

Virtuous Leadership and Employee Flourishing: The Mediating Role of Work Engagement

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Abstract

Virtuous leadership is an emerging concept in the business ethics literature. Despite its potential significance in creating thriving organizations with flourishing employees, little is known about how virtuous leadership relates to follower outcomes. This study examines whether, why, and under what conditions employees with more virtuous supervisors flourish more. Our sample contains 983 respondents working in various industries in the United Kingdom and the United States. Using structural equation modeling, we find that a supervisor's virtuous leadership, as evaluated by the employee, is positively associated with the employee's flourishing. This positive association is fully mediated by the employee's higher work engagement and holds for a wide variety of public and private sector employees from different industries. All five individual leader virtues and various measures of leader virtuousness considered here relate positively to employee flourishing. These findings underscore that promoting virtuous leadership is a promising pathway to improving work engagement and employee well-being.

1 | Introduction

The growing interest among practitioners and researchers in the ethics and virtues of corporate leaders has largely been fueled by a long list of corporate leadership scandals that caused serious damage to organizations and the economy at large. While the concept of ethics focuses on preventing the bad, virtuousness centers on pursuing and enhancing the good (Cameron 2011). From this perspective, virtuous leadership may warrant attention as a way to not only avoid damaging situations but also create thriving organizations with flourishing employees (Arjoon 2000). However, the potential role of leader character, and virtuous leadership more specifically, in exerting *positive* influence in organizations has received relatively little attention from scholars and the business world (Cavanagh & Bandsuch 2002; Grant & McGhee 2014; Meyer 2015), which may explain why many managers attempt to get ahead by ‘doing wrong’ and why leader character often does not play a prominent role in the hiring, training, and evaluation of managers (Callahan 2004).

The current paper brings much-needed attention to the potential positive consequences of virtuous leadership. Specifically, this paper aims to examine how the virtuous leadership of managers relates to the flourishing (i.e., well-being) of employees. Promoting the well-being of employees has become an increasingly important theme in many public and private organizations seeking to enhance the recruitment, performance, and organizational commitment of employees. This trend has mainly been stimulated by success stories of innovative companies that have put employee well-being at the core of their business model, such as Google, Zappos, and Delta. These companies have recognized that employee well-being can contribute to employee- and organizational performance (Peterson et al. 2011) via improved task productivity (Oswald et al. 2015) and creativity (Davis 2009) as well as via reduced turnover intentions and absenteeism, among other benefits (see Erdogan et al. 2012 and Page & Vella-Brodrick 2009 for reviews). It has been consistently shown that the benefits of employees’ overall well-being go well beyond the benefits of work-related well-being; an employee’s overall well-being predicts job performance independently from – and possibly better than – his or her job

satisfaction or work-related affect (Erdogan et al. 2012; Page & Vella-Brodrick 2009). High well-being among employees is not only considered good for business; well-being is – first and foremost – considered a desirable end-state in psychology and hence something to strive for in itself (Schotanus-Dijkstra et al. 2016). For the above reasons, practitioners and researchers are increasingly interested in learning how to increase employee flourishing.

Virtuous leadership might seem to be an intuitively appealing pathway to employee flourishing. Aristotle's belief that practicing the virtues leads to a state of eudaimonia (i.e., human flourishing) is at the core of contemporary virtue ethics (Irwin 1999). However, it remains to be seen whether employees with virtuous managers truly flourish more, as it is less clear how virtuous behavior influences *another person's* flourishing, and there is scant evidence showing how virtuous leadership relates to employee outcomes in general (Wright & Goodstein 2007) and employee well-being in particular (Erdogan et al. 2012). Existing knowledge is mostly limited to insights from studies exploring how employee well-being is related to organizational virtuousness (e.g., Rego et al. 2010), conceptually related but distinct leadership styles such as ethical leadership (e.g., Yang 2014) and authentic leadership (Ilies et al. 2005), or specific leader virtues and vices such as behavioral integrity (Prottas 2013) and abusive supervision (Martinko et al. 2013). A notable exception is the pioneering study by Wang and Hackett (2016), which provides initial evidence for a positive association between the virtuous behavior of leaders and the happiness and life satisfaction of employees. However, the limited scope of that study in terms of external validity, the well-being domains considered, and the mechanisms studied suggests that further research is needed on the question of whether virtuous leadership is related to employee flourishing, what might explain a possible relationship, and the extent to which the relationship is context-dependent.

The contribution of the current paper is threefold. First, we address the void in the literature regarding how virtuous leadership relates to follower outcomes. We thereby move beyond Wang and Hackett's (2016) focus on the relationship between virtuous leadership and hedonic well-being (happiness and

life satisfaction) by focusing on a more holistic concept of well-being that is at the core of positive psychology and related to the Aristotelian concept of eudaimonia: human flourishing. Flourishing implies positive psychological and social functioning and can be defined as “to live within an optimal range of human functioning, one that connotes goodness, generativity, growth, and resilience” (Fredrickson & Losada 2005: 678). Compared with hedonic well-being concepts such as life satisfaction and happiness, flourishing is more concerned with a diverse range of capabilities rather than solely with outcomes, and it thus depicts a more instrumental view of what is valuable to a good life. The multidimensional concept of flourishing integrates essential components of subjective, psychological, and social well-being (Diener et al. 1999; Ryff & Keyes 1995; Ryan & Deci 2000; Helliwell & Putnam 2004), and although there is no consensus on its exact elements (Hone et al. 2014), commonly included elements are competence, engagement, self-respect, optimism, purpose, positive relations, being respected by others, and a sense of social contribution.

Second, we theorize and explore a core mechanism through which a manager’s virtuous leadership and employee flourishing are related: the employee’s work engagement. Work engagement indicates “a positive, fulfilling work-related state of mind that is characterized by vigor, dedication, and absorption”, reflecting strong intrinsic motivation (Schaufeli et al. 2006: 702). Focusing on the work domain, we expect that work engagement is a particularly strong pathway by which virtuous leadership influences the flourishing of employees because both work engagement and flourishing reflect broad, active states, making them more strongly related than relatively passive work-related concepts such as job satisfaction and employee trust. In particular, we expect that leader virtuousness is positively associated with a range of positive follower outcomes, such as employee trust, moral identity and organizational identification, which in turn positively affect the degree to which employees are immersed in their work, energetic during their work, and committed to their work.

Third, using a dataset with public and private sector employees from different industries in the United Kingdom and United States, we explore to what extent our predicted positive association between

virtuous leadership and the employee's work engagement and flourishing is context-dependent. We also explore which leadership virtues are particularly strongly related to work engagement and flourishing and to what extent the different measures of leader virtuousness that have been introduced to the business ethics literature produce similar results.

2 | Theory and hypotheses

The theoretical framework guiding this study integrates Wang and Hackett's (2016) model of virtuous leadership with Schaufeli et al.'s (2006) concept of work engagement and Diener et al.'s (2010) model of flourishing. As depicted in Figure 1, it is proposed that virtuous leadership fosters employee engagement, which in turn results in flourishing employees.

[Insert Figure 1 here]

2.1 | Conceptualization of virtuous leadership

Virtues can be defined as acquired and socially valued dispositions or character traits that are voluntarily exhibited in the person's habitual behavior. The belief that virtuousness is a highly desirable human trait is profoundly influential in various philosophical and spiritual traditions that have shaped contemporary Eastern and Western societies, such as Confucianism, Buddhism, ancient Greek philosophy, and Judeo-Christianity (Peterson & Seligman 2004). Most of these traditions identify a few cardinal virtues, i.e., virtues on which all other virtues hinge. The exact list of cardinal virtues as well as their interpretations and relative levels of importance vary somewhat by culture (Hursthouse 1999). Nevertheless, four cardinal virtues emerge in nearly all traditions: prudence (or wisdom), justice, temperance, and humanity (Peterson & Seligman 2004).² Notable virtues that are considered cardinal in a subset of cultures are courage (considered a cardinal virtue in Western but not Eastern societies),

² Humanity is not explicitly mentioned as a cardinal virtue in Ancient Greek philosophy but its importance is strongly implied in this philosophical tradition. The same holds for temperance in Confucian thinking.

truthfulness (a cardinal virtue for Aristotle and Confucius but not in Buddhism, Islam, and Judeo-Christianity), and transcendence (the pre-eminent virtue in Buddhism but only implicitly valued as a core virtue in most other traditions).

Accordingly, a virtuous leader can be regarded as a leader whose character and dispositions align with the prevailing cardinal virtues. Following the virtue ethics framework, these cardinal virtues must be expressed consistently over time and voluntarily, meaning that the leader is aware of which actions should be taken and does not act for personal advantage or to conform to moral rules or legislation (Wang & Hackett 2012). As for virtuousness more generally, the conceptualization of virtuous leadership is complicated by cultural differences in the interpretation and perceived importance of specific cardinal virtues with regard to leadership. To encourage global discourse on the link between virtuous leadership and well-being, the current study focuses on leadership virtues that commonly emerge as crucial traits of leaders in philosophical and spiritual traditions around the world.

Table 1 depicts three main endeavors to comprehensively classify and measure the cardinal virtues a leader should express to be considered a virtuous leader.³ Although these conceptualizations and operationalizations differ somewhat in their philosophical and cultural underpinnings and the specific construct of interest, the proposed cardinal virtues significantly overlap. These conceptualizations highlight the cross-cultural agreement that a virtuous leader should have a disposition to do the following: make the right judgments to achieve virtuous goals using appropriate means in a given situation (i.e., prudence or wisdom); control emotional reactions and desires for self-gratification (i.e., temperance); and give others what they deserve (i.e., justice). Particularly in Western societies, a virtuous leader should additionally have a disposition to persevere in doing what they believe is ‘right’ despite the risk of unpleasant consequences (i.e., courage or fortitude). Riggio et al.’s (2010)

³ We acknowledge the value of alternative conceptualizations of leader virtuousness, such as those of Santos et al. (2006) and Caldwell et al. (2015), but we do not consider those here because they are not grounded in virtue ethics, not intended to be comprehensive, or do not have a clear philosophical basis.

conceptualization of a virtuous leader focuses on Western societies and excludes humanity as a cardinal virtue because Plato did not list it as one of the four cardinal virtues. However, given that humanity is *implicitly* valued as a crucial virtue in ancient Greek philosophy, considered cardinal by most contemporary ethics scholars, and explicitly listed as a cardinal virtue in most other dominant traditions across the globe, a leader's adherence to treating others with love, care, and respect (i.e., humanity) can indeed be considered a ubiquitous cardinal virtue of leaders. Broadly following Wang and Hackett (2016) and the other conceptualizations depicted in Table 1, we will focus on the five above-discussed core – though, depending on context, not necessarily exhaustive – ingredients of virtuous leadership in Western and Eastern societies: prudence, temperance, justice, courage, and humanity. We will not consider the roles of transcendence and truthfulness because these virtues were not empirically distinctive from other virtues in the measures developed by Thun and Kelloway (2011) and Wang and Hackett (2016), respectively.

[Insert Table 1 here]

One reason for the limited knowledge on the correlates of virtuous leadership is the longstanding disregard for virtue ethics among philosophers and ethics scholars (Dawson 2018). Moreover, the traditional view in psychology has been that “character is an unnecessary concept for psychology” (Allport 1937: 52) because it is not a morally neutral concept of personality and has a subjective nature. Although these views have been revisited (Hursthouse 1999; McCullough & Snyder 2000), some scholars have considered cardinal virtues – and by extension virtuous leadership – “too abstract and general” to be measured (Peterson & Seligman 2004: 31). A second reason is that for a long time, the leadership literature has treated virtuous leadership as conceptually equivalent or as a characteristic of specific leadership styles, such as moral leadership, ethical leadership, spiritual leadership, and authentic leadership. Although the literatures on these leadership styles consider virtues to be paramount in leadership, they typically consider a wide range of virtues in an unsystematic way and therefore do not accurately address the core defining characteristics of virtuous leadership (Hackett &

Wang 2012). These two issues are convincingly dispelled by the development of a parsimonious, coherent, and philosophically grounded conceptual framework of virtuous leadership (see particularly Hackett & Wang 2012) and a sound measure of virtuous leadership that is empirically distinct from other leadership concepts (see particularly Wang & Hackett, 2016). Specifically, by focusing on the core character traits that define a virtuous leader and through a much-needed philosophical embedding in the virtue ethics framework (Flynn 2008; Whetstone 2005), these works offer a framework of virtuous leadership that is conceptually distinct from the predominantly teleological or deontological approach taken by the literatures on these other leadership styles, which emphasize but do not center on leader virtues. These recent advances in the conceptualization and measurement of virtuous leadership enable deeper explorations of the correlates of virtuous leadership.

2.2 | Virtuous leadership and flourishing

There are some strong links and conceptual similarities between flourishing and virtuousness. Most notably, both flourishing and virtuousness relate to one's development into a consistent, unified, well-functioning person. That is, virtuous behavior results from a well-developed and balanced character, and a flourishing person is someone who develops overall positive functioning (Fredrickson & Losada 2005). Additionally, virtues are consistent character traits sustained through practice (phronesis), and flourishing similarly relates to traits such as competence, engagement, self-respect and optimism, which become habituated over time (Diener et al. 2010). Moreover, both concepts are not solely concerned with goals or ends, but they do pay attention to *how* people achieve a certain goal, particularly prudence, which is necessary to developing moral behavior, and the development of someone's 'full potential', which is necessary to improving one's well-being outcomes (Fredrickson & Losada 2005). There are, however, also differences between these concepts. Most importantly, virtuousness is always concerned with what is morally right, whereas flourishing concerns what is right

for a person. According to Aristotle, virtue is a necessary but not sufficient prerequisite for flourishing because a person's well-being also depends on external goods and luck (Hursthouse 1999).⁴

Given the above discussion, it is not surprising that empirical studies show that acting virtuously positively influences one's own well-being (Seligman et al. 2005). Less evident is the extent to which a *manager's* virtuous behavior relates to an *employee's* well-being, whether this is context-dependent, and which specific virtues and well-being components are particularly related. There is, however, reason to expect a positive relationship. Virtuous leadership is inherently about leaders who pursue the creation of optimal long-term value and wealth for all stakeholders by creating a positive environment and considering the interests of all involved (Caldwell et al. 2015), i.e., behavior that should generally benefit employees.

For employees' *hedonic* well-being, empirical evidence is highly suggestive of a positive relationship with leadership virtuousness. On an organizational level, a virtuous climate is shown to relate positively to employees' affective wellbeing and life satisfaction (Rego et al. 2010; Cameron 2011). Concerning the dyadic supervisor-subordinate relationship, an employee's hedonic well-being has been shown, for instance, to positively relate to the manager's behavioral integrity (Prottas 2013), ethical leadership (Yang 2014), and transformational leadership (Arnold et al. 2007) but negatively to abusive supervision (Martinko et al. 2013). Wang and Hackett (2016) provide some direct evidence for a positive association between a leader's virtuous behavior and the follower's hedonic well-being.

Less is known about the relation between leadership virtuousness and '*eudaimonic*' components of employee well-being, such as the employee's feelings of engagement, self-respect, meaning in life, optimism, and competence. Some indirect evidence for a positive relationship comes from studies that considered constructs that are related to – or considered components of – virtuous leadership and

⁴ For Plato and the Stoic philosophers, however, virtue is both a necessary and sufficient condition for flourishing.

flourishing. For instance, ethical, authentic, and transformational leadership tend to have positive associations with elements of the employee's social and psychological well-being, such as the employee's self-efficacy, personal identification with the supervisor, perceptions of having meaningful work, and lower burnout or work stress (Bedi et al. 2016; Gardner et al. 2011; Arnold et al. 2007). Therefore,

Hypothesis 1 *Virtuous leadership of managers relates positively to employee flourishing.*

2.3 | The mediating role of work engagement

Leader virtuousness is positively associated with a range of positive follower outcomes, including employee trust (Thun & Kelloway 2011) and the follower's moral identity and organizational identification (Riggio et al. 2010; Wang & Hackett 2016). These positive effects are likely to add up to a persistent and general habit of being immersed in one's work, energetic during one's work, and committed to one's work, i.e., work engagement. Previous empirical studies indicate that this is indeed the case. Through acting non-ego-centric, fair, wise, and courageous, virtuous leaders are shown to generate authentic inspirational motivation among their followers (Bass & Riggio 2006), which is manifested in the form of dedication, commitment and vigor (Den Hartog & Belschak 2012). Moreover, strengths-based interventions have shown strong links with employee engagement. In a meta-review, Clifton and Harter (2003) found that even three years after managers participated in a strength-increasing study group, their employees showed significantly higher work engagement compared to employees in control groups. Additionally, behavioral integrity and several leadership styles that are related to virtuous leadership, including ethical, authentic, charismatic and transformational leadership, have been found to relate positively to employees' work-engagement via decreased moral distress, increased trust in one's supervisor, and perceptions of having more meaningful work, amongst other processes (Prottas 2013; Babcock-Roberson & Strickland 2010; Chughtai et al. 2015; Tims et al., 2011; Den Hartog & Belschak 2012; Ghadi et al. 2013).

In turn, because work engagement comprises feelings of dedication, resilience and sense of purpose at work, and ultimately improves productivity, it is likely to promote an overall feeling of fulfillment and flourishing. Indeed, in a meta-review, Bakker and Demerouti (2008) concluded that engaged employees experience better health and more often experience positive emotions, such as joy, enthusiasm, and happiness, and they therefore also perform better at work. In a longitudinal study, Hakanen and Schaufeli (2012) found that work engagement had a positive effect on life satisfaction and helped prevent depression, even three to four years later. Work engagement not only relates positively to hedonic well-being but also has a positive effect on psychological and social aspects of flourishing. For example, the relation between work engagement and personal resources such as self-efficacy, self-esteem and optimism seems to be reciprocal, indicating that increased work engagement can induce a positive self-enforcing cycle of engagement and positive feelings (Xanthopoulou et al. 2009). In a sample of Dutch nurses, Bakker and Sanz-Vergel (2013) found that work engagement and flourishing are indeed positively related. In sum, there are several indications that virtuous leadership goes together with increased work engagement, which in turn can increase employee flourishing. Therefore,

Hypothesis 2 *Higher work engagement mediates the relation between a manager's virtuous leadership and the employee's flourishing.*

2.4 | Context-dependency

Employees may differ in their sensitivity to a leader's virtuous or vicious behavior and in the degree and intensity with which they interact 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, assignment of work tasks, and their influence on organizational virtuousness and company performance. It is hard to imagine that some

employees are completely insensitive to the various ways in which supervisors touch them; for example, few employees would maintain similar levels of work engagement and flourishing if they were regularly treated unfairly by their supervisor. Therefore,

Hypothesis 3: *The positive relationship between a manager's virtuous leadership and employee flourishing through higher work engagement holds regardless of the employee's characteristics, sector, and industry.*

2.5 | Which cardinal virtues particularly matter?

Each of the five considered cardinal virtues has unique aspects, and the applicability and consequences of practicing a virtue are context-dependent. Some of these cardinal virtues may be more important than others in leadership; for instance, based on Aristotelian thinking, prudence is – in some Western societies – regarded a pre-eminent virtue for leaders (Flynn 2008). Notwithstanding the above, many contemporary ethics scholars concur with Aristotle's belief that the cardinal virtues form a unified whole, meaning that people rarely possess some moral virtues but not others (e.g., MacIntyre 1984). Initial empirical evidence confirms that leader virtues are substantially correlated (Riggio et al. 2010; Thun & Kelloway 2011; Wang & Hackett 2016). Moreover, virtues are often interdependent in creating positive outcomes. For example, a prudent but not courageous leader will not be very effective in fostering employee well-being, and the just actions of an inhumane leader will not be fully appreciated by employees. Prudence, humanity, courage, temperance, and justice are considered cardinal because, in combination with other virtues, they are believed to be the fundamental building blocks that enable leaders to do the 'right' things in a variety of situations, and doing the 'right' things is often in the best interest of employees. Hence, even if these virtues relate differently to employee flourishing, they can all at least be expected to relate positively to employee flourishing. Therefore,

Hypothesis 4: *All five cardinal leader virtues – courage, temperance, justice, prudence, and humanity – relate positively to the employee's flourishing through higher work engagement.*

3 | Pretest

As the development of scales that try to capture virtuous leadership is still in its infancy, we first followed Wang and Hackett's (2016) recommendation to test whether the three recently introduced and slightly different conceptualizations and operationalizations of virtuous leadership produce similar results (see Table 1). Specifically, in this pretest, we compared our preferred measure – Wang and Hackett's (2016) Virtuous Leadership Questionnaire (VLQ) – with the Leadership Virtues Questionnaire (LVQ) of Riggio et al. (2010) and the Character Strengths in Leadership Scale (CSLS) of Thun and Kelloway (2011). We additionally tested how these various measures of virtuous leadership are related to employee flourishing.

3.1 | Sample and measures

The sample contains 202 participants who were recruited through the online crowdsourcing platform Prolific and who were registered as having a full-time or part-time job in a publicly listed company or a public sector employer in the United Kingdom (UK) or the United States (US).⁵ The participants worked in a wide variety of organizations and industries. The surveys were completed in mid-October 2017, and the response rate was 97%.

Flourishing

Flourishing is measured using Diener et al.'s (2010) eight-item Flourishing Scale (FS; $\alpha = 0.91$). The FS measures a person's self-perceived success in various important areas of positive functioning, including purpose, positive relationships, general engagement, competence, self-respect, optimism, being respected by others, and a sense of social contribution. Sample items are "I am a good person

⁵ The datasets related to the pretest and main study of this paper are posted in a public repository, see Author 1 et al. (2018).

and live a good life” and “I am optimistic about my future”. An overall score was derived by averaging the scores of the eight items.⁶

Virtuous Leadership scales

The 18-item VLQ ($\alpha = 0.97$) captures five virtues: courage, temperance, justice, prudence, and humanity. Sample items are “My supervisor respects individual interests and rights when allocating responsibilities” and “My supervisor shows concern and care for peers”. Following Wang and Hackett (2016), the overall score was derived by summing the scores of each of the five virtues.

The 19-item LVQ ($\alpha = 0.91$) captures four virtues: prudence, justice, temperance, and fortitude. Sample items are “My supervisor does as he/she ought to do in a given situation” and “My supervisor gives credit to others when credit is due”.

The 16-item CSLS ($\alpha = 0.96$) measures 16 character strengths (e.g., creativity, love, and persistence) and captures three virtues: wisdom, humanity, and temperance. Sample items are “My supervisor seeks unique ways to do things or solve problems” and “My supervisor follows through no matter what”.

For both the LVQ and CSLS, we followed the scale developers in averaging all item scores to form an overall score of leader virtuousness. For consistency, all three measures of leader virtuousness were answered on a five-point scale. The item scores of all scales were coded such that high values represent high levels of the constructs.

⁶ Diener et al. (2010) do not consider positive emotions – an element of hedonic well-being – in their conceptualization and measure of flourishing, which contrasts with some alternate conceptualizations of flourishing (Keyes 2002; Huppert & So 2013; Seligman 2011). We follow the approach of Diener and colleagues because we seek to complement Wang and Hackett (2016)’s research on the relationship between virtuous leadership and hedonic well-being by focusing particularly on the relationship between virtuous leadership and eudaimonic wellbeing.

3.2 | Results

As shown in Table 2, the three virtuous leadership scales are highly correlated, particularly the CSLS and the VLQ. Additionally, all three virtuous leadership scales were positively and significantly correlated with flourishing at the 1% level. These findings suggest that although the *strength* of the relationship may vary somewhat among these different approaches with regard to leader virtuousness, the *presence* of a relationship between leader virtuousness and flourishing is not conditional on the exact approach. These findings provide preliminary supporting evidence for hypothesis 1 and indicate that the VLQ captures meaningful information about virtuous leadership.

[Insert Table 2 here]

4 | Main study

To test our hypotheses, a new sample of respondents was recruited in late October 2017 via the exact same procedure as in the pretest. The response rate was 92%, and respondents were excluded from the sample if they had participated in the pretest, were not employed anymore, or lived outside the UK or US when completing the survey, resulting in an analysis sample containing 983 participants working in more than 600 different organizations across various industries. Socio-demographic characteristics of the sample are provided in Table 3.

[Insert Table 3 here]

4.1 | Measures

As in the pretest, virtuous leadership is measured using Wang and Hackett's (2016) Virtuous Leadership Questionnaire, and flourishing is measured using Diener et al.'s (2010) Flourishing Scale. Work engagement is measured using the nine-item Utrecht Work Engagement Scale (UWES-9; $\alpha = 0.91$) developed by Schaufeli et al. (2006). The UWES-9 includes three items for each dimension of engagement: vigor (e.g., "At my work, I feel bursting with energy"), dedication (e.g., "My job inspires

me”), and absorption (e.g., “I get carried away when I am working”). The virtuous leadership, work engagement, and flourishing scales all use a seven-point Likert-type response format, and the item scores of each scale were coded such that high values represent high levels of the constructs.

Control variables

We control for characteristics of the subordinate that may influence flourishing and/or work engagement but that are not influenced by a supervisor’s virtuous leadership. First, we controlled for age, gender and education level because older employees may experience more work engagement (Kim & Kang 2017) while older and better educated people and females may experience higher levels of flourishing (Keyes & Westerhof 2012; Schotanus-Dijkstra et al. 2016). We additionally controlled for the country of residence (UK vs. US) and the industry in which the employee is active because levels of flourishing and work engagement may differ by country and industry. Respondents were classified based on the top-level classification of the International Standard Industrial Classification of All Economic Activities (ISIC), resulting in the five industries listed in Table 3.⁷

5 | Results

Descriptive statistics, average variance extracted (AVE), and bivariate correlations among the variables studied are shown in Table 4. As expected, the correlations between the three variables of interest are positive and significant. However, the correlation between virtuous leadership and employee flourishing ($r = 0.34$) is lower than that found by Wang and Hackett (2016) between virtuous leadership and happiness ($r = 0.62$) and life satisfaction ($r = 0.56$), respectively.⁸

⁷ We verified empirically that flourishing and work engagement were not significantly related to other demographic characteristics of the subordinate and their supervisor, including the subordinate’s ethnicity, the supervisor’s age and gender, and the similarity between their age and gender.

⁸ This difference does not appear to be caused by the consideration of a different well-being variable because we also find a smaller correlation between virtuous leadership and life satisfaction in our sample ($r = 0.33$). Life

[Insert Table 4 here]

5.1 | Scale analysis

Prior to testing our hypotheses, we conducted confirmatory factor analysis (CFA) on the scales used in our study to test the validity of our model. As recommended by Wang and Hackett (2016) and Schaufeli et al. (2006), virtuous leadership is modeled as a five correlated factors model with each virtue representing a first-order factor, and work engagement is modeled as a three correlated factors model with dedication, vigor, and absorption as first-order factors. The resulting three-factor measurement model – including employee flourishing and virtuous leadership and work engagement as second-order factors – fits the data well ($\chi^2 (549) = 2167, p < 0.01$; $CFI = 0.95$; $RMSEA = 0.05$; $SRMR = 0.04$). Two tests confirm that the three-factor model has adequate discriminant validity. First, a χ^2 -test shows that the proposed model fits the data significantly better than do the three alternative two-factor models or a one-factor model (all p-values $< .001$). Second, as can be derived from Table 4, the square roots of the AVEs were greater than the inter-construct correlations (Fornell & Larcker 1981). The model also has good convergent validity because all factor loadings exceed 0.60 and the AVEs of virtuous leadership, work engagement, and flourishing exceed 0.50.

Our self-reported measures are from the same source, which may lead to common method variance. We conducted a Harman's one-factor test that included all items of the three variables in our study to test whether most of the variance in our sample can be accounted for by one factor. The single factor explained 47% of the variance, which is close to the 50% cut-off value that suggests the presence of a common method bias. To test the presence of common method bias more rigorously, we added mood as a marker variable to our model and subsequently introduced a latent common method factor (LCMF) that was allowed to load on every item of our three main variables and the marker variable

satisfaction is measured here using the frequently used single-item measure of global job satisfaction "All things considered, how satisfied are you with your life as a whole these days?" The numerical response scale ranges from 0 (not satisfied at all) to 10 (very satisfied).

(Podsakoff et al. 2003). Mood is used as a marker variable because it captures both temporary response biases (e.g., people tend to answer questions more positively when they are in a better mood) and, to some extent, chronic response biases (e.g., people's general response tendencies). Although mood does not satisfy the ideal condition that the marker variable is completely unrelated to the variables of interest, the inclusion of mood allows us to present a conservative estimate of the relationships between virtuous leadership, work engagement, and flourishing because, if anything, it is positively related to work engagement and flourishing. We performed a common method bias test in which we compared the unconstrained common factor model to a zero constrained common factor model. The χ^2 -test suggested a significantly better fit for the unconstrained common factor model ($\Delta\chi^2 = 657$, $\Delta df = 35$; $p < 0.001$), which signals considerable shared variance between our constructs. An equal specific bias test in which the unconstrained common factor is compared to an equally constrained common factor model demonstrates that the common method bias is unevenly distributed across items ($\Delta\chi^2 = 268$, $\Delta df = 34$; $p < 0.001$). Therefore, we retain the LCMF and mood variable in the model to test our hypotheses using common method bias-corrected measures.

5.2 | Hypothesis testing

The results of the best-fitting, hypothesized structural model are presented in Figure 2. This full latent SEM is a full mediation model and fits the data well ($\chi^2 (688) = 2492$, $p < 0.01$; $CFI = 0.95$; $RMSEA = 0.05$; $SRMR = 0.04$). The partial mediation model with an additional direct effect path failed to improve the model fit significantly ($\Delta\chi = 0.6$; $\Delta df = 1$; $p = 0.48$), and the direct path was not statistically significant ($B = 0.00$, $SE = 0.02$; $p = 0.96$). Therefore, the full-mediation model was retained. Among the control variables, being older and being active in the health and social work sector is positively related to both work engagement and flourishing. People in the education sector are also relatively engaged at work, whereas work engagement is relatively low for people in the wholesale and retail trade sector.⁹

⁹ Working in the education and health/social work sectors overlaps considerably with being active in the public sector (as opposed to the private sector). In an auxiliary analysis, we replaced the industry dummies with a

[Insert Figure 2 here]

The structural model analysis shows that virtuous leadership is positively related to the subordinate's work engagement, while there is also a positive association between the subordinate's work engagement and flourishing. We formally tested whether work engagement mediates the relationship between virtuous leadership and employee flourishing using bias-corrected confidence intervals by means of the bootstrapped estimates from 2,000 samples. The indirect effect – and thus the total effect of virtuous leadership on employee flourishing in our full mediation model – was significant ($B = .16$, $SE = .01$; $p < 0.001$), supporting hypotheses 1 and 2.¹⁰ In sum, there is a positive relationship between the supervisor's virtuous leadership and the subordinate's flourishing that is fully mediated by the subordinate's higher work engagement.¹¹

public vs. private sector dummy. Public sector employees have higher work engagement than private sector employees ($B = 0.28$, $SE = 0.01$; $p < 0.001$), but they do not flourish significantly more.

¹⁰ One dimension of the flourishing scale is engagement in daily activities, and this item may strongly correlate with work engagement. We re-estimated our full latent model after excluding the engagement item. In this alternative model, the partial mediation model failed to improve the model fit significantly ($\Delta\chi^2 = 0.5$; $\Delta df = 1$; $p = 0.47$), and the direct path was not statistically significant ($B = 0.02$, $SE = 0.02$; $p = 0.45$), supporting the use of a full mediation model. The size of the indirect effect was slightly smaller but remained highly significant ($B = 0.14$, $SE = 0.02$; $p < 0.001$).

¹¹ In our theoretical model, we posited that work engagement, as opposed to job satisfaction, is a stronger mediator of the virtuous leadership-flourishing relationship due to its stronger link with flourishing. We tested this thesis more formally by replacing work engagement with job satisfaction in our model. Although statistically significant, the indirect effect of job satisfaction ($B = 0.10$, $SE = 0.01$; $p < 0.001$) is weaker than that of work engagement ($\beta = 0.27$ vs. $\beta = 0.15$), which is mostly due to its weaker relation with flourishing ($\beta = 0.50$ vs. $\beta = 0.31$). Job satisfaction is measured here using the question “How satisfied are you with your current job?” on a scale ranging from 0 (very dissatisfied) to 10 (very satisfied).

Using bootstrapped estimates from 2,000 samples and percentile confidence intervals, we employed multi-group analysis to test whether our hypotheses hold for various subgroups. The results, presented in Figure 3, show that the relationship between a supervisor's virtuous leadership and the employee's flourishing is positive and statistically significant (at the 5% significance level) for employees of any sex, age group, and educational background. This positive relationship also holds in all countries, sectors, and industries considered here. These findings provide strong evidence for the wide prevalence of a positive relationship between the virtuous leadership of a supervisor and the employee's flourishing within the UK and the US. Moreover, the strength of association between virtuous leadership and employee flourishing did not differ significantly by gender, age, educational background, country, and sector (all p -values > 0.05), but is significantly stronger in the wholesale and retail trade industry compared with the health and social work industry ($p = 0.006$), the public administration industry ($p = 0.001$), and the category of 'other' industries ($p = 0.003$).

[Insert Figure 3 here]

Likewise, group differences regarding the mediating effect of work engagement are presented in Figure 4. The indirect effect of work engagement was significant at the 5% significance level for all subgroups and did not significantly differ by gender, age, educational background, country, sector, and industry.

[Insert Figure 4 here]

In sum, the positive relationship between virtuous leadership and employee flourishing through higher work engagement holds regardless of the employee's socio-demographic characteristics and holds across industries and sectors in the UK and the US, supporting hypothesis 3.

To examine whether each specific virtue relates positively to the employee's work engagement and flourishing, we re-estimated the full latent model after excluding all virtues other than the virtue of interest from the model. We repeated this procedure five times, once for each virtue. The results,

presented in Table 5, show that each specific virtue relates positively to flourishing and that higher work engagement mediates these relationships. The strength of the considered relationships does not significantly differ between the virtues at the 5% significance level. This finding is not surprising when considering that, in line with previous research, all correlations between the five virtues were above 0.80 in our data. To ensure that we measured different virtues, we conducted an exploratory factor analysis (EFA) for the VLQ using Promax rotation and maximum likelihood estimation.¹² A four-factor solution using 15 of the 18 items and with justice and prudence combined was the most empirically appropriate and theoretically congruent model.¹³ In this model, all items loaded on their hypothesized virtue. The EFA shows that Wang and Hackett's (2016) virtuous leadership scale does reasonably well in capturing the different cardinal virtues, although the empirical similarity between evaluations of the supervisor's prudence and justice is surprising (and we certainly do not regard these as conceptually similar). We re-estimated our results using this four-factor solution, in which each factor is measured using at least three items. Our results are robust to this alternative specification; all four separately considered virtues remain positively and significantly related to flourishing (all b 's > 0.12; all p -values < 0.001) and work engagement mediates this relationship for all virtues (all b 's > 0.12; all p -values < 0.001), providing further support for hypothesis 4.¹⁴

¹² Exploratory factor analysis additionally showed that all UWES-9 items loaded on their hypothesized dimensions (absorption, dedication, and vigor) of work engagement. Exploratory factor analysis for the entire three-factor model showed that all items loaded on their theorized constructs (virtuous leadership, work engagement, or flourishing).

¹³ The following two items loaded below 0.30 on all factors: "My supervisor prioritizes organizational interests over self-interests" and "My supervisor uses only the resources necessary in responding to the demands of any given situation". The item "My supervisor respects individual interests and rights when allocating responsibilities" was hypothesized to load on justice but loaded on humanity.

¹⁴ The flourishing scale we used is not specifically designed to compare different components of flourishing, but it can give some first insights about which aspects of employee flourishing are particularly related to virtuous

[Insert Table 5 here]

6 | Discussion and conclusions

We theorized that employees flourish more when they have a supervisor who demonstrates virtuous leadership, particularly because having a virtuous leader promotes employees' work engagement. Using a survey of 983 participants working in a wide variety of organizations and industries in the UK and US, we indeed find a positive relationship between the supervisor's perceived virtuous leadership and employee flourishing that is fully mediated by work engagement – a feeling of dedication, vigor, and absorption at work. The positive association between virtuous leadership, work engagement, and employee flourishing holds for a wide variety of employees across various industries in both the UK and the US. These positive associations hold for all five considered cardinal leader virtues – courage, temperance, justice, prudence, and humanity. Accordingly, our pre-study suggests that these positive associations hold for slightly different conceptualizations and measures of leader virtuousness, i.e., the approaches of Wang and Hackett (2016), Riggio et al. (2010), and Thun and Kelloway (2011).

6.1 | Theoretical implications

Recent advances in the much-needed conceptualization and operationalization of virtuous leadership enable systematic and comprehensive explorations into the correlates of virtuous leadership (see particularly Wang & Hackett 2016 and Hackett & Wang 2012). By showing that virtuous leadership is positively associated with the employee's work engagement and more general psychological and social functioning, we highlight that theories on the overall consequences of virtuous leadership should give

leadership. Common method bias-corrected correlations suggest that virtuous leadership is positively and significantly correlated with all eight individual components of flourishing at the 5% confidence level. The strongest correlations are with general engagement and feeling respected by others ($r = 0.18$ in both cases), followed by a sense of social contribution ($r = 0.17$), positive relationships ($r = 0.16$), optimism ($r = 0.14$), meaning in life ($r = 0.14$), competence ($r = 0.12$), and finally self-respect ($r = 0.07$).

a prominent place to such leadership's effect on the functioning and work engagement of employees, and that theories on the antecedents of work engagement and employee well-being should consider the role of virtuous leaders. We additionally provided some first insights into the mechanisms through – and conditions under – which virtuous leadership and employee flourishing are related. Specifically, we demonstrated that work engagement is an essential mediating factor and that the positive relationship is ubiquitous, at least in the UK and the US. Our findings also support the philosophical viewpoint of some ethics scholars that virtues form a unified whole in creating positive outcomes (e.g., MacIntyre 1984).

6.2 | Practical implications

Although virtuous behavior as a personality trait is at least partly inheritable (Steger et al. 2007), it is generally believed that virtuous leadership can be advanced through moral education programs (Narvaez 2008), including within companies. Because employee flourishing is linked to employee performance (Peterson et al. 2011), our results suggest that organizations could benefit from paying attention to virtuous leadership in both the selection of staff and leadership training programs. The importance of acting virtuously can additionally be emphasized in more indirect ways, such as in an organization's code of ethics. To develop excellent future leaders, our findings support Byrne et al.'s (2018) call for raising awareness about the potential benefits of good leader character and the development of leader character, particularly in business schools.

6.3 | Limitations and Future Research

The applied virtuous leadership scales measure *perceptions* of virtuous leadership, which may differ from *actual* virtuous behavior. The consideration of employee perceptions and objective data regarding virtuous leadership are both important in their own right because their impact on employees' well-being does not fully overlap. For instance, employees may have misperceptions about the leader's actual behavior, and conversely, many leader actions that influence employees' well-being are unknown to employees. In this regard, one limitation of our study is a potential halo-effect:

employees may, to some extent, make a summary judgment of their general opinion about the supervisor when answering virtuous leadership scales rather than focusing specifically on whether the leader is virtuous or practices certain virtues (Kellerman 2004; Riggio et al. 2010). This concern is alleviated but not eliminated by our use of a procedure to correct for common method bias and may offer an alternative explanation for why we find that all leader virtues are equally important drivers of employee well-being. Future research could tackle this issue by having different respondents evaluate different virtues for the same supervisor, or by looking at objective data regarding specific aspects of virtuous and vicious behavior in companies, such as ethical statements, fraud, and misconduct (see, e.g., Chun 2005 and Rijsenbilt & Commandeur 2013). The differences in the theorized and empirical factor structure of the VLQ reinforce the call of Dawson (2018) to further develop and validate measures of individuals' virtues in business, including Wang and Hackett's VLQ.

Our empirical focus was on an employee's direct supervisor. However, our theoretical model may also apply to other influential 'leaders' in the organization with a supervisory capacity, particularly the CEO or branch manager. We also want to emphasize that our findings are correlational; future research needs to test whether the causal direction of the positive relationships we found are primarily in our proposed direction, i.e., from virtuous leadership to employee flourishing via higher work engagement. Studies exploring how virtuous leadership can be increased at work and what type of training programs are most conducive to work engagement and flourishing would be particularly valuable.

Like virtuous leadership, flourishing is an emerging concept for which different conceptualizations and operationalizations have been proposed. Future research should compare our findings with alternate measures of flourishing that include slightly different or additional components of flourishing, such as the scales proposed by Keyes (2002), Huppert and So (2013), and Seligman (2011), and more thoroughly consider which aspects of employee flourishing are particularly affected by a virtuous leader.

Finally, given that this is the first study to explore the underlying process that links virtuous leadership and employee well-being, we focused on one broad mediating mechanism. Future research can examine more specific processes that may link virtuous leadership and the employee's work engagement; these processes can be specifically related to work, such as organizational commitment and perceptions of having meaningful work, or go beyond the work domain, such as better mental health and an employee's improved virtuousness (both at home and at work).

6.4 | Conclusion

The virtuous behavior of leaders deserves attention not only because of its importance in preventing damaging situations but also because it may be pertinent to creating thriving organizations with flourishing employees. In this regard, we show that the virtuous leadership of managers relates positively to the work engagement and flourishing of employees across a wide variety of contexts in the UK and US. Our findings suggest that organizations seeking to promote the well-being of their employees may strongly benefit from stimulating virtuous leadership.

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Tables and Figures

Table 1 Three conceptualizations of a virtuous leader.

	Riggio et al. (2010)	Thun and Kelloway (2011)**	Wang and Hackett (2016)
Cardinal virtues	Prudence Temperance Justice Fortitude	Wisdom Temperance Justice* Courage* Humanity Transcendence*	Prudence Temperance Justice Courage Humanity Truthfulness*
Philosophical basis	- Ancient Greece - Christianity (Aquinas)	- Confucius and Taoism in China - Buddhism and Hinduism in South Asia - Ancient Greece, Judeo-Christianity, and Islam in the West	- Ancient Greece - Confucius
Construct	Virtue-based ethical leadership	Leader character	Virtuous leadership
Operationalization	Leadership Virtues Questionnaire (LVQ)	Character Strengths in Leadership Scale (CSLS)	Virtuous Leadership Questionnaire (VLQ)

* Wang and Hackett consider truthfulness to be a cardinal virtue but exclude it from the VLQ because it was not empirically distinctive from the other virtues in their study. For the same reason, Thun and Kelloway excluded courage, justice, and transcendence from the CSLS.

** Thun and Kelloway's conceptualization of virtuous leadership is based on Seligman and Peterson's (2004) general conceptual framework on cardinal virtues.

Table 2 Correlation matrix

		Mean	SD	1	2	3	4
1	VLQ (1-5)	3.47	0.89	1			
2	LVQ (1-5)	3.53	0.72	0.74	1		
3	CSLS (1-5)	3.45	0.95	0.92	0.69	1	
4	Employee flourishing (1-7)	5.13	1.14	0.40	0.21	0.39	1

All correlations are statistically significant ($p = 0.003$ for the correlation between the LVQ and employee flourishing and $p < 0.001$ for all other correlations).

Table 3 Sample descriptive statistics

Variable	Category	Percentage
<i>Employee characteristics</i>		
Age	<30	30
	30-50	61
	>50	9
Gender	Women	75
Education level	Secondary education or less	15
	Some tertiary education	34
	Bachelor's degree	28
	Master's degree or higher	23
Ethnicity	White	90
	Non-white	10
Country of residence	UK	85
	US	15
<i>Supervisor characteristics</i>		
Age	<30	9
	30-50	68
	>50	23
Gender	Women	57
<i>Employee-supervisor similarity</i>		
Same gender	Yes	68
Age similarity	Younger supervisor	9
	Similar age	50
	Older supervisor	41
<i>Industry</i>		
Public administration		21
Human health and social work		18
Wholesale and retail trade		15
Education		13
Other		33

Table 4 Variable descriptives, correlations, and AVEs

		Mean	SD	1	2	3
1	Employee flourishing (1-7)	5.38	0.95	0.93		
2	Virtuous leadership (1-7)	4.80	1.38	0.34	0.57	
3	Work engagement (1-7)	4.61	1.36	0.55	0.54	0.86

Note: Off-diagonal elements are correlations and the AVEs are presented on the diagonal. All correlations are statistically significant (all p-values < 0.001).

Table 5 The relationships of individual virtues with flourishing and work engagement.

Virtue	Relationship with employee flourishing			Indirect effect of work engagement		
	<i>B</i>	<i>SE</i>	<i>p</i>	<i>B</i>	<i>SE</i>	<i>p</i>
Prudence	0.22	0.03	0.000	0.20	0.03	0.000
Temperance	0.14	0.03	0.000	0.15	0.02	0.000
Humanity	0.14	0.02	0.000	0.12	0.02	0.000
Courage	0.16	0.04	0.000	0.14	0.02	0.000
Justice	0.16	0.02	0.000	0.14	0.02	0.000

Figure 1. Theoretical framework.

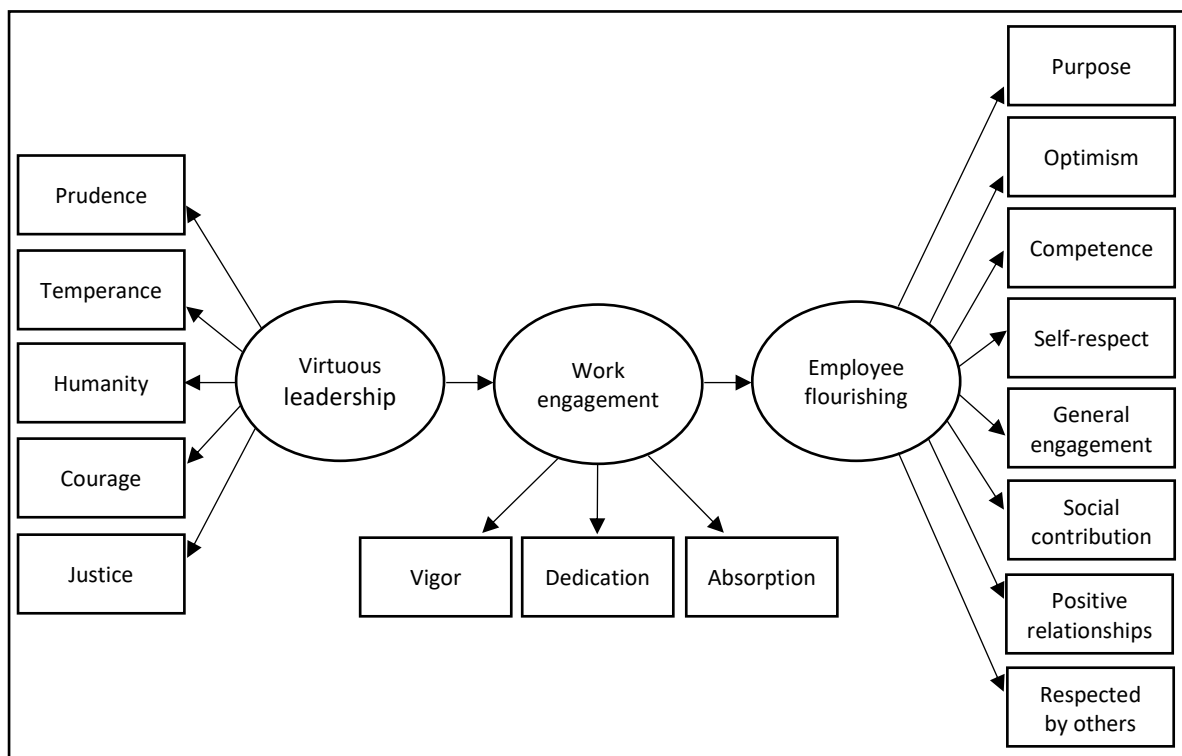
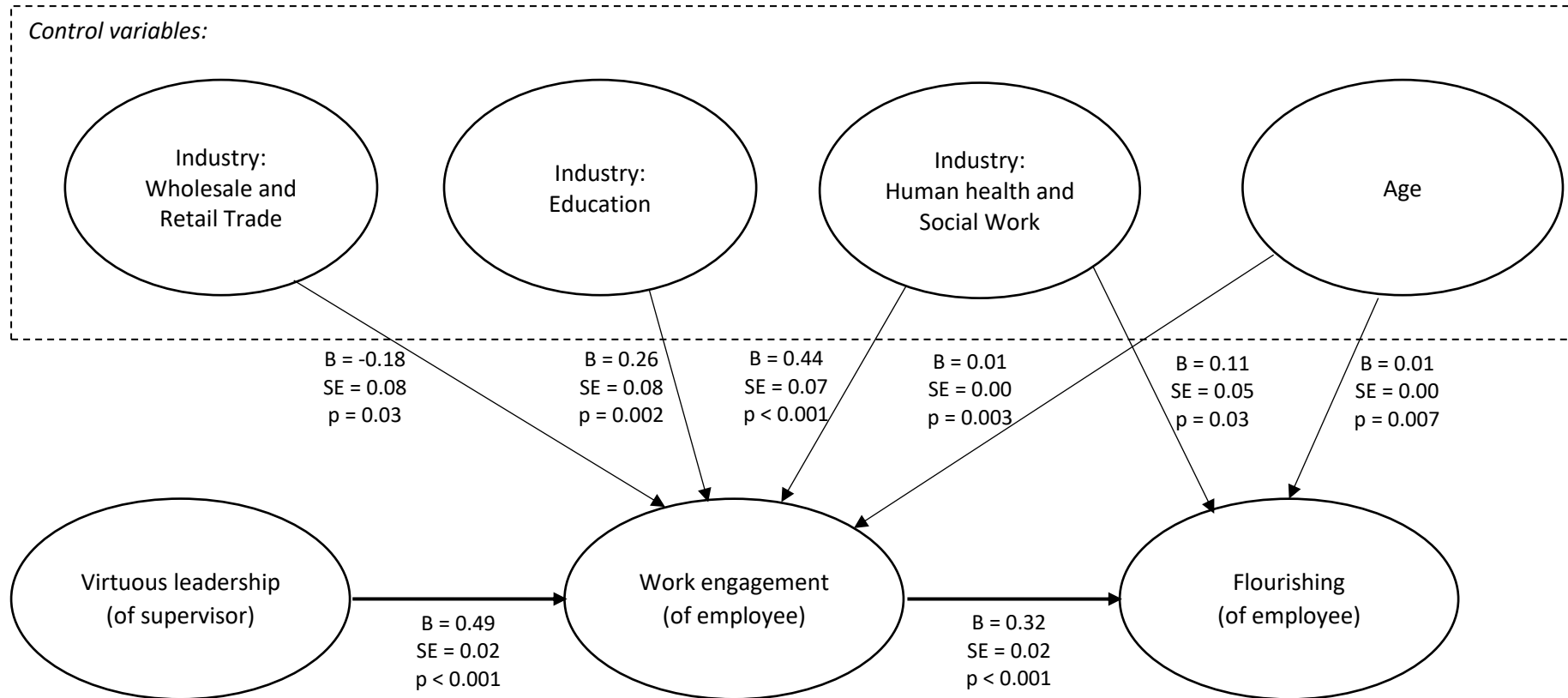
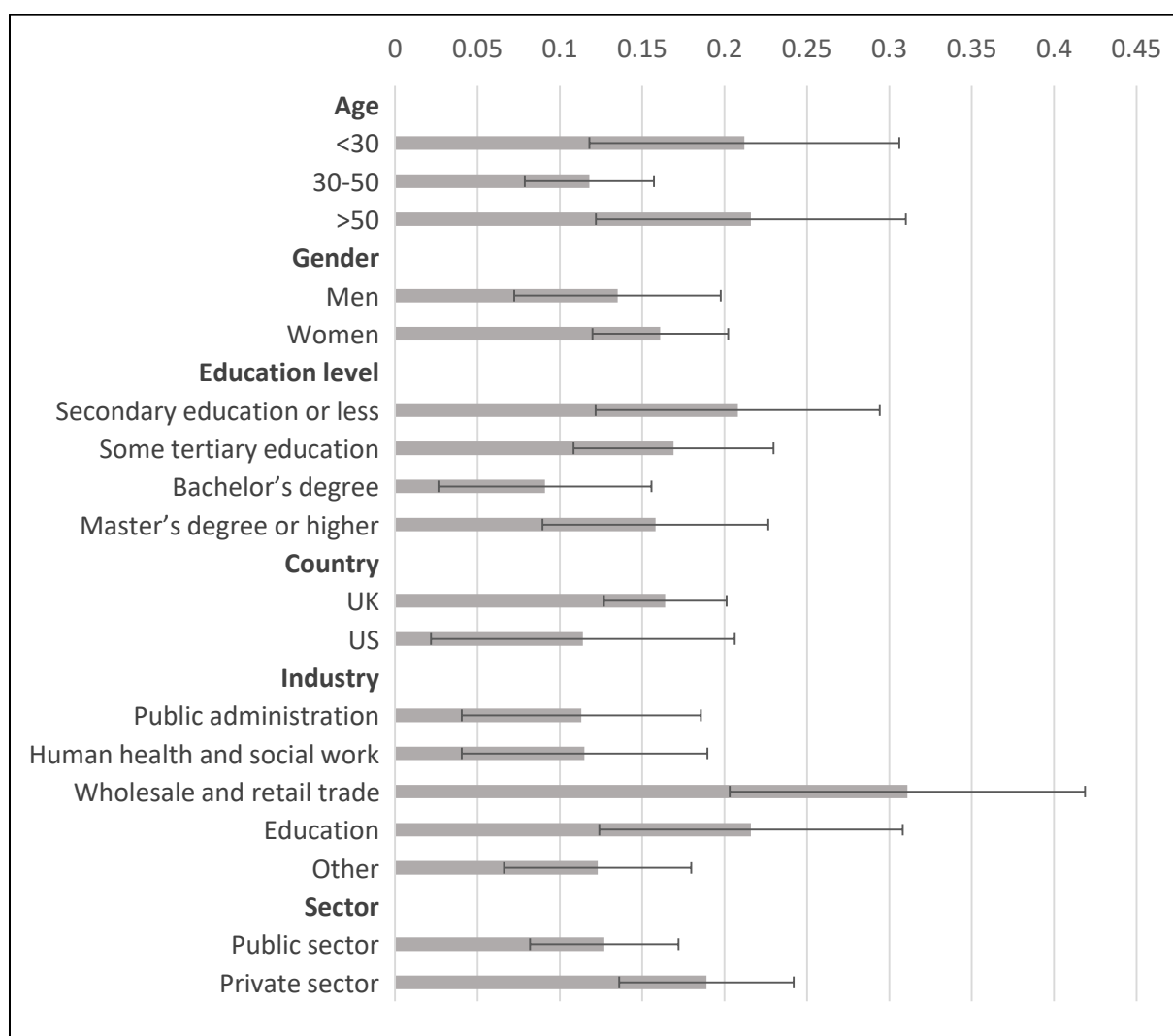


Figure 2 Structural model.



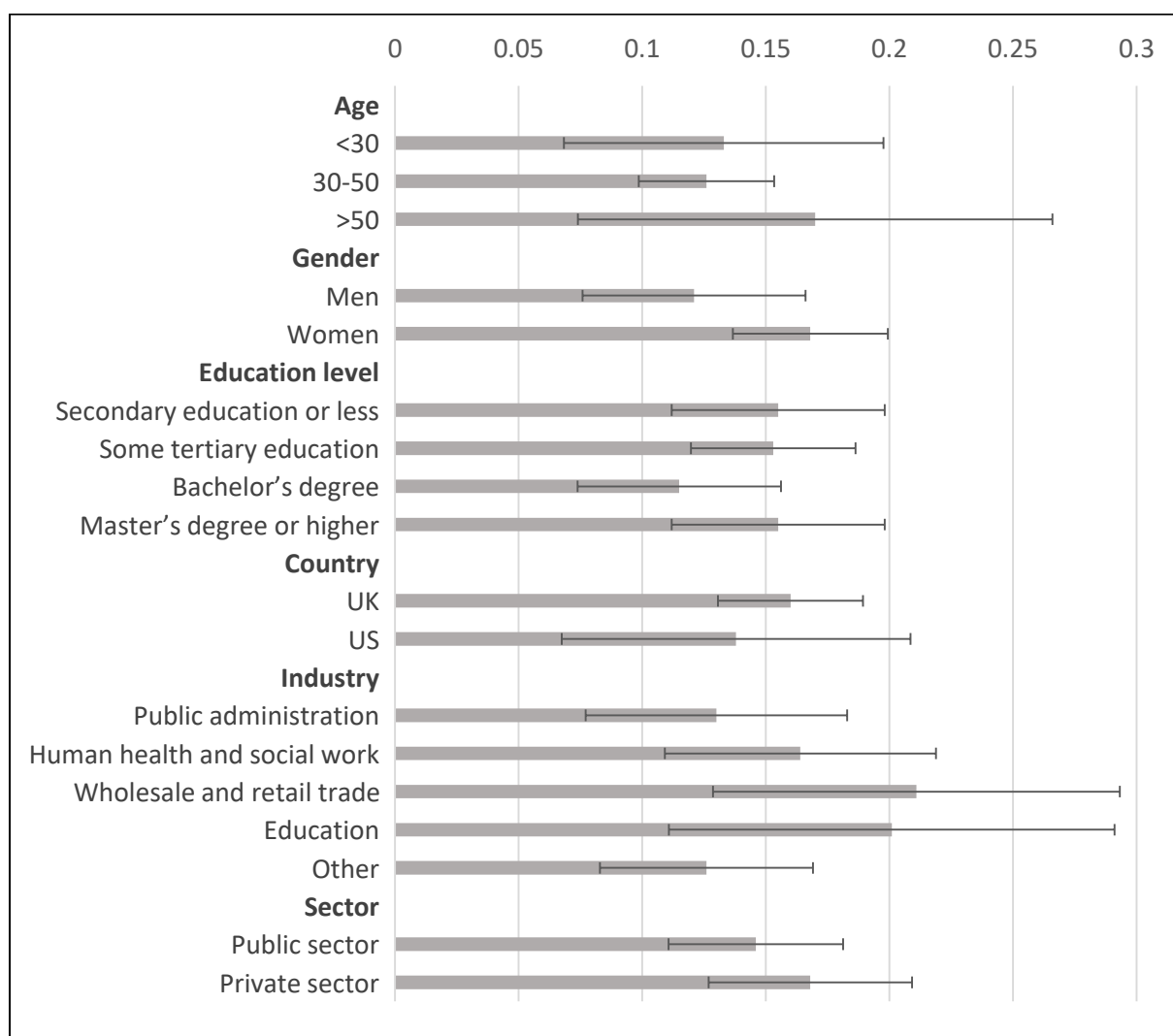
Notes: B = unstandardized coefficient; SE = standard error. The model explains 22% of the variance in flourishing ($R^2 = 0.22$).

Figure 3 Strength of association between virtuous leadership and employee flourishing by subgroup.



Note: Unstandardized coefficients reported. 95% confidence interval bars shown.

Figure 4 Indirect effect of work engagement by subgroup.



Note: Unstandardized coefficients reported. 95% confidence interval bars shown.