

LINKING ETHICAL LEADERSHIP TO EMPLOYEE CREATIVITY: KNOWLEDGE SHARING AND SELF-EFFICACY AS MEDIATORS

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Using social exchange theory and social learning theory, we examined the influence of ethical leadership on employee creativity through the mediation of knowledge sharing and self-efficacy. We tested our hypotheses with a sample of 309 employees and their supervisors from 4 Chinese companies, using a multiple mediation model. The results showed that ethical leadership was positively related to employee creativity and that this relationship was mediated by knowledge sharing and self-efficacy.

Keywords: ethical leadership, employee creativity, knowledge sharing, self-efficacy.

Effective leadership is important for fostering employee creativity (Carmeli, Gelbard, & Reiter-Palmon, 2013). Researchers have examined the impact on creativity of different types of leadership, such as transformational leadership (Eisenbeiß & Boerner, 2013), abusive supervision (Liu, Liao, & Loi, 2012), and empowering leadership (Zhang & Bartol, 2010). Brown, Treviño, and

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This research was supported by the National Natural Science Foundation of China (71272067), the Science Foundation of Ministry of Education of China (12YJA630090), and the China Scholarship Council (20123013).

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Harrison (2005) suggested that ethical leadership has a significant impact on promoting enhancement of employee attitudes and behaviors. Other researchers have pointed out that ethical leadership relates to task performance, and also to prosocial and negatively deviant behaviors (Avey, Palanski, & Walumbwa, 2011; Mayer, Kuenzi, Greenbaum, Bardes, & Salvador, 2009; Walumbwa et al., 2011; Zhang, Walumbwa, Aryee, & Chen, 2013). However, a study conducted by Tu and Lu (2012) is one of only a few in which the effect of ethical leadership on employee creativity has been examined.

Employee creativity refers to the generation, promotion, and implementation of novel and useful ideas about products, practices, services, or procedures (Zhou, 2003). During this process, individuals will encounter numerous risks, conflicts, difficulties, and ethical dilemmas (Tu & Lu, 2012). Because the emphasis in ethical leadership is on morality, fairness, autonomy, and people orientation (Brown & Treviño, 2006), leadership style can have an impact on employee creativity. Carmeli et al. (2013) described how leaders can foster employee creativity by providing job structure, positive energy, and resources, shaping the psychological conditions, and cultivating high-quality relational exchanges that will stimulate employees to exhibit creativity. However, it is still unclear exactly how leadership style influences employee creativity. Most researchers have explained the influence of ethical leadership on the consequential outcomes as a process of social exchange or social learning (Brown & Treviño, 2006). Specifically, the fair and balanced decision making of ethical leaders shapes followers' perception of a social exchange relationship (Brown & Treviño, 2006; Mayer et al., 2009), resulting in the followers reciprocating this behavior (Avey et al., 2011). Social learning theory (SLT; Bandura, 1986) is based on the idea that individuals learn from the behavior of role models that they find attractive. Therefore, ethical leaders can have an impact on the self-efficacy of their employees through their credibility and ethical standards (Avey, Wernsing, & Palanski, 2012). However, there are a limited number of studies in which social exchange theory (SET; Blau, 1964) and SLT are used to explain the influence of ethical leadership on followers (Loi, 2012; Walumbwa et al., 2011).

Accordingly, the aims in our study were to explore how ethical leadership influences employee creativity through an examination of the roles of mediating variables and also to examine the underlying mechanism of this relationship. Specifically, we based our research on SET to examine the influence of ethical leadership on employee creativity through the mediation of knowledge sharing, and we drew on SLT to examine the role of self-efficacy as a mediator between ethical leadership and employee creativity.

Theory and Hypotheses

Ethical Leadership and Employee Creativity

Brown et al. (2005) defined *ethical leadership* as “the demonstration of normatively appropriate conduct through personal actions and interpersonal relationships, and the promotion of such conduct to followers through two-way communication, reinforcement, and decision-making” (p. 120). Ethical leaders are characterized by traits such as integrity, honesty, caring, altruism, openness, collective motivation, trustworthiness, and justice, and by their behavior as principled individuals who make balanced decisions (Brown et al., 2005; Brown & Treviño, 2006). Tu and Lu (2012) found that ethical leadership is positively related to employee creativity through two mechanisms: cognition and motivation. A characteristic of the cognitive mechanism is that followers are more likely to pay attention to work significance and generate new ideas or ways to achieve organizational goals, when leaders who are ethical underline how important the work of these employees is to other employees, to their group members, and to the organization (Brown & Treviño, 2006; Tu & Lu, 2012). When ethical leaders display organizational commitment (De Hoogh & Den Hartog, 2008), employees are more likely to feel psychologically safe enough to speak out with new ideas (Tu & Lu, 2012). Furthermore, ethical leaders listen to employees and encourage them to express their opinions and concerns through two-way open communication, thereby engendering greater trust (Brown et al., 2005). This open communication will, in turn, encourage the followers to use their imagination to generate novel ideas in order to improve current work procedures and processes (Tu & Lu, 2012).

The motivational mechanism is related to the respect that ethical leaders have for the dignity, human nature, and developmental needs of their followers, which enables the followers to acquire work-related knowledge and to learn new skills (Zhu, May, & Avolio, 2004). As a result of this respect shown by the leader, followers will have greater self-efficacy, which is evidence of their heightened intrinsic motivation (Amabile, Conti, Coon, Lazenby, & Herron, 1996). Consequently, they are more likely to behave creatively. Employees’ intrinsic motivation is also heightened when they have a high level of autonomy in their work situation, which provides them with enhanced independence, freedom, and discretion to schedule work (Brown et al., 2005; Piccolo, Greenbaum, den Hartog, & Folger, 2010). Intrinsically motivated individuals are more likely to expend a high level of effort on their work, with less constraint, leading to greater creativity (Tu & Lu, 2012). Therefore, we proposed the following hypothesis:

Hypothesis 1: Ethical leadership will be positively related to employee creativity.

The Mediating Role of Knowledge Sharing

In SET it is proposed that individuals' actions are contingent on receiving rewards from others (Blau, 1964). The norm of reciprocity (Gouldner, 1960) is a core principle of SET, according to which it is suggested that individuals regulate their knowledge sharing with others in accordance with self-interest, based on an analysis of the reciprocal costs and benefits (Cabrera & Cabrera, 2005). In the workplace, knowledge sharing among employees may be in the form of job-related documents, personal experience, working procedures, and know-how (Lu, Leung, & Koch, 2006). An important benefit of ethical leadership is that of providing employees with a greater commitment to sharing their knowledge with coworkers (Brown & Treviño, 2006; Tu & Lu, 2012). Carmeli et al. (2013) found that internal and external knowledge sharing is related to increased employee creativity.

In our study, we posited that ethical leadership would facilitate knowledge sharing, which, in turn, would nurture employee creativity. Leaders in an organization can develop a process to help overcome resistance to knowledge sharing, and build up a context of cooperation (Carmeli et al., 2013). Ethical leaders help to build, maintain, and facilitate a context in which the followers interact and create new meanings, and in which leaders and followers will form a trusting and cooperative relationship (Avolio, Gardner, Walumbwa, Luthans, & May, 2004). In this environment followers concentrate more on cooperation and communication, and become more motivated. This is vital for both the creation of knowledge and knowledge sharing (Avey et al., 2012; Carmeli et al., 2013; Wang & Noe, 2010), a process that, in turn, cultivates employee creativity. Therefore, we proposed the following hypothesis:

Hypothesis 2: Knowledge sharing will mediate the relationship between ethical leadership and employee creativity.

The Mediating Role of Self-Efficacy

Bandura (1986) identified four techniques for enhancing self-efficacy: verbal persuasion, vicarious experience or modeling, enactive mastery or personal attainments, and affective or physiological arousal. Ethical leadership has an effect on each of these techniques through social learning (Walumbwa et al., 2011). According to SLT, individuals learn about behavior vicariously and through direct modeling and verbal persuasion. Ethical leaders who show support of, and encouragement to, employees help them become more confident in their abilities and strengthen their motivational and behavioral patterns (Walumbwa et al., 2011). De Hoogh and Den Hartog (2008) stated that ethical leaders not only stress moral values in their decision making, but also explain to employees

the contribution of their tasks to the unit work goals. They also try to enable employees to learn to think strategically about their own decisions, a process that improves employee self-efficacy. Zhu et al. (2004) also described how ethical leaders' benevolent behavior and people orientation promotes growth and confidence in their employees' job-related skills, facilitating higher self-efficacy levels by vicarious or observational learning and persuasion.

Ethical leaders can also improve followers' self-efficacy through facilitating enactive mastery and affective arousal. Ethical leaders help followers to concentrate on the processes as they perform their work tasks, thereby decreasing followers' anxiety and stress about the outcome (Brown et al., 2005), and enhancing their self-efficacy (Walumbwa et al., 2011). Ethical leaders who care about their employees and want them to perform well are more likely to create a psychologically safe environment for employees to have a successful enactive mastery experience (Walumbwa & Schaubroeck, 2009). This leads to increased employee self-efficacy. Highly confident individuals are more likely to initiate action, pursue it, and sustain persistence (Stajkovic, 2006). In other words, employees high in self-efficacy are more likely than others are to be successful performers (Walumbwa et al., 2011). Indeed, findings by many researchers have supported the impact of self-efficacy on employee creativity in various organizational environments (see e.g., Gong, Huang, & Farh, 2009; Zhou, 2003).

Ethical leaders are proactive in generating new ideas, thus serving as role models in this respect (Tu & Lu, 2012). Through this role modeling, followers enhance their knowledge by learning and gaining new skills, develop their abilities to accomplish their tasks, and reach their potential (Walumbwa et al., 2011). Followers will, thus, achieve greater self-efficacy, and, by doing so, improve their creativity. Therefore, we proposed the following hypothesis:

Hypothesis 3: Self-efficacy will mediate the relationship between ethical leadership and employee creativity.

The hypothesized relationships are shown in Figure 1.

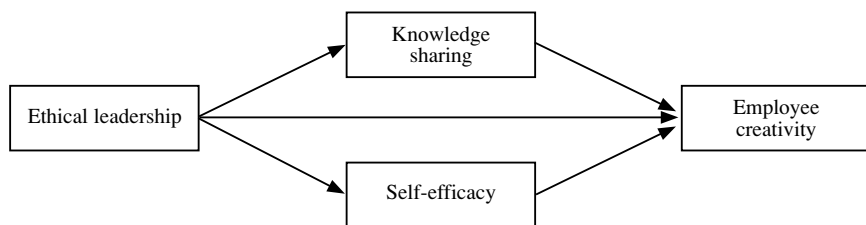


Figure 1. *Hypothesized model.*

Method

Participants and Procedure

We obtained access to four Chinese companies in Changsha, Zhuzhou, Xiangtan, and Chenzhou through personal contacts with top level managers and human resource managers. Industry types were manufacturing, logistics, and technology. We distributed printed survey forms to supervisors and the groups of staff members that they supervised and completed forms were returned direct to us.

Supervisors evaluated the creativity of the selected staff member groups. The employees who comprised the groups of staff members reported their perceptions of their supervisor in terms of ethical leadership, as well as their own level of knowledge sharing and self-efficacy. We distributed 580 supervisor survey forms and 580 staff survey forms. We received 309 matched and usable forms. Of the participants in the staff member groups, 110 (35.6%) were men and 199 (64.4%) were women. The average age was 32.13 years ($SD = 6.53$). Gender and age were control variables. We did not collect supervisor gender and age data.

Measures

Ethical leadership, employee creativity, knowledge sharing, and self-efficacy were measured using a 5-point response scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

Ethical leadership. We measured ethical leadership using the 10-item Ethical Leadership Scale developed by Brown et al. (2005). Sample items include “[My leader] listens to what employees have to say” and “[My leader] sets an example of how to do things the right way in terms of ethics”. Cronbach’s alpha was .94.

Employee creativity. Employee creativity was measured using Farmer, Tierney, and Kung-Mcintyre’s (2003) 4-item creativity scale, which reflects the Chinese view of employee creativity. A sample item is “This employee tries new ideas or methods first”. Cronbach’s alpha was .85.

Knowledge sharing. We used the 8-item scale developed by Lu, Leung, and Koch (2006) to measure knowledge sharing. Respondents indicated how frequently they had engaged in specific behaviors in the past year. An example of an item is “I actively use IT sources available in the company to share my knowledge”. Cronbach’s alpha was .84.

Self-efficacy. We used Spreitzer’s (1995) 3-item scale to measure self-efficacy. A sample item is “I have mastered the skills necessary for my job”. Cronbach’s alpha was .86.

Results

We used AMOS 17.0 to conduct a confirmatory factor analysis (CFA) of the variables. The hypothesized model fit the data reasonably well. CFA results showed that the four-factor model (i.e., ethical leadership, employee creativity, knowledge sharing, and self-efficacy) fit the data better than alternative models, according to results for comparative fit index (CFI), normed fit index (NFI), incremental fit index (IFI), and root mean square error of approximation (RMSEA). For example, the four-factor model in which $\chi^2 (105) = 256.3$, $p < .001$; CFI = .952, NFI = .923, IFI = .953; RMSEA = .068, yielded a better fit than a three-factor model formed by combining knowledge sharing and self-efficacy: $\chi^2 (108) = 562.5$, $p < .001$; CFI = .857, NFI = .830, IFI = .858; RMSEA = .117, with a χ^2 change of 306.2 ($df = 3$, $p < .001$).

Descriptive statistics and zero-order correlations among the study variables are shown in Table 1.

Table 1. *Descriptive Statistics and Variable Intercorrelations*

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1. Gender	1.44	.48						
2. Age	32.13	6.53	-.23**					
3. Ethical leadership	3.85	.84	-.04	.03	.94			
4. Knowledge sharing	4.03	.63	.07	.01	.54**	.84		
5. Self-efficacy	3.70	.72	-.01	.08	.51**	.37**	.86	
6. Employee creativity	3.39	.86	-.09	.08	.40**	.43**	.61**	.85

Note. ** $p < .01$.

There was a significant positive relationship between ethical leadership and employee creativity ($r = .40$, $p < .01$). This is consistent with Hypothesis 1. Following the procedures of Edwards and Lambert (2007) and Shoss, Eisenberger, Restubog, and Zagenczyk (2013), we tested the hypotheses through the mediation model. Specifically, we tested the following equations:

$$\text{Employee creativity} = b_{01} + b_{02}\text{Control} + b_{03}\text{Ethical leadership} + e \quad (1)$$

$$\text{Knowledge sharing} = a_{01} + a_{02}\text{Control} + a_{04}\text{Ethical leadership} + e \quad (2.1)$$

$$\text{Self-efficacy} = a_{11} + a_{12}\text{Control} + a_{13}\text{Ethical leadership} + e \quad (2.2)$$

$$\text{Employee creativity} = b_{11} + b_{12}\text{Control} + b_{13}\text{Ethical leadership} + b_{13}\text{Knowledge sharing} + b_{15}\text{Self-efficacy} + e \quad (3)$$

Edwards and Lambert (2007) recommend generating 95% bias-corrected bootstrapped confidence intervals (CI) to evaluate the significance of the conditional indirect effect. Using Hayes's (2012) PROCESS macro (Model 4), we tested the above equations and obtained bias-corrected bootstrapped CI

(using 1,000 bootstrap samples) for the conditional indirect effect. The results are displayed in Table 2.

Table 2. *Regression Results in the Hypothesized Model*

Variable	Employee creativity		Knowledge sharing		Self-efficacy creativity		Employee creativity	
	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>
Gender	-.11	.09	-.06	.05	.04	.07	-.12	.08
Age	.01	.01	-.03	.00	.01	.01	.01	.01
Ethical leadership	.40***	.05	.43***	.07	.44***	.04	.05	.06
Knowledge sharing							.20*	.08
Self-efficacy							.59***	.06
<i>R</i> ²	.17***		.33***		.27***		.39***	

Note. * *p* < .05, *** *p* < .001.

Ethical leadership was positively related to employee creativity; therefore, Hypothesis 1 was supported. Ethical leadership was positively related to knowledge sharing and self-efficacy. Knowledge sharing partially mediated the relationship between ethical leadership and employee creativity. Self-efficacy partially mediated the link between ethical leadership and employee creativity. The estimates and bias-corrected bootstrapped 95% CI for the conditional indirect effects were as follows: ethical leadership had a total effect on employee creativity (*P* = .40, *p* < .001, bias-corrected CI: .30–.51); ethical leadership had an indirect effect on employee creativity through knowledge sharing (*P* = .10, *p* < .05, bias-corrected CI: .01–.21) and self-efficacy (*P* = .25, *p* < .001, bias-corrected CI: .17–.35). Thus, Hypotheses 2 and 3 were supported.

Discussion

To our knowledge, we are the first researchers who have examined the mediating roles of knowledge sharing and self-efficacy in the relationship between ethical leadership and employee creativity. Our findings also expand on previous results and contribute to the literature on the relationship between ethical leadership and employee creativity. We have shown that ethical leadership at the individual level can positively predict employee creativity. This is consistent with previous findings that ethical leadership is an important antecedent of employees’ job performance (Mayer et al., 2009), and has a significant impact on employees’ attitudes and behavior in the workplace (see e.g., Brown et al., 2005; Loi, 2012). The results also showed that ethical leadership increased employee creativity through cognitive and motivational mechanisms, empirically supporting Tu and Lu’s (2012) argument that ethical leadership impacts on employee creativity via intrinsic motivation.

We also identified the social exchange and social learning processes by which ethical leadership is related to employee performance. Previous researchers have suggested that more research is needed on the ethical leadership and employee creativity relationship, especially in regard to these processes (Loi, 2012; Walumbwa et al., 2011). Few researchers have focused on the role of ethical leadership in facilitating knowledge sharing and enhancing employee creativity in work organizations (Carmeli et al., 2013). According to our findings in this study, ethical leadership is significantly related to knowledge sharing and positively related to employee self-efficacy. These results are consistent with those reported in previous studies (e.g., Walumbwa et al., 2011). However, further studies should be conducted in other organizational contexts to replicate and expand our findings.

Our findings have important implications for organizational managers. By showing that knowledge sharing and self-efficacy are mediators, we have signaled that, when determining how to increase employee creativity, managers should consider devoting more effort to cultivating ethical leadership and increasing employee knowledge sharing and confidence. That is, they should encourage activities and behaviors that emphasize knowledge sharing and self-efficacy. Moreover, leaders in organizations should act as moral role models for employees and should design appropriate human resource policies that emphasize high moral standards.

There are several limitations in our study. First, the sample size was small. Although the data were sufficient for quantitative analysis, larger data sets may provide more distinct effects and clearer trends. Second, because, apart from employee creativity, the measures were self-reported by the staff members, common method bias may be a concern. Therefore, ideally, future researchers should measure the predictors from different sources. Third, the analysis in our study was at an individual level. Future researchers could examine these relationships from a team perspective, especially given the increasing role of teams in the workplace. An example of this is the impact of the ethical leadership of a team on the creativity of employees in that team. Finally, more attention should be paid to the examination of the mechanisms underlying the relationship between ethical leadership and employee creativity.

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