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Ethical leadership and knowledge sharing: A social cognitive approach investigating the role of self-efficacy as a key mechanism

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ABSTRACT

Drawing on social cognitive theory (SCT), we propose that employees' self-efficacy acts as a key mechanism between ethical leadership and employees' knowledge sharing. Based on SCT, we also identify employees' emotional exhaustion and their perceptions of coworker trustworthiness as critical boundary conditions for this mechanism (for the first and second stages, respectively). We propose that the self-efficacy mechanism is particularly salient when employees do not feel emotionally exhausted and perceive their coworkers as trustworthy. To test our hypotheses, we conducted four studies (i.e., two experiments and two field studies). In Studies 1a, 1b, and 2, self-efficacy served as a crucial link between ethical leadership and knowledge sharing. In Studies 2 and 3, the indirect effect of ethical leadership on knowledge sharing via self-efficacy was most potent when emotional exhaustion was low and coworker trustworthiness was high. Overall, these findings provide support for our moderated mediation model based on SCT.

1. Introduction

Ethical leadership, which refers to leaders' practice of moral conduct and promotion of ethics at work (Brown et al., 2005), is an important research topic because the promotion of ethics benefits organizations in multiple ways (Banks et al., 2021). In particular, recent research shows that ethical leadership fosters constructive employee behaviors such as knowledge sharing (Bedi et al., 2016; Ng & Feldman, 2015), which refers to sharing one's know-how and valuable task information with others (Wang & Noe, 2010). Further research on the relationship between ethical leadership and employees' knowledge sharing is vital because we are yet to fully understand how ethical leadership can mobilize organizations to draw knowledge assets from individual employees and form a collective knowledge base, a foundation for improving its operational routines and innovativeness (Bock et al., 2005; Wang & Noe, 2010). When explaining the relationship between ethical leadership and employees' knowledge sharing, researchers have focused on the roles of moral and relational mechanisms (e.g., moral identity and positive reciprocity; Bavik et al., 2018; Su et al., 2021; Wu, 2021; Xia & Yang, 2020), which highlight the fact that knowledge sharing involves freely giving one's valuable knowledge assets to others (Wang, 2004).

Although informative, these perspectives neither consider employees' potential reluctance to share their knowledge, which can be due to their concern about the negative side of knowledge sharing (Cabrera & Cabrera, 2002), nor do they examine how ethical leadership may address with this side of the issue. Knowledge sharing requires a substantial investment of time and effort from employees (Cabrera & Cabrera, 2002), which can stretch their work capacity and damage their performance in primary tasks (Bolino et al., 2013). Moreover, once their knowledge is shared, the uniqueness of their knowledge is eroded, and this may jeopardize their competitiveness at work (Cabrera & Cabrera, 2002; Riege, 2005). Self-efficacy, which is one's belief in their overall capability (Bandura, 2012), relieves employees from these concerns because it assures them of their ability to deal with challenging situations (such as knowledge sharing) and to continue to be competent in the future (Cabrera et al., 2006; Connelly et al., 2014).[1] Relatedly, research

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[1] Consistent with previous studies (e.g., Cheong et al., 2016; Liao et al., 2010), we conceptualize self-efficacy as employees' belief in their overall capability. Our conceptualization is similar to job self-efficacy, as employees' sense of efficacy is largely based on their competence at work (Spreitzer, 1995).

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suggests that when employees work with ethical leaders, they are more likely to have confidence in their work capability because such leaders promote a fair work environment where they can fully focus on work and does not give cause for concern about being exploited by others (Ma et al., 2013). Thus, self-efficacy may play a key role in explaining the relationship between ethical leadership and employees' knowledge sharing, although its salience may vary across situations. Investigating this issue is critical because doing so will allow us to gain novel theoretical insights regarding how and under which conditions ethical leadership fosters employees' knowledge sharing, given its challenging nature. Furthermore, this investigation may offer practical guidance to organizations regarding what they need to do to capture ethical leadership's positive influence on knowledge sharing.

In this research, we apply social cognitive theory (SCT; Bandura, 1977) to examine the salience of employees' self-efficacy as a critical mechanism between ethical leadership and employees' knowledge sharing. We elaborate on how ethical leadership conveys to employees encouraging social cues that are incorporated into their self-efficacy evaluation, thereby making them more willing to share their knowledge with others at work. Drawing on SCT, we also identify the boundary conditions of the self-efficacy mechanism. In his discussion of SCT, Bandura (1977) maintains that if individuals have a long history of struggling to cope with the demands of task activities, "whatever mastery (i.e., efficacy) expectations are induced by suggestion (i.e., social cues) can be readily extinguished" (p. 198). This principle suggests that when employees struggle to cope with work demands over a long period, they tend to disregard encouraging social cues, including those that ethical leadership conveys. Emotional exhaustion, which is the degree to which individuals feel overextended and drained by their work (Maslach & Jackson, 1981), directly captures employees' experiences of such struggles (Bakker et al., 2014). Thus, based on SCT, we contend that employees' emotional exhaustion weakens the positive relationship between ethical leadership and employees' self-efficacy.

SCT further suggests that self-efficacy does not always lead to individuals' enactment of behaviors (Bandura, 1997). That is, even when individuals feel efficacious, they may avoid behaviors that lead to outcomes they do not value (Schunk & Usher, 2019). Because knowledge sharing does not offer immediate and tangible returns to employees, how coworkers, the primary recipients of employees' knowledge, react to their knowledge sharing influences the degree to which employees consider knowledge sharing valuable for themselves (Lin, 2007; Wang & Noe, 2010). Building upon this argument, we contend that the relationship between employees' self-efficacy and knowledge sharing is stronger when employees perceive their coworkers as trustworthy (i.e., the trustworthiness of coworkers provides employees with the willingness to be more vulnerable and share knowledge). Integrating all these aspects of SCT, we develop a theoretical model that suggests that the impact of ethical leadership on employees' knowledge sharing via self-efficacy is contingent upon the combination of the level of employees' emotional exhaustion and perceived coworker trustworthiness. Fig. 1 shows our research model.

Our research makes two primary contributions to the literature. First, prior research has largely presumed that the positive influence of ethical leadership on employees' knowledge sharing is manifested through employees' enhanced morality and good relationships between leaders and employees (e.g., Bavik et al., 2018; Lu et al., 2019; Wu, 2021; Xia & Yang, 2020). By demonstrating that self-efficacy stands as a key mechanism between ethical leadership and employees' knowledge sharing in the presence of moral identity and leader-member exchange (LMX), we offer a novel cognitive view of why and how ethical leadership fosters employees' knowledge sharing and show case that ethical leaders' influence on employees' knowledge sharing is not limited to moral or relational mechanisms.

Second, extant ethical leadership research has placed the behaviors of ethical leaders at the center of understanding employees' knowledge sharing processes (e.g., Bavik et al., 2018; Lu et al., 2019; Wu, 2021; Xia & Yang, 2020). With our social cognitive approach, we shift the focus to employees' cognitive processing of social cues and reveal that the perceived characteristics of knowledge sharers (i.e., employees' emotional exhaustion) and knowledge recipients (i.e., coworker trustworthiness), along with social cues from ethical leadership, jointly shape employees' willingness to share their knowledge with others at work. Thus, by placing the characteristics of knowledge sharers (i.e., employees) and knowledge recipients (i.e., coworkers) at the forefront of our research, we both provide a nuanced understanding of the conditions under which ethical leadership fosters employees' knowledge sharing and broaden the current view on the relationship between ethical leadership and employees' knowledge sharing.

2. Theoretical background and hypotheses development

2.1. Ethical leadership and knowledge sharing

The essence of ethical leadership lies in leaders' adherence to and promotion of ethics at work (Banks et al., 2021; Brown & Mitchell, 2010; Brown & Treviño, 2006). Ethical leaders, because they are moral people who also take on the role of moral managers, demonstrate ethical conduct and communicate the importance of ethics to employees through various means, including rewards and punishments (Brown et al., 2005). Brown and Treviño (2006) suggest that the positive influences of ethical leadership are primarily manifested through moral and relational mechanisms. As ethical leaders behave in normatively appropriate ways, employees view them as attractive role models and learn their moral values and conduct (Brown et al., 2005). Furthermore, by taking care of and treating their employees respectfully, ethical leaders can cultivate good relationships with their employees (Brown & Treviño, 2006), which motivates employees to reciprocate their favorable treatment (Liden et al., 1997).

These perspectives have also been used to examine how ethical leadership influences employees' knowledge sharing (Bavik et al., 2018; Lu et al., 2019; Ma et al., 2013; Wu, 2021; Xia & Yang, 2020). For example, Bavik et al. (2018) examined the mediating roles of moral identity and a sense of duty for knowledge sharing in the relationship between ethical leadership and employees' knowledge sharing. They suggest that employees become more concerned with moral principles under ethical leadership and thus engage in knowledge sharing out of moral concern. Also, Xia and Yang (2020) showed that ethical leadership fosters employees' knowledge sharing by enhancing their prosocial motivation, which represents "the desire to expend effort out of concern for others" (Bolino & Grant, 2016, p. 603). Regarding the relational perspective, Wu (2021) showed that ethical leadership fosters employees' knowledge sharing by enhancing their relational identification with leaders and with the organization, which, according to prior research, results from high LMX (Carmeli et al., 2011). Consistent with Brown and Treviño (2006) theorizing, research also demonstrates that ethical leadership is positively related to LMX (Hassan et al., 2013; Thiel et al., 2018). Knowledge sharing is a direct avenue that employees can use to reciprocate ethical leaders' behaviors, and by taking such an avenue, they make their knowledge assets available to their group and the organization at large, which can enhance their effectiveness (Su et al., 2021; Wang & Noe, 2010). For this reason, LMX, which represents high-quality relationships between leaders and employees (Liden et al., 1997), has been regarded as a key antecedent of knowledge sharing (Wang & Noe, 2010).

However, these perspectives do not account for the possibility of employees' concerns about the downsides to knowledge sharing, such as being stretched in work capacity and losing one's competitiveness at work (Cabrera & Cabrera, 2002; Riege, 2005). Drawing on SCT, we contend that ethical leadership can foster employees' knowledge sharing despite the presence of these concerns because it enhances employees' confidence in their overall capability (i.e., self-efficacy) by conveying to them encouraging social cues.

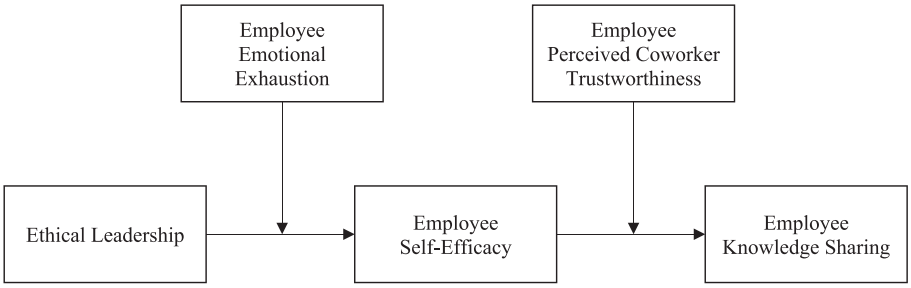

Fig. 1. Research Model.

2.2. Social cognitive theory

SCT explains how individuals' cognitive interpretations of social cues in the environment influence their behaviors (Bandura, 1997). The core tenet of SCT is that self-efficacy (i.e., the belief in their capability) leads to the voluntary enactment of behaviors (Bandura, 2012). That is, the sense that they can successfully perform behaviors sets them free from the fear of encountering frightening situations due to failures and thereby motivates them to execute behaviors (Bandura, 2012). Self-efficacy not only helps individuals initiate efforts to enact behaviors but also supports them psychologically to persevere throughout the process of behavioral engagement by letting them believe that they will eventually be able to perform the behaviors (Bandura, 1977; Stajkovic & Luthans, 1998). When individuals are able to accurately evaluate their self-efficacy, they're able to avoid intimidating situations (Bandura, 1997). For this reason, they attend to various social cues from the environment and consider the implications with respect to their self-efficacy (Schunk & Usher, 2019). According to SCT, these social cues can come from individuals themselves or other people in the environment (Gist & Mitchell, 1992). Specifically, cues can include one's own past behaviors (i.e., direct mastery experiences), others' modeling of behaviors (i.e., vicarious learning), social cues emanating from other people's verbal feedback and behaviors (i.e., social persuasion), and physiological states that provide information related to one's efficacy (e.g., anxiety or depression) (Gist & Mitchell, 1992; Schunk & Usher, 2019; Wood & Bandura, 1989). Regardless of form, social cues must be interpreted by the individual if they are to influence their self-efficacy evaluation (Bandura, 1997; Schunk & Usher, 2019). In other words, individuals must be "socially persuaded that they possess the capabilities to master difficult situations and are provided with provisional aids for effective actions" (Bandura, 1977, p. 198). Therefore, any social cues that are socially persuasive, including those from ethical leadership behaviors, can influence individuals' self-efficacy evaluations.

Although there are various social information, leadership behaviors are key social cues that shape employees' self-efficacy (e.g., Chen & Li, 2013; Cheong et al., 2016; Liao et al., 2010; Ma et al., 2013). Because leaders are in a higher hierarchical position, their behaviors are readily observable and draw much employee attention (Brown et al., 2005). In particular, employees draw implications regarding their overall capability at work from their leaders' behaviors because how leaders behave toward employees can convey to employees just how much support they can expect to receive from their leaders (Chen & Li, 2013). For example, if leaders treat employees in a hostile manner, employees may believe that they will receive little support from their leaders and thus will be constrained in terms of their work capacity.

2.3. Self-efficacy as a mediator between ethical leadership and knowledge sharing

We contend that the moral person and moral manager aspects embedded in ethical leadership convey meaningful and encouraging cues to employees that socially persuade them to believe in their overall capabilities. First, the moral person aspect is demonstrated by behaviors such as living personal lives in keeping with ethical principles, making fair and principled decisions, and taking genuine care of employees' interests (Brown et al., 2005). These behaviors are distinguished from other supportive leadership behaviors because they are guided by normatively appropriate moral principles (Brown & Treviño, 2006), which are relatively constant over time. Thus, under ethical leadership, employees can rest assured that their leaders will continue to be concerned with their interests because they know that their leaders will not deviate from moral principles (Banks et al., 2021; Brown & Mitchell, 2010). In other words, ethical leadership behaviors convey to employees social cues that they have constant access to support from their leaders, which originates from their moral concern. Consistent with SCT, such cues socially persuade employees to believe in their overall capability because they imply that employees do not need to rely solely on their own work capacity but can readily receive help and support from their leaders when dealing with work and personal issues (Ma et al., 2013).

Second, the moral manager aspect of ethical leadership subsumes leadership behaviors like discussing ethics with employees, intentional role modeling of ethical conduct, and rewarding and punishing employees' conduct (Brown & Treviño, 2006). These behaviors represent ethical leaders' efforts to promote ethical practices at work (Brown & Mitchell, 2010; Brown & Treviño, 2006) and indicate to employees that moral principles govern their work environment (Banks et al., 2021; Brown & Mitchell, 2010). Such cues assure employees that their supervisors will provide due recognition for their efforts, which reinforces the link between effort and performance in the minds of employees (Rupp et al., 2017). This strengthens employees' belief in their control over their performance (Matta & Van Dyne, 2020), which further strengthens their sense of efficacy (Schunk & Usher, 2019). Furthermore, when receiving such cues, employees will be convinced that they will not be exploited or mistreated in the workplace (van den Bos & Lind, 2002). Thus, under ethical leadership, employees perceive that they can fully focus on their work. Such a perception leads to a can-do attitude and, in turn, strengthens their belief in their self-efficacy (Bandura, 1977, 1997).

Hypothesis 1. *Ethical leadership is positively related to employee self-efficacy.*

Self-efficacy effectively relieves employees from their concerns about knowledge sharing (Cabrera et al., 2006). When backed by a sense of efficacy, employees believe they can effectively handle the time and effort required to share their knowledge without impairing their performance related to primary tasks (Cabrera et al., 2006). In addition, employees with high levels of self-efficacy are optimistic about their status in their organization because they are confident in their ability to sustain high performance in the future (Garcia et al., 2015). Consequently, they are less likely to be concerned about the potential loss of competitiveness due to knowledge sharing. Furthermore, when employees feel efficacious, they are more likely to attend to the potential gains of engaging in knowledge sharing (e.g., recognition from colleagues) because they are confident about their work skills and expertise

and thus believe that recipients will appreciate their knowledge sharing (Bordia et al., 2006). For these reasons, we contend that employees' self-efficacy positively influences their engagement in knowledge sharing.

In sum, ethical leadership conveys social cues to employees that enhance their self-efficacy. Employees, when feeling efficacious, are relieved from their concerns about knowledge sharing and thereby willingly engage in knowledge sharing. Thus, employees' self-efficacy mediates the relationship between ethical leadership and employees' knowledge sharing.

Hypothesis 2. *Employee self-efficacy is positively related to employee knowledge sharing.*

Hypothesis 3. *Employee self-efficacy mediates the positive relationship between ethical leadership and employee knowledge sharing.*

2.4. Moderating role of emotional exhaustion

However, social cues from the environment (in this case, those from ethical leadership) are not always effective in persuading individuals to believe in their capabilities (Schunk & Usher, 2019). In particular, SCT suggests that employees with a long history of struggling to cope with task demands are inclined to ignore encouraging social cues regarding self-efficacy that exist in their environment because such struggles prompt them to believe that their capability has reached its limit and cannot be increased further (Bandura, 1977; Wood & Bandura, 1989).

Emotional exhaustion, which is the sense of being depleted and overextended at work (Maslach & Jackson, 1981), is caused by chronic exposure to overwhelming work demands (Maslach et al., 2001; Schaufeli et al., 2009). Consistent with SCT, such exhaustive experiences make employees strongly feel that they have reached the limit of their work capacity (Bandura, 1977, 1997). Correspondingly, employees with high levels of emotional exhaustion do not regard the efficacy-enhancing implications of social cues from ethical leadership as credible and thus disregard them. Furthermore, emotionally exhausted employees tend to withdraw from making work efforts to prevent further depletion (Hobfoll et al., 2018). Thus, these employees would not appreciate the fair work environments that ethical leadership promotes, which provide them with opportunities to gain due recognition yet at the same time require them to put forth effort to receive such recognition (Rupp et al., 2017). In addition, when emotionally exhausted, employees focus on their struggles at work, which prevents them from cognitively attending to encouraging social cues that ethical leadership behaviors convey (Dust et al., 2018; Maslach & Jackson, 1981). Being overwhelmed by their concerns regarding work demands, these employees do not fully contemplate the positive implications of ethical leadership and incorporate them into their self-efficacy evaluation.

In contrast, employees with low levels of emotional exhaustion do not struggle to cope with their work demands (Maslach et al., 2001). Because they do not register conflict between their experience and encouraging social cues from ethical leadership, these employees regard those cues as credible and thus incorporate them into their self-efficacy evaluations (Bandura, 1977, 1997). In particular, they find that the fair work environments that ethical leaderships promote are meaningful because such environments allow them to reap the fruits of their work efforts (Rupp et al., 2017), which they are willing to exercise (Maslach & Jackson, 1981; Maslach et al., 2001). Furthermore, employees with low levels of emotional exhaustion have sufficient cognitive resources and thus can carefully consider the positive implications of ethical leadership (Dust et al., 2018; Leiter & Maslach, 2005). Therefore, when they are not emotionally exhausted, employees are more likely to be influenced by encouraging social cues of ethical leadership.

Hypothesis 4. *Employee emotional exhaustion moderates the positive relationship between ethical leadership and employee self-efficacy such that the positive relationship is weaker when employee emotional exhaustion is higher.*

2.5. Moderating role of coworker trustworthiness

Notably, SCT further suggests that self-efficacy does not always lead to individuals' engagement in behaviors (Schunk & Usher, 2019). That is, individuals are not only concerned with whether they can perform behaviors but also whether doing so is valuable for themselves (Bandura, 1997; Schunk & DiBenedetto, 2020). Even when individuals have high self-efficacy, they "avoid actions that they believe may lead to negative outcomes" (Schunk & Usher, 2019, p. 20). Because coworkers are the primary recipients of employees' knowledge, the degree to which employees view knowledge sharing as valuable depends on their expectations of how their coworkers will react to their knowledge sharing (Lin, 2007; Wang & Noe, 2010).

We contend that coworker trustworthiness—which refers to the degree to which employees regard their coworkers as competent, as having goodwill toward them, and as adhering to commonly accepted principles (Mayer et al., 1995)—is critical information for employees' assessment of the value of knowledge sharing for themselves. Because knowledge sharing provides recipients with valuable intangible assets, it is normatively appropriate to respond to knowledge sharing by returning the favor to the knowledge sharer (i.e., the norm of reciprocity; Gouldner, 1960; Wang & Noe, 2010). Correspondingly, when employees perceive that their coworkers adhere to commonly accepted principles, they are assured that their knowledge sharing will produce valuable outcomes such as help and support from coworkers (Bakker et al., 2006). Such an assurance is further validated when employees perceive that their coworkers are competent and have goodwill toward them because these qualities suggest that coworkers are capable of and willing to reciprocate the provision of valuable work resources (e.g., know-how, social networks, information). Moreover, when convinced that their coworkers are trustworthy, employees are assured that their coworkers will maintain favorable attitudes toward them in the process of utilizing the shared knowledge (Chowdhury, 2005; Kankanhalli et al., 2005). For example, employees may believe that their coworkers will give them due recognition and reciprocate their knowledge sharing by offering help and support when necessary. Thus, when employees perceive that their coworkers are trustworthy, they regard sharing their knowledge with coworkers as a valuable undertaking, which sets the stage for their self-efficacy to foster their engagement in knowledge sharing.

In comparison, when employees regard coworkers as violators of commonly accepted principles, they are more likely to be pessimistic about coworkers' future reciprocation of their knowledge sharing (Bakker et al., 2006). Moreover, when they regard their coworkers as incompetent, employees may not even value their coworkers' future support, thinking that it will be of little use to them. If employees are not convinced of their coworker's benevolent will toward them, they will likely be concerned about being exploited as a result of their knowledge sharing (Cabrera & Cabrera, 2002). Thus, when perceiving their coworkers as untrustworthy, employees will withhold their knowledge regardless of their self-efficacy level. In this case, the link between employees' self-efficacy and knowledge sharing becomes weaker.

Hypothesis 5. *Coworker trustworthiness moderates the positive relationship between employee self-efficacy and employee knowledge sharing such that the positive relationship is stronger when coworker trustworthiness is higher than lower.*

Taken together, we propose 1) that employees' emotional exhaustion weakens the positive relationship between ethical leadership and employees' self-efficacy and 2) that coworker trustworthiness strengthens the positive relationship between employees' self-efficacy and knowledge sharing. These two relationships comprise the mediating chain that transmits the indirect effect of ethical leadership to employees' knowledge sharing. Thus, we expect that employees' emotional exhaustion and perception of coworker trustworthiness will jointly influence the indirect effect of ethical leadership on employees' knowledge sharing via their self-efficacy.

Hypothesis 6. *Employee emotional exhaustion (via the first stage) and coworker trustworthiness (via the second stage) jointly influence the positive indirect effect of ethical leadership on employee knowledge sharing via employee self-efficacy, such that the positive indirect effect becomes stronger when employee emotional exhaustion is lower and coworker trustworthiness is higher.*

3. Overview of studies

We triangulated the designs of our studies so that they, in combination, provide research conclusions that support causal inferences that can be generalizable to the broader population (Turner et al., 2017). Specifically, we conducted causal-chain design online experiments (i.e., Studies 1a and 1b), which provide evidence for the causal effects of ethical leadership on employees' self-efficacy and knowledge sharing (see Stone-Romero & Rosopa, 2011). To demonstrate the generalizability of these experimental findings, we conducted Study 2 in South Korea, collecting field data from employees and their direct supervisors. This study tested the full research model, examining the joint moderating roles of emotional exhaustion and coworker trustworthiness. Finally, to establish the cross-cultural generalizability of our findings, we conducted Study 3 in the United States. In this study, we tested the same model as in Study 2 but strengthened its field research design by introducing a time lag between the measurements of variables to address the issue of common method bias (Podsakoff et al., 2012).

Notably, South Korea and the United States provide good settings for examining the cross-cultural generalizability of our findings. These are well-known countries representing Asian and Western cultures (Gelfand et al., 2017) and are substantially different from each other in terms of Hofstede (2001) cultural dimensions.[2] Thus, similar research findings across Studies 2 and 3 attest that our research conclusions hold in both Asian and Western cultural contexts. A number of previous studies have adopted similar approaches when examining the cross-cultural generalizability of their findings (e.g., Alexandra et al., 2017; Vogel et al., 2015; Yukl et al., 2003; Zhu et al., 2019).

3.1. Studies 1a and 1b

3.1.1. Study 1a: Sample and procedures

We conducted an online between-person design experiment in which participants were randomly assigned to the high, medium, or low ethical leadership condition. We recruited 300 participants from Prolific, an online data collection platform. To ensure that participants could understand the experimental materials, we only recruited those whose first language is English, which we accomplished with Prolific's prescreening function. We also prescreened participants so that only those who were older than 18 years, were full-time employees, had a direct supervisor at work, and who at least occasionally worked as part of a group were recruited. In total, all 300 participants completed the survey. Following the suggestions from the literature (Meade & Craig, 2012; Niessen et al., 2016), we identified insufficient effort responders (IERs) among participants and excluded them from the sample. Specifically, we included three careless check questions in the survey (e.g., "Please answer this question with '1, strongly disagree'") and categorized participants as IERs if they answered one of these questions wrong. Excluding these participants yielded a final sample of 293. On average, participants were 39.03 years old (SD = 10.70) and had 5.34 years of job tenure (SD = 5.49). Of all participants, 32.1 % reported their gender as female and 67.6 % as male. In terms of ethnicity, 81.5 % were White, 7.4 % Black or African American, 7.4 % Asian, 2.4 % Hispanic or Latino, 0.7 % American Indian or Alaska Native, 0.3 % Middle Eastern or North African, and 0.3 % Other.

We created the scripts for the experimental conditions based on the scripts used in previous studies (Babalola et al., 2019; Stouten et al., 2013). In our study, participants were first asked to imagine that they had recently joined a company and were assigned to a team of which the supervisor was Alex. Participants were then shown a video clip in which Alex gave brief guidance about how they were to work in their team. To enhance the realism of the study, we hired a professional actor and created three video clips in which the actor played the role of the differing levels (i.e., high, medium, and low) of moral manager. After this, participants were shown an email message from Avery, a coworker, that described what kind of person Alex is. This email message complemented the video clip shown to participants. For example, if the participant was shown the high-level moral manager video, the email described the supervisor as a highly moral person. We used this two-track approach to account for the possibility that participants might find it difficult to judge the moral character of a supervisor with a relatively short video clip (for the video clip and email scripts, see supplemental materials). Also, the email format enhanced the realism of the study, as employees receive emails daily at work. For this reason, previous studies also adopted the email format (see Chen et al., 2019; Farh & Chen, 2014). Participants were then asked to respond to the manipulation check and the self-efficacy items. Overall, participants reported a relatively high level of immersion in the scenario (M = 5.81, SD = 1.32; ranging from 1 = *not at all* to 7 = *completely*).

3.1.2. Study 1a: Measures and analytical procedures

We used Brown, Treviño, and Harrison (2005) 10-item scale (α = .98) to check the effectiveness of the manipulation. Specifically, participants were asked to rate the degree to which the items of ethical leadership (e.g., "Alex discusses business ethics or values with employees") match with the behaviors of the supervisor (i.e., Alex) in the video and the email message. To measure participants' self-efficacy, we used Chen et al. (2001) eight items (α = .95). All these items were measured on a 7-point Likert scale (ranging from 1 = *strongly disagree* to 7 = *strongly agree*). We checked the effectiveness of the manipulation and the main effect of ethical leadership on employees' self-efficacy using one-way analysis of variance (ANOVA).

3.1.3. Study 1a: Results

The ratings of ethical leadership were significantly different among the high, medium, and low levels of demonstrated ethical leadership (high: M = 5.98, SD = .82; medium: M = 5.07, SD = .98; low: M = 1.76, SD = .66; $F_{(2,\ 290)}$ = 693.07, $p < .001$, η^2 = 0.83), which indicates that the manipulation was effective. However, the mean difference between the high and medium levels of ethical leadership was relatively small (mean difference = 0.90, $p < .001$). The main effect of ethical leadership on employees' self-efficacy was significant, $F_{(2,\ 290)}$ = 13.76, $p < .001$, η^2 = .09. Thus, Hypothesis 1 was supported. Of note, both the high and medium levels of ethical leadership had significantly higher self-efficacy ratings than the low level of ethical leadership (high: M = 5.71, SD = .92; medium: M = 5.63, SD = .87; low: M = 5.04, SD = 1.11). However, there was no significant mean difference in the self-efficacy ratings between the high and medium ethical leadership conditions (mean difference = .08, p = .852). This may be due to the relatively small mean difference in the ethical leadership ratings between these conditions.

3.1.4. Study 1b: Sample and procedures

We conducted another between-person design online experiment to test the effect of employees' self-efficacy on their knowledge sharing. We recruited 150 Prolific participants using the same prescreening criteria and excluded IERs from the sample using the same method as in Study 1a, which gave us a final sample of 145. Participants, on average, were 39.56 years old (SD = 10.40) and had 5.46 years of job tenure (SD =

[2] In the case of South Korea, power distance is 60, individualism is 18, masculinity is 39, uncertainty avoidance is 85, long-term orientation is 100, and indulgence is 29. In the case of the United States: power distance is 40, individualism is 60, masculinity is 62, uncertainty avoidance is 46, long- term orientation is 50, and indulgence is 68 (Hofstede Insights, n.d.).

6.22). Of all participants, 42.8 % reported their gender as female and 57.2 % as male. The racial and ethnic demographics were as follows: 80.3 % of participants were White, 10.2 % were Asian, 8.2 % were Black or African American, 0.7 % were Middle Eastern or North African, and 0.7 % were classified as Other.

We first asked participants to imagine that they had just joined a new company team. They were told that they were in the training period and would take a test to evaluate their work performance potential. The test results were used to manipulate their self-efficacy. For the manipulation, we used the Remote Associates Test (RAT), in which people are given three words and asked to find a fourth word that is related to the original three words in some way (McFarlin & Blascovich, 1984). Previous studies have proven the RAT to be an effective tool for manipulating individuals' self-efficacy (Sanna & Pusecker, 1994; Sanna, 1992). To establish the relevance of RAT for the tasks of their team in the scenario, we told participants that their primary task was to identify the ongoing issues by analyzing common themes among employees' posts on the company's blog, and the RAT was designed to assess the capability for this task. Participants were then randomly assigned to the high or low self-efficacy condition, in which they were given five easy or difficult RAT questions, respectively. Consistent with previous studies (e.g., Sanna, 1992), participants were given five minutes to complete the test, one minute for each question. Once participants completed the test, we showed them a screen with a message indicating that their performance was being assessed, which lasted for five seconds. Regardless of their performance, participants in the high self-efficacy condition were given positive feedback, and those in the low self-efficacy condition were given negative feedback. The scripts used for the respective feedback were based on the scripts that Sanna (1992) used (for the RAT questions and the feedback scripts, see supplemental materials). After completing this assessment, participants were asked to answer the manipulation check and the knowledge sharing intention items. Finally, participants were asked whether they wanted to share their knowledge on performing well on RAT with their coworkers. If they said yes, they were asked to write about their knowledge of RAT. If they said no, they just needed to write "NA." Notably, they could revert their choice. Participants reported a relatively high level of immersion in the scenario (M = 5.83, SD = 1.09; ranging from 1 = *not at all* to 7 = *completely*).

3.1.5. Study 1b: Measures and analytical procedures

We measured self-efficacy using Chen et al. (2001) eight items (e.g., "I am certain that when facing difficult tasks, I will accomplish them"; α = .98). To measure knowledge sharing intention, we adapted Srivastava et al.'s (2006) seven items to represent employees' behavioral intentions to share their knowledge with others (e.g., "It is likely that I will share my special knowledge and expertise with others"; α = .98). We measured all these items on a 7-point Likert scale (1 = *strongly disagree* and 7 = *strongly agree*). We checked the effectiveness of the manipulation and the main effect of the manipulation on knowledge sharing intention using one-way ANOVA. We utilized logistic regression to check the manipulation's main effect on RAT knowledge sharing.

3.1.6. Study 1b: Results

The manipulation was effective: the self-efficacy ratings were higher under the high self-efficacy condition (M = 6.07, SD = .61) than the low self-efficacy condition (M = 4.36, SD = 1.58; $F_{(1,143)}$ = 75.31, p < .05, η^2 = .34). The main effect of self-efficacy on knowledge sharing intentions was positive (high: M = 6.14, SD = .65; low: M = 4.76, SD = 1.69; $F_{(1,143)}$ = 43.45, p < .05, η^2 = .23). Furthermore, the logistic regression results indicated the significant main effect of the self-efficacy manipulation on the odds of RAT knowledge sharing (B = 1.73, SE = .36, p < .001; −2 log-likelihood = 175.63; χ^2 = 24.55). Thus, Hypothesis 2 was supported. These findings, combined with the findings from Study 1a, provide evidence that ethical leadership has a positive causal effect on employees' self-efficacy, which in turn positively influences employees' knowledge sharing. Thus, Hypothesis 3 was supported.

4. Study 2

4.1. Sample and procedure

We recruited participants from various companies located in South Korea. Potential participants were identified and recruited through the social network of a member of the research team. The researcher visited the target teams in the companies to which he had personal connections and explained the research procedures to potential participants (i.e., employees and their direct supervisors). They were informed that participation was voluntary and that their responses would be used only for research purposes. The researcher also explained that the research team needs the dyadic data of supervisors and employees with no nesting of employees within supervisors (i.e., a supervisor would rate just one employee and vice versa). The researcher then distributed the survey packets to those who expressed their interest in participating in the study. When supervisors oversaw multiple employees, the researcher gave the survey packets to those who first expressed their interest in participating in the study. The survey packets included self-sealed envelopes with adhesive strips for the permanent seal. To keep the confidentiality of the survey responses, the researcher asked participants to put their survey into the provided envelope and seal it with the provided adhesive strips.[3] A week later, the researchers revisited the companies and collected the survey packets from participants or contact people.

In total, the survey packets were distributed to 208 full-time employees and their immediate supervisors from 42 different companies in South Korea. The companies were diverse in terms of their industry (30 % information technology, 21 % manufacturing, 13 % service, 11 % construction, 10 % finance, 5 % distribution, and 10 % other). Of the distributed survey packets, 204 supervisor and subordinate surveys were returned (a response rate of 98 %). The dyad data were included if both the supervisors' and the employees' responses were completed, yielding a final sample of 183 supervisor-subordinate dyads. On average, the employees were 33.84 years old (SD = 6.73) and had 5.95 years of organizational tenure (SD = 4.86). Of all participants, 37.7 % reported their sex as female and 62.3 % as male. The supervisors were, on average, 43.94 years old (SD = 8.14) and had 13.64 years of organizational tenure (SD = 7.99). Only 14.8 % of them reported their sex as female and 83.1 % as male.

4.2. Measures, control variables, and analytical procedures

We translated the items into Korean using the back translation approach (Brislin, 1970). Two independent Korean bilingual academics conducted the translation procedures. Employees rated ethical leadership and coworker trustworthiness and reported their self-efficacy and emotional exhaustion. We asked employees' immediate supervisors to rate employees' knowledge sharing to address the concern of common method bias (Podsakoff et al., 2003). For all survey measures, we used a 7-point Likert scale (ranging from 1 = *strongly disagree* to 7 = *strongly agree*). As in Studies 1a and 1b, we used Brown, Treviño, and Harrison (2005) 10-item scale to measure ethical leadership (α = .94), Chen et al. (2001) eight-item scale to measure employees' self-efficacy (α = .92), and Srivastava et al.'s (2006) seven-item scale to measure employees' knowledge sharing (α = .91) (for the items, see supplemental material). To measure employees' emotional exhaustion, we adopted Maslach and Jackson (1981) nine items (α = .92; e.g., "I feel emotionally drained from my work"). To measure coworker trustworthiness, we adapted Mayer and Davis (1999) 17 items, changing the referent from top management to coworkers (α = .96; e.g., "My coworkers would not

[3] There were several instances where the researcher was not allowed to visit the target teams in person. In those cases, the researcher identified contact people in those teams using his social network and asked them to recruit participants and deliver the survey packets to them using the same procedures.

knowingly do anything to hurt me").

Notably, older people may be more generous in sharing their knowledge (Burmeister et al., 2018). Furthermore, female employees tend to be more empathetic than male employees and thus may be more willing to share knowledge (Van der Graaff et al., 2014). In addition, employees' education and organizational tenure contribute to the amount of knowledge they have, which may influence their engagement in knowledge sharing (Burmeister et al., 2018; Lin, 2007). Thus, we controlled for employee age, sex, education, and organizational tenure. As discussed earlier, the relationships between leaders and employees can be a crucial link between ethical leadership and employees' knowledge sharing (Wu, 2021). In particular, research demonstrates that ethical leadership is positively related to LMX (e.g., Bedi et al., 2016; Thiel et al., 2018), an established predictor of employees' knowledge sharing (Wang & Noe, 2010). Thus, we also considered LMX a controlled mediator. We measured LMX with Liden et al. (1993) seven-item scale (α = .90; e.g., "My working relationship with my supervisor is effective").[4]

We used partially latent structural equation modeling to test our hypotheses using Mplus, version 8 (Muthén & Muthén, 2017). In this approach, the mean of the scale items is regarded as a single indicator of a latent variable, but its error variance is corrected by the reliability (Cheung et al., 2021). Consistent with prior research (e.g., Lynch & Rodell, 2018), we first computed the means of all research variables (i.e., ethical leadership, emotional exhaustion, self-efficacy, coworker trustworthiness, and knowledge sharing) and used them as the latent indicators in the structural model. We then set error variances of all research variables and the interaction terms (regardless of their measurement sources) to be equal to $(1 - \alpha) \times$ variance, where α is the reliability of a focal construct. To calculate the reliability of the product terms, we used Cortina et al.'s (2001) equation 14, which defines the reliability of the product terms as $[(\text{reliability}_X \times \text{reliability}_Z) + r^2_{XZ}]/(1 + r^2_{XZ})$, where X and Z are the independent and moderating variables, respectively, and r^2_{XZ} is the correlation between these two variables. To account for the potential nesting effects of the company, we used a sandwich estimator in Mplus, with the company ID as the cluster variable. Following recent studies (e.g., Cooper et al., 2018), we computed the 95 % confidence intervals (CIs) using the Monte Carlo bootstrapping method with 20,000 replications to examine the conditional indirect effects (Hayes, 2015; Selig & Preacher, 2008).

4.3. Results

Table 1 shows descriptive statistics. All focal variables indicated acceptable reliabilities. To ensure the discriminant validity of the variables measured from the same source (i.e., employees), we conducted confirmatory factor analyses (CFAs). The CFA of the five-factor model (ethical leadership, self-efficacy, emotional exhaustion, coworker trustworthiness, and LMX) showed an acceptable fit to the data, $\chi^2_{(1211)} = 1659.57$, RMSEA = .045, CFI = .971, SRMR = .069, and fit the data better than other alternative models (e.g., the four-factor model with ethical leadership and self-efficacy combined as one factor, $\chi^2_{(1215)} = 2244.25$, RMSEA = 0.068, CFI = 0.933, SRMR = 0.101, $\Delta\chi^2_{(4)} = 584.68$, $p < .001$; or the four-factor model with ethical leadership and LMX combined as one factor, $\chi^2_{(1215)} = 1711.86$, RMSEA = 0.047, CFI = .968, SRMR = .072, $\Delta\chi^2_{(4)} = 52.29$, $p < .001$).

The structural model was analyzed as shown in Fig. 2. The model demonstrated an acceptable fit to the data, $\chi^2_{(8)} = 11.20$, RMSEA = .047, CFI = .991, SRMR = .020. Ethical leadership was positively related to self-efficacy ($b = .29$, $p < .001$). In addition, self-efficacy was positively related to knowledge sharing ($b = .24$, $p = .002$). Furthermore, the indirect effect of ethical leadership on knowledge sharing via self-efficacy was significant (indirect effect = .07, 95 % CI [0.021, 0.132]). Thus, Hypotheses 1, 2, and 3 were supported. Of note, while ethical leadership was significantly and positively related to LMX ($b = .75$, $p < .001$), LMX was not significantly related to knowledge sharing ($b = .19$, $p = .252$).

Hypothesis 4 suggests the positive relationship between ethical leadership and employees' self-efficacy is weaker when employees' emotional exhaustion is higher. The effect of the interaction between ethical leadership and emotional exhaustion on self-efficacy was significant ($b = -.18$, $p = .001$). As shown in Fig. 3, the positive relationship between ethical leadership and self-efficacy was significant only when emotional exhaustion was low (at +1 *SD*: $b = .09$, $p = .262$; at −1 *SD*: $b = .49$, $p < .001$). Thus, Hypothesis 4 was supported.

Hypothesis 5 proposes that the positive relationship between employees' self-efficacy and employees' knowledge sharing is stronger when coworker trustworthiness is higher. The interaction between self-efficacy and coworker trustworthiness and its effect on knowledge sharing was significant ($b = .18$, $p = .037$). As shown in Fig. 4, self-efficacy was significantly and positively related to knowledge sharing only when coworker trustworthiness was high (i.e., at +1 *SD*: $b = .40$, $p = .001$; at −1 *SD*: $b = .09$, $p = .338$). Thus, Hypothesis 5 was supported.

Hypothesis 6 posits that the positive indirect effect of ethical leadership on employees' knowledge sharing via self-efficacy is strongest when employees' emotional exhaustion is lower (at the first stage) and their perceptions of coworker trustworthiness are higher (at the second stage). The index of moderated mediation was significant (estimate = −.03, 95 % CI [.075, .002]). As shown in Table 2, the indirect effect of ethical leadership on knowledge sharing via self-efficacy was significant and positive only when emotional exhaustion was low (i.e., at −1 *SD*) and coworker trustworthiness was high (i.e., at +1 *SD*) (indirect effect = .19, 95 % CI [.068, .347]). Thus, Hypothesis 6 was supported.

5. Study 3

5.1. Sample and procedures

To strengthen support for our findings in Study 2, we collected data for Study 3 using time-lagged surveys of employees and their coworkers working in the United States. We asked students at a large public southeastern university to nominate a full-time employee (full-time being defined as working a minimum of 30 hours per week) participant. These students received extra course credit in their undergraduate management classes for providing potential participants' contact information, which allowed us to directly email the nominated employee participants from various organizations. Using this approach, we collected data from a broad workforce population (for similar practices, see Kluemper et al., 2015; McLarty et al., 2019), with job types including customer service, retail, and manufacturing. Research shows that this approach provides results similar to other data collection methods (Wheeler et al., 2014).

At Time 1 (T1), the employee participants rated the ethical leadership and their emotional exhaustion and provided demographic information and contact information for a coworker. Approximately two weeks later, at Time 2 (T2), we sent a second survey to the employee participants to obtain ratings of their self-efficacy and perceptions of coworker trustworthiness. We then contacted their coworkers separately via email to rate the focal employee's knowledge sharing. As an incentive, participants were offered the chance to win one of ten gift cards (each with a $50 value) in a raffle.

Initially, we contacted 384 employees with the T1 survey, of which 315 responded. From these employees, we received the contact information of 291 coworkers. At T2, 247 employees and 221 coworkers completed the survey. Consistent with Study 2, we retained the data only when the responses from both employees and coworkers were available, which yielded data from 201 employee-coworker dyads. For

[4] The same hypotheses were supported with and without control variables. We retained these variables in our analyses as they have theoretical reasons to influence employees' knowledge sharing.

Table 1
Study 2: Descriptive Statistics.

	Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10
1.	Age[a]	33.84	6.73										
2.	Sex[a]	.62	.48	−.33*									
3.	Education[a]	3.02	.52	.24*	−.18*								
4.	Organizational tenure[a]	5.95	4.86	.75*	−.17*	.02							
5.	Ethical leadership[a]	5.18	1.05	.18*	−.05	.11	.16*	(.94)					
6.	Self-efficacy[a]	5.30	.81	.19*	−.14	.13	.24*	.35*	(.92)				
7.	Leader-member exchange[a]	4.81	.95	.18*	−.04	.14	.16*	.77*	.38*	(.90)			
8.	Emotional exhaustion[a]	3.75	1.11	−.19*	.06	−.15*	−.13	−.35*	−.19*	−.28*	(.92)		
9.	Coworker trustworthiness[a]	5.18	.86	.06	−.03	.03	.10	.44*	.28*	.48*	−.18*	(.96)	
10.	Knowledge sharing[b]	5.45	.83	.10	.02	.09	.05	.21*	.26*	.25*	−.05	.06	(.91)

Note. $N = 183$. Reliabilities are on the diagonal in parentheses. [a] Employee ratings. [b] Supervisor ratings. * $p < .05$; (two-tailed).

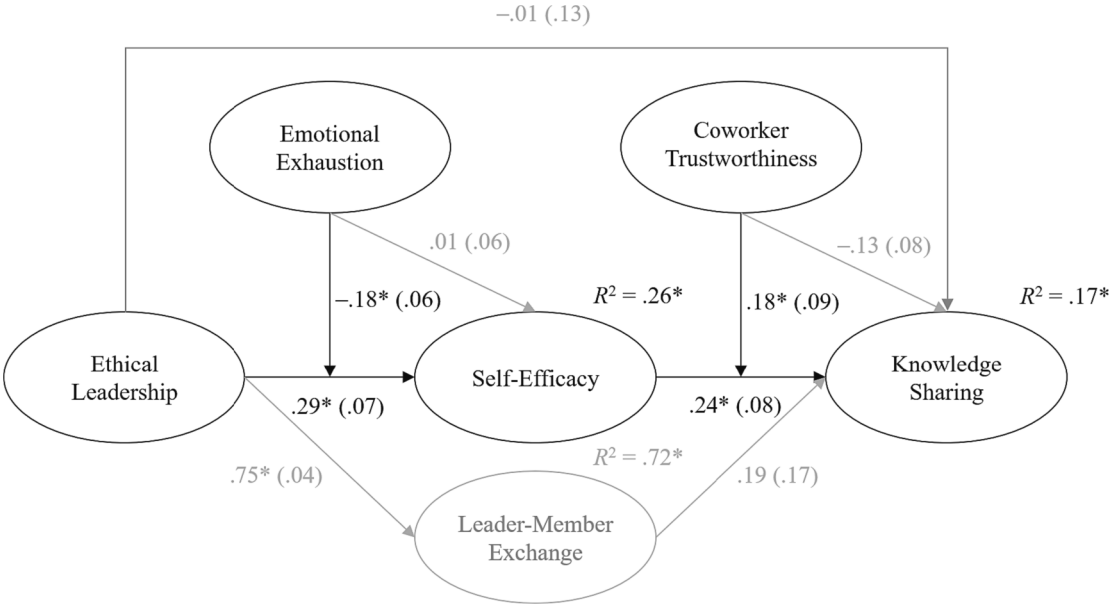

Fig. 2. Study 2: Summary of SEM Analysis Results Note. N = 183. Non-standardized coefficients were presented. Values in parentheses are standard errors. In the path model, we also controlled the influence of demographic variables (i.e., employees' age, sex, education, and organizational tenure) on self-efficacy, LMX, and knowledge sharing. For parsimony, the model paths from demographic variables to these outcome variables are not shown. The detailed results, including the path coefficients of demographic variables, are reported in supplemental material (see Table S1). * p < .05 (two-tailed).

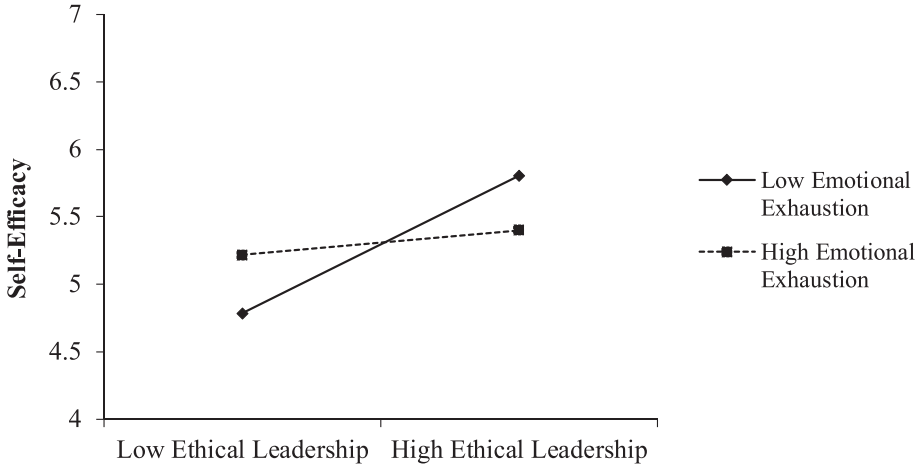

Fig. 3. Study 2: Interaction of Ethical Leadership and Emotional Exhaustion on Self-Efficacy.

each survey, we examined our data and deleted the responses provided by IERs in the data set such that those responses were treated as missing values in the analyses. As in Studies 1a and 1b, participants were identified as IERs when they answered at least one of three careless check questions incorrectly. Also, following the suggestions of Meade and Craig (2012), we excluded those who reported that their responses

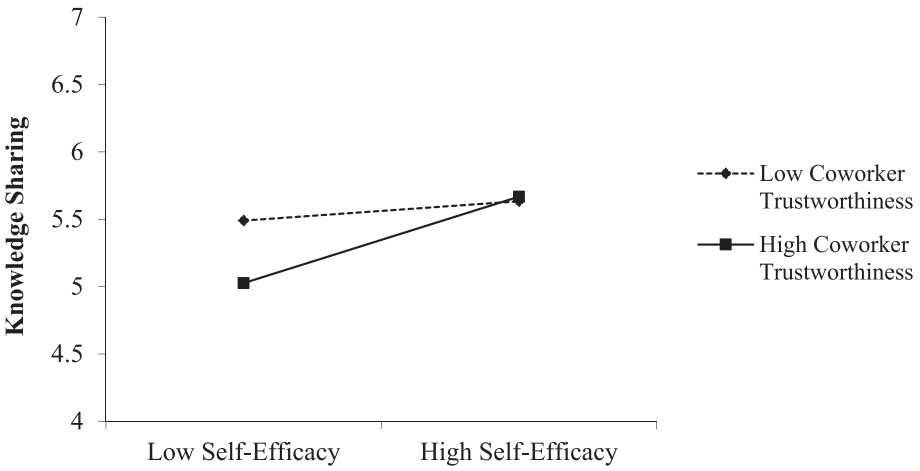

Fig. 4. Study 2: Interaction of Self-Efficacy and Coworker Trustworthiness on Knowledge Sharing.

Table 2
Studies 2 and 3: Results of Moderated Mediation Effects.

IV	Mediator	Study	Emotional Exhaustion (1st stage)	Coworker Trustworthiness (2nd stage)	Indirect effect	*SE*	95 % CI
Ethical leadership	Self-efficacy	Study 2	+1 *SD*	+1 *SD*	.03	.03	[−.024, .107]
			+1 *SD*	−1 *SD*	.01	.01	[−.012, .038]
			−1 *SD*	+1 *SD*	.19	.07	[.068, .347]
			−1 *SD*	−1 *SD*	.04	.05	[−.045, .142]
		Study 3	+1 *SD*	+1 *SD*	.03	.04	[−.029, .125]
			+1 *SD*	−1 *SD*	−.03	.04	[−.125, .030]
			−1 *SD*	+1 *SD*	.16	.09	[.004, .370]
			−1 *SD*	−1 *SD*	−.15	.09	[−.377, −R.003]

Note. SE = standard errors.

should not be used, which gave us a final sample of 197 employee-coworker dyads. To treat the missing values, we utilized the full information maximum likelihood (FIML) approach (Newman, 2014).

On average, employees were 43.18 years old (SD = 11.85) and had 11.75 years of organizational tenure (SD = 10.29). Of the 197 employees, 28.9 % reported their sex as female and 64.5 % as male. In comparison, coworkers were 41.88 years old (SD = 13.96) and had 9.57 years of organizational tenure (SD = 15.39). Of the 197 coworkers, 52.3 % reported their sex as female and 29.9 % as male.

5.2. Measures, control variables, and analytical procedures

We used the same measures as in Study 2 to measure focal research variables (for reliabilities, see Table 3).[5] For all measures, we used a 7-point Likert scale (ranging from 1 = *strongly disagree* to 7 = *strongly agree*). As in Study 2, we controlled the impacts of demographic variables (i.e., age, sex, education, and organizational tenure) and considered LMX a controlled mediator. As mentioned earlier, recent studies also suggest that ethical leadership promotes employees' knowledge sharing by strengthening employees' morality (e.g., Bavik et al., 2018; Lu et al., 2019; Xia & Yang, 2020). Accordingly, in Study 3, we also considered employees' moral identity as another controlled mediating mechanism. We measured LMX with Bernerth et al. (2007) eight-item scale (α = .93; e.g., "Voluntary actions on my part will be returned in some way by my manager") and moral identity with Aquino and Reeds' (2002) five items (α = .85; e.g., "I am actively involved in activities that communicate to others that I have these characteristics - caring, compassionate, fair, friendly, generous, helpful, hardworking, honest, kind").[6] We tested our hypotheses using the same analytical approach used in Study 2.

5.3. Results

Table 3 shows descriptive statistics for Study 3. All focal research variables demonstrated acceptable reliabilities. As in Study 2, we examined the discriminant validity of research variables reported by employees using CFA. The CFA results of the proposed model (i.e., six-factor model using ethical leadership, self-efficacy, LMX, moral identity, emotional exhaustion, and coworker trustworthiness) indicated a good fit to the data, $\chi^2_{(1412)}$ = 2078.02, RMSEA = .050, CFI = .968, SRMR = 0.067, and fit the data better than other alternative models (e.g., the five-factor model with ethical leadership and self-efficacy combined as one factor, $\chi^2_{(1417)}$ = 3041.33, RMSEA = .077, CFI = .921, SRMR = .108, $\Delta\chi^2_{(5)}$ = 963.32, $p < .001$; the five-factor model with ethical leadership and LMX combined as one factor, $\chi^2_{(1417)}$ = 2392.70, RMSEA = .060, CFI = .953, SRMR = .079, $\Delta\chi^2_{(5)}$ = 314.69, $p < .001$.

We set the structural equation model as illustrated in Fig. 5. The model fit the data well, $\chi^2_{(12)}$ = 14.04, RMSEA = .029, CFI = .994, SRMR = .022. In line with Hypothesis 1, ethical leadership was positively related to self-efficacy (b = .31, p = .003). However, self-efficacy

[5] Self-efficacy was measured with Chen and Li (2001) eight-item measure. Two items, "Compared to other people, I can do most tasks very well" and "Even when things are tough, I can perform quite well" were accidentally omitted from the survey. We examined the correlation between the mean of these six items with that of the full scale with the data from Studies 1 and 3; the correlation was very high in both studies (r = .98 in Study 1 and r = .99 in Study 3), indicating that 6 items essentially measure the same construct as the full scale.

[6] The same set of hypotheses was supported with and without control variables. Because these variables have theoretical reasons to influence employees' knowledge sharing, we retained them in the analyses.

Table 3
Study 3: Descriptive Statistics.

	Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11
1.	Age[a]	43.18	11.85											
2.	Sex[a]	.69	.46	.14										
3.	Education[a]	5.24	1.63	.18*	.04									
4.	Organizational tenure[a]	11.75	10.29	.61*	−.06	.03								
5.	Ethical leadership[a]	6.02	.74	.22*	.12	.13	.09	(.89)						
6.	Self-efficacy[b]	5.79	.73	−0.12	.07	.03	−.07	.18*	(.92)					
7.	Leader-member exchange[b]	5.25	1.14	.03	.05	.12	−.03	.57*	.23*	(.93)				
8.	Moral identity[b]	5.14	1.08	.10	.14	.08	.03	.20*	.23*	.17*	(.85)			
9.	Emotional exhaustion[a]	3.04	1.21	−.25*	−.15*	.06	−.04	−.31*	−.13	−.27*	−.08	(.92)		
10.	Coworker trustworthiness[b]	5.59	.81	.16*	.14	.15	.04	.42*	.28*	.38*	.12	−.37*	(.94)	
11.	Knowledge sharing[c]	6.14	.87	.17*	.10	.19*	−.04	.02	.04	−.01	.03	−.13*	.27*	(.92)

Note. $N = 197$. Reliabilities are on the diagonal in parentheses. [a] Employee ratings at Time 1. [b] Employee ratings at Time 2. [c] Coworker ratings at Time 2. * $p < .05$ (two-tailed).

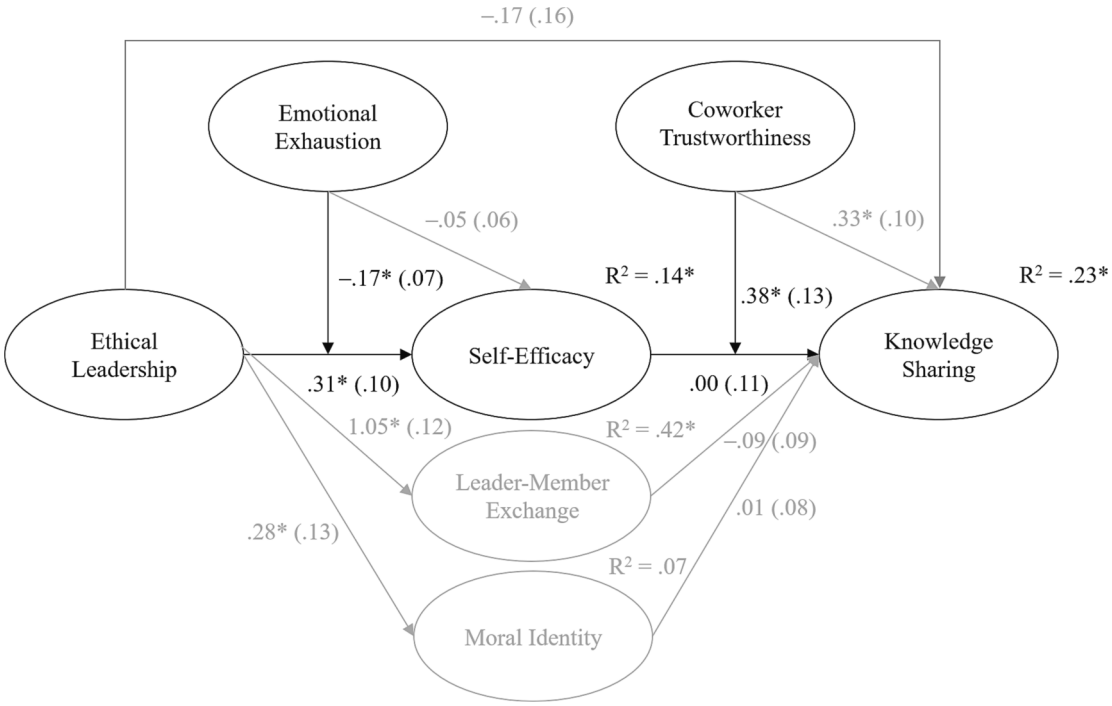

Fig. 5. Study 3: Summary of SEM Analysis Results Note. N = 197. Non-standardized coefficients were presented. Values in parentheses are standard errors. In the path model, we also controlled the effects of demographic variables (i.e., employees' age, sex, education, and organizational tenure) on self-efficacy, LMX, moral identity, and knowledge sharing. For parsimony, the model paths from demographic variables to these outcome variables are not shown. The detailed results, including the path coefficients of demographic variables, are reported in supplemental material (see Table S2). * p < .05 (two-tailed).

was not significantly related to knowledge sharing ($b = .00$, $p = .985$). Furthermore, the proposed mediation effect was not significant (indirect effect = .00, 95 % CI [.074, .076]). Thus, Hypothesis 2 and Hypothesis 3 were not supported. Of note, while ethical leadership was positively related to LMX ($b = 1.05$, $p < .001$) and moral identity ($b = .28$, $p = .039$), these alternative mediators were not significantly related to knowledge sharing (LMX: $b = -.09$, $p = .312$; moral identity: $b = .01$, $p = .883$). Consequently, the indirect effects of ethical leadership on knowledge sharing via these mechanisms were not significant (LMX: indirect effect = −.09, 95 % CI [-.282, .089]; moral identity: indirect effect = .00. 95 % CI [−.044, .053).

Providing initial support for Hypothesis 4, the effect of the interaction between ethical leadership and emotional exhaustion on self-efficacy was significant ($b = -.17$, $p = .018$). As shown in Fig. 6, ethical leadership was positively related to self-efficacy when emotional exhaustion was low (at −1 *SD*; $b = .51$, $p = .001$) but not significantly related to it when emotional exhaustion was high (at +1 *SD*; $b = .11$, $p = .285$). Thus, Hypothesis 4 was supported.

We also found that the effect of the interaction between self-efficacy and coworker trustworthiness on knowledge sharing was significant ($b = .38$, $p = .004$). As illustrated in Fig. 7, self-efficacy was positively related to knowledge sharing when coworker trustworthiness was high (at +1 *SD*; $b = .31$, $p = .044$) but was not significantly related when coworker trustworthiness was low (at −1 *SD*; $b = -.30$, $p = .053$). Thus, Hypothesis 5 was supported.

Lastly, the index of moderated mediation (for Hypothesis 6) was significant (estimate = −.06, 95 % CI [−.144, −.006]). As shown in Table 2, the positive indirect effect was strongest when emotional exhaustion was low (at −1 *SD*) and coworker trustworthiness was high (at +1 *SD*) (indirect effect = .16, 95 % CI [.004, .370]). Thus, Hypothesis 6 was supported.

6. Discussion

Extant research has focused on investigating the roles of moral and relational mechanisms in connecting ethical leadership and employees'

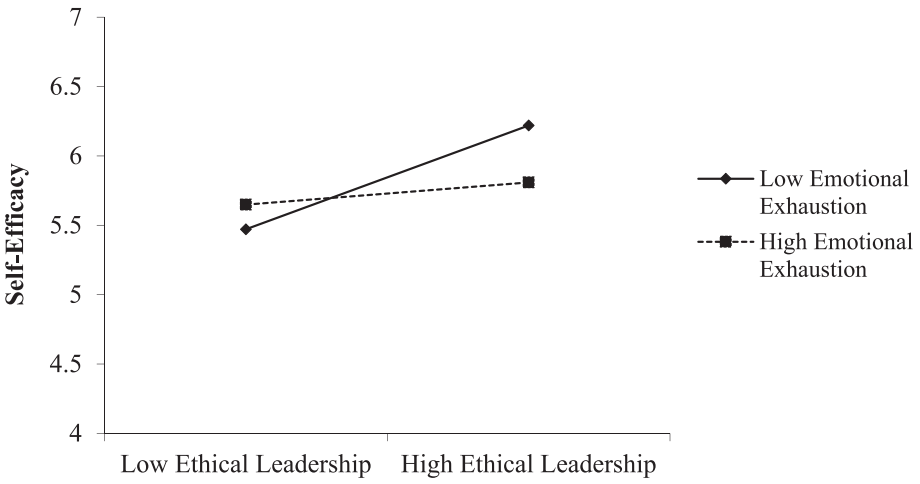

Fig. 6. Study 3: Interaction of Ethical Leadership and Emotional Exhaustion on Self-Efficacy.

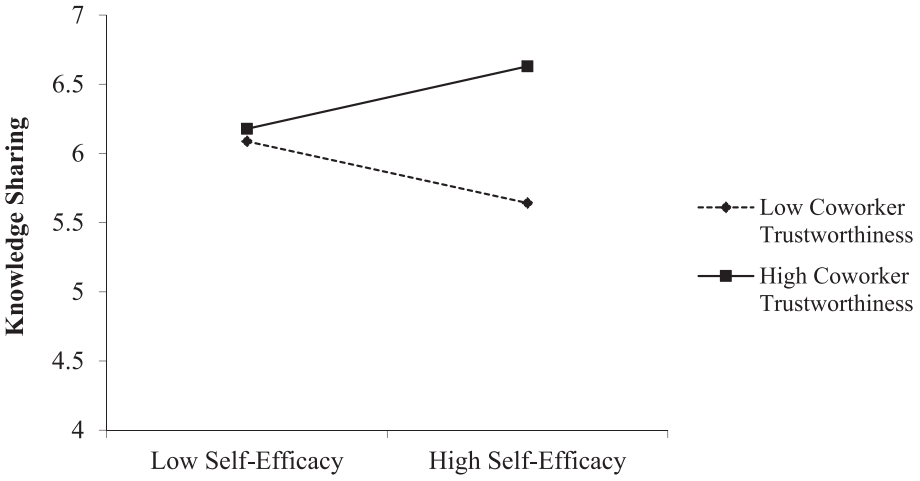

Fig. 7. Study 3: Interaction of Self-Efficacy and Coworker Trustworthiness on Knowledge Sharing.

knowledge sharing (e.g., Bavik et al., 2018; Le & Lei, 2018; Lu et al., 2019; Wu, 2021; Xia & Yang, 2020). Considering the challenging nature of engaging in knowledge sharing (Cabrera & Cabrera, 2002), we propose that self-efficacy is a key linking mechanism between ethical leadership and employees' knowledge sharing. Based on SCT, we further suggest that employees' emotional exhaustion and perception of coworker trustworthiness function as the joint boundary conditions for this mechanism. Our findings across four studies attest to the importance of the self-efficacy mechanism, although its salience is contingent upon the combination of employees' emotional exhaustion and their perception of coworker trustworthiness.

6.1. *Theoretical implications*

Our research attests to the importance of employees' self-efficacy as a key linking mechanism. In all our studies, ethical leadership positively influenced or was positively related to self-efficacy. Consistent with SCT, these findings support our contention that ethical leadership conveys social cues that persuade employees to believe in their overall capability (Ma et al., 2013). Furthermore, in both experiments (Studies 1a and 1b) and a field study (Study 2), we found that self-efficacy transmitted the positive effect of ethical leadership to employees' knowledge sharing. In comparison, in our field studies (Studies 2 and 3), LMX and moral identity did not mediate the relationship between ethical leadership and knowledge sharing. In particular, both LMX and moral identity were not significantly related to knowledge sharing when self-efficacy was simultaneously considered. Thus, our results highlight the role of self-efficacy as a key mediator and raise a question against the well-accepted argument that ethical leadership influences employees' knowledge sharing primarily through moral and relational mechanisms (e.g., Bavik et al., 2018; Wu, 2021; Xia & Yang, 2020).

These findings suggest that we may need to reconsider the presumption that knowledge sharing is moral or relational conduct (Wang, 2004). In work settings, extra-role behaviors such as knowledge sharing require substantial effort and can stretch employees' limited work capacity (Riege, 2005). While individuals who make an effort to share their knowledge will certainly be appreciated, those who focus on using their knowledge to perform well will not necessarily be seen as unethical or as failing to meet their relational obligations to leaders. Thus, although employees can share knowledge based on their moral or relational concerns (Bavik et al., 2018; Wu, 2021), it may be more appropriate to see knowledge sharing as a demanding extra-role behavior. The salience of self-efficacy as a mediating mechanism supports this view—self-efficacy readily transmits the positive impact of ethical leadership to employees' knowledge sharing because it effectively relieves employees from the practical concerns about knowledge sharing and enables them to see its potential benefits (e.g., gaining recognition) (Cabrera et al., 2006). Thus, our research highlights the need for a fundamental reevaluation of why ethical leadership influences employees' knowledge sharing.

In addition, we found that the positive indirect effect of ethical leadership on knowledge sharing was strongest when emotional exhaustion was low and perceived coworker trustworthiness was high. Indeed, our full model was supported in both studies under the conditions we argued would provide the most meaningful influence (i.e., low emotional exhaustion and high coworker trustworthiness). If one of these conditions was not met, ethical leadership did not have a substantial impact on employees' knowledge sharing. These findings offer us a nuanced view of the conditions under which ethical leadership fosters employees' knowledge sharing via self-efficacy. Notably, extant research has placed the behaviors of ethical leaders at the center of understanding employees' knowledge sharing process (e.g., Bavik et al., 2018; Jin et al., 2023; Lu et al., 2019; Wu, 2021; Xia & Yang, 2020). Shifting from this approach, we show that it is employees who make the decisions to engage in knowledge sharing, and ethical leadership behaviors are social cues to be interpreted by them along with the information about the actors involved in knowledge sharing (i.e., employees and coworkers).

Interestingly, self-efficacy was positively related to knowledge sharing in Study 2, but this relationship was not significant in Study 3. Such differential findings may be due to the cultural differences between South Korea and the United States, particularly regarding individualism/collectivism. This cultural dimension is relevant because it addresses the degree to which individuals are concerned with group interests and how open they are to sharing their knowledge with others in their group (Chow et al., 2000; Kim et al., 1994). Indeed, the knowledge sharing literature highlights individualism/collectivism as a key cultural factor influencing individuals' attitudes toward knowledge sharing (Hwang & Kim, 2007; Wang & Noe, 2010). For example, Hwang and Kim (2007) demonstrated that collectivism is positively related to people's use of the group email function for knowledge sharing. Such collectivistic concerns could have made the relationship between self-efficacy and knowledge sharing salient in Study 2. In other words, when employees in collectivistic cultures (such as those in South Korea) feel efficacious about themselves, they may turn their attention to benefiting their group members by sharing their expertise and skills with them (Chow et al., 2000; Hofstede, 2001). In comparison, employees in individualistic cultures (such as those in the United States) may prioritize their personal interests over those of their group (Hofstede, 2001; Kim et al., 1994). Thus, for these employees, self-efficacy may engender the desire for self-development and achievements rather than knowledge sharing.

Notably, further analyses revealed that in Study 3, self-efficacy was negatively related to knowledge sharing when coworker trustworthiness was low (at -1.5 *SD* of coworker trustworthiness; $b = -.46$, $p = .021$). Furthermore, in this case, the indirect effect of ethical leadership on knowledge sharing via self-efficacy was negative (indirect effect $= -.23$, 95 % CI [$-.247$, $-.011$]). These findings suggest that ethical leadership can even unintentionally reduce employees' knowledge sharing if employees view their coworkers as untrustworthy. Yet, such were not found in Study 2 (the South Korean sample). Again, cultural differences may explain this inconsistency. Although the lack of coworker trustworthiness signals the undesirability of knowledge sharing, employees in collectivistic cultures may still be reluctant to completely withdraw from knowledge sharing as it has the potential to benefit their group and organization (Jang et al., 2018). In comparison, employees in individualistic cultures may be less concerned about this and thus freely step back from knowledge sharing once they perceive their coworkers as untrustworthy—in which case, self-efficacy can be negatively related to knowledge sharing when lower levels of coworker trustworthiness are present. We could not examine these possibilities because we did not hypothesize the role of such cultural differences nor did we measure cultural dimensions. Future research may directly examine the roles of individualism/collectivism in shaping the relationship between self-efficacy and knowledge sharing. In addition, researchers may also investigate how other cultural dimensions (e.g., power distance, uncertainty avoidance) influence this relationship, as they can shape individuals' motivation in various ways (Markus, 2016).

Finally, in Study 1a, we found that the mean difference between high and medium levels of ethical leadership was relatively small, although the difference was significant. As a result, the mean difference between these two conditions regarding self-efficacy was not significant. These results were surprising given that our experimental scripts indicated different levels of ethical leadership using expressions such as "a very ethical person," "a somewhat ethical person," and "not an ethical person." These findings may imply that while people may be certain about what the presence and absence of ethical leadership mean, they may have a vague understanding of what comprises the "medium" level of ethical leadership. More research needs to be done on people's understanding of the different levels of ethical leadership.

6.2. Practical implications

Overall, our findings suggest that ethical leadership can foster employees' knowledge sharing by enhancing their self-efficacy. Thus, organizations may need to encourage leaders to practice ethical leadership if they desire to build a collective knowledge base. However, such a positive influence of ethical leadership is contingent upon employees' emotional exhaustion and perception of coworker trustworthiness. When employees have issues with either one of these elements, the positive effect of ethical leadership on employees' knowledge sharing diminishes to a considerable extent. Thus, organizations may need to not only strengthen ethical leadership training but also encourage their leaders to pay close attention to their employees and frequently check to see if their workloads are overwhelming. By checking in regularly, organizations may be able to prevent employees from becoming emotionally exhausted. Additionally, organizations may consider hiring employees with enhanced emotional stability who effectively handle challenges and negative emotions and thus are less inclined to experience emotional exhaustion (Liu & Yu, 2019). These interventions will help ensure the positive impact of ethical leadership on employees' self-efficacy. Furthermore, our work shows that coworker trustworthiness is key if employees' self-efficacy is to function as a driver of their knowledge sharing. Thus, rather than simply urging employees to share their knowledge with others, organizations may first need to cultivate a culture of trust that values the reciprocation of help and favors. Doing so will then set the stage for ethical leadership to promote employees' engagement in knowledge sharing.

6.3. Limitations and future research

Our research has several limitations in its design. In Studies 1a and 1b, we utilized online scenario-based experiments. Although these studies, in connection, provide evidence for the causal effects of ethical leadership, their experimental realism is limited because of their hypothetical nature, which may threaten the external validity of the findings (Aguinis & Bradley, 2014). Although we carefully designed the experimental settings to make participants' experiences similar to reality (e.g., by using video manipulations and asking participants to carry out actual tasks), we could not completely reproduce the real-world experiences in the online setting. In our case, it was appropriate to use scenario-based experiments because we also conducted field studies and found consistent results. As Aguinis and Bradley (2014) suggest, scenario-based experiments are "particularly useful in which variables are known to correlate but there is a need to determine the nature and direction of causal relationships" (p. 357). However, future research will benefit from adopting a more rigorous design to replicate our findings (e.g., laboratory experiment settings).

In addition, our field studies also have their weaknesses. In Study 2, the ratings of all variables except knowledge sharing were collected from the same source (i.e., employees) at the same time, which raises the concern that our findings were influenced by common method variance

(CMV; Podsakoff et al., 2003). To overcome this weakness, we conducted Study 3 by introducing a time lag between the measurements of ethical leadership and employees' self-efficacy. However, such an approach does not entirely remove the concerns about CMV (Podsakoff et al., 2012). That said, our replication of the significant interactions alleviates these concerns. According to Siemsen et al. (2010), CMV can only "lower the reliability of the measures, leading to an attenuation of the interaction term" and "finding significant interaction effects despite the influence of CMV in the data set should be taken as strong evidence that an interaction effect exists" (p. 470). Thus, the findings from this research support our key contention that the impact of ethical leadership on employees' knowledge sharing is contingent upon both employees' emotional exhaustion and perception of coworker trustworthiness. However, future research may consider using a field experiment to establish ecological validity.

Future research may also consider distinguishing different types of knowledge sharing. While knowledge sharing, in general, takes a substantial amount of employee time and effort (Wang & Noe, 2010), certain knowledge (e.g., the procedures for receiving administrative support from the human resource team) is readily codified and thus can be easily shared with others. In comparison, tacit knowledge, such as task expertise and experiences, requires employees to invest much time in acquiring and sharing it, which raises concerns that self-efficacy can address (Cabrera et al., 2006; Wang & Noe, 2010). Therefore, employees' self-efficacy may be more essential for explaining the positive impact of ethical leadership on employees' sharing of tacit knowledge. Thus, future research may compare the roles of the mediators of distinct theoretical perspectives for different types of knowledge sharing. Finally, although we collected the data from two countries (South Korea and the United States) with substantially different cultures, these countries represent neither the entirety of Asian and Western cultures nor the cultures beyond these two regions. Thus, future research may utilize samples from more diverse countries to enhance the cross-cultural generalizability of our findings.

6.4. Concluding remarks

Prior research has highlighted the role that ethical leadership has in fostering employees' knowledge sharing mainly through moral and relational mechanisms (e.g., Bavik et al., 2018; Jin et al., 2023; Lu et al., 2019; Ma et al., 2013; Wu, 2021; Xia & Yang, 2020). However, in this research, we have emphasized the importance of employees' cognitive processing of salient personal and social information in explaining the relationship between ethical leadership and employees' willingness to engage in knowledge sharing. Our research demonstrates that employees consider ethical leadership along with the degree of their emotional exhaustion and the trustworthiness of their coworkers when deciding how willing they are to engage in knowledge sharing. In light of these factors, we offer a novel understanding of why and under which conditions ethical leadership fosters employees' willingness to share information, which is essential for reaping the benefits of ethical leadership in today's organizations.

CRediT authorship contribution statement

Ui Young Sun: Conceptualization, Data curation, Writing - original draft, Writing - review & editing, Investigation, Validation, Formal analysis, Methodology, Resources, Project administration, Software. **Haoying Xu:** Conceptualization, Writing - original draft, Writing - review & editing, Investigation, Methodology, Resources. **Donald H. Kluemper:** Conceptualization, Writing - original draft, Writing - review & editing, Methodology, Supervision, Resources. **Benjamin D. McLarty:** Conceptualization, Data curation, Writing - original draft, Writing - review & editing, Investigation, Methodology, Supervision, Resources. **Seokhwa Yun:** Conceptualization, Data curation, Writing - original draft, Writing - review & editing, Investigation, Methodology, Supervision, Resources.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

The data that support the findings of this study are available from the corresponding author upon reasonable request.

Appendix A. Supplementary material

Supplementary material to this article can be found online at https://doi.org/10.1016/j.jbusres.2024.114531. Supplemental material includes the scripts for experimental conditions of Studies 1a and 1b, the detailed summaries of the analysis results for Studies 2 and 3, and the scales used in this research.

References

Aguinis, H., & Bradley, K. J. (2014). Best practice recommendations for designing and implementing experimental vignette methodology studies. *Organizational Research Methods, 17*(4), 351–371. https://doi.org/10.1177/1094428114547952

Alexandra, V., Torres, M. M., Kovbasyuk, O., Addo, T. B. A., & Ferreira, M. C. (2017). The relationship between social cynicism belief, social dominance orientation, and the perception of unethical behavior: A cross-cultural examination in Russia, Portugal, and the United States. *Journal of Business Ethics, 146*(3), 545–562. https://doi.org/10.1007/s10551-015-2925-5

Aquino, K., & Reed, A. (2002). The self-importance of moral identity. *Journal of Personality and Social Psychology, 83*(6), 1423–1440. 10.1037/0022-3514.83.6.1423.

Babalola, M. T., Bligh, M. C., Ogunfowora, B., Guo, L., & Garba, O. A. (2019). The mind is willing, but the situation constrains: Why and when leader conscientiousness relates to ethical leadership. *Journal of Business Ethics, 155*(1), 75–89. https://doi.org/10.1007/s10551-017-3524-4

Bakker, A. B., Demerouti, E., & Sanz-Vergel, A. I. (2014). Burnout and work engagement: The JD–R approach. *Annual Review of Organizational Psychology and Organizational Behavior, 1*(1), 389–411. https://doi.org/10.1146/annurev-orgpsych-031413-091235

Bakker, M., Leenders, R. T. A. J., Gabbay, S. M., Kratzer, J., & Van Engelen, J. M. L. (2006). Is trust really social capital? Knowledge sharing in product development projects. *Learning Organization, 13*(6), 594–605. https://doi.org/10.1108/09696470610705479

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*(2), 191–215. https://doi.org/10.1037/0033-295X.84.2.191

Bandura, A. (1997). *Self-efficacy: The exercise of control*. Freeman.

Bandura, A. (2012). On the functional properties of perceived self-efficacy revisited. *Journal of Management, 38*(1), 9–44. https://doi.org/10.1177/0149206311410606

Banks, G. C., Fischer, T., Gooty, J., & Stock, G. (2021). Ethical leadership: Mapping the terrain for concept cleanup and a future research agenda. *The Leadership Quarterly, 32*(2), Article 101471. https://doi.org/10.1016/j.leaqua.2020.101471

Bavik, Y. L., Tang, P. M., Shao, R., & Lam, L. W. (2018). Ethical leadership and employee knowledge sharing: Exploring dual-mediation paths. *The Leadership Quarterly, 29*(2), 322–332. https://doi.org/10.1016/j.leaqua.2017.05.006

Bedi, A., Alpaslan, C. M., & Green, S. (2016). A meta-analytic review of ethical leadership outcomes and moderators. *Journal of Business Ethics, 139*(3), 517–536. https://doi.org/10.1007/s10551-015-2625-1

Bernerth, J. B., Armenakis, A. A., Feild, H. S., Giles, W. F., & Walker, H. J. (2007). Leader–member social exchange (LMSX): Development and validation of a scale. *Journal of Organizational Behavior, 28*(8), 979–1003. https://doi.org/10.1002/job.443

Bock, Zmud, Kim, & Lee. (2005). Behavioral intention formation in knowledge sharing: Examining the roles of extrinsic motivators, social-psychological forces, and organizational climate. *MIS Quarterly, 29*(1), 87–111. https://doi.org/10.2307/25148669

Bolino, M. C., & Grant, A. M. (2016). The bright side of being prosocial at work, and the dark side, too: A review and agenda for research on other-oriented motives, behavior, and impact in organizations. *Academy of Management Annals, 10*(1), 599–670. https://doi.org/10.5465/19416520.2016.1153260

Bolino, M. C., Klotz, A. C., Turnley, W. H., & Harvey, J. (2013). Exploring the dark side of organizational citizenship behavior. *Journal of Organizational Behavior, 34*(4), 542–559. https://doi.org/10.1002/job.1847

Bordia, P., Irmer, B. E., & Abusah, D. (2006). Differences in sharing knowledge interpersonally and via databases: The role of evaluation apprehension and perceived benefits. *European Journal of Work and Organizational Psychology, 15*(3), 262–280. https://doi.org/10.1080/13594320500417784

Brislin, R. W. (1970). Back-translation for cross-cultural research. *Journal of Cross-Cultural Psychology, 1*(3), 185–216. https://doi.org/10.1177/135910457000100301
Brown, M. E., & Mitchell, M. S. (2010). Ethical and unethical leadership: Exploring new avenues for future research. *Business Ethics Quarterly, 20*(4), 583–616. https://doi.org/10.5840/beq201020439
Brown, M. E., & Treviño, L. K. (2006). Ethical leadership: A review and future directions. *The Leadership Quarterly, 17*(6), 595–616. https://doi.org/10.1016/j.leaqua.2006.10.004
Brown, M. E., Treviño, L. K., & Harrison, D. A. (2005). Ethical leadership: A social learning perspective for construct development and testing. *Organizational Behavior and Human Decision Processes, 97*(2), 117–134. https://doi.org/10.1016/j.obhdp.2005.03.002
Burmeister, A., Fasbender, U., & Deller, J. (2018). Being perceived as a knowledge sender or knowledge receiver: A multistudy investigation of the effect of age on knowledge transfer. *Journal of Occupational and Organizational Psychology, 91*(3), 518–545. https://doi.org/10.1111/joop.12208
Cabrera, A., & Cabrera, E. F. (2002). Knowledge-sharing dilemmas. *Organization Studies, 23*(5), 687–710. https://doi.org/10.1177/0170840602235001
Cabrera, Á., Collins, W. C., & Salgado, J. F. (2006). Determinants of individual engagement in knowledge sharing. *International Journal of Human Resource Management, 17*(2), 245–264. https://doi.org/10.1080/09585190500404614
Carmeli, A., Atwater, L., & Levi, A. (2011). How leadership enhances employees' knowledge sharing: The intervening roles of relational and organizational identification. *Journal of Technology Transfer, 36*(3), 257–274. https://doi.org/10.1007/s10961-010-9154-y
Chen, G., Gully, S. M., & Eden, D. (2001). Validation of a new general self-efficacy scale. *Organizational Research Methods, 4*(1), 62–83. https://doi.org/10.1177/109442810141004
Chen, C.-Y., & Li, C.-I. (2013). Assessing the spiritual leadership effectiveness: The contribution of follower's self-concept and preliminary tests for moderation of culture and managerial position. *The Leadership Quarterly, 24*(1), 240–255. https://doi.org/10.1016/j.leaqua.2012.11.004
Chen, G., Smith, T. A., Kirkman, B. L., Zhang, P., Lemoine, G. J., & Farh, J.-L. (2019). Multiple team membership and empowerment spillover effects: Can empowerment processes cross team boundaries? *Journal of Applied Psychology, 104*(3), 321–340. 10.1037/apl0000336.
Cheong, M., Spain, S. M., Yammarino, F. J., & Yun, S. (2016). Two faces of empowering leadership: Enabling and burdening. *The Leadership Quarterly, 27*(4), 602–616. https://doi.org/10.1016/j.leaqua.2016.01.006
Cheung, G. W., Cooper-Thomas, H. D., Lau, R. S., & Wang, L. C. (2021). Testing moderation in business and psychological studies with latent moderated structural equations. *Journal of Business and Psychology, 36*, 1009–1033. https://doi.org/10.1007/s10869-020-09717-0
Chow, C. W., Deng, F. J., & Ho, J. L. (2000). The openness of knowledge sharing within organizations: A comparative study of the United States and the People's Republic of China. *Journal of Management Accounting Research, 12*, 65–95. https://doi.org/10.2308/jmar.2000.12.1.65
Chowdhury, S. (2005). The role of affect- and cognition-based trust in complex knowledge sharing. *Journal of Managerial Issues, 17*(3), 310–326.
Connelly, C. E., Ford, D. P., Turel, O., Gallupe, B., & Zweig, D. (2014). "I'm busy (and competitive)!" Antecedents of knowledge sharing under pressure. *Knowledge Management Research & Practice, 12*(1), 74–85. https://doi.org/10.1057/kmrp.2012.61
Cooper, C. D., Kong, D. T., & Crossley, C. D. (2018). Leader humor as an interpersonal resource: Integrating three theoretical perspectives. *Academy of Management Journal, 61*(2), 769–796. https://doi.org/10.5465/amj.2014.0358
Cortina, J. M., Chen, G., & Dunlap, W. P. (2001). Testing interaction effects in LISREL: Examination and illustration of available procedures. *Organizational Research Methods, 4*(4), 324–360. https://doi.org/10.1177/109442810144002
Dust, S. B., Resick, C. J., Margolis, J. A., Mawritz, M. B., & Greenbaum, R. L. (2018). Ethical leadership and employee success: Examining the roles of psychological empowerment and emotional exhaustion. *The Leadership Quarterly, 29*(5), 570–583. https://doi.org/10.1016/j.leaqua.2018.02.002
Farh, C. I. C., & Chen, Z. (2014). Beyond the individual victim: Multilevel consequences of abusive supervision in teams. *Journal of Applied Psychology, 99*(6), 1074–1095. https://doi.org/10.1037/a0037636
Garcia, P. R. J. M., Restubog, S. L. D., Bordia, P., Bordia, S., & Roxas, R. E. O. (2015). Career optimism: The roles of contextual support and career decision-making self-efficacy. *Journal of Vocational Behavior, 88*, 10–18. https://doi.org/10.1016/j.jvb.2015.02.004
Gelfand, M. J., Aycan, Z., Erez, M., & Leung, K. (2017). Cross-cultural industrial organizational psychology and organizational behavior: A hundred-year journey. *Journal of Applied Psychology, 102*(3), 514–529. https://doi.org/10.1037/apl0000186
Gist, M. E., & Mitchell, T. R. (1992). Self-efficacy: A theoretical analysis of its determinants and malleability. *Academy of Management Review, 17*(2), 183–211. https://doi.org/10.2307/258770
Gouldner, A. W. (1960). The norm of reciprocity: A preliminary statement. *American Sociological Review, 25*(2), 161–178. https://doi.org/10.2307/2092623
Hassan, S., Mahsud, R., Yukl, G., & Prussia, G. E. (2013). Ethical and empowering leadership and leader effectiveness. *Journal of Managerial Psychology, 28*(2), 133–146. https://doi.org/10.1108/02683941311300252
Hayes, A. F. (2015). An index and test of linear moderated mediation. *Multivariate Behavioral Research, 50*(1), 1–22. https://doi.org/10.1080/00273171.2014.962683
Hobfoll, S. E., Halbesleben, J., Neveu, J.-P., & Westman, M. (2018). Conservation of resources in the organizational context: The reality of resources and their consequences. *Annual Review of Organizational Psychology and Organizational Behavior, 5*(1), 103–128. https://doi.org/10.1146/annurev-orgpsych-032117-104640
Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations*. Sage Publications.
Hwang, Y., & Kim, D. J. (2007). Understanding affective commitment, collectivist culture, and social influence in relation to knowledge sharing in technology mediated learning. *IEEE Transactions on Professional Communication, 50*(3), 232–248. https://doi.org/10.1109/TPC.2007.902664
Jang, S., Shen, W., Allen, T. D., & Zhang, H. (2018). Societal individualism–collectivism and uncertainty avoidance as cultural moderators of relationships between job resources and strain. *Journal of Organizational Behavior, 39*(4), 507–524. https://doi.org/10.1002/job.2253
Jin, Y., Lu, N., Deng, Y., Lin, W., Zhan, X., Feng, B., & Li, G. (2023). Becoming reluctant to share? Roles of career age and career plateau in the relationship between ethical leadership and knowledge sharing. *Current Psychology*. https://doi.org/10.1007/s12144-023-04357-y
Kankanhalli, Tan, & Wei. (2005). Contributing knowledge to electronic knowledge repositories: An empirical investigation. *MIS Quarterly, 29*(1), 113. https://doi.org/10.2307/25148670
Kim, U., Triandis, H. C., Kagitcibasi, C., Choi, S.-G., & Yoon, G. (Eds.). (1994). *Individualism and collectivism: Theory, method and application*. Sage.
Kluemper, D. H., McLarty, B. D., & Bing, M. N. (2015). Acquaintance ratings of the Big Five personality traits: Incremental validity beyond and interactive effects with self-reports in the prediction of workplace deviance. *Journal of Applied Psychology, 100*(1), 237–248. https://doi.org/10.1037/a0037810
Le, P. B., & Lei, H. (2018). Fostering knowledge sharing behaviours through ethical leadership practice: The mediating roles of disclosure-based trust and reliance-based trust in leadership. *Knowledge Management Research & Practice, 16*(2), 183–195. https://doi.org/10.1080/14778238.2018.1445426
Leiter, M. P., & Maslach, C. (2005). A mediation model of job burnout. In *Research companion to organizational health psychology* (pp. 544–564). Edward Elagar.
Liao, H., Liu, D., & Loi, R. (2010). Looking at both sides of the social exchange coin: A social cognitive perspective on the joint effects of relationship quality and differentiation on creativity. *Academy of Management Journal, 53*(5), 1090–1109. https://doi.org/10.5465/amj.2010.54533207
Liden, R. C., Sparrowe, R. T., & Wayne, S. J. (1997). Leader-member exchange theory: The past and potential for the future. In I. G. R. Ferris (Ed.), *Research in personnel and human resources management* (Vol. 15, pp. 47–119). JAI.
Liden, R. C., Wayne, S. J., & Stilwell, D. (1993). A longitudinal study on the early development of leader–member exchanges. *Journal of Applied Psychology, 78*(4), 662–674. https://doi.org/10.1037/0021-9010.78.4.662
Lin, C.-P. (2007). To share or not to share: Modeling tacit knowledge sharing, its mediators and antecedents. *Journal of Business Ethics, 70*(4), 411–428. https://doi.org/10.1007/s10551-006-9119-0
Liu, X., & Yu, K. (2019). Emotional stability and citizenship fatigue: The role of emotional exhaustion and job stressors. *Personality and Individual Differences, 139*(1), 254–262. https://doi.org/10.1016/j.paid.2018.11.033
Lu, X., Zhou, H., & Chen, S. (2019). Facilitate knowledge sharing by leading ethically: The role of organizational concern and impression management climate. *Journal of Business and Psychology; New York, 34*(4), 539–553. https://doi.org/10.1007/s10869-018-9555-8
Lynch, J. W., & Rodell, J. B. (2018). Blend in or stand out? Interpersonal outcomes of managing concealable stigmas at work. *Journal of Applied Psychology, 103*(12), 1307–1323. https://doi.org/10.1037/apl0000342
Ma, Y., Cheng, W., Ribbens, B. A., & Zhou, J. (2013). Linking ethical leadership to employee creativity: Knowledge sharing and self-efficacy as mediators. *Social Behavior and Personality: An International Journal, 41*(9), 1409–1419. https://doi.org/10.2224/sbp.2013.41.9.1409
Markus, H. R. (2016). What moves people to action? Culture and motivation. *Current Opinion in Psychology, 8*, 161–166. https://doi.org/10.1016/j.copsyc.2015.10.028
Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Organizational Behavior, 2*(2), 99–113. https://doi.org/10.1002/job.4030020205
Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology, 52*(1), 397–422. https://doi.org/10.1146/annurev.psych.52.1.397
Matta, F. K., & Van Dyne, L. (2020). Understanding the disparate behavioral consequences of LMX differentiation: The role of social comparison emotions. *Academy of Management Review, 45*(1), 154–180. https://doi.org/10.5465/amr.2016.0264
Mayer, R. C., & Davis, J. H. (1999). The effect of the performance appraisal system on trust for management: A field quasi-experiment. *Journal of Applied Psychology, 84*(1), 123–136. https://doi.org/10.1037/0021-9010.84.1.123
Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integrative model of organizational trust. *Academy of Management Review, 20*(3), 709–734. https://doi.org/10.2307/258792
McFarlin, D. B., & Blascovich, J. (1984). On the remote associates test (RAT) as an alternative to illusory performance feedback: A methodological note. *Basic & Applied Social Psychology, 5*(3), 223–229. https://doi.org/10.1207/s15324834basp0503_5
McLarty, B. D., Vardaman, J. M., & Barnett, T. (2019). Congruence in exchange: The influence of supervisors on employee performance in family firms. *Entrepreneurship Theory and Practice, 43*(2), 302–321. https://doi.org/10.1177/1042258718796079
Meade, A. W., & Craig, S. B. (2012). Identifying careless responses in survey data. *Psychological Methods, 17*(3), 437–455. https://doi.org/10.1037/a0028085
Muthén, L. K., & Muthén, B. O. (2017). *Mplus user's guide* (8th ed.). Muthén & Muthén.
Newman, D. A. (2014). Missing data: Five practical guidelines. *Organizational Research Methods, 17*(4), 372–411. https://doi.org/10.1177/1094428114548590

Ng, T. W. H., & Feldman, D. C. (2015). Ethical leadership: Meta-analytic evidence of criterion-related and incremental validity. *Journal of Applied Psychology, 100*(3), 948–965. https://doi.org/10.1037/a0038246

Niessen, A. S. M., Meijer, R. R., & Tendeiro, J. N. (2016). Detecting careless respondents in web-based questionnaires: Which method to use? *Journal of Research in Personality, 63*, 1–11. https://doi.org/10.1016/j.jrp.2016.04.010

Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*(5), 879–903. https://doi.org/10.1037/0021-9010.88.5.879

Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control It. *Annual Review of Psychology, 63*(1), 539–569. https://doi.org/10.1146/annurev-psych-120710-100452

Riege, A. (2005). Three-dozen knowledge-sharing barriers managers must consider. *Journal of Knowledge Management, 9*(3), 18–35. https://doi.org/10.1108/13673270510602746

Rupp, D. E., Shapiro, D. L., Folger, R., Skarlicki, D. P., & Shao, R. (2017). A critical analysis of the conceptualization and measurement of organizational justice: Is it time for reassessment? *Academy of Management Annals, 11*(2), 919–959. https://doi.org/10.5465/annals.2014.0051

Sanna, L. J. (1992). Self-efficacy theory: Implications for social facilitation and social loafing. *Journal of Personality and Social Psychology, 62*(5), 774–786. https://doi.org/10.1037/0022-3514.62.5.774

Sanna, L. J., & Pusecker, P. A. (1994). Self-efficacy, valence of self-evaluation, and performance. *Personality and Social Psychology Bulletin, 20*(1), 82–92. https://doi.org/10.1177/0146167294201008

Schaufeli, W. B., Leiter, M. P., & Maslach, C. (2009). Burnout: 35 years of research and practice. *Career Development International, 14*(3), 204–220. https://doi.org/10.1108/13620430910966406

Schunk, D. H., & DiBenedetto, M. K. (2020). Motivation and social cognitive theory. *Contemporary Educational Psychology, 60*, Article 101832. https://doi.org/10.1016/j.cedpsych.2019.101832

Schunk, D. H., & Usher, E. L. (2019). Social cognitive theory and motivation. In R. M. Ryan (Ed.), *The Oxford handbook of human motivation* (pp. 9–26). Oxford University Press. https://doi.org/10.1093/oxfordhb/9780190666453.013.2.

Selig, J. P., & Preacher, K. J. (2008). *Monte Carlo method for assessing mediation: An interactive tool for creating confidence intervals for indirect effects*. [Computer software]. [Computer software]. http://quantpsy.org/.

Siemsen, E., Roth, A., & Oliveira, P. (2010). Common method bias in regression models with linear, quadratic, and interaction effects. *Organizational Research Methods, 13*(3), 456–476. https://doi.org/10.1177/1094428109351241

Spreitzer, G. M. (1995). Psychological empowerment in the workplace: Dimensions, measurement, and validation. *Academy of Management Journal, 38*(5), 1442–1465. https://doi.org/10.2307/256865

Srivastava, A., Bartol, K. M., & Locke, E. A. (2006). Empowering leadership in management teams: Effects on knowledge sharing, efficacy, and performance. *Academy of Management Journal, 49*(6), 1239–1251. https://doi.org/10.5465/AMJ.2006.23478718

Stajkovic, A. D., & Luthans, F. (1998). Self-efficacy and work-related performance: A meta-analysis. *Psychological Bulletin, 124*(2), 240–261. 10.1037/0033-2909.124.2.240.

Stone-Romero, E. F., & Rosopa, P. J. (2011). Experimental tests of mediation models: Prospects, problems, and some solutions. *Organizational Research Methods, 14*(4), 631–646. https://doi.org/10.1177/1094428110372673

Stouten, J., van Dijke, M., Mayer, D. M., De Cremer, D., & Euwema, M. C. (2013). Can a leader be seen as too ethical? The curvilinear effects of ethical leadership. *The Leadership Quarterly, 24*(5), 680–695. https://doi.org/10.1016/j.leaqua.2013.05.002

Su, X., Lin, W., Wu, J., Zheng, Q., Chen, X., & Jiang, X. (2021). Ethical leadership and knowledge sharing: The effects of positive reciprocity and moral efficacy. *SAGE Open*, *11*(2), 21582440211021823. doi: 10.1177/21582440211021823.

Thiel, C. E., Hardy, J. H., Peterson, D. R., Welsh, D. T., & Bonner, J. M. (2018). Too many sheep in the flock? Span of control attenuates the influence of ethical leadership. *Journal of Applied Psychology, 103*(12), 1324–1334. https://doi.org/10.1037/apl0000338

Turner, S. F., Cardinal, L. B., & Burton, R. M. (2017). Research design for mixed methods: A triangulation-based framework and roadmap. *Organizational Research Methods, 20*(2), 243–267. https://doi.org/10.1177/1094428115610808

van den Bos, K., & Lind, E. A. (2002). Uncertainty management by means of fairness judgments. *Advances in Experimental Social Psychology, 34*, 1–60. https://doi.org/10.1016/S0065-2601(02)80003-X

Van der Graaff, J., Branje, S., De Wied, M., Hawk, S., Van Lier, P., & Meeus, W. (2014). Perspective taking and empathic concern in adolescence: Gender differences in developmental changes. *Developmental Psychology, 50*(3), 881–888. https://doi.org/10.1037/a0034325

Vogel, R. M., Mitchell, M. S., Tepper, B. J., Restubog, S. L. D., Hu, C., Hua, W., & Huang, J.-C. (2015). A cross-cultural examination of subordinates' perceptions of and reactions to abusive supervision. *Journal of Organizational Behavior, 36*(5), 720–745. https://doi.org/10.1002/job.1984

Wang, C.-C. (2004). The influence of ethical and self-interest concerns on knowledge sharing Intentions among managers: An empirical study. *International Journal of Management, 21*(3), 370–381.

Wang, S., & Noe, R. A. (2010). Knowledge sharing: A review and directions for future research. *Human Resource Management Review, 20*(2), 115–131. https://doi.org/10.1016/j.hrmr.2009.10.001

Wheeler, A. R., Shanine, K. K., Leon, M. R., & Whitman, M. V. (2014). Student-recruited samples in organizational research: A review, analysis, and guidelines for future research. *Journal of Occupational and Organizational Psychology, 87*(1), 1–26. https://doi.org/10.1111/joop.12042

Wood, R., & Bandura, A. (1989). Social cognitive theory of organizational management. *Academy of Management Review, 14*(3), 361–384. https://doi.org/10.2307/258173

Wu, W.-L. (2021). How ethical leadership promotes knowledge sharing: A social identity approach. *Frontiers in Psychology, 12*, 1–11.

Xia, Z., & Yang, F. (2020). Ethical leadership and knowledge sharing: The impacts of prosocial motivation and two facets of conscientiousness. *Frontiers in Psychology*, 11. 10.3389/fpsyg.2020.581236.

Yukl, G., Fu, P. P., & McDonald, R. (2003). Cross-cultural differences in perceived effectiveness of influence tactics for initiating or resisting change. *Applied Psychology, 52*(1), 68–82. https://doi.org/10.1111/1464-0597.00124

Zhu, W., Zheng, X., He, H., Wang, G., & Zhang, X. (2019). Ethical leadership with both "moral person" and "moral manager" aspects: Scale development and cross-cultural validation. *Journal of Business Ethics, 158*(2), 547–565. https://doi.org/10.1007/s10551-017-3740-y

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