

VIRTUE-BASED MEASUREMENT OF ETHICAL LEADERSHIP: THE LEADERSHIP VIRTUES QUESTIONNAIRE

Ronald E. Riggio, Weichun Zhu,
and Christopher Reina
Claremont McKenna College

James A. Maroosis
Fordham University

Approaching ethical leadership from a characterological perspective, this study reports on the creation of the Leadership Virtues Questionnaire (LVQ). Defining an ethical leader as one who adheres to the four cardinal virtues of prudence, fortitude, temperance, and justice, as discussed in the ancient texts of Aristotle and St. Thomas Aquinas, we developed a rating instrument for assessing leader virtues. A series of studies with managers examined the psychometric properties and correlates of the LVQ. Factor analyses suggested that one factor best captured the construct, not inconsistent with philosophers' notions of the "unity" of the cardinal virtues. The LVQ was shown to be highly positively correlated with transformational leadership, authentic leadership, and another recently developed measure of ethical leadership, and there was evidence of discriminant validity. The LVQ, used with the virtues approach to ethical leadership, should prove to be a valuable tool for the assessment and development of leader virtues and ethics.

Keywords: leadership, ethics, virtue, ethical leadership, virtuous leadership

Although thousands of articles and books have been published on effective leadership, only a small portion of this work has focused on ethical leadership. Even less attention has been devoted to the definition and measurement of ethical leadership. A little more than a decade ago, Ciulla (1998) stated, "it's remarkable that there has been little in the way of sustained and systematic treatment of the subject [ethical leadership] by scholars" (p. 3). Since that time, highly publicized corporate leadership scandals, such as the Enron, WorldCom, and Tyco debacles in the early 2000s (Clinard & Yeager, 2006), the failures of many U.S. financial institutions in 2007–2008, and ongoing concerns over the ethicality of political leaders, has put the issue of the ethics of corporate and government leaders front and center in the minds of business leaders, legislators, the media, and leadership scholars. As a result, practitioners and researchers are increasingly interested in ethical leadership and argue that ethical leadership positively affects organizational performance while helping develop the forces that shape employees' moral decision-making (Brown & Treviño, 2006; Brown, Treviño, & Harrison, 2005).

One critical issue facing practitioners and researchers alike, however, is how to measure effectively and accurately ethical leadership in organizations. Developing a reliable and valid scale

Ronald E. Riggio, Weichun Zhu, and Christopher Reina, Kravis Leadership Institute, Claremont McKenna College; James A. Maroosis, Graduate School of Business, Fordham University.

Correspondence concerning this article should be addressed to Ronald E. Riggio, Kravis Leadership Institute, Claremont McKenna College, 850 Columbia Avenue, Claremont, CA 91711. E-mail: Ronald.Riggio@ClaremontMcKenna.edu

to measure ethical leadership is of key importance to studying ethical leadership, and is the main purpose of this study.

This research seeks to lay down the conceptual and empirical groundwork that may contribute to our knowledge of ethical leadership. Specifically, this study: (a) reviews the relevant literature that has included an ethical leadership component; (b) proposes a virtue-based ethics approach for understanding ethical leadership; (c) offers a definition of ethical leadership based on the four cardinal virtues, defined first by Plato (2003), but more fully by Aristotle; (d) creates and refines an instrument, the Leadership Virtues Questionnaire (LVQ), to measure the construct of virtue-based ethical leadership; (e) develops a nomological network that specifies and explains its connections to other variables; and (f) demonstrates the utility of the leadership virtue construct by showing its ability to predict variance above and beyond other related measures of ethical leadership. Finally, we will discuss the uses of the LVQ in leadership consulting and in leadership development.

Ethics and Leadership

It was the seminal work of Burns (1978), and his construct of transforming leadership, that stimulated scholars' attention to leaders who are highly effective in transforming societies, organizations, and their followers. For Burns, ethics (in terms of focusing on the greater good) was what distinguished transforming leaders from transactional leaders, with transforming leaders empowering followers to higher levels of motivation, achievement, and morality. Bass (1985), (1998) and colleagues (Avolio, Bass, & Jung, 1997; Bass & Avolio, 1997, 2000) operationalized transformational leadership with the development of the Multifactor Leadership Questionnaire (MLQ) (Bass & Avolio, 2000), which measures four components of transformational leadership (inspirational motivation, idealized influence, individualized consideration, and intellectual stimulation). Initially, Bass did not distinguish between ethical and unethical transformational leadership, but later realized that unethical (what he called "pseudotransformational") leadership was not truly transformational, bringing his conceptualization in line with Burns (Bass & Steidlmeier, 1999; Bass & Riggio, 2006). This area of research has been continued and expanded by Avolio and his colleagues (e.g., Avolio & Gardner, 2005; Walumbwa, Avolio, Gardner, Wernsing, & Peterson, 2008), in their work on authentic leadership, which conceptualizes authentic leadership as being composed of four components: self-awareness, relational transparency, internalized moral perspective, and balanced processing. The internalized moral perspective is the component of authentic leadership that would be most closely associated with typical conceptions of ethical leadership.

Brown et al. (2005) define ethical leadership as 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" (p. 120). Adopting a behavioral perspective, they developed a scale, called the Ethical Leadership Scale (ELS), to measure ethical leadership behaviors in organizations. This scale has demonstrated high reliability and has been shown to be positively correlated with other constructs; particularly, leader honesty, fairness, and the idealized influence dimension of transformational leadership, which Brown and Treviño (2006) suggest is "the existing leadership construct that is conceptually closest to ethical leadership" (p. 597).

The Brown et al. (2005) model is based on social learning theory and suggests that leaders develop their ethical leadership behaviors by emulating admired, ethical leader role models. One problem with this approach is ethical relativism, which suggests that leaders who are misguided and believe they are on a morally positive path, but are actually engaging in morally "wrong" courses of action (e.g., apartheid, pursuing profits at the cost of public health/safety), can lead followers to destructive ends.

While ethical leader behaviors are likely partly the result of the underlying moral values and philosophical views a leader holds, one can imagine that even extremely corrupt leaders can and do engage in ethical behaviors, particularly if they are being scrutinized. Moreover, unethical leaders may champion moral behavior and exhort followers to behave in ethical ways, while privately behaving unethically. Consider the case of well-known religious and political leaders who railed against certain vices, but engaged in those same behaviors in private. In many cases, such

individuals are successful for years in convincing followers that they are truly ethical when they are not.

It was our concern with the limitations of a behavioral approach to leadership ethics that led us to find a theoretical model for ethical leadership that focused more on characterological elements. That is, we believe that ethical leadership is best represented by the makeup of the individual, the virtues he or she possesses, and the self-knowledge and self-discipline that guide the leader's moral actions. The model that we used to guide our research is Aristotle's virtue-based ethics.

The Cardinal Virtues

The word ethics comes from the Greek word *ethos* which has been translated as "character" (Toffler, 1986, p. 10) and also from the related Greek word *ethikos* which has been translated as "theory of living" (Ethos, 2007, para. 1). Toffler (1986) defines *ethics* as "rules or standards" that "govern behaviors" and *moral* as "relating to principles of right and wrong" (p. 10). These two words clearly are intimately related, and for the purpose of the present study, they will be used interchangeably (as in either ethical or moral behavior). Additionally, *values* in the present study will be defined as the "guiding principles in our lives with respect to the personal and social ends we desire" (Kouzes & Posner, 1993, p. 60), and *virtue* as "something practiced at all times" (Virtue, 2007, para. 5). Temperance, fortitude, and justice are considered moral virtues and they "concern the mean between doing too much and too little" in a given situation (Aquinas, 2005, p. 162). Prudence is the wisdom that manages or dictates a proper balance between two extremes in a world of shifting contexts and priorities. Because prudence is critical, a leader cannot be ethical unless he or she is prudent.

Therefore, the first cardinal virtue we will discuss is *prudence* and it is often associated with knowledge, practical wisdom, and insight. Prudence is the translation from the actual word *phronesis* that Aristotle used to describe the ability to find the balance between two extremes and make the appropriate decision that both minimizes harm and maximizes the good (Aristotle, 2005). Prudence, or practical wisdom, is the ability to decide, based on experience, the right thing to do. Aristotle states that finding this moral sweet spot is not simply a skill, but a type of knowing, or a learning process. It is not just about achieving an end, it is also about the ability to reflect upon and determine that end. Aristotle describes the situation in which a young man finds himself wondering whether or not to be honest because doing so may cause pain and offense. According to Aristotle, the prudent person knows how to apply honesty. For example, knowing when to tell the truth and when to lie based on the circumstances. It might not be prudent to be honest with a deranged person, or a terrorist who is out to harm you and others.

It is important to note that prudence often is considered the mother of all virtues in that it has a "directive capacity with regard to the other virtues. It lights the way and measures the arena for their exercise" (Delaney, 1911, p. 1) by managing or leading people in the right direction. Without prudence, the exercise of fortitude can appear a lot like foolhardiness, temperance may become fanaticism, and justice may turn into weakness. It is, therefore, necessary that leaders be prudent to possess any of the other three cardinal virtues.

According to St. Thomas Aquinas (2005, p. 5), prudence requires three mental actions: taking counsel carefully with oneself and others, judging correctly from the evidence at hand, and directing the rest of one's activities based on the judgments made from careful consideration. The mental action of seeking good counsel requires that one expend time and energy discovering which action in a given situation will achieve the best end. Once they have made this "morally correct" decision, they must put it into action, thus completing the third and final stage in making a prudent decision (McManaman, 2006a).

The second cardinal virtue is *fortitude* (often called courage). Sometimes fear can take the place of reason and thus discourage one from pursuing what is right (or prudent). It should not be assumed, however, that fear is the opposite of reason, because it is perfectly acceptable (even expected) that some things should be feared (a premature death and a bad reputation are two examples Aristotle gives). In fact, without fear there is no need for courage. Courage is working with fear to do the right thing. It is only when fear interferes with one's ability to do what is right, that it works against reason (Floyd, 2006). In summary, leaders act with fortitude when they persevere in the face of adversity.

Aristotle says that even in the face of death, a brave or courageous person should remain strong: “Now death is the most terrible of all things; for it is the end, and nothing is thought to be any longer either good or bad for the dead. But the brave man would not seem to be concerned even with death” (Aristotle, 2005, p. 30).

Aristotle also mentions that “it is for a noble end that the brave man endures and acts as courage directs” (Aristotle, 2005, p. 30). This is an important idea because it is only if leaders face death or the loss of their leadership position for a noble cause that they shall be considered courageous. If the cause is not a noble cause then they will be simply considered daring, but not courageous. Running into a burning building just to see if it is possible to make it to the bathroom and back before getting burned is daring (and stupid) and not courageous. Conversely, darting into a burning building in order to save its trapped occupants is courageous (and noble). Leaders who are courageous act prudently and “stand immovable in the midst of dangers” (Aquinas, 2005, p. 109). Perseverance, patience, and endurance thus play vital roles in ensuring someone behaves courageously, but without prudence there can be no courage. In Kidder’s words, leaders must have “the quality of mind and spirit that enables [them] to face up to ethical challenges firmly and confidently, without flinching or retreating” (Kidder, 2005, p. 72).

Temperance is the ability to control one’s emotions. The idea of moderation is key to the understanding of temperance. Leaders who possess strong temperance have control over their bodies and do not practice acts of self-indulgence or self-denial. Aristotle compares a man who lacks temperance to a stereotypically spoiled child who knows no limits (Aristotle, 2005). A temperate person avoids what Aquinas calls “concupiscible passion” which is defined as an intense desire to pursue what is pleasing and avoid what is harmful (Knight, 2006). Instead, a temperate person shows a restrained (and prudent) desire of physical gratification.

Temperance deals with more than moderation of physical pleasures. Aquinas also states that humility is a vital part of temperance. Leaders who are humble do not focus excessively on what they cannot achieve. A temperate person knows his or her own deficiencies and must accept them (McManaman, 2006b). If persons are unwilling to accept their deficiencies and/or weaknesses, then they are intemperate—their beliefs in their abilities are not accurate and are thus incorrectly inflated. Subsequently, leaders who wish to know everything about everyone and everything in their company (who in effect, micromanage) have an unhealthy desire for knowledge and could thus be considered intemperate. Finally, leaders may be excessively preoccupied with themselves in that they become too materialistic and attached to the pleasure that outward apparel provides them (McManaman, 2006b). It is also important to note that leaders who attempt to act artificially humble by neglecting themselves or their appropriate needs, may in fact be seeking negative attention. This false humility would classify them as intemperate leaders.

The final cardinal virtue, *justice*, was given great attention by Aristotle—it is the only virtue that has an entire book devoted to its discussion. Aristotle talks about two distinct types of justice—*general justice* that deals mostly with following laws (something is unjust if it is unlawful), and *particular justice* which deals with fairness (something is unjust if it is not fair) (Aristotle, 2005). Aristotle concentrates on particular justice and describes an unjust action as one that is motivated by unjust gains (Aristotle, 2005). In other words, if leaders behave in a way that seeks to benefit themselves at the expense of others, these acts are unjust. Aristotle uses the example of two husbands who commit adultery against their wives. If husband A is motivated by gaining power and influence and husband B is motivated only by his sexual appetite, then it is only husband A who is committing an unjust act according to Aristotle. He is overreaching or “grasping” and motivated by greed whereas husband B is intemperate or unable to control his body, but he is not unjust (Aristotle, 2005, p. 48). Both, however, are imprudent, and hence neither is acting in a virtuous manner.

According to Aquinas, justice is a sustained or constant willingness to give others what they deserve (e.g., basic human rights; Aquinas, 2005, p. 35). One may say that the aim of the other virtues does not seem to differ in any major way from justice—each of the other virtues is just as likely as justice to have an effect on the welfare of others. The difference between the other three virtues and justice is that each of the other three specifies a particular end beyond contributing to others’ welfare. In sum, prudence does what is just, while temperance and fortitude protect prudence

from inner and outer threats. Temperance and fortitude seek to make someone a good *person*, while it is only the specific aim of justice to make a person a good *citizen* (Floyd, 2006).

We thus used virtue ethics as a theoretical framework for creating a character-based measure of ethical, or *virtuous* leadership. We believe that in the past several years there has been remarkable progress in taking the poorly understood construct of ethical leadership and attempting to operationalize and measure it. We seek to contribute to that growing body of work by introducing a foundational, ancient, and philosophical approach to ethics, focusing on the virtues of the good leader.

A Virtue-Based Measure of Ethical Leadership

For our purposes, an ethical leader is defined as a leader whose personal characteristics and actions align with each of the above-discussed four cardinal virtues of prudence, temperance, fortitude, and justice. To that end, we developed a scale to measure each of the cardinal virtues, and we report here on scale development and initial validation of the instrument.

Because scale items were written specifically to assess only one of these virtues and because each of these virtues has been traditionally defined in such a way that distinguishes it from the others, it is possible that the Leadership Virtues Questionnaire (LVQ) created in this study will consist of four discrete factors, one for each of the cardinal virtues. It is also important to emphasize that virtuous leadership is not a piecemeal construction. Rather, according to Aristotle, the virtues form a unified whole, with prudence playing a critical leadership role. It is prudence that interprets, evaluates, develops a plan of action, and executes the virtues making one's actions just, courageous, and temperate. Therefore, we expect that the four virtues will be substantially intercorrelated.

As noted earlier, and as this special journal issue suggests, there are several emerging theories and attempts to measure leadership ethics and character. These include the aforementioned theories of authentic leadership (Walumbwa et al., 2008), the more behaviorally based approach of Brown et al. (2005), and the model of spiritual leadership created by Fry (2003).

Our approach is not inconsistent with these other models. Indeed, we expect there to be substantial convergence with these other theories and measures, for in many ways "good" leadership is simply good leadership (Ciulla, 1998). Virtuous leaders act and behave ethically—they strive to do the right thing, and although it may be difficult to assess the true character of leaders, followers will develop attitudes and opinions about their leaders' character and ethicality.

It is important to emphasize upfront that our intention in using the cardinal virtues as a theoretical platform for measurement and scale development was to take a very different approach from previous attempts to measure ethical leadership. Specifically, we wanted to move away from an emphasis purely on ethical behaviors, and focus more on the positive character of leaders. Moreover, we tried to move away from any religious or spiritual connotations in our approach to character in leadership. In addition, we wanted an approach that had strong theoretical grounding and ease of applicability. In approaching ethical leadership/character from a virtue ethics direction, it is easier for practitioners to focus on building character strengths/virtues—prudence, temperance, fortitude, and justice.

It is also important to mention a key limitation for our measure—one that is shared by all measures of leader ethics; that we must rely on the ratings of others to determine a particular leader's virtues/ethics. We are really measuring *perceptions* of these constructs, rather than the actual possession of the virtues. Moreover, philosophers would likely argue that only virtuous persons could accurately judge the virtues of others (because they would have the required practical wisdom/prudence). We will discuss this issue more fully later.

Issues of Measurement

Construct validity consists of both trait and nomological validity (Edwards, 2003). In this study, trait validity will be demonstrated if our operationalization of virtuous leadership converges with other relevant constructs. We will establish face, content, and divergent/discriminant validity from

measures of unrelated constructs. Because ethical or moral leadership has been studied before (e.g., Brown et al., 2005; Walumbwa et al., 2008) other measures of ethical leadership and related constructs exist. We expect that the leadership virtues measure, the LVQ created in this study, will be positively correlated with the Ethical Leadership Scale (ELS; Brown et al., 2005), and with measures of related constructs, such as the Authentic Leadership Scale (ALS; Walumbwa et al., 2008). Given that transformational leadership—at least in its “authentic” form—is fundamentally about ethical leadership (Burns, 1978; Bass & Riggio, 2006), we also expect that our LVQ will correlate with measures of transformational leadership, consistent with the strong correlations between the ALS and the MLQ transformational leadership scales (Walumbwa et al., 2008). Given that transactional leadership (i.e., contingent reward) is also linked to effective leadership, we expected positive but smaller correlations with the LVQ and the contingent reward scale of the MLQ. Finally, because laissez-faire leadership represents the complete absence of leadership virtues, we expected the LVQ to be strongly negatively related to the laissez-faire leadership scale of the MLQ. Although some literature suggests that leader narcissism has both positive and negative aspects to it for leader effectiveness (e.g., Deluga, 1997; Maccoby, 2007), we believe that narcissism, with its self-serving orientation, is completely inconsistent with ethical, and particularly virtuous, leadership (see Rosenthal & Pittinsky, 2006). Therefore, we expected a strong negative relationship between the LVQ and a measure of narcissistic leadership.

A scale is considered as to have discriminant validity if it is unrelated to irrelevant or dissimilar constructs (Brown et al., 2005; Schwab, 1980). Therefore, consistent with Brown et al. (2005), we expect the LVQ to be unrelated to a rater’s age, gender, or education level, and to be unrelated to the Management-by-Exception scales of the MLQ.

Despite the fact that psychological research in ethics leads to potentially biased participant responses (Fernandes & Randall, 1992), this should not be a factor in the present study because participants are rating others, not themselves. Also, because the survey information will be collected anonymously through the Internet, participants should feel comfortable responding accurately and without social desirability effects because they will feel confident that there is virtually no way for their leader to ever see the ratings they assigned them.

A good scale also has predictive validity. In this regard, we hypothesize that leadership virtue (ethical leadership) will be positively related to followers’ moral identity and organizational identification. First, followers of leaders perceived to be more virtuous are likely to report higher levels of moral identity, and higher levels of identification with their organization. We also predicted that followers of leaders rated higher on the cardinal virtues will report greater levels of psychological empowerment.

Method and Results

Scale Development

Using detailed definitions of each of the cardinal virtues, and following the steps summarized by Hinkin (1998), two of the authors wrote items independently and compared their lists for similarities and differences. Most items were written at approximately an eighth grade reading level and the average statement length was 11 words. Roughly half of the questions assessing each of the virtues were written as reverse-coded items. After many revisions, a preliminary pool of 40 items (10 items for each virtue) that seemed to best represent the conceptual domain were selected for item reduction. (See Table 1 for examples of the items).

Help was solicited from a philosophy professor who was quite familiar with Aristotle and virtue ethics. This philosopher was asked to sort the 40 items into the categories/virtues that each was trying to assess. He was able to do this with 100% accuracy, but made some suggestions about wording changes and questioned a few of the items. As a result, four items were removed, one from each scale.

Because scale items were written specifically to assess only one of these virtues and because each of these virtues has been traditionally defined in such a way that distinguishes it from the others, it is possible that the questionnaire created (LVQ) in this study would consist of four discrete

factors, one for each virtue. Conversely, it is also possible that a one-factor solution will represent the most appropriate model considering that ethical situations often deal with one or more virtues at the same time and they are often difficult to separate. It is important to emphasize, however, that each of the four virtues is considered necessary and jointly sufficient to adequately define virtue-based ethical leadership.

Exploratory Factor Analysis I

We administered the 36-item survey through an online survey company (Zoomerang) to 160 managers from a wide variety of industries. The majority of these managers were male (63.1%), and mean age was 47.4 years. Approximately one third (33.2%) were first-level managers, 46.7% were middle to upper-middle managers, and 20.1% were top-level managers. Average time in supervisory positions was 16.4 years. Because the LVQ is designed as an other-rated instrument, managers were asked to rate their direct leader using the LVQ. Items used a 5-point Likert-type response format (1 = "Not at all," 2 = "Once in a while," 3 = "Sometimes," 4 = "Fairly often," 5 = "Frequently, if not always"). As indicated above, our original expectation is that this scale will be a 4-factor structure one, therefore we conducted an exploratory factor analysis (principal axis factoring) with an oblique rotation (direct oblimin), allowing for correlations among factors (Brown et al., 2005; Fabrigar, Wegener, MacCallum, & Strahan, 1999). However, the EFA showed that most of the items loaded on one factor, with some very minor secondary and third factors. Evaluation of the eigenvalues suggested that one primary factor accounted for 52.0% of the variance. Following Brown et al. (2005), we deleted items that did not load well on the main factor (<.3) or cross-loaded on multiple factors; 28 items remained.

Following the recommendations of Schriesheim, Cogliser, Scandura, Lankau, and Powers (1999) regarding construct validation, we deleted those items that were potentially confusing or redundantly worded and were more likely to be oversampling from a specific portion of the construct domain (Brown et al., 2005). Through this culling process, we were able to reduce the number of items to 19 to create the prefinal version of the LVQ. This scale demonstrated a high level of internal consistency, with an alpha of .96. Of the retained items, five items assessed prudence, five items measured fortitude, six items measured justice, and only three items assessed temperance. Approximately half of the items (10 of 19) are reverse coded. The retained items are presented in Table 1.

Exploratory Factor Analysis II

Subsequently, we administered these proposed 19 items to another sample of 140 managers from a number of companies. The characteristics of this sample were similar to those used in the first study (60.7% male, 48.2 years of age). Again, we conducted another phase of exploratory factor analysis (principal axis and direct oblimin) (Fabrigar et al., 1999). According to the suggestion of Montanelli and Humphreys (1976), we found that there is a steep break in the eigenvalue plot between the first and second factor (eigenvalues of 12.59 and .88, respectively), indicating and confirming a one-factor solution (Brown, Treviño, & Harrison, 2005). This one primary factor accounts for 66.29% of the variance. All items loaded strongly on this one factor with loading values of .5 and above. Therefore, all 19 items were retained in the scale. The LVQ also demonstrated a high level of internal consistency, with an alpha of .97. The alpha scores for the subdimensions of justice, fortitude, prudence, and temperance were: .94, .94, .92, and .92, respectively.

Confirmatory Factor Analysis

We then conducted a confirmatory factor analysis (CFA) using data from another sample of 200 managers (51% male, 48.6 years of age; see Table 2). We used CFA with the maximum likelihood estimation to test both the one-factor model and one higher-order factor with four subfactors (i.e., hierarchical model). Fit indexes showed that one factor fits the data best ($\chi^2 = 687.62$, $p < .01$, CFI = .96, TFI = .95, RMSEA = .07, SRMR = .02). These indexes are all above the recommended criteria (e.g., Bagozzi & Yi, 1988; Browne & Cudeck, 1992). The alpha score of the entire 19-item ELQ was .96, which again indicates high internal consistency.

Table 1
The Leadership Virtues Questionnaire (LVQ)

Prudence Items

1. Does as he/she ought to do in a given situation.
2. Does not carefully consider all the information available before making an important decision that impacts others. (R)
3. Boldly jumps into a situation without considering the consequences of his/her actions. (R)
4. Does not seek out information from a variety of sources so the best decision can be made. (R)
5. Considers a problem from all angles and reaches the best decision for all parties involved.

Fortitude Items

1. Would rather risk his/her job than do something that was unjust.
2. May have difficulty standing up for his/her beliefs among friends who do not share the same views. (R)
3. Fails to make the morally best decision in a given situation. (R)
4. May hesitate to enforce ethical standards when dealing with a close friend. (R)
5. Ignores his/her "inner voice" when deciding how to proceed. (R)

Temperance Items

1. Seems to be overly concerned with his/her personal power. (R)
2. Is not overly concerned with his/her own accomplishments.
3. Wishes to know everything that is going on in the organization to the extent that he/she micromanages. (R)

Justice Items

1. Gives credit to others when credit is due.
 2. Demonstrates respect for all people.
 3. May take credit for the accomplishments of others. (R)
 4. Respects the rights and integrity of others.
 5. Would make promotion decisions based on a candidate's merit.
 6. Does not treat others as he/she would like to be treated. (R)
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Note. R = reversed item. Response scale: 1 = Not at all; 2 = Once in a while; 3 = Sometimes; 4 = Fairly often; 5 = Frequently, if not always. This instrument and its items are in the public domain.

Convergent, Discriminant, and Predictive Validation of the LVQ

In order to examine the validity of our LVQ measure, we asked managers to rate their direct leaders using a variety of measures of ethical/authentic leadership. As noted earlier, we expected convergent validity as demonstrated by strong relationships between our measure and other measures of ethical leadership and the MLQ transformational leadership scales. We also included measures of "bad" leadership, namely the laissez-faire scale of the MLQ and a measure of leader narcissism, expecting strong negative correlations between these measures and the LVQ. We also sought to demonstrate discriminant validity and predicted that the LVQ would be unrelated to the MLQ measures of management-by-exception.

A fourth sample of 172 manager participants (50.6% male, mean age of 46.6 years), were asked to complete the LVQ along with the following measures:

Table 2
Measures of Goodness of Fit for Confirmatory Factor Analyses (CFAs)

Model	χ^2	<i>df</i>	<i>p</i>	χ^2/df	CFI	RMSEA
4-factor model	522.5	336	<.001	1.56	.91	.072
1-factor model	478.0	335	<.001	1.42	.93	.062

Note. RMSEA = Root mean squared error of approximation.

Authentic Leadership Scale (ALS). We used this 16-item scale to measure authentic leadership (Walumbwa et al., 2008). Items were anchored by a 5-point scale ranging from 1 (Not at all) to 5 (Frequently, if not always). The ALS measures four dimensions: leader self-awareness, relational transparency, internalized moral perspective, and balanced processing. Sample items include, "Seeks feedback to improve interactions with others" and "Says exactly what he or she means." All 16 items were aggregated into a total score of authentic leadership ($\alpha = .97$).

Multi-Factor Leadership Questionnaire (MLQ-5X). The MLQ (Bass & Avolio, 2000) measures the "Full Range of Leadership," from transformational leadership to transactional leadership, as well as the less effective forms of management-by-exception and laissez-faire leadership. Subscales of the MLQ included the following: idealized influence (eight items), intellectual stimulation (four items), inspirational motivation (four items), and individualized consideration (four items). A sample item for transformational leadership representing intellectual stimulation is: "My leader reexamines critical assumptions to question whether they are appropriate." Responses to the first 20 items ($\alpha = .97$) were averaged to form an overall transformational leadership composite score. The Contingent Reward scale of the MLQ (four items) measures transactional leadership. Two additional scales (four items each) measure passive and active management-by-exception, and laissez-faire leadership is measured with four items ($\alpha = .87$). A sample laissez-faire item is "My leader avoids making decisions."

Ethical Leadership Scale. Ethical leadership was measured with the 10 items of the Ethical Leadership Scale (ELS) developed by Brown et al. (2005). Respondents indicated whether they agreed with the statements on a 5-point scale ranging from 1 (Highly unlikely) to 5 (Highly likely). A sample item of ethical leadership was: "My leader conducts his or her personal life in an ethical manner." The reliability score of the ELS was high ($\alpha = .97$).

Leadership narcissism. We adapted nine items developed by Wink (1992) to measure leaders' narcissism. Items were anchored by a 7-point scale ranging from 1 (Very strongly disagree) to 7 (Very strongly agree). Sample items include the following: "Characteristically pushes and tries to stretch limits," "He or she is guileful and deceitful, manipulative, opportunistic." All nine items were aggregated into a composite score ($\alpha = .91$).

Consistent with our expectations, as indicated in Table 3, the LVQ was strongly positively correlated with the measures of authentic leadership ($r = .90, p < .01$), ethical leadership ($r = .93, p < .01$), and transformational leadership ($r = .85, p < .01$). In fact, the correlations were much higher than we anticipated. The LVQ was also found to be negatively correlated with laissez-faire leadership ($r = -.66, p < .01$), active management-by-exception ($r = -.29, p < .01$), passive management-by-exception ($r = -.51, p < .01$), and leader narcissism ($r = -.67, p < .01$). The LVQ was also strongly correlated with the Contingent Reward scale of the MLQ ($r = .82, p < .01$), suggesting that positive transactional leaders are also viewed as possessing greater virtues than nontransactional leaders. Together, these results suggest the convergent validity of our Leadership Virtues Questionnaire with related measures.

Furthermore, the LVQ was found not to have a significant correlation with leader gender ($r = .03, p > .05$), leadership level ($r = .15, p > .05$), number of years in current position ($r = .14, p > .05$), and number of direct reports ($r = -.05, p > .05$). Taken together these results suggest that the LVQ has convergent and discriminant validity.

Predictive Validity

The goal of this study was to establish evidence of predictive validity with the expectation that followers with more virtuous leaders would feel a stronger sense of personal moral identity, would feel more empowered by their leaders, and would demonstrate greater organizational identification than those with less virtuous leaders.

For this phase of our validation, we used the 372 managers combined from the confirmatory factor analysis and the validation study that were just reported. In addition to completing the LVQ on their manager/supervisor (and along with completing the other ratings of their leaders for the 172 participants in the validation study), they were also asked to report their own moral identity (Zhu,

Table 3
Descriptive Statistics and Correlations Among All Variables

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10
1. Leader age	49.80	9.04	1									
2. Leader gender	.71	.45	.08	1								
3. Leader level	.70	.46	.37**	.02	1							
4. Years of leadership experience	17.23	9.57	.66**	.09	.38**	1						
5. Years in current position	10.03	7.69	.41**	.13	.25**	.68**	1					
6. Number of direct reports	17.09	31.40	.08	-.02	.14	.01	.01	1				
7. Justice	3.61	1.03	.17*	.01	.13	.21**	.13	-.04	1			
8. Fortitude	3.00	.65	.12	.08	.17*	.21**	.14	-.08	.83**	1		
9. Prudence	3.45	.84	.18*	.04	.13	.20**	.16*	.06	.87**	.78**	1	
10. Temperance	3.22	.96	.21**	.02	.14	.24**	.10	-.09	.88**	.74**	.79**	1
11. Leadership virtue scale	3.32	.81	.18*	.03	.15	.23**	.14	-.05	.97**	.89**	.93**	.93**
12. Authentic leadership	3.69	.98	.19*	.01	.12	.24**	.16*	.06	.86**	.79**	.86**	.82**
13. Ethical leadership	3.84	1.04	.19*	-.05	.15*	.24**	.16*	.03	.90**	.81**	.88**	.85**
14. Narcissism	3.25	1.55	-.11	-.10	-.03	-.17*	-.09	.15*	-.69**	-.62**	-.58**	-.61**
15. Idealized influence	3.67	.89	.19*	-.07	.15	.29**	.24**	.08	.78**	.73**	.82**	.75**
16. Inspirational motivation	3.84	.94	.18*	-.01	.13	.26**	.18*	.06	.78**	.70**	.77**	.69**
17. Intellectual stimulation	3.57	.97	.15	-.01	.09	.25**	.23**	.08	.75**	.68**	.80**	.72**
18. Individualized consideration	3.60	.96	.20**	-.04	.13	.27**	.27**	.03	.74**	.70**	.73**	.72**
19. Contingent reward	3.71	1.04	.21**	-.03	.14	.26**	.20**	.07	.79**	.70**	.78**	.76**
20. Management-by-exception (active)	3.00	.82	.10	-.06	.07	-.02	.05	.19*	-.30**	-.27**	-.20**	-.25**
21. Management-by-exception (passive)	2.71	.90	.01	.15*	-.09	-.06	.08	.16*	-.51**	-.47**	-.48**	-.42**
22. Laissez-faire leadership	2.29	1.05	-.06	.04	-.06	-.24**	-.04	.03	-.64**	-.63**	-.64**	-.57**
23. Transformational leadership	3.67	.89	.19*	-.03	.13	.28**	.24**	.07	.81**	.74**	.83**	.76**
24. Organizational identification	3.80	1.05	.35**	.03	.25**	.29**	.29**	.09	.50**	.45**	.49**	.42**
25. Moral identity	4.43	.58	.09	-.07	.13	.11	.02	-.02	.30**	.32**	.34**	.31**

Note. Leader gender: 1 = male, 0 = female; leader level: 1 = executive level, 0 = middle and low level.

Riggio, Avolio, & Sosik, in press), sense of psychological empowerment (Spreitzer, 1995), and identification with their current organization (Smidts, Pruyn, & van Riel, 2001).

Moral identity. Moral identity is defined as the degree to which a person identifies himself/herself as a moral person, and was measured by a newly created five-item scale ($\alpha = .91$). Research demonstrated that this scale is both reliable and valid (Zhu et al., in press). Respondents indicated whether they agreed with the statements on a 5-point scale ranging from 1 (Strongly

11	12	13	14	15	16	17	18	19	20	21	22	23	24
1													
.90**	1												
.93**	.94**	1											
-.67**	-.54**	-.56**	1										
.83**	.86**	.86**	-.45**	1									
.79**	.81**	.81**	-.47**	.87**	1								
.79**	.84**	.82**	-.44**	.88**	.82**	1							
.78**	.78**	.80**	-.44**	.86**	.78**	.88**	1						
.82**	.84**	.85**	-.51**	.92**	.83**	.88**	.87**	1					
-.29**	-.14	-.45	.46**	-.04	-.17*	-.06	-.03	-.09	1				
-.51**	-.37**	-.40**	.51**	-.33**	-.40**	-.33**	-.33**	-.34**	.38**	1			
-.66**	-.56**	-.57**	.61**	-.51**	-.57**	-.50**	-.45**	-.54**	.35**	.75**	1		
.85**	.87**	.87**	-.48**	.96**	.92**	.95**	.94**	.93**	-.08	-.37**	-.54**	1	
.50**	.50**	.49**	-.31**	.55**	.48**	.54**	.55**	.58**	-.06	-.15	-.22**	.56**	1
.33**	.33**	.32**	-.15*	.37**	.32**	.24**	.27**	.26**	-.01	-.20**	-.22**	.32**	.33**

disagree) to 5 (Strongly agree). Sample item: "I view being an ethical person as an important part of who I am."

Psychological empowerment. We used a 12-item scale to measure self-reported psychological empowerment (Spreitzer, 1995). Items were anchored by a 5-point scale ranging from 1 (Strongly disagree) to 5 (Strongly agree). Sample items for each of the four subscales include the following: "I am confident about my ability to do my job" (competence), "The work I do is very important to me" (meaning), "I can decide on my own how to go about doing my work"

(self-determination), and “My impact on what happens in my department is large” (impact). All 12 items were aggregated into a psychological empowerment composite score ($\alpha = .93$).

Organizational identification. We used a 5-item scale ($\alpha = .95$) to measure self-reported organizational identification (Smidts et al., 2001). Items were anchored by a 5-point scale ranging from 1 (Strongly disagree) to 5 (Strongly agree). Sample items include the following: “I feel strong ties with my current organization,” and “I feel proud to work for my current organization.”

We used hierarchical linear regression model to conduct the analysis. We controlled for a number of possible confounding variables, including age, gender, leader level, years in any leadership position, years in current leadership position, and number of direct reports. We found that the LVQ, as indicated in Table 4, has a positive effect on follower psychological empowerment ($\beta = .42, p < .01$), follower organizational identification ($\beta = .49, p < .01$), and follower moral identity ($\beta = .27, p < .01$). These results showed that LVQ has predictive validity as expected.

Discussion

This research focused on the development of a virtue-based measure of ethical leadership, the Leadership Virtues Questionnaire (LVQ), and initial validation work with the scale. In searching for a theoretical model to guide an understanding of ethical leadership, we relied on the philosophical insights of Plato, Aristotle, and St. Thomas Aquinas. Plato first wrote about virtue-ethics in his famous *Symposium* (Plato, 2003) and later Aristotle further discussed the topic in *Nicomachean Ethics* (Aristotle, 2005). St. Thomas Aquinas then incorporated many of the ideas from these ancient works to help inform Christian moral theology with his famous work *Summa Theologiae* (Aquinas, 2005). Virtue-ethics are concerned with the characteristics that create a moral person instead of focusing on the actions that make a person moral (the typical focus both for deontological and consequentialist ethics systems). Four virtues have consistently been regarded as the cardinal virtues: prudence, temperance, fortitude, and justice, and these formed the core of our theoretical model. Our approach was different from the related work by Brown et al. (2005) and Walumbwa et al. (2008) that used empirically-driven approaches to measure ethical and authentic leadership, respectively. Our results, particularly the very strong intercorrelations of the various measure of ethical/authentic/virtuous leadership, suggest that these different assessment tools seem to be tapping into the same, and very robust construct of perceptions of “good” leadership.

Perhaps most surprising in our research were the very strong interrelationships among measures of “good” leadership (admittedly using a very simple term for a complex construct), ranging from the Ethical Leadership Scale, the Authentic Leadership Scale, to our measure, to the MLQ measures

Table 4
Hierarchical Linear Regression Results

	Follower Psychological Empowerment	Follower Organizational Identification	Follower Moral Identity
Leader age	.11 (.01)	.15** (.02)	.10 (.01)
Gender	.01 (.01)	.01 (.01)	-.11 (-.14)
Leader level (1 = executive level, 0 = first line)	.13** (.20*)	.14** (.33)	.09 (.12)
Years in leadership	-.14 (-.01)	-.05 (-.01)	.03 (-.01)
Years in current position	.17** (.01)	.13* (.02**)	-.03 (.01)
Number of direct reports	.05 (.01)	-.01 (.01)	-.01 (.01)
LVQ	.42** (.33*)	.49** (.62*)	.27** (.19*)
F	16.17**	28.45**	5.93**
Adjusted R ²	.23**	.35**	.09**

Note. Values in parentheses are unstandardized regression coefficients. $N = 372$.

* $p < .05$. ** $p < .01$.

of transformational leadership (and even transactional leadership correlated strongly with the other measures). This may also shed light on another finding in this research, the inability to find unique factors for the four cardinal virtues, despite the fact that the virtues are quite distinct. Indeed, our philosopher was able to accurately distinguish each of the scale items and placed them into their respective virtues without error. It may be that when rating their leaders on scales of ethics or virtues, or on any other “good-bad/positive-negative” dimension, there is a tendency to make a summary judgment of whether the leader is a “good” or “bad” person, and this overall judgment clouds the ability to make finer distinctions. There is precedence for this tendency for people to make distinct categorical judgments, such as the tendency for jurors to see a defendant as potentially “dangerous” or “not dangerous” without taking into account the likelihood or proclivity to act violently (Carlsmith, Monahan, & Evans, 2007). Kellerman (2004) argues that leaders are evaluated on dichotomies of whether they are perceived as “effective” or “noneffective” and “ethical” or “not ethical.”

It is important to note that despite the different theoretical approaches of our leadership virtues model, the social learning-based approach of the Brown et al. (2005) construct of ethical leadership, and the models of authentic (Walumbwa et al., 2008) and transformational leadership (Bass & Riggio, 2006), there are some similarities. For example, the balanced processing dimension of authentic leadership is similar to the virtue of prudence. Both involve taking into account multiple perspectives on an issue and weighing the differential information before taking action. The authentic leadership component of self-awareness has some relationship to the virtue of temperance, which requires self-knowledge in order to understand and accept one’s own shortcomings (McManaman, 2006b). The authentic leadership factor of internalized moral perspective, also involves elements of self-regulation, consistent with the virtue of temperance.

Although our empirical results suggest that a total score on the LVQ is the most sound approach from a research perspective (due to the failure to find distinct factors for the four cardinal virtues), from a practitioner standpoint, we believe the distinctions among the virtues are important. Each virtue represents a distinct aspect of ethical leadership, and if one were to target the development of virtuous leadership, then different virtues would require different strategies. For example, developing prudence involves learning to think critically and being open to new and different ideas. This is in contrast to fortitude, which is developed through strength of will and developing endurance. Temperance is about moderation and control of emotions, and would be most consistent with the psychological emphases on the role of emotional intelligence (e.g., Caruso, Mayer, & Salovey, 2002) and emotional regulation (Gross, 2007) in leadership. Indeed, from an individual leader development standpoint, the virtue subscale scores of the LVQ can be quite helpful in targeting development efforts. For instance, one of the most common sources of executive derailment is the arrogance that comes from success—a refusal to listen to other points of view (McCall & Lombardo, 1983). This shows a lack of prudence. Another source of leader derailment is an inability to control one’s temper or passions—clearly related to a lack of temperance.

It is important to note that our research relied completely on upward appraisals of leaders by their subordinate managers or followers. A more complete picture of a leader’s character will be obtained from 360-degree evaluations, from subordinates, peers, supervisors, and relevant others. This is vital to keep in mind when assessing leader virtues/ethicality, regardless of the instrument being used (Note: All of the available measures of leader ethics, including the ALS, the ELS, and the MLQ, are other-rated instruments that can be used in a 360-degree evaluation).

Based on the findings, there are a few practical implications we want to note for this study. First, our findings suggest that, to be able to promote followers’ positive outcomes such as developing follower moral identity and identification with the organization, leaders will need to demonstrate virtues. One specific example is that if leaders demonstrate justice and fairness in the decision process and treat employees with the same level of dignity and respect they deserve, followers are more likely to develop follower moral identity and other positive outcomes. The second practical implication is to develop leaders’ virtues in order to develop follower moral capabilities and other positive outcomes. In practice, this means organizations could provide their managers with virtues

development and training with respect to key characteristics or behavioral dimensions of virtuous leadership, namely prudence, temperance, justice, and fortitude.

Limitations and Future Directions

One limitation of this research was the fact that the same participants filled out a number of different measures about their leader (same source bias). Given that the ALS, ELS, LVQ, and MLQ all involved ratings of leaders on positive–negative dimensions of related constructs likely increased the magnitude of the correlations due to common method variance, and a possible halo effect. The halo effect may in fact be responsible for the inability for raters to distinguish specific virtues. As already mentioned, from both a research and a practitioner standpoint, future work should make use of 360-degree feedback where peers, subordinates, and supervisors all rate the same leader and their ratings are aggregated (London & Beatty, 1993).

A key limitation, mentioned earlier, is that our measure of virtuous leadership, like all existing measures of leader ethics/morality, are based on others' ratings of the leader's possession of ethics/virtues, rather than the constructs themselves. Even though the instruments may focus on the behaviors that the leader demonstrates, perceptions are quite different from obtaining some firm evidence of leader ethical/unethical or virtuous/nonvirtuous behavior.

When it comes to rating the ethics or virtues of one's leader (or of some other colleague) there is likely a positive, or "leniency" bias—the tendency to view most people as good/virtuous, and/or to give them the benefit of the doubt. Indeed, mean scores suggest that greater accuracy may ensue if the rated person has engaged in clear ethical violations. So, these instruments may be better at detecting the nonvirtuous or nonethical individual than the ethical one. But that is an empirical question.

Another limitation—one that can be addressed in future research—concerns the predictive validity of our measure. The measures of leader virtues and the follower measures of moral identity, empowerment, and organizational identification were collected at the same time. A better approach is a longitudinal and experimental design that can more clearly demonstrate the impact that a virtuous leader has on followers. A larger issue of predictive validity concerns whether assessment of a leader's virtues (or perceived virtues) will consistently predict behavior. Social psychology emphasizes the power of the situation in overriding characterological factors (e.g., Doris, 2002; see also Price, 2008, Ch. 4, for an overview).

Conclusion

The present study is not the first to reflect on the work of Aristotle and find ways to apply his insight and knowledge to the present day. Beauchamp and Childress (1979) and later Kitchener (1984) adapted Aristotle's ethical principles to help inform how one should go about living an ethical life. These principles have become especially important in informing those who work in public health and related fields. The focus of the present study in defining the ethical leader as one who behaves according to the cardinal virtues takes the ethical leadership literature in a new direction, but the fact that Aristotle's knowledge has been adapted to inform moral decision making in the present day, is not new. However, a new twist on age-old wisdom will perhaps allow a new level of understanding to arise.

References

- Aquinas, T. St. (2005). *The cardinal virtues: Prudence, justice, fortitude, and temperance*. (R. J. Regan, Trans.). Indianapolis, IN: Hackett Publishing. (Original work entitled *Summa theologiae*, written 1265–1274)
- Aristotle. (2005). *Nicomachean ethics*. (W. D. Ross, Trans.). (Original work published 350 BCE)
- Avolio, B. J., Bass, B. M., & Jung, D. I. (1997). *Replicated confirmatory factor analyses of the Multifactor Leadership Questionnaire*. Binghamton, NY: Center for Leadership Studies, Binghamton University.

- Avolio, B. J., & Gardner, W. L. (2005). Authentic leadership development: Getting to the root of positive forms of leadership. *The Leadership Quarterly*, *16*, 315–338.
- Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, *16*, 74–94.
- Bass, B. M. (1985). *Leadership and performance beyond expectations*. New York, NY: Free Press.
- Bass, B. M. (1998). *Transformational leadership: Industrial, military and educational impact*. Mahwah, NJ: Erlbaum.
- Bass, B. M., & Avolio, B. J. (1997). *Full range leadership development: Manual for the Multifactor Leadership Questionnaire*. Palo Alto, CA: Mind Garden.
- Bass, B. M., & Avolio, B. J. (2000). *MLQ: Multifactor Leadership Questionnaire*. Palo Alto, CA: Mind Garden.
- Bass, B. M., & Riggio, R. E. (2006). *Transformational Leadership*. Mahwah, NJ: Erlbaum.
- Bass, B. M., & Steidlmeier, P. (1999). Ethics, character, and authentic transformational leadership behavior. *The Leadership Quarterly*, *10*, 181–217.
- Beauchamp, T. L., & Childress, J. F. (1979). *Principles of biomedical ethics*. New York: Oxford University Press.
- Brown, M. E., & Treviño, L. K. (2006). Ethical leadership: A review and future directions. *The Leadership Quarterly*, *17*, 595–616.
- Brown, M. E., Treviño, L. K., & Harrison, D. A. (2005). Ethical leadership: A social learning perspective for construct development and testing. *Organizational Behavior and Human Decision Processes*, *97*, 117–134.
- Browne, W. M., & Cudeck, R. (1992). Alternative ways of assessing model fit. *Sociological Methods and Research*, *21*, 230–258.
- Burns, J. M. (1978). *Leadership*. New York: Harper & Row.
- Carlsmith, K. M., Monahan, J., & Evans, A. (2007). The function of punishment in the “civil” commitment of sexually violent predators. *Behavioral Sciences and the Law*, *25*, 437–488.
- Caruso, D. R., Mayer, J. D., & Salovey, P. (2002). Emotional intelligence and emotional leadership. In R. E. Riggio, S. E. Murphy, and F. J. Pirozzolo (Eds.), *Multiple intelligences and leadership* (pp. 55–74). Mahwah, NJ: Erlbaum.
- Ciulla, J. (1998). *Ethics, the heart of leadership*. Westport, CT: Quorum Books.
- Clinard, M. B., & Yeager, P. C. (2006). *Corporate crime*. New Brunswick, NJ: Transaction Press.
- Delaney, J. F. (1911). *The Catholic Encyclopedia*. Retrieved from <http://www.newadvent.org/cathen/12517b.htm>
- Deluga, R. J. (1997). Relationship among American presidential charismatic leadership, narcissism, and rated performance. *The Leadership Quarterly*, *8*, 49–65.
- Doris, J. (2002). *Lack of character: Personality and moral behavior*. Cambridge, U.K.: Cambridge University Press.
- Edwards, J. R. (2003). Construct validation in organizational behavior research. In J. Greenberg (Ed.), *Organizational behavior: The state of the science*, (2nd ed.). (pp. 327–371). Mahwah, NJ: Lawrence Erlbaum.
- Ethos. (2007, March 12). In *Wikipedia, The Free Encyclopedia*. Retrieved from <http://en.wikipedia.org/wiki/Ethos>
- Fabrigar, L. R., Wegener, D. T., MacCallum, R. C., & Strahan, E. J. (1999). Evaluation of the use of exploratory factor analysis in psychological research. *Psychological Methods*, *4*, 272–299.
- Fernandes, M. F., & Randall, D. M. (1992). The nature of social desirability response effects in business ethics research. *Business Ethics Quarterly*, *2*, 183–205.
- Floyd, S. (2006). Aquinas’ moral philosophy. *The Internet Encyclopedia of Philosophy*. Retrieved from <http://www.iep.utm.edu/a/aq-moral.htm>
- Fry, L. W. (2003). Toward a theory of spiritual leadership. *The Leadership Quarterly*, *14*, 693–727.
- Gross, J. J. (Ed.). (2007). *Handbook of emotion regulation*. New York, NY: Guilford Press.
- Hinkin, T. R. (1998). A brief tutorial on the development of measures for use in survey questionnaires. *Organizational Research Methods*, *1*, 104–121.
- Kellerman, B. (2004). *Bad leadership*. Boston, MA: Harvard Business School Press.
- Kidder, R. M. (2005). *Moral courage: Taking action when your values are put to the test*. New York, NY: William Morrow.
- Kitchener, K. S. (1984). Intuition, critical evaluation and ethical principles: The foundation for ethical decisions in counseling psychology. *The Counseling Psychologist*, *12*, 43–55.
- Knight, K. (2006). *The Summa Theologica of St. Thomas Aquinas*. (Fathers of the English Dominican Province, Trans.). Retrieved February 10, 2007 from <http://www.newadvent.org/summa/2023.htm>
- Kouzes, J. M., & Posner, B. Z. (1993). *Credibility: How leaders gain and lose it, why people demand it*. San Francisco, CA: Jossey-Bass.

- London, M., & Beatty, R. W. (1993). 360-degree feedback as a competitive advantage. *Human Resource Management, 32*, 353–372.
- Maccoby, M. (2007). *Narcissistic leaders: Who succeeds and who fails*. Cambridge, MA: Harvard Business Press.
- McCall, M. W., & Lombardo, M. M. (1983). *Off the track: Why and how successful executives get derailed*. Tech. Rep. No. 21. Greensboro, NC: Center for Creative Leadership.
- McManaman, D. (2006a). *The virtue of prudence*. Retrieved from <http://catholiceducation.org/articles/education/ed0282.html>
- McManaman, D. (2006b). *The virtue of temperance*. Retrieved from <http://catholiceducation.org/articles/education/ed0281.html>
- Montanelli, R. G., Jr., & Humphreys, L. G. (1976). Latent roots of random data correlation matrices with squared multiple correlations on the diagonals: A Monte Carlo study. *Psychometrika, 41*, 341–348.
- Plato. (2003). *The symposium*. (C. Gill, Trans.). (Original work published 360 BCE)
- Price, T. L. (2008). *Leadership ethics: An introduction*. Cambridge, U.K.: Cambridge University Press.
- Rosenthal, S. A., & Pittinsky, T. L. (2006). Narcissistic leadership. *The Leadership Quarterly, 17*, 617–633.
- Schriesheim, C. A., Cogliser, C. C., Scandura, T. A., Lankau, M. J., & Powers, K. J. (1999). An empirical comparison of approaches for quantitatively assessing the content adequacy of paper-and-pencil measurement instruments. *Organizational Research Methods, 2*(2), 140–156.
- Schwab, D. P. (1980). Construct validity in organizational behavior. In L. L. Cummings & B. M. Staw (Eds.), *Research in organizational behavior* (pp. 3–43). Greenwich, CT: JAI Press.
- Smidts, A., Pruyn, A. T. H., & van Riel, C. B. M. (2001). The impact of employee communication and perceived external prestige on organizational identification. *Academy of Management Journal, 44*(5), 1051–1062.
- Spreitzer, G. M. (1995). Psychological empowerment in the workplace: Dimensions, measurement, and validation. *Academy of Management Journal, 38*(5), 1442–1465.
- Toffler, B. L. (1986). *Tough choices: Managers talk ethics*. Hoboken, NJ: Wiley.
- Virtue. (2007, March 26). In *Wikipedia, The Free Encyclopedia*. Retrieved from <http://en.wikipedia.org/wiki/Virtue>
- Walumbwa, F. O., Avolio, B. J., Gardner, W. L., Wernsing, T. S., & Peterson, S. J. (2008). Authentic leadership: Development and validation of a theory-based measure. *Journal of Management, 34*, 89–126.
- Wink, P. (1992). Three narcissism scales for the California Q-set. *Journal of Personality Assessment, 58*, 51–66.
- Zhu, W., Riggio, R., Avolio, B. J., & Sosik, J. J. (in press). The effect of leadership on follower moral identity: Does transformational/transactional style make a difference? *Journal of Leadership and Organizational Studies*.

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