However, I realized subsequently that this EFA was likely not the most appropriate because those items written for truthfulness highly cross-loaded on the multiple factors. I then ran two separate EFAs on the same dataset (i.e., forced six-factor EFAs on 54 items including truthfulness items, and forced five-factor EFA on 44 items excluding truthfulness items), both of which provided strong support for a five-factor solution (see those results reported under the subtitle of "4.2.3 Results"). Thus, I decided to use the forced five-factor EFA on 44 items (excluding all truthfulness items) for item reduction in my thesis even though this EFA identified only a small set of items with strong loadings on their respective factors to carry over and test on my Phase-3 data. Note that there were only four additional items beyond those retained for Phase 3 that would have been retained but were not because I had used the 12-factor EFA on the 54 items (including the truthfulness items) from the start.

[d] These items were not retained for Phase-3 study because of their primary factor loadings no greater than .30.

Table 4.5 Inter-factor Correlations from the Forced Five-Factor EFA (Phase 2) [a]

Factor (Virtue)	1	2	3	4	5
Factor 1 (Justice)					
Factor 2 (Courage)	.18 ***				
Factor 3 (Humanity)	-.48 ***	-.24 ***			
Factor 4 (Temperance)	-.45 ***	-.27 ***	.49 ***		
Factor 5 (Prudence)	.37 ***	.21 ***	-.30 ***	-.30 ***	

[a] N = 348.
 * p < .05.
 ** p < .01.
 *** p < .001.

Table 4.6 Inter-Scale Correlations from the Forced Five-Factor EFA (Phase 2) [a]

Factor (Virtue)	1	2	3	4	5
Factor 1 (Justice)					
Factor 2 (Courage)	.33 ***				
Factor 3 (Humanity)	.61 ***	.41 ***			
Factor 4 (Temperance)	.55 ***	.39 ***	.51 ***		
Factor 5 (Prudence)	.59 ***	.34 ***	.58 ***	.51 ***	

[a] N = 348.
* p < .05.
** p < .01.
*** p < .001.

Table 4.7 A Summary of Confirmatory Factor Analyses in Phase 3 and 4 [a]

Model [b]	χ^2(df)	RMSEA	IFI	NFI	RFI	CFI	TLI	PNFI	PCFI
Phase 3: 5-Factor (29 Items)	689.35 (367)[***]	.07	.89	.79	.76	.89	.87	.71	.80
Phase 3: 5-Factor (27 Items)	548.25 (314)[***]	.06	.91	.81	.79	.91	.90	.72	.81
Phase 3: 5-Factor (18 Items)	164.49 (125)[*]	.04	.98	.91	.89	.98	.97	.74	.80
Phase 3: 1-Factor (18 Items)	291.96 (135)[* **]	.08	.91	.84	.82	.91	.89	.74	.80
Phase 4: 5-Factor (18 Items)	199.71 (125)[* **]	.05	.98	.94	.93	.98	.97	.77	.80
Phase 4: 1-Factor (18 Items)	405.65 (135)[* **]	.09	.92	.88	.86	.92	.91	.78	.81

[a] Statistics reported are based on the use of a covariance matrix.
[b] 5-Factor Model: Representing five components of virtuous leadership (courage, temperance, justice, prudence, and humanity; 1-Factor Model: Representing unidimensional or global virtuous leadership.

[*] p < .05.
[**] p < .01.
[***] p < .001.

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Table 4.8 Items and Standardized Factor Loadings in Phase 3 and 4 [a]

Loading Virtues (Factors)	Items [b]	Phase 3 [c] (27 Items)	Phase 3 [c] (18 Items)	Phase 4 [c] (18 Items)
Courage	Item 16	**0.71** [d]	0.71	0.87
	Item 9	**0.65**	0.65	0.82
	Item 35	**0.64**	0.63	0.83
	Item 1	**0.56**	0.54	0.82
	Item 21	0.50		
	Item 24	0.46		
Temperance	Item 19	**0.81**	0.81	0.79
	Item 17	**0.80**	0.81	0.79
	Item 10	**0.63**	0.64	0.76
	Item 27	**0.55**	0.54	0.69
Justice	Item 29	**0.80**	0.83	0.84
	Item 13	**0.76**	0.75	0.80
	Item 8	**0.74**	0.74	0.82
	Item 4	**0.66**		
	Item 34	0.65		
	Item 14	0.57		
Prudence	Item 28	**0.78**	0.80	0.87
	Item 31	**0.77**	0.78	0.84
	Item 33	**0.71**	0.72	0.81
	Item 20	**0.46**	0.44	0.72
	Item 2	0.46		
Humanity	Item 26	**0.85**	0.85	0.81
	Item 22	**0.79**	0.80	0.86
	Item 25	**0.72**	0.69	0.82
	Item 30	**0.70**		
	Item 23	0.69		
	Item 32	0.66		

[a] Standardized regression weights; p < .001 for all loadings.
[b] Item ID number is same as that shown in the VLQ-2 (see Appendix C).
[c] N = 194 for Phase 3; N = 230 for Phase 4.
[d] Those 20 items bolded were selected for identifying a best fitting model by CFA in Phase 3.

Table 4.9 Inter-Factor Correlations and Internal Consistency Reliabilities (Phase 3) [a]

Factor (Virtue)	1	2	3	4	5
Factor 1 (Courage)	.73 [b]				
Factor 2 (Temperance)	.62 ***	.79 [b]			
Factor 3 (Justice)	.54 ***	.74 ***	.81 [b]		
Factor 4 (Prudence)	.60 ***	.69 ***	.74 ***	.77 [b]	
Factor 5 (Humanity)	.48 ***	.67 ***	.72 ***	.58 ***	.83 [b]
Overall Reliability (Cronbach's Alpha)	.93 [c]				

[a] N = 194.
[b] Internal consistency reliabilities (Cronbach's alpha) for each factor in diagonal.
[c] Internal consistency reliabilities (Cronbach's alpha) for the single construct, i.e., all eighteen items are used to measure one construct.

   * p < .05.
  ** p < .01.
 *** p < .001.

Table 4.10 Inter-Factor Correlations and Internal Consistency Reliabilities (Phase 4) [a]

Factor (Virtue)	1	2	3	4	5
Factor 1 (Courage)	.90 [b]				
Factor 2 (Temperance)	.77 [***]	.84 [b]			
Factor 3 (Justice)	.73 [***]	.73 [***]	.86 [b]		
Factor 4 (Prudence)	.78 [***]	.73 [***]	.85 [***]	.88 [b]	
Factor 5 (Humanity)	.71 [***]	.72 [***]	.83 [***]	.79 [***]	.87 [b]
Overall Reliability (Cronbach's Alpha)	.96 [c]				

[a] $N = 230$.
[b] Internal consistency reliabilities (Cronbach's alpha) for each factor in diagonal.
[c] Internal consistency reliabilities (Cronbach's alpha) for the single construct, i.e., all eighteen items are used to measure one construct.
   [*] $p < .05$.
   [**] $p < .01$.
   [***] $p < .001$.

Table 4.11 Means, Standard Deviations, and Correlations for Phase 4

Variables/Measures	Mean	SD	1	2	3	4	5	6	7	8	9	10	11
1. Virtuous Leadership (VLQ-3)	3.57	.84	.97 [b]										
2. Virtuous Leadership Scale (VLS)	3.72	.68	.64***	.84 [b]									
3. Socialized Charismatic Leadership Scale	3.63	.86	.83***	.58***	.92 [b]								
4. Personalized Charismatic Leadership Scale	2.63	1.15	.17*	.11	.20**	.91 [b]							
5. Machiavellianism IV Scale	2.66	.50	-.37***	-.36***	-.37***	.39***	.80 [b]						
6. Leader Age	2.60	.82	-.05	-.22**	-.07	.17**	.19**						
7. Leader Gender	1.43	.50	-.03	.00	-.06	-.13*	-.09	-.06					
8. Leader Education	2.77	.71	-.03	-.06	.02	.09	.05	.07	-.13*				
9. Relationship Tenure-Subordinate	2.80	1.01	.07	.01	.10	.29***	.01	-.08	.11	.08			
10. Follower Age	2.83	.88	-.09	-.09	-.10	.00	.11	.47***	-.12	.15*	-.23***		
11. Follower Gender	1.44	.50	-.06	-.02	-.06	-.18**	-.01	-.14*	.36***	-.20**	.02	-.15*	
12. Follower Education	2.53	.75	.02	-.10	.05	.19**	.05	.21**	-.16*	.54***	.16*	.23**	-.27***
13. Relationship Tenure-Supervisor	2.67	1.02	.13*	.02	.18**	.29***	-.02	-.03	.11	.10	.75***	-.28***	.08
14. Ethical Leader	3.88	.78	.77***	.52***	.73***	-.11	-.43***	-.08	.01	-.05	-.05	-.09	-.01
15. Leader Happiness	3.56	.75	.57***	.66***	.53***	.15*	-.31***	.05	-.04	.00	.07	.05	-.15*
16. Leader Life Satisfaction	3.71	.79	.49***	.60***	.49***	.13	-.32***	-.01	-.05	.01	.11	-.03	-.12
17. Leader Effectiveness	4.00	.81	.67***	.49***	.64***	-.15*	-.43***	-.16*	.03	-.02	-.14*	-.09	.02
18. Ethical Follower	4.12	.75	.49***	.63***	.47***	-.11	-.51***	-.21**	.00	-.01	-.02	-.14*	.03
19. Follower Happiness	3.49	.81	.62***	.38***	.58***	.21**	-.24***	.10	-.08	.00	.14*	-.02	-.19**
20. Follower Life Satisfaction	3.53	.86	.56***	.41***	.53***	.22**	-.26***	.00	-.10	.01	.22**	-.15*	-.18**
21. Follower In-Role Performance	4.20	.71	.43***	.58***	.40***	-.13	-.42***	-.28***	.08	-.04	.01	-.28***	.14*
22. Follower Extra-Role Performance	4.03	.79	.51***	.63***	.46***	.00	-.44***	-.25***	-.01	-.01	.05	-.24***	.03

[a] N = 230.
[b] Internal consistency reliabilities (Cronbach's alpha) for each factor in diagonal.
  *p < .05; **p < .01; ***p < .001.

Table 4.11 Means, Standard Deviations, and Correlations for Phase 4 (Con't)

Variables/Measures	Mean	SD	12	13	14	15	16	17	18	19	20	21
1. Virtuous Leadership (VLQ-3)	3.59	.83										
2. Virtuous Leadership Scale (VLS)	3.72	.68										
3. Socialized Charismatic Leadership Scale	3.63	.86										
4. Personalized Charismatic Leadership Scale	2.63	1.15										
5. Machiavellianism IV Scale	2.66	.50										
6. Leader Age	2.40	.82										
7. Leader Gender	1.43	.50										
8. Leader Education	2.77	.71										
9. Relationship Tenure-Subordinate	2.80	1.01										
10. Follower Age	2.17	.88										
11. Follower Gender	1.44	.50										
12. Follower Education	2.53	.75										
13. Relationship Tenure-Supervisor	2.67	1.02	.20**									
14. Ethical Leader	3.88	.78	-.06	.00								
15. Leader Happiness	3.56	.75	.02	.04	.49***							
16. Leader Life Satisfaction	3.71	.79	.01	.04	.45***	.79***						
17. Leader Effectiveness	4.00	.81	-.06	-.11	.84***	.43***	.44***					
18. Ethical Follower	4.12	.75	-.04	-.05	.57***	.50***	.53***	.54***				
19. Follower Happiness	3.49	.81	.14*	.11	.61***	.50***	.45***	.50***	.32***			
20. Follower Life Satisfaction	3.53	.86	.14*	.13*	.52***	.48***	.55***	.44***	.43***	.78***		
21. Follower In-Role Performance	4.20	.71	-.12	.00	.53***	.39***	.44***	.50***	.84***	.21**	.32***	
22. Follower Extra-Role Performance	4.03	.79	-.03	.02	.54***	.47***	.52***	.51***	.83***	.39***	.49***	.79***

[a] N = 230.
[b] Internal consistency reliabilities (Cronbach's alpha) for each factor in diagonal.
 * p < .05; ** p < .01; *** p < .001.

Table 4.12 Multiple Regression Analysis (Beta and p-values) [a]

Variables	Ethical Leader	Leader Happiness	Leader Life Satisfaction	Leader Effectiveness	Ethical Follower	Follower Happiness	Follower Life Satisfaction	Follower In-Role Performance	Follower Extra-Role Performance
Step 1									
Leader Age		.05	-.02		-.22**			-.28***	-.25***
Leader Gender		-.04	-.05		-.01			.06	-.02
Leader Education		-.01	.00		.01			-.01	.00
Relationship Tenure-Subordinate					-.04			-.02	.03
Follower Age	-.09			-.13		-.07	-.20**		
Follower Gender	-.04			.02		-.17*	-.17*		
Follower Education	-.05			.01		.11	.14*		
Relationship Tenure-Supervisor	-.01			-.15*					
Model F Value	.63	.31	.20	1.68	2.79*	3.96**	6.52***	5.04**	3.78**
R^2	.01	.00	.00	.03	.05	.05	.08	.08	.06
ΔR^2	-.01	-.01	-.01	.01	.03	.04	.07	.07	.05
Step 2									
Virtuous Leadership	.79***	.57***	.49***	.70***	.49***	.61***	.54***	.42***	.50***
Model F Value	70.09***	27.47***	18.33***	45.55***	17.52***	40.70***	32.33***	15.40***	20.03***
R2	.61	.33	.25	.50	.28	.42	.36	.26	.31
$\Delta R2$	.60	.32	.23	.49	.27	.41	.35	.24	.29

[a] N = 230.
* p < .05; ** p < .01; *** p < .001.

Figure 3.1: A Virtues-Based Model of Leadership

Figure 4.1: The Multi-Step Research Process

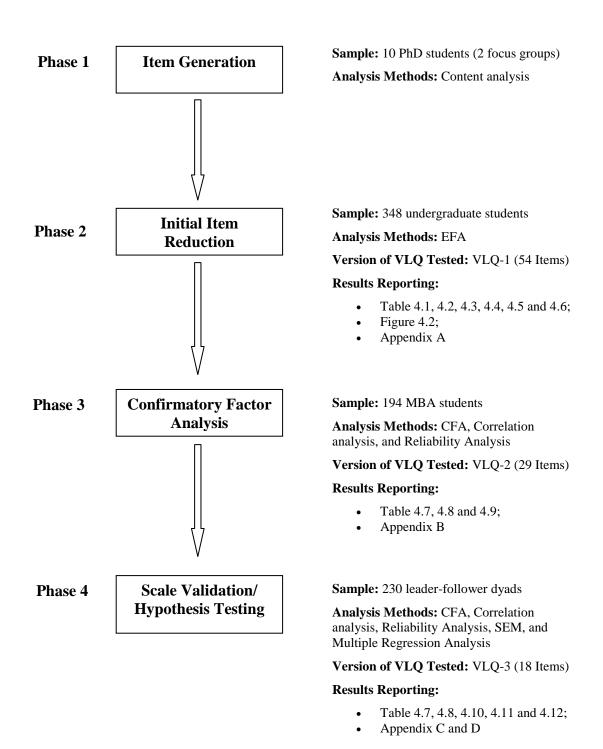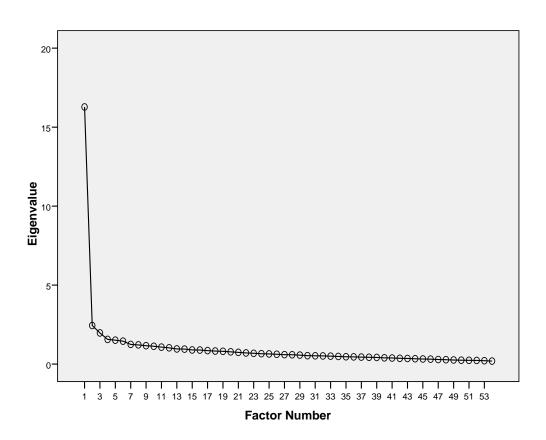|		
Phase 1	Item Generation	**Sample:** 10 PhD students (2 focus groups) **Analysis Methods:** Content analysis
Phase 2	Initial Item Reduction	**Sample:** 348 undergraduate students **Analysis Methods:** EFA **Version of VLQ Tested:** VLQ-1 (54 Items) **Results Reporting:** • Table 4.1, 4.2, 4.3, 4.4, 4.5 and 4.6; • Figure 4.2; • Appendix A
Phase 3	Confirmatory Factor Analysis	**Sample:** 194 MBA students **Analysis Methods:** CFA, Correlation analysis, and Reliability Analysis **Version of VLQ Tested:** VLQ-2 (29 Items) **Results Reporting:** • Table 4.7, 4.8 and 4.9; • Appendix B
Phase 4	Scale Validation/ Hypothesis Testing	**Sample:** 230 leader-follower dyads **Analysis Methods:** CFA, Correlation analysis, Reliability Analysis, SEM, and Multiple Regression Analysis **Version of VLQ Tested:** VLQ-3 (18 Items) **Results Reporting:** • Table 4.7, 4.8, 4.10, 4.11 and 4.12; • Appendix C and D

Figure 4.2: The Scree Plot of the 12-Factor EFA (Phase 2)

Appendix A. Recruitment Letter for Phase 1

E-mail Subject line: A pre-test of a scale for measuring virtuous leadership

Dear Students,

Gordon Wang, a PhD student at the DeGroote School of Business, has asked me to tell you about a study he is doing on measuring virtuous leadership.

The following is a brief description of his study. If you are interested in receiving more information on taking part in Gordon's study please read the brief description below or CONTACT HIM DIRECTLY by using his McMaster telephone number (905-525-9140 Ext: 26172) or email address (wangq34@mcmaster.ca).

You are being invited to complete an anonymous survey of approximately 15 minutes. This research is part of his thesis for a doctoral degree in Human Resources Management. Gordon hopes to develop a scale for measuring virtuous leadership.

Gordon is seeking your involvement to pre-test (i.e., "trial run") this scale. There should be no risk to you. You can stop being in the study at any time. He has attached a copy of an Information Letter that gives you full details about his study. Because this study is an anonymous survey, I will not know who participated, or what they answered. Meanwhile, your participation in this study will have no impact on your grade in this course.

This study has been reviewed and cleared by the McMaster Research Ethics Board. If you have concerns or questions about your rights as a participant or about the way the study is being conducted you may contact:

> McMaster Research Ethics Board Secretariat
> Telephone: (905) 525-9140 ext. 23142
> c/o Office of Research Services
> E-mail: ethicsoffice@mcmaster.ca

Gordon Wang is working on a pioneering study, which could make significant contributions to leadership research and practice. If you are interested in participating in this study, please complete the survey questionnaire to be delivered in the tutorial session during the period of October 4th to October 8th.

Sincerely,

Instructor Name
Instructor Affiliation

Appendix B. Recruitment Letter for Phase 3

E-mail Subject line: A pre-test of a scale for measuring virtuous leadership

Dear Students,

Gordon Wang, a PhD student at the DeGroote School of Business, has asked me to tell you about a study he is doing on measuring virtuous leadership. The following is a brief description of his study. If you are interested in receiving more information on taking part in Gordon's study please read the brief description below or CONTACT HIM DIRECTLY by using his McMaster telephone number (905-525-9140 Ext: 26172) or email address (wangq34@mcmaster.ca).

You are being invited to complete an anonymous survey of approximately 10-15 minutes. This research is part of his thesis for a doctoral degree in Human Resources Management. Gordon hopes to develop a scale for measuring virtuous leadership.

Gordon is seeking your involvement to pre-test (i.e., "trial run") this scale. There should be no risk to you. He has attached a copy of an Information Letter that gives you full details about his study. Because this study is an anonymous survey, neither I nor your instructors will know who participated, or what they answered. Meanwhile, participation in this study will have no impact on your grade in any course you are taking.

If you decide to participate in Gordon's survey, you will have the chance to enter your e-mail address to participate in a random draw for one of five $100 Chapter Bookstore gift certificates. Your email address will be kept separate from your completed survey, to ensure your complete anonymity.

This study has been reviewed and cleared by the McMaster Research Ethics Board. If you have concerns or questions about your rights as a participant or about the way the study is being conducted you may contact:

> McMaster Research Ethics Board Secretariat
> Telephone: (905) 525-9140 ext. 23142
> c/o Office of Research Services
> E-mail: ethicsoffice@mcmaster.ca

Gordon Wang is working on a pioneering study, which could make significant contributions to leadership research and practice. If you are interested in participating in this study, please complete the on-line survey before Saturday October 30th. The web link for accessing this on-line survey is:

http://fluidsurveys.com/s/virtuous-leadership-questionnaire-version-b/. On Friday October 27th, Gordon will send a reminder letter to you.

Sincerely,

Senior Officer Name
Senior Officer Affiliation

Appendix C. Recruitment Letter for Phase 4 (Leader Sample)

SR The StudyResponse Center for Online Research
A Social Science Research Project At Syracuse University

SAMPLE RECRUITMENT LETTER – Paired Study

Participant [ID]: New Direct Payment Paired Survey Invitation

Dear StudyResponse Project Participant:

We are requesting your assistance with a study conducted by a researcher at McMaster University on measuring virtuous leadership. You must be at least 18 years of age to participate and you must be currently employed as a manager/supervisor, be a resident in one of the following countries as US, Canada, UK or Australia, be willing to complete an upcoming leadership survey, and be willing to invite one of your direct subordinates to complete another 15-minute survey. The study will take you approximately 10-15 minutes to complete. If you choose not to respond within the first week, we might send you a reminder in one week.

This study is anonymous, so please do not enter any identifying information into the research instrument except your StudyResponse ID, which is [ID]. The researchers have pledged to keep your data confidential and only to report aggregated results in any published scientific study. Note that instructions on how to discontinue your participation in StudyResponse and stop receiving emails from us appear at the end of this message.

In appreciation of your choice to participate in the project, the researchers have provided a 10$ gift certificate to Amazon.com which you will receive AFTER you and your invited subordinate complete the surveys *.

Please note that your StudyResponse ID number is [ID] (also shown in the subject line of this message) and that you must enter that number into the survey to be eligible to receive the gift certificate. StudyResponse will start issuing the certificates approximately two weeks after the researcher receives the completed survey.

Follow this link to participate:
http://fluidsurveys.com/s/vlq-leader-version-c/

Participation in this survey is voluntary and you may withdraw from participation at any time. If you have any questions you may contact one of the researchers:

Gordon Wang, Ph.D. Candidate
DeGroote School of Business
McMaster University
1280 Main St. West
Hamilton, Ontario, Canada L8S 4M4
(905) 525-9140 ext. 26172
E-mail: wangq34@mcmaster.ca

We very much appreciate your participation in the StudyResponse project and your willingness to consider completing this study.

You received this email because you signed up as a research participant for the StudyResponse project, which is based at Syracuse University's School of Information Studies, in Syracuse NY, USA. You also provided a confirmation of that signup in a subsequent step. The StudyResponse project has received institutional review board approval (07-199), affirming our commitment to ethical treatment of research participants. Although StudyResponse is not a commercial service and does not send unsolicited email, the project complies with the obligations of the 2003 CAN-SPAM act. In accordance with the act, you have the following options for ceasing participation in the StudyResponse project:

1. You may simply reply to this email with the word UNSUBSCRIBE in the subject.

2. You may use our self service account management interface at: http://studyresponse.syr.edu/studyresponse/update.htm

3. You may contact a staff member of the StudyResponse project using the contact information provided below.

* Conditions apply. In case of any clarifications, please feel free to contact us at SRhelp@syr.edu

For further information about the StudyResponse project, you may contact a member of the StudyResponse staff:

StudyResponse Project; Director: Jeffrey Stanton; Hinds Hall, Syracuse University, Syracuse, NY
13244-4100, 315-443-7267, SRhelp@syr.edu

Appendix D. Recruitment Letter for Phase 4 (Follower Sample)

SAMPLE RECRUITMENT LETTER – Paired Study

Participant [ID]: New Direct Payment Paired Survey Invitation

Dear StudyResponse Project Participant:

We are requesting your assistance with a study conducted by a researcher at
McMaster University on measuring virtuous leadership. You must be at least 18
years of age to participate and you must be currently employed, be a resident in
one of the following countries as US, Canada, UK or Australia, be willing to
complete an upcoming 15-minute leadership survey, and be invited by your direct
supervisor. If you choose not to respond within the first week, we might send you
a reminder in one week.

This study is anonymous, so please do not enter any identifying information into
the research instrument except your StudyResponse ID, which is [ID]. The
researchers have pledged to keep your data confidential and only to report
aggregated results in any published scientific study. Note that instructions on how
to discontinue your participation in StudyResponse and stop receiving emails
from us appear at the end of this message.

In appreciation of your choice to participate in the project, the researchers have
provided a 10$ gift certificate to Amazon.com which you will receive AFTER
you and your supervisor who invited you complete the surveys *.

Please note that your StudyResponse ID number is [ID] (also shown in the subject
line of this message) and that you must enter that number into the survey to be
eligible to receive the gift certificate. StudyResponse will start issuing the
certificates approximately two weeks after the researcher receives the completed
survey.

Follow this link to participate:
http://fluidsurveys.com/s/vlq-follower-version-c/

Participation in this survey is voluntary and you may withdraw from participation
at any time. If you have any questions you may contact one of the researchers:

Gordon Wang, Ph.D. Candidate

DeGroote School of Business
McMaster University
1280 Main St. West
Hamilton, Ontario, Canada L8S 4M4
(905) 525-9140 ext. 26172
E-mail: wangq34@mcmaster.ca

We very much appreciate your participation in the StudyResponse project and your willingness to consider completing this study.

You received this email because you signed up as a research participant for the StudyResponse project, which is based at Syracuse University's School of Information Studies, in Syracuse NY, USA. You also provided a confirmation of that signup in a subsequent step. The StudyResponse project has received institutional review board approval (07-199), affirming our commitment to ethical treatment of research participants. Although StudyResponse is not a commercial service and does not send unsolicited email, the project complies with the obligations of the 2003 CAN-SPAM act. In accordance with the act, you have the following options for ceasing participation in the StudyResponse project:

1. You may simply reply to this email with the word UNSUBSCRIBE in the subject.

2. You may use our self service account management interface at:
http://studyresponse.syr.edu/studyresponse/update.htm

3. You may contact a staff member of the StudyResponse project using the contact information provided below.

* Conditions apply. In case of any clarifications, please feel free to contact us at SRhelp@syr.edu

For further information about the StudyResponse project, you may contact a member of the StudyResponse staff:

StudyResponse Project; Director: Jeffrey Stanton; Hinds Hall, Syracuse University, Syracuse, NY
13244-4100, 315-443-7267, SRhelp@syr.edu