Virtuous leadership: a source of employee well-being and trust

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Abstract

Purpose – The purpose of this paper is to examine how a supervisor's virtuous leadership as perceived by subordinates influences subordinates' work-related well-being and to examine the mediating role of trust in the leader and the moderating roles of individual leader virtues and various characteristics of subordinates and organizations.

Design/methodology/approach – An online survey was conducted through Prolific among a self-selected sample of 1,237 employees who worked with an immediate supervisor across various industries in primarily the UK and the USA. Structural equation modeling was used to test the hypotheses.

Findings – The empirical results indicate that an immediate supervisor's virtuous leadership as evaluated by the subordinate positively influences all three considered dimensions of work-related well-being – job satisfaction, work-related affect and work engagement – for a wide variety of employees in different industries and countries. A subordinate's greater trust in the supervisor fully mediates this positive influence for job satisfaction and work engagement and partially for work-related affect. All five individual core leader virtues – prudence, temperance, justice, courage and humanity – positively influence work-related well-being.

Practical implications – The findings underscore that promoting virtuous leadership is a promising pathway for improved employee well-being, which may ultimately benefit individual and organizational performance.

Originality/value – Despite an age-old interest in leader virtues, the lack of consensus on the defining elements of virtuous leadership has limited the understanding of its consequences. Building on recent advances in the conceptualization and measurement of virtuous leadership and leader character, this paper addresses this void by exploring how virtuous leadership relates to employees' well-being and trust.

Keywords Work engagement, Trust in leader, Job satisfaction, Business ethics and sustainability, Leader character, Leader virtues, Work-related affect

Paper type Research paper

Introduction

A leader's character shapes his or her goals and behavior, which can have a profound impact on organizational outcomes, including the outcomes and behaviors of subordinates. As a result, leader character is considered "an indispensable component" of leadership performance in the contemporary business world (Hannah and Avolio, 2011, p. 979). Character is inextricably linked with virtue because good character is built through the practice and habituation of virtues (Newstead *et al.*, 2020a, 2020b; Sison and Ferrero, 2015). Virtues are acquired and socially valued dispositions that are voluntarily exhibited in the person's habitual behavior in context-relevant situations (Newstead *et al.*, 2018). Given their importance, character and the related virtues play roles in various leadership styles, such as ethical leadership, servant leadership and transformational leadership. However, these leadership styles do not comprehensively address the core defining characteristics of a virtuous leader, as they do not consider a coherent set of pre-eminent leader virtues and do not center on the character but, additionally, have a deontological focus on obligations to act or a teleological focus on the consequences of actions (Hackett and Wang, 2012; Lemoine *et al.*, 2019).

Despite the role of leader virtues in various leadership styles, limited evidence exists on the *isolated* influence of virtuous leadership within organizations as assessed by a *coherent* measure of a leader's virtuousness that *centers on character* (Crossan *et al.*, 2017). This longstanding lack of attention to and knowledge regarding virtuous character may explain why many managers attempt to get ahead by "doing wrong" and why virtuous character traits often do not play a prominent role in the training and evaluation of managers (Seijts *et al.*, 2019). A possible reason for the paucity of studies on the virtuous character of leaders is the traditional lack of definitional clarity; moreover, some scholars have considered virtues – and by extension virtuous character – "too abstract and general" to be measured (Peterson and Seligman, 2004, p. 31).

These concerns have been convincingly dispelled by the emerging literature on virtuous leadership and leader character with the development of more parsimonious, coherent and philosophically grounded conceptual frameworks of virtuous leadership and leader character (Hackett and Wang, 2012; Crossan *et al.*, 2017; Adewale, 2020; Riggio *et al.*, 2010; Peterson and Seligman, 2004) and the development of sound measures of virtuous leadership that are empirically distinct from other leadership concepts such as ethical leadership and charismatic leadership (Wang and Hackett, 2016; Thun and Kelloway, 2011; Riggio *et al.*, 2010). There is consensus in this emerging virtuous leadership literature that a virtuous leader can be regarded as a leader whose character and voluntary (i.e. intrinsically motivated and intentional) behavior consistently exhibited in context-relevant situations align with the prevailing pre-eminent leader virtues, as detailed below (Newstead *et al.*, 2020a, 2020b). By considering a more coherent and parsimonious set of virtues and by centering on character, virtuous leadership can uniquely contribute to stakeholder outcomes and the social environment in organizations compared with other leadership styles, such as ethical and transformational leadership.

Encouragingly, Wang and Hackett (2016) demonstrated that subordinates' perceptions of a supervisor's virtuous leadership relate positively to their overall happiness and life satisfaction, even after accounting for the supervisor's charismatic leadership. The *work-related* well-being of employees or components thereof is also positively associated with organizational virtuousness (Nikandrou and Tsachouridi, 2015) and specific virtues such as a manager's behavioral integrity (Prottas, 2013). However, the role of the virtuous leadership of individual leaders as determined by a coherent set of leader virtues for the work-related well-being of subordinates has remained unexplored.

This study aims to address the shortage of research on the role of a supervisor's virtuous leadership for employee well-being and to advance current leadership and employee well-being research through three core contributions. First, this study offers theoretical refinement and empirical evidence of the link between virtuous leadership and employees' work-related well-being. This link is pertinent given that employee well-being is important in itself for employees and instrumentally important in promoting individual and organizational performance (Krekel *et al.*, 2019). Increasing employee well-being has therefore become a strategic priority in many organizations. Second, by outlining and testing the mediating role of trust in the leader, this study contributes to a better understanding of why employees with more virtuous supervisors may feel better at work. Third, this study contributes to an understanding of the conditions under which employees with more virtuous supervisors have higher well-being by exploring which leader virtues are particularly strongly related to work-related well-being and the extent to which the relationship depends on various organizational and employee characteristics. On a more general level, insights into how a supervisor's virtuous leadership relates to a subordinate's trust in the leader and work-related well-being can provide the basis for more detailed theorizing on the consequences of virtuous leadership, for example by helping explain why virtuous leadership tends to be positively related to the broader well-being and performance of individual employees and organizational performance (Cameron and Winn, 2012; Wang and Hackett, 2016).

Theoretical framework and hypotheses
Virtuous leadership
Hackett and Wang (2012) identified more than 60 virtues that have been associated with good leadership in their review of the leadership literature. Different studies emphasize the roles of different virtues in each leadership style. For instance, twenty-nine of those virtues have been explicitly linked to ethical leadership, and 32 have been linked to servant leadership. Various frameworks of virtuous leadership have been proposed to develop a more coherent, parsimonious, and philosophically grounded framework of the pre-eminent virtues of virtuous leaders, i.e. the virtues on which all other virtues hinge. Riggio *et al.* (2010) operationalized virtue-based ethical leadership in Western societies based on the cardinal virtues articulated first by Plato in the *Republic* and discussed in more detail by Aristotle – prudence, fortitude (courage), temperance, and justice. These four cardinal virtues have played a prominent role in the Western philosophical and Judeo-Christian traditions, along with a virtue ethics perspective derived from Aristotle's understanding of a virtuous person (Zeuschner, 2014). Taking a more global perspective, Peterson and Seligman (2004) reviewed the virtues identified in the major philosophical and spiritual traditions worldwide and identified six core leader virtues – wisdom (prudence), courage, humanity, justice, temperance and transcendence (Thun and Kelloway, 2011). In Chinese Confucian philosophy, concepts closely associated with humanity, justice, wisdom, truthfulness and propriety are considered core virtues (Huang, 1997). Combining

Aristotelian and Confucian literatures on virtue ethics, Hackett and Wang (2012) developed a framework of virtuous leadership in which five of the six virtues overlap with those of Peterson and Seligman (2004) – humanity, courage, justice, temperance and prudence – and in which truthfulness is added as a sixth virtue. Crossan *et al*. (2017) developed a leader character framework that was validated with practitioners from five organizations from North and Latin America. This framework includes 11 virtues, with judgment (prudence) as the central dimension of character and most of the virtues of the aforementioned frameworks (justice, courage, temperance, humanity and transcendence) and some additional virtues mentioned by practitioners as fundamental for effective leadership (drive, collaboration, humility, integrity and accountability) as other core virtues. Addressing the African leadership challenge, Adewale (2020) introduced a virtuous leadership model underpinned by four primary virtues in African cultures – truthfulness, courage, humility and humanity. The virtues considered in the frameworks discussed above are to some extent inconsistent with related but distinct concepts considered in the more pragmatically oriented, less theoretically grounded, and less virtue ethics-oriented positive organizational inquiries (e.g. positive organizational scholarship) (Meyer, 2018; Sison and Ferrero, 2015). For instance, Cameron *et al*. (2004) considers forgiveness, trust, integrity, optimism and compassion as core elements of organizational virtuousness.

The discussion above shows that there is no full consensus on the conceptualization of virtuous leadership. A primary reason is that the list of core leader virtues as well as their interpretations, enactments, and relative levels of importance vary somewhat between major philosophical and spiritual traditions globally (Hursthouse, 1999). Nevertheless, the set of core leader virtues strongly overlaps between contemporary frameworks of virtuous leadership. More specifically, the following five empirically distinctive leader virtues emerge as pre-eminent or at least critical in nearly all philosophical and theological traditions, and there is consensus among contemporary leader character frameworks that these should be considered core and globally applicable – though, depending on context, not necessarily exhaustive – ingredients of virtuous leadership: being disposed to make the right judgments to achieve virtuous goals using appropriate means in a given situation (i.e. *prudence* or practical wisdom); controlling emotional reactions and desires for self-gratification (i.e. *temperance*); giving others what they deserve (i.e. *justice*); persevering in doing what is "right" despite the risk of unpleasant consequences (i.e. *courage* or fortitude); and treating others with love, care and respect (i.e. *humanity*).

To encourage global discourse on the link between virtuous leadership and work-related well-being and to align the focus of the current study with the five virtues captured by Wang and Hackett's (2016) validated measure of virtuous leadership, the current study focuses on these five pre-eminent leader virtues. Leader virtues for which there is less consensus about whether they should be considered core virtues are not considered here because they have not been shown to be empirically distinctive or highly correlated with at least one of these five core virtues, including transcendence (Thun and Kelloway, 2011), truthfulness (Wang and Hackett, 2016), drive, collaboration, humility, integrity and accountability (Crossan *et al.*, 2017). That is, these additional virtues are, to a large extent, captured empirically by these five virtues. For this reason, Wang and Hackett (2016) excluded truthfulness from their measure of virtuous leadership. Another reason that some character traits, such as drive, are not considered here is that they lack a strong moral component but are included by Crossan *et al*. (2017) for their importance in leader effectiveness. The authors of the current study concur with the dominant virtue ethics perspective in the literature that virtuous leadership does not require an instrumental outcome to be of worth but requires leaders to engage in virtuous behaviors exactly because

those behaviors are inherently moral (Newstead *et al.*, 2018; Hackett and Wang, 2012; Flynn, 2008). However, it must be acknowledged that this list of five virtues is not exhaustive and optimal in each specific local context. In sum, virtuous leadership is defined here on a global level as a leadership style where the leader's voluntary (i.e. intrinsically motivated and intentional) behavior consistently exhibited in context-relevant situations aligns with the virtues of prudence, temperance, humanity, courage, and justice.

Work-related well-being
Work-related well-being refers to good experiences and evaluations relating to one's working life. In line with broader subjective well-being frameworks, the most traditionally considered positive forms of work-related well-being are job satisfaction and work-related affect (Page and Vella-Brodrick, 2009). While job satisfaction refers to an employee's cognitive evaluations about one's work, work-related affect refers to the frequent experience of pleasant emotions (e.g. enthusiasm, contentment) as opposed to unpleasant emotions at work (e.g. worry, depression). Although related, experiences of negative and positive affect are not orthogonal (Watson *et al.*, 1988). Inspired by Aristotle's notion of *eudaimonia*, recent employee well-being frameworks additionally include eudaimonic well-being-related concepts (Page and Vella-Brodrick, 2009; Fisher, 2010). One popular concept in this regard is work engagement, defined as "a positive, fulfilling work-related state of mind that is characterized by vigor, dedication, and absorption" (Bakker and Oerlemans, 2011, p. 180). Work engagement taps eudaimonic well-being because of its strong association with using one's character strengths and its focus on purpose, intrinsic motivation, and flow experiences (Bakker and Oerlemans, 2011; Fisher, 2010). Therefore, this study follows the employee well-being framework of Bakker and Oerlemans (2011) by focusing on job satisfaction, work-related affect, and work engagement as the three main positive forms of work-related well-being.

Virtuous leadership, work-related well-being and trust
The virtuous leadership of supervisors can influence the work-related well-being of subordinates through several mechanisms. A relatively indirect mechanism is by exemplifying virtuousness. Leaders can influence, through internalization, the virtuous behavior of other people in the organization, thereby stimulating a more virtuous organizational climate (Cameron and Winn, 2012). In turn, perceptions of organizational virtuousness contribute to the work-related well-being of subordinates through, for instance, enhanced trust and stronger relationships between employees (Nikandrou and Tsachouridi, 2015). Virtuous leader behaviors can also affect subordinates in more ways that are direct. One way is through the leader's influence on the *objective* job characteristics and outcomes of subordinates that are known predictors of work-related well-being. For instance, giving subordinates credit where credit is due can enhance subordinates' career progress and job security, the fair and considerate allocation of work tasks can positively influence subordinates' job content, and caring for the subordinate's well-being can result in more suitable work hours.

Notwithstanding the abovementioned mechanisms, the thesis of this article is that a particularly influential way in which virtuous leaders have a direct influence on the long-term work-related well-being of followers is through a *subjective* process with trust in the leader at its center. There is clear consensus that trust within organizations and between supervisors and subordinates specifically is essential for the flourishing of organizations (De Jong *et al.*, 2016). Trust refers to "a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behavior of another"

(Rousseau *et al.*, 1998, p. 395). Based on this definition, Gillespie (2003) identified two main forms in which a subordinate's trust in a leader can manifest: reliance-based trust, which refers to being willing to rely on the leader's skills, knowledge, judgments, or actions, and disclosure-based trust, which refers to being willing to share work-related or personal information of a sensitive nature with the leader.

Leader character is considered a primary source of trust in leaders because trust is particularly built when moral behavior is intrinsically motivated, intentional, and consistently displayed in context-relevant situations (Dirks and Ferrin, 2002). These conditions are essential for building trust because a leader's consistent moral behavior under these conditions signals to employees that the leader will also behave morally in the future, particularly when the leader favors moral behavior over maximizing personal gain. By contrast, less trust is built when moral behavior is extrinsically motivated, unintentional, or inconsistent because it is less evident that the leader will act virtuously in future situations (Dirks and Ferrin, 2002). This perspective suggests that the character-based concept of virtuous leadership may enhance trust even more than related leadership styles traditionally associated with trust, such as ethical leadership and transformational leadership, because those leadership styles do not fully center on character but also focus on behaviors that may generate less trust, such as conforming to rules or moral duties (a deontological focus) and goal-oriented behavior (a teleological focus).

In turn, trust is the catalyst of various follower attitudes and behaviors that contribute to work-related well-being, including those directly related to the leader, such as satisfaction with the leader and leader–member exchange (Dirks and Ferrin, 2002), organization-related attitudes and behaviors, such as organizational identification (Schaubroeck *et al.*, 2013), and broader psychological aspects such as reduced work stress (Liu *et al.*, 2010). Together, these processes make trusting one's leader essential for the well-being of employees. Trust strongly affects people because it is directly related to basic human needs, particularly safety and health aspects such as psychological distress (Hardin, 2002). Many potential mechanisms linking (perceived) leader virtuousness and work-related well-being can thus be expected to be conditional on trust in the leader. One example is that virtuous leader behaviors from a trusted leader will more effectively influence the internalization and eventually the practicing of intrinsically rewarding moral behaviors (Bass and Riggio, 2006).

In sum, virtuous leadership may increase work-related well-being through several mechanisms, including the creation of a more virtuous organizational climate, better objective job characteristics and outcomes of subordinates and a subjective process with trust at its center. Greater trust in the leader may be a particularly influential mechanism given that the above-discussed insights strongly suggest that virtuous leadership increases trust in the leader, and in turn, this greater trust benefits the work-related well-being of subordinates. Therefore:

> *H1.* Subordinates' perceptions of their supervisor's virtuous leadership positively influence their work-related well-being.

> *H2.* Higher trust in the supervisor mediates the influence of a subordinate's perceptions of the supervisor's virtuous leadership on the subordinate's work-related well-being.

Contextual factors

Employees may differ in their sensitivity to a leader's virtuous or vicious behavior and in the degree and intensity with which they are confronted with a leader's character. These

differences suggest that a leader's character may affect some employees more than others. However, as Aristotle implies, virtuous behavior can be regarded as having a long-term positive impact on others in virtually any situation (Irwin, 1999). Moreover, regardless of the specific context (e.g. industry), supervisors affect employees through many channels, such as daily life interactions and everyday practices (Ciulla, 2017), assignment of work tasks, and their influence on organizational virtuousness and company performance. It is difficult to imagine that some followers would be completely insensitive to being confronted with numerous virtuous or vicious behaviors of their leader; for example, few employees would maintain similar levels of well-being if they were regularly treated unfairly by their supervisor. The above-discussed combination of sensitivity to and frequency of experiencing virtuous or vicious leader actions leads to the following hypothesis:

> *H3.* Subordinates' perceptions of their supervisor's virtuous leadership positively influence the work-related well-being of subordinates regardless of the sector, industry, organizational size or the subordinate's age, gender, education level or position in the organizational hierarchy.

The role of individual core virtues
Each of the five considered core virtues has unique aspects, and the applicability and consequences of practicing a virtue are context-dependent. Some of these core virtues may be more important than others in leadership, for instance, based on Aristotelian thinking, in some Western societies prudence is regarded as a pre-eminent virtue for leaders (Flynn, 2008). However, many contemporary ethics scholars concur with Aristotle's belief that the core virtues form a unified whole, meaning that people rarely possess some moral virtues but not others (MacIntyre, 1984). Initial empirical evidence confirms that subordinate perceptions of leader virtues are strongly correlated (Riggio *et al.*, 2010; Thun and Kelloway, 2011; Wang and Hackett, 2016). Moreover, prudence, humanity, courage, temperance, and justice are considered core because they are believed to be the fundamental building blocks enabling leaders to do the "right" things in a variety of situations, which is often in the best interest of employees. Hence, even if these virtues may relate somewhat differently to employees' work-related well-being, they can all at least be expected to relate positively to their work-related well-being. Therefore:

> *H4.* All five individual core leader virtues positively influence subordinates' work-related well-being and trust in the supervisor.

Methodology
Sample
A self-selected sample of 1,237 employees who were registered as having an immediate supervisor was recruited in January 2019 through the online crowdsourcing platform Prolific. Prolific has been used in many empirical studies in the social sciences and is generally of good quality (Peer *et al.*, 2017). Nonnative speakers who were registered on Prolific as having fluent English language proficiency could participate in the survey only after passing a language test. The socio-demographic composition of the sample is summarized in Table I. The analysis sample comprises people working in a multitude of organizations across various sectors in primarily the UK and the USA, with relatively high proportions of employees who are young, highly educated and working full-time[1].

Characteristic	Category	Frequency	(%)
Age	<30	443	36
	30-50	670	54
	>50	124	10
Gender	Women	641	52
	Men	596	48
Education level	Secondary education or less (low)	136	11
	Some tertiary education (medium)	305	25
	Bachelor's degree or higher (high)	796	64
Place of residence	UK	631	51
	US	292	24
	Continental Europe	193	15
	Latin America	70	6
	Other	51	4
Hierarchy	Bottom half	821	66
	Top half	416	34
Weekly work hours	32 or less	301	24
	More than 32	936	76
Organization size	<25 employees	272	22
	25-499 employees	575	46
	500+ employees	390	32
Sector	Private	766	62
	Public	423	34
	Non-profit	48	4
Industry	Education	198	16
	Human health and social work	162	13
	Wholesale and retail trade	136	11
	Professional/scientific/technical activities	118	9
	Information and communication	112	9
	Administrative and support services	82	7
	Financial and insurance activities	82	7
	Manufacturing	70	6
	Other	277	22

Table I.
Sample profile (*N* = 1,237)

Notes: Sectors are based on the top-level classification of the International Standard Industrial Classification of All Economic Activities (ISIC). Hierarchy refers to the person's self-reported place in the organizational hierarchy

Measures

The respondents were instructed to answer the measures below in relation to their main job and their immediate supervisor within this job. The item scores of each scale were coded such that high values represent high levels of the constructs.

Virtuous leadership. The 18-item Virtuous Leadership Questionnaire developed by Wang and Hackett (2016) was used (α = 0.95) to measure leader character through one's behaviors using three or four items for each core leader virtue, including courage (e.g. "My supervisor acts with sustained initiative, even in the face of incurring personal risk"), temperance (e.g. "My supervisor prioritizes organizational interests over self-interests"), justice (e.g. "My supervisor allocates valued resources in a fair manner"), prudence (e.g. "My supervisor exercises sound reasoning in deciding on the optimal courses of action") and humanity (e.g. "My supervisor shows concerns for subordinates' needs").

Trust in leader. Trust in one's supervisor was assessed with the ten-item behavioral trust inventory *(*α = 0.95) developed by Gillespie (2003). These items capture behavioral

intentions and are split evenly into the two components of trust identified by Gillespie (2003): reliance-based trust (e.g. "How willing are you to follow your supervisor's advice on important issues?") and disclosure-based trust (e.g. "How willing are you to share your personal feelings with your leader?").

Work-related well-being. Job satisfaction was assessed by using the Michigan Organizational Assessment Questionnaire (Cammann *et al.*, 1983). The three items are "All in all, I am satisfied with my job", "In general, I don't like my job" (reverse coded) and "In general, I like working here" (α = 0.92). Work-related affect was assessed using Warr's (1990) 12-item measure that asks about the frequency of experiencing positive emotions (e.g. enthusiasm and contentment) and negative emotions (e.g. worry and depression) at work in the last month. Work engagement is measured using the UWES-3 developed by Schaufeli *et al.* (2017). The UWES-3 (α = 0.86) includes one item for each dimension of engagement: "At my work, I feel bursting with energy" (vigor), "I am enthusiastic about my job" (dedication) and "I am immersed in my work" (absorption).

Control variables. Perceptions of virtuous leadership, trust, and work-related well-being may be affected by a variety of personal and organizational characteristics. Therefore, information was collected about the respondent's age, gender, education level, country of residence, number of weekly work hours, supervisory responsibilities, position in the organizational hierarchy, and tenure with the supervisor and organization as well as the supervisor's age and gender and the sector and industry in which the organization is active. "External" job liking was controlled for by the question "How much do you like your job regarding aspects that are outside of your immediate supervisor's influence?" (1 = dislike a great deal; 7 = like a great deal). This question sought to alleviate the concern that reverse causality may be introduced if companies with cultures of employee well-being and trust hire or attract more virtuous leaders or if employee well-being shaped by causes other than the supervisor's virtuousness and trustworthiness may drive perceptions of the leader's virtuousness and trustworthiness. To isolate the specific role of trust in the *supervisor,* a subordinate's general propensity to trust was controlled for using the 4-item propensity to trust scale developed by Frazier *et al.* (2013). External job liking and propensity to trust can also capture social desirability bias that remains uncaptured by the marker variable discussed below.

Response bias

Several measures were taken to limit response bias. First, the main variables of interest were measured through validated scales to ensure content validity. Second, to encourage honest answers, the respondents were assured of anonymity and confidentiality, and they were not informed beforehand about the goal of the survey. To further detect and correct for possible common method variance, a marker variable deliberately developed for use as a marker variable was used: attitude toward the color blue (Simmering *et al.*, 2015). The three items are "I like the color blue", "I prefer blue to other colors" and "I like blue clothes" (α = 0.79). This marker variable effectively, though not necessarily exhaustively, detects common method bias, as it is influenced by some of the same causes of common method variance (e.g. affectivity and acquiescence) as the substantive variables but is not theoretically related to those substantive variables.

Results

Descriptive statistics, average variance extracted (AVE) and bivariate correlations among the variables studied are shown in Table II. As expected, the correlations among the three variables of interest are positive and significant.

Scale analysis

Prior to testing the hypotheses, a confirmatory factor analysis of the variables of interest was conducted to test the validity of the proposed model. As recommended by Wang and Hackett (2016), virtuous leadership was modeled as a five-correlated-factor model, with each virtue representing a first-order factor. Two items were excluded from the model because their factor loadings were below 0.60[2]. Similarly, work-related affect was modeled as a second-order factor with positive and negative affect as first-order factors, and trust in leader was modeled as a second-order factor with reliance and disclosure as first-order factors. The five-factor measurement model – including virtuous leadership, trust in leader, job satisfaction, work-related affect and work engagement – fits the data well (χ^2 (880) = 3359, $p < 0.01$; $CFI = 0.95$; $RMSEA = 0.05$; $SRMR = 0.04$). Two tests confirmed that the six-factor model has adequate discriminant validity. First, a χ^2-test showed that the proposed model fits the data significantly better than alternative models with five or fewer factors (all p-values <0.001). Second, as can be derived from Table II, the square roots of the AVEs are greater than the interconstruct correlations. The model also has good convergent validity because all factor loadings exceed 0.60 and all AVEs exceed 0.50.

To test the presence of common method bias, blue attitude was added to the model, and the procedure outlined by Williams *et al.* (2010) was followed. A χ^2-test showed that the unconstrained model has a significantly better fit than the zero-constrained model ($\Delta\chi^2 = 79$, $\Delta df = 44$; $p < 0.01$), which signals shared variance between the constructs. A bias distribution test in which the unconstrained model was compared to an equal constrained model demonstrated that the common method bias is unevenly distributed across items ($\Delta\chi^2 = 79$, $\Delta df = 42$; $p < 0.01$). The model in which the marked variable is allowed to load on every item of the main variables has an acceptable fit (χ^2 (969) = 3513, $p < 0.01$; CFI = 0.95; RMSEA = 0.05; SRMR = 0.04). Therefore, blue attitude was retained in the model to test the hypotheses using common method bias-corrected measures.

Hypothesis testing

Structural equation modeling was used to test the hypotheses. The results of the unmediated model are presented in Figure 1[3]. The estimated results show that subordinates' perceptions of their supervisor's virtuous leadership positively influence subordinates' work engagement, work-related affect, and job satisfaction at the 99.9 per cent confidence level. This finding supports *H1*.

The results of the best-fitting mediated model with trust in the leader as a mediating variable are presented in Figure 2.[4] In this model:

- subordinates' perceptions of their supervisor's virtuous leadership positively influence subordinates' trust in their supervisor;

	Mean	SD	1	2	3	4	5
1. Virtuous leadership (1-5)	3.35	0.89	0.89				
2. Trust in leader (1-7)	4.91	1.37	0.80	0.81			
3. Job satisfaction (1-7)	5.14	1.43	0.50	0.53	0.80		
4. Work-related affect (1-5)	3.44	0.73	0.48	0.49	0.78	0.63	
5. Work engagement (1-7)	5.06	1.42	0.41	0.44	0.69	0.64	0.68

Table II.
Means, standard deviations, AVEs and correlations among study variables

Notes: Off-diagonal elements are correlations and the AVEs are presented on the diagonal. All correlations are statistically significant (all p-values < 0.001)
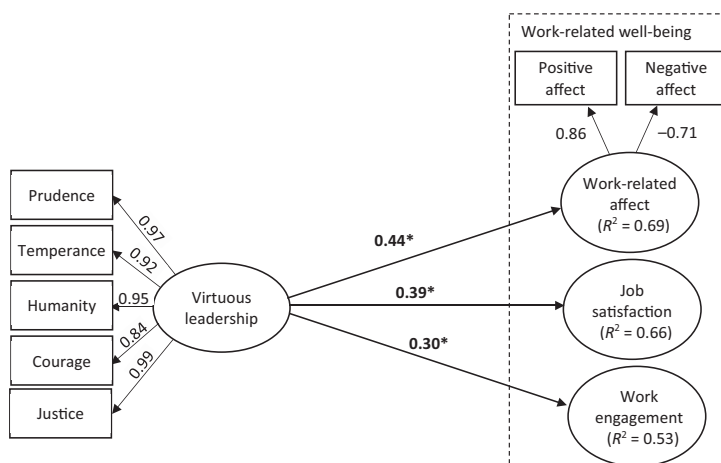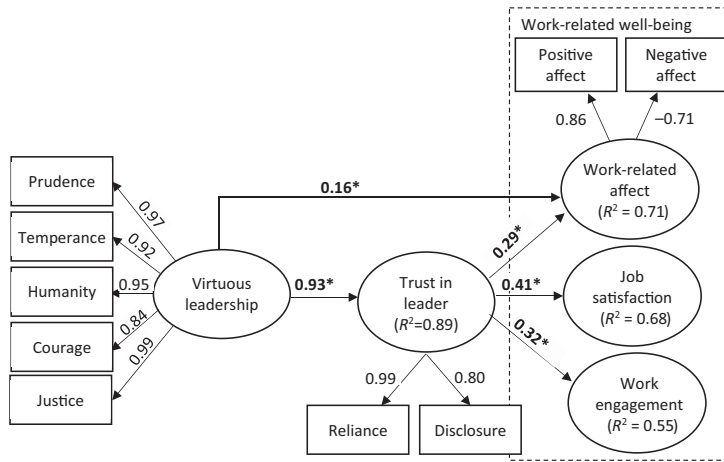
Notes: Standardized path coefficients in bold and factor loadings in regular
type face. *$p < 0.001$. For clarity reasons, the control variables and the
measurement model are not reported, but the full model is available upon
request. The control variables are external job liking; position in the
organizational hierarchy; dummies for living in the UK, US, Continental
Europe or Latin America; and a dummy for being active in the wholesale
and retail trade industry. The control variables are related to each of the
predicted variables

Figure 1.
Unmediated model

- subordinates' trust in their supervisor positively influences all three components of
  work-related well-being; and
- subordinates' perceptions of their supervisor's virtuous leadership influence their
  work-related affect but not their job satisfaction and work engagement, independent
  of their trust in the supervisor.

The mediating role of trust in the supervisor was tested more rigorously using bias-
corrected confidence intervals by means of the bootstrapped estimates from 2,000 samples.
As shown in Table III, this test confirmed that trust in the supervisor significantly mediates
the influence of subordinates' perceptions of their supervisor's virtuous leadership on their
work-related well-being at the 99.9 per cent significance level. The proportion of the variance
in work-related affect explained by virtuous leadership indirectly via trust in the mediator is
63 per cent, which is in the range of partial mediation (0.20 to 0.80) (Hair *et al.*, 2014).
Alternative models without a direct path between virtuous leadership and work-related
affect or with direct effect paths between virtuous leadership and job satisfaction or work
engagement fail to improve the model fit significantly (all p-values > 0.05), and the direct
paths from virtuous leadership to job satisfaction ($\beta = 0.10$; $p = 0.17$) and from virtuous
leadership to work engagement ($\beta = 0.08$; $p = 0.30$) are not statistically significant. This
indicates that trust in the leader fully mediates the influence of virtuous leadership on job
satisfaction and work engagement.

In sum, the results indicate that greater trust in the supervisor fully mediates the
influence of perceived virtuous leadership on work engagement and job satisfaction and
partially mediates this influence for work-related affect, thereby supporting *H2*.

Notes: Standardized path coefficients in bold and factor loadings in regular type face. *$p < 0.001$. For clarity reasons, the control variables and the measurement model are not reported but the full model is available upon request. The control variables are as in Figure 1, except for the inclusion of propensity to trust as an additional control variable. The control variables are related to each of the predicted variables. While external job liking and propensity to trust are particularly relevant in relation to work-related well-being and trust in the leader, respectively, they were related to all outcome variables to capture possible social desirability bias
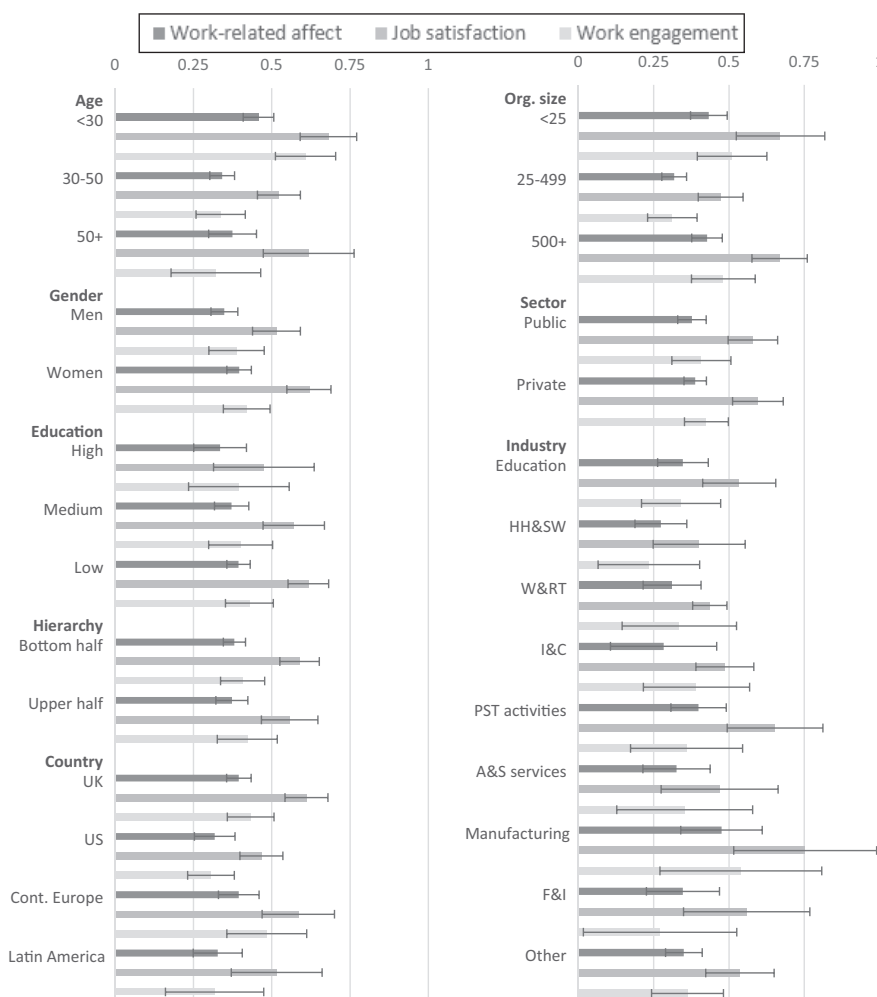
Figure 2.
Mediated model

	Indirect effect	Direct effect	Total effect	VAF
Virtuous leadership → trust in leader → work-related affect	0.27*	0.16	0.43	63%
Virtuous leadership → trust in leader → Job satisfaction	0.38*	N.A.	N.A.	N.A.
Virtuous leadership → trust in leader → work engagement	0.30*	N.A.	N.A.	N.A.

Notes: Standardized coefficients reported; * $p < 0.001$; VAF = Variance accounted for

Table III.
the Relationships of individual virtues with work-related well-being

Multigroup analysis was employed to test whether a positive influence of subordinates' perceptions of virtuous leadership on their work-related well-being holds for various subgroups. The model in Figure 1 including the control variables was used for this purpose. The results, presented in Figure 3, indicate that the influence of subordinates' perceptions of their supervisor's virtuous leadership on their work-related well-being is positive and statistically significant at the 5 per cent significance level regardless of the subordinate's gender, age group, educational background, position in the organizational hierarchy, organizational size, or sector, and this positive influence holds across the various industries and cultures considered here. These findings support *H3* and provide evidence for the prevalence of a positive influence of the perceived virtuous leadership of a supervisor on subordinate' work-related well-being in the countries considered here.

Figure 3.
The influence of
virtuous leadership
on work-related well-
being by subgroup

Notes: Unstandardized coefficients reported for accuracy reasons in calculating confidence
intervals. 95% confidence interval bars shown. Control variables are as in Figure 1.
Industries containing at least 5% of the sample are considered separately. HH&SW = human
health and social work; W&RT = wholesale and retail trade; I&C = information and
communication; PST activities = professional, scientific, or technical activities; A&S
services = administrative and support services; F&A activities = financial and insurance
activities. For education level, low = secondary education or less; medium = some tertiary
education; high = Bachelor's degree or higher

To examine whether each core leader virtue positively influences subordinates' trust in the leader and work-related well-being, the model was re-estimated after excluding all virtues other than the virtue of interest from the model. This procedure was repeated five times, once for each virtue. The results, presented in Table IV, indicate that each core leader virtue positively influences subordinates' trust in the supervisor and their work-related well-being, and the degree of influence of the individual virtues is very similar. This large overlap is not surprising when considering that, in line with previous research, all correlations between individual virtues are between 0.69 and 0.85 in the data[5].

Discussion

Leadership styles in which leader virtues play a significant role, such as ethical, servant, and transformational leadership, do not comprehensively address the core defining characteristics of a virtuous leader, as they do not consider a coherent set of core leader virtues and do not center on character (Hackett and Wang, 2012; Lemoine *et al.*, 2019). Little is known about the *isolated* influence of virtuous leadership within organizations as assessed by a *coherent* measure of a leader's virtuousness that *centers on character* (Crossan *et al.*, 2017). Notably, despite the importance of employee well-being for firm performance (Krekel *et al.*, 2019), the isolated influence of virtuous leadership on employee well-being has remained unexplored. The current study addresses this void in the literature by examining how a supervisor's virtuous leadership as perceived by subordinates influences subordinates' work-related well-being using a coherent measure of virtuous leadership. In addition, the mediating role of trust in the leader and the moderating roles of individual leader virtues and various characteristics of subordinates and organizations are examined to gain a deeper insight in the prevalence and underlying mechanisms of this effect.

The current study reveals that subordinates who perceive they have more virtuous immediate supervisors have higher work-related well-being across a wide variety of contexts in Western societies. This positive influence holds for all three considered dimensions of work-related well-being – job satisfaction, work-related affect and work engagement. These findings are consistent with previous research findings showing that virtuous leadership has a positive influence on various positive follower outcomes that are antecedents and consequences of work-related well-being, such as subordinates' overall happiness, life satisfaction, psychological empowerment, organizational identification and moral identity (Riggio *et al.*, 2010; Wang and Hackett, 2016). These findings are also in line with the documented positive influence of value-laden leadership styles such as ethical and transformative leadership on work-related well-being (Bedi *et al.*, 2016; Banks *et al.*, 2016). In

Virtue	Relationship with work-related affect	Relationship with job satisfaction	Relationship with work engagement	Relationship with trust in leader
Prudence	0.43*	0.39*	0.31*	0.93*
Temperance	0.37*	0.34*	0.25*	0.88*
Humanity	0.40*	0.38*	0.27*	0.92*
Courage	0.43*	0.36*	0.29*	0.87*
Justice	0.44*	0.39*	0.29*	0.92*

Table IV.
the Relationships of individual virtues with work-related well-being

Notes: Standardized coefficients reported. *$p < 0.001$. Control variables are as in Figure 1 for the work-related well-being variables and as in Figure 2 for trust in leader

sum, the findings of this study extend the evidence for the importance of the character and virtuous behaviors of leaders in stimulating positive outcomes for subordinates and show the prevalence of this positive influence in at least Western contexts.

The results further show that subordinates' greater trust in the supervisor fully mediates the positive influence of their perceptions of the supervisor's virtuous leadership on job satisfaction and work engagement and partially mediates the positive influence for work-related affect. The full mediation effects for two of the three well-being indicators suggest that a subjective process with trust in the leader at its center is a particularly influential way in which virtuous leaders influence the work-related well-being of followers. Moreover, the sizes of the mediation effects suggest that this trust mechanism is probably more influential than alternative mechanisms, such as the creation of a more virtuous organizational climate and better objective job characteristics and outcomes of subordinates. The revealed strong influence of virtuous leadership on trust is consistent with the idea that trust is particularly built when moral behavior is intrinsically motivated and intentional, i.e. when the behavior is character-based. Following this rationale, trust in the leader may be more influenced by virtuous leadership compared with less character-based leadership styles that have been associated with increased trust, such as transformative leadership (Altunoğlu *et al.*, 2019). The reference to a limited period (i.e. the past month) in the measure of work-related affect may explain why trust related less strongly to work-related affect because building trust is a long-term process, whereas virtuous leader behaviors also elicit short-term affective responses in followers independent of trust.

All five individual core leader virtues positively influenced trust in the supervisor and work-related well-being. This finding suggests that the five leader virtues that are prominent in the emerging frameworks of leader character and virtuous leadership each contribute to the well-being of employees. The similar influence of the individual virtues on trust and work-related well-being is inconsistent with the common viewpoint in Western philosophical and spiritual traditions that prudence is the central and most important virtue (Zeuschner, 2014) and with the central role of prudence in some frameworks of leader character (Crossan *et al.*, 2017) but is consistent with frameworks that do not make a hierarchical order among the five core virtues (Peterson and Seligman, 2004; Hackett and Wang, 2012) and supports the philosophical viewpoint of some ethics scholars that virtues form a unified whole in creating positive outcomes (MacIntyre, 1984). However, the consideration of individual leader virtues in specific situations remains essential, as the importance and the specific roles of virtues are context dependent (Riggio *et al.*, 2010).

Implications
Theoretical implications
The results suggest that the character and related virtues of leaders are important drivers of the documented positive influence of value-laden leadership styles such as ethical and transformational leadership on work-related well-being (Bedi *et al.*, 2016; Banks *et al.*, 2016) and trust (Altunoğlu *et al.*, 2019). Virtues should therefore have an important role in theories on how value-laden leadership styles affect follower outcomes. Another implication is that trust in leaders and work-related well-being seem to be important drivers of the positive influence of virtuous leadership and leader character on overall well-being, work performance, and other work-related outcomes (Riggio *et al.*, 2010; Wang and Hackett, 2016).

More generally, the demonstrated positive influence of virtuous leadership on employee outcomes highlights the importance of further explorations into how leaders can be helped or stimulated to become more virtuous and provides support for recent calls to incorporate

leader character and, more specifically, virtuous leadership in mainstream management theory (Crossan *et al.*, 2017; Newstead *et al.*, 2020a, 2020b).

Practical implications
This study highlights the potential relevance of leader virtuousness for leaders and organizations that aim for high levels of employee well-being and trust within the organization. Trust and well-being are not only desirable in themselves but are also instrumentally important in enhancing the recruitment, performance, and retention of employees (Krekel *et al.*, 2019). This link suggests that virtuous leaders are often effective leaders and that often there is no trade-off between effective and virtuous leadership, contradicting the fear or conviction among many leaders that virtuous leadership comes at the expense of effectiveness. The positive influences of virtuous leadership shown in this study reinforce calls for promoting virtuous leadership in organizations (Flynn, 2008; Cameron and Winn, 2012). Leader character is widely considered to be malleable, and following Aristotle, the related virtues are considered learnable and developable (Newstead *et al.*, 2020a, 2020b). Sison and Ferrero (2015) suggest that:

> [. . .] a virtuous character comes from the cultivation of virtuous habits. However, virtuous habits themselves result from the repeated performance of virtuous actions, and virtuous actions, in turn, arise from one's having nurtured virtuous inclinations or tendencies (p. S81).

These inclinations and tendencies can be promoted in several concrete ways, such as by verbally acknowledging virtuous behavior of leaders (Alfano, 2013), role modeling virtuous behaviors, encouraging leaders to explain the rationale behind their virtuous decisions to employees, and offering training programs and workshops to promote and develop virtuous character traits (Crossan *et al.*, 2017; Newstead *et al.*, 2020a, 2020b). In addition, one could place greater emphasis on character when hiring and evaluating staff to create a virtue-based leadership culture. To develop excellent future leaders, the findings of this study also support Byrne *et al.*'s (2018) call for education and training programs that raise awareness about the importance of virtuous character and helping to develop virtuous character traits, particularly in business schools (see also Eriksen *et al.*, 2019). For (prospective) employees, the revealed influence of leader character on employees' outcomes suggests that a leader's character should be an important criterion when making job decisions.

Limitations and future directions
First, while this study focused on perceptions of virtuous leadership, future research could examine the role of actual leader virtuousness using objective data regarding virtuous and vicious behaviors of leaders. Third, while endogeneity concerns were alleviated in this cross-sectional study by the inclusion of control variables and a marker variable, future research could test the causal directions of the proposed relationships more thoroughly by collecting longitudinal or experimental data. Fourth, the demonstrated relevance of virtuous leadership and the observed differences in the theorized and empirical factor structure of Wang and Hackett's Virtuous leadership Questionnaire reinforce Dawson's (2018) call to further develop and validate measures of individuals' virtues in business. Fifth, future studies in other contexts and utilizing different data sources are needed to examine the generalizability of these findings. Sixth, future research can test the value of virtuous leadership beyond other leadership styles by exploring the extent to which it predicts unique variance in follower and organizational outcomes. Seventh, while this study shows that virtuous leadership is important for employees' work-related well-being regardless of the specific context, more research is needed to explore the extent to which the role of

specific virtues is context dependent, the interdependence of different virtues, and the effect of imbalances between leader virtues in creating positive outcomes (Riggio *et al.*, 2010).

Conclusion

The present study demonstrates the positive impact of virtuous leadership as perceived by subordinates on the work-related well-being of subordinates across a wide variety of contexts in Western societies. In this regard, this study shows that subordinates who perceive they have more virtuous supervisors trust their leaders more and, in turn, have higher work engagement, job satisfaction and work-related affect. The findings suggest that organizations seeking to promote the well-being of their employees may strongly benefit from stimulating virtuous leadership and employee perceptions thereof. Despite some limitations, this study contributes to the existing literature by providing theoretical refinement and empirical evidence of the influence of virtuous leadership on trust and work-related well-being using a more coherent and philosophically grounded conceptual framework compared with the extant literature.

Notes

1. The raw data are available in the DANS repository (https://doi.org/10.17026/dans-x6h-ua57).

2. The excluded items are items 5 and 8 from Table 2 of Wang and Hackett (2016). These items also had the lowest factor loadings in their study.

3. Other considered control variables, such as gender and tenure with the supervisor, were excluded from the model because they did not improve the model fit and were not significantly related to multiple substantive variables. Moreover, as a robustness check, the 5-item internalized moral identity scale developed by Aquino and Reed (2002) was added as a control variable to the main model to control for a subordinate's perception of the importance and desirability of being a moral (or virtuous) person and their self-evaluated morality. It was excluded from the model in Figure 1 because it did not substantially influence the size and statistical significance of all relationships shown in Figure 1, and its inclusion did significantly reduce the model fit.

4. Collinearity diagnostics were calculated to assess the presence of multicollinearity problems. An OLS regression analysis with all control variables used in the mediated model shows that the variance inflation factors (VIF) of virtuous leadership and trust are 3.04. VIF scores below four are typically not considered problematic (Hair *et al.*, 2010), and therefore multicollinearity is not a serious concern in this study.

5. To ensure that different virtues were not correlated because of answers to previous scale items, the results were re-estimated using only the respondent's answer to the first scale item that differed between participants due to randomization. Although the strength of association was slightly more dispersed and slightly smaller, no systematic differences between the virtues were found. All five considered virtues remained positively and significantly related at the 1% significant level to trust in the leader (all β's > 0.75), work-related affect (all β's > 0.31), job satisfaction (all β's > 0.30), and work engagement (all β's > 0.23), providing further support for hypothesis 4.

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