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ORIGINAL PAPER

The Interpersonal Benefits of Leader Mindfulness: A Serial Mediation Model Linking Leader Mindfulness, Leader Procedural Justice Enactment, and Employee Exhaustion and Performance

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Abstract Although it is an increasingly popular assumption that leader mindfulness may positively affect leader behaviors and, in turn, employee outcomes, to date, little empirical evidence supports this view. Against this backdrop, the present research seeks to develop and test a serial mediation model of leader mindfulness. Specifically, we propose that leader mindfulness enhances employee performance and that this relationship is explained by increased leader procedural justice enactment and, subsequently, reduced employees' emotional exhaustion. We conducted three studies to test this model. Study 1 involved employees from a wide range of organizations in the USA ($N = 275$ employees). Study 2 used a sample of leaders and employees from China and measured our model variables at three different points in time ($N = 182$ employees and 54 leaders). Both studies provide consistent support for our hypotheses. Finally, Study 3 involved a laboratory experiment in which 62 senior executives were assigned to either a mindfulness induction or to a control condition. Again, results revealed a significant and positive link between leader mindfulness and leader procedural justice enactment. In sum, these findings expand our understanding of mindfulness to the domain of leadership, a key area of organizational research. Moreover, they complement prior studies by showing that mindfulness dynamics go beyond intrapersonal effects but also influence the attitudes and behaviors of others. We discuss our findings in light of their contributions to the mindfulness, ethics, and leadership literatures and point out implications for practice.

Keywords Mindfulness · Leadership · Procedural justice enactment · Justice rule adherence · Emotional exhaustion · Employee performance · Field study · Experiment · Serial mediation

The most precious gift we can offer others is our presence
— Nguyen Xuan Bao

Introduction

In recent years, the concept of mindfulness, an awareness of the present moment with an observing, nonjudgmental stance, has received strong and increasing attention from organizational scholars and practitioners (Good et al. 2016; Reb and Atkins 2015). This interest is fueled by a growing volume of research that underscores the positive link between mindfulness and important outcomes. Indeed, to date, work-related research has identified positive effects of mindfulness in three key areas: First, mindfulness has been linked to improved employee well-being. For example, studies have found that employee mindfulness goes along with reduced emotional exhaustion (Huelsheger et al. 2013), lower levels of stress (Manocha et al. 2011), and increased resilience (Malinowski and Lim 2015). Second, studies suggest a positive effect of mindfulness on various

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indicators of employee performance. For example, research has linked employee mindfulness to higher levels of job performance (Dane and Brummel 2014), more extra-role efforts (Krishnakumar and Robinson 2015; Reb et al. 2015a) and better safety performance (Zhang et al. 2013). Third, research has found positive effects on decision-making. For example, studies suggest that mindfulness reduces the proneness to cognitive decision biases (Hafenbrack et al. 2014; Kiken and Shook 2011) and enhances ethical decision-making (Ruedy and Schweitzer 2010; see also Karelaia and Reb 2015). These effects of mindfulness are important to organizations and employees alike because they foster organizations' success and allow employees to maintain a state of good health (Cascio 2012).

Despite promising progress, the study of mindfulness in organizations is still in a nascent stage and several central questions remain open for further investigation (Good et al. 2016). Perhaps most importantly, mindfulness research in organizations has largely focused on the intrapersonal effects of employee mindfulness—that is, how mindfulness of an employee affects their personal performance, well-being, and decision-making. In contrast, little empirical attention has been paid to the influence that the mindfulness of one person may have on other employees in the organization. This is particularly true for the mindfulness of leaders who, qua their position, have considerable impact on their employees (Chemers 2001). Indeed, even though scholars and practitioners have repeatedly argued that mindfulness may positively affect leader behaviors and thus employee outcomes (Boyatzis and McKee 2005; Carroll 2008; Fry and Kriger 2009; Reb et al. 2015b; Verdorfer 2016), there is little empirical evidence for this view. Hence, as Good et al. (2016), in their comprehensive review of the mindfulness literature recently noted, we still lack a firm understanding of *whether and how* leader mindfulness may translate into specific leadership behaviors that, in turn, shape central employee outcomes.

To date, only one study has examined the link between leader mindfulness and positive employee outcomes. Specifically, using a field study design, Reb et al. (2014) found that leader mindfulness went along with higher employee in-role and extra-role performance, employee job satisfaction, and reduced employee stress (i.e., better work life balance and lower emotional exhaustion). Thus, this study provides initial evidence for the positive potential of leader mindfulness and suggests that further research into this topic may be warranted. Reb and Narayanan (2014) suggested that these effects may be due to the positive influence that leader mindfulness may have on leaders' behaviors toward employees (rather than, for example, due to the impact of contextual influences). However, unfortunately, the study could not provide a test of this important assumption.

Against this backdrop, the purpose of the present study is to build and test a model that incorporates leader mindfulness, leaders' behaviors toward employees, and employee outcomes. Specifically, we develop the argument that leader mindfulness is positively related to leaders' procedural justice enactment toward employees which, in turn, leads to reduced employee emotional exhaustion and, ultimately, to higher employee performance. We test this serial mediation model in three studies, including a time-lagged study with different data sources and a laboratory experiment with senior executives. With this focus, our study aims to make several important contributions:

First, it contributes to the nascent study of mindfulness and ethics by identifying mindfulness as a central antecedent of a key ethical behavior in organizations—the enactment of procedural justice toward employees. Indeed, procedural justice is one of the core components of ethical leadership (Brown et al. 2005; Xu et al. 2016), it is based on prevailing ethical standards (Cropanzano and Ambrose 2001; Whiteside and Barclay 2016), and it is a fundamental principle in many organizations (Greenberg 2000; Long 2016). Moreover, leaders' enactment of procedural justice is closely related to desirable employee outcomes including higher performance and lower levels of unethical conduct such as lower deviance (Colquitt et al. 2013). However, despite this importance of leader justice, scholars have noted that we still know surprisingly little about what prompts leaders to enact this ethical behavior and lamented this "critical gap" in our knowledge (Scott et al. 2007, p. 756; see also Brebels et al. 2011; Cornelis et al. 2013). Relatedly, scholars have argued that, theoretically, mindfulness is an important antecedent of ethical behaviors in organizations (Fry and Kriger 2009; Kasser and Sheldon 2009; Marsh 2013). Yet, this assumption is still underexplored in empirical research. By developing and testing the link between mindfulness and procedural justice enactment, we address this limitation in the current ethics and justice literatures.

Second, our study contributes to the emerging field of leader mindfulness by examining the increasingly popular yet largely untested assumption that mindful leadership fosters positive leader behaviors. By linking theories of mindfulness and organizational justice, we develop and test the argument that mindful leaders may be particularly likely to enact procedural justice toward their employees. Indeed, a review of justice theory suggests that procedural justice requires leaders to show central characteristics of mindfulness, including being open to others' views (Thibaut and Walker 1975) and holding an attentive and unbiased stance (Leventhal 1980). Examining such links is important as it can help to better understand fair leadership

behavior—a central concern in organizational settings (Colquitt 2001).

Third, our paper examines the question of whether and how the mindfulness of one person in an organization (i.e., the leader) can influence attitudes and behaviors of other organizational members. By studying interpersonal behaviors and effects, our study goes beyond the scope of most existing research on mindfulness in organizations, which has been guided by the assumption that mindfulness mainly shapes intrapersonal outcomes (Glomb et al. 2011). This is important as organizations are essentially social entities with effective interactions being crucial for their viability and success (Cascio 2012).

Finally, our study also has central practical implications. Specifically, by establishing the links between leader mindfulness, leader behaviors, and follower outcomes, it can inform important practical interventions as organizations increasingly seek to promote ethically responsible leadership behaviors such as procedural justice as well as employee well-being and performance (He et al. 2014). Figure 1 summarizes the theoretical model of our study.

Leader Mindfulness and Leadership Behaviors

Mindfulness has been defined as people's ability to bring their "attention to the experiences occurring in the present moment, in a nonjudgmental or accepting way" (Baer et al. 2006, p. 27). It can be characterized by two central aspects: First, an *attention to the present moment* (Brown et al. 2007). Indeed, mindfulness involves a focus on the here and now rather than reflecting on the past or thinking about the future. Accordingly, being mindful implies an awareness of what is happening in one's environment, including other people, objects, and events (Barnes et al. 2007). In contrast, an absence of mindfulness is characterized by low focus, by doing one's activities in an automatic mode, and by a detachment from one's tasks and experiences (Brown and Ryan 2003). Second, mindfulness involves *a non-judgmental, observing stance*. As such, mindfulness has been described as an orientation that emphasizes accurately perceiving rather than on analyzing, assessing, and quickly judging (Weick and Putnam 2006).

Mindfulness can occur in two different forms—(a) as a trait with rather stable interpersonal differences or (b) as a malleable state that allows mindfulness to be developed and enhanced (Good et al. 2016). From a trait perspective, prior research suggests that people differ in their capacity to be mindful (Davidson 2010). Indeed, several studies have shown that mindfulness is a valuable concept for understanding relatively stable differences in people's attitudes, feelings, and behaviors (Chiesa and Serretti 2009). Other studies have examined mindfulness as a state and suggest that mindfulness can be trained through short mindfulness interventions (e.g., through instructions that steer people's attention to the here and now; Arch and Craske 2006; Long and Christian 2015). Previous research has shown that such interventions can have pronounced positive effects on participants' emotions and actions (Hafenbrack et al. 2014) and that these effects are relatively durable (Huelsheger et al. 2013). Both the trait and state perspectives on mindfulness are seen as equally valid and, in fact, as complementary (Good et al. 2016). To truly examine the effects of mindfulness, it may thus be useful to draw on both approaches—e.g., by measuring trait mindfulness in field studies and by using mindfulness instructions in the laboratory. Hence, in following the example of previous studies, in this paper, we will examine the

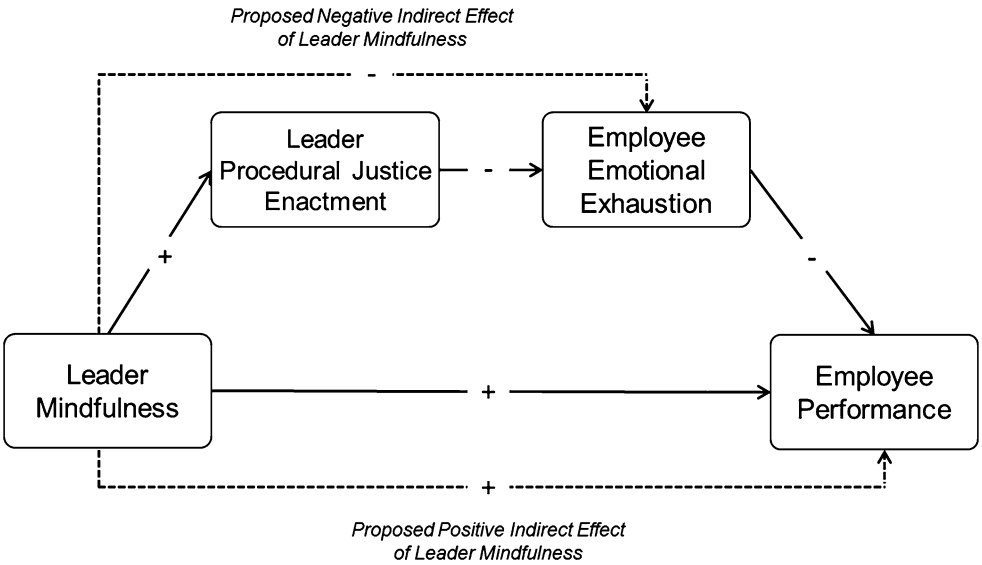

Fig. 1 Hypothesized serial mediation model linking leader mindfulness, leader procedural justice enactment, and key follower outcomes

proposed effects of mindfulness using both operationalizations of mindfulness (Hafenbrack et al. 2014; Long and Christian 2015).

Studying mindfulness is relevant as it has been shown to have beneficial effects in organizational contexts by improving a variety of important employee outcomes (Glomb et al. 2011). In this paper, we suggest that the effects of mindfulness may go beyond such intrapersonal phenomena and have important consequences for the interpersonal domain, especially, for the field of leadership. Indeed, one leadership behavior that seems to be closely linked to the core characteristics of mindfulness is leaders' procedural justice enactment—i.e., the extent to which leaders use fair procedures to make important decisions vis-à-vis their employees (Greenberg 1993). Procedural justice enactment is a central leadership behavior as it captures a key leadership task—i.e., making decisions for their team (Colquitt 2001). Moreover, it has been shown that employees pay close attention to whether leaders use fair procedures when making decisions (Scott et al. 2007). In fact, the procedural fairness of leaders' decision-making has direct implications for employees such as the allocation of tasks, resources, rewards, and punishments (Greenberg 1993).

There are two elements that are at the core of procedural justice: leaders' awareness and openness to employees' opinions (Thibaut and Walker 1975) and the use of unbiased information and procedures (Leventhal 1980; see also Greenberg 1993). We believe that the concepts of mindfulness and procedural justice are closely related with regard to important behavioral and psychological characteristics: First, mindfulness implies an accepting stance toward one's (social) environment and a willingness to perceive—rather than a tendency to judge or to rush to a decision (Brown and Ryan 2003). Holding such an open mindset should foster leaders' preparedness to listen to others' views and ideas. Hence, mindful leaders should be particularly open to their employees' input (Colquitt et al. 2013). In contrast, low mindfulness, which implies a more judging and assessing orientation, may steer leaders toward more quickly evaluating and deciding. Accordingly, it may go along with a tendency to overlook or ignore others' ideas, which in turn should be detrimental to the enactment of procedural justice (Baer et al. 2006). Indeed, some evidence for this idea can be found outside of the management realm. Specifically, clinical and relationship research has linked mindfulness to greater attention, listening, and less evaluative judging among communication partners (Beckman et al. 2012; Wachs and Cordova 2007; Weick and Putnam 2006). As noted above, these qualities should be crucial for enacting procedural justice (Thibaut and Walker 1975).

Second, based on its focus on the here and now, mindfulness may facilitate collecting and using *unbiased* information, a central prerequisite of procedural justice (Leventhal 1980). Focusing on the present moment is key to reduce peripheral and superficial information processing and biases that may arise from automatic judgments (Moberg 2006). In contrast, low mindfulness implies a detachment from one's current tasks and a tendency to be easily distracted (Brown and Ryan 2003). This may distort the collection and appraisal of information and may result in deterred and inconsistent decisions. Indeed, some previous studies suggest that heightened mindfulness may go along with lower levels of cognitive biases including sunk-cost fallacies and self-serving tendencies (Hafenbrack et al. 2014; Ruedy and Schweitzer 2010). We believe that these effects of mindfulness can support the enactment of fair procedures—as consistent and debiased decision-making toward others is at the heart of procedural justice (Greenberg 1993).

Third, ethical leadership behaviors such as enacting procedural justice are not without cost for the leader (Johnson et al. 2014). Being open to employees and involving them in decision-making procedures opens the possibility of contradictory views, increased complexities, and often goes along with time delays (Burris 2012). Hence, enacting procedural justice requires self-regulatory effort and can deplete leaders' resources (Lin et al. 2016). Mindfulness may help leaders to cope with these challenges. Indeed, mindfulness has been linked to conservation and quicker recovery of depleted resources—both of which are crucial to maintain self-regulation (Glomb et al. 2011; Huelsheger et al. 2013). Hence, we expect that mindfulness may aid leaders to effectively deal with the demands that can be part of enacting fair procedures. Some evidence for this idea can be found in recent studies, which suggest that environmental strain has less negative effects on ego-resources for individuals with high rather than low mindfulness (Long and Christian 2015; Roeser et al. 2013). In summary, based on our reasoning, we hypothesize:

Hypothesis 1 Leader mindfulness will be positively related to leader enactment of procedural justice toward employees.

Linking Leader Mindfulness, Leader Behaviors, and Employee Outcomes

Although proposing and testing the link between leader mindfulness and leader enactment of procedural justice addresses an important gap in the literature, it is also crucial to understand whether the behaviors of mindful leaders ultimately relate to central employee outcomes. In this study, by building on and extending initial evidence, we propose that employees of mindful leaders may show lower emotional exhaustion and higher performance *because of* leaders' procedural justice toward them.

Emotional exhaustion describes a sense of physical fatigue and mental weariness and is one of the central indicators of employees' stress and well-being in organizational research (Maslach et al. 2001). Prior studies suggest that employees' emotional exhaustion is strongly influenced by leadership behaviors. Specifically, it is often caused by the presence of uncertainty and a lack of control (Sonnentag et al. 2010). Fairness models suggest that leaders' enacting of procedural justice makes important outcomes controllable in the eyes of employees. In addition, leaders' procedural justice provides employees with the opportunity to voice their views and interests before crucial decisions. In contrast, not being able to express one's interests and views fosters a sense of dependability. As Lind and Van den Bos (2002) noted, "What appears to be happening is that people use fairness to manage their reactions to uncertainty, finding comfort in related or even unrelated fair experiences and finding additional distress in unfair experiences" (p. 216). Moreover, enacting procedural justice also signals that employees are supported by organizations and leaders. High procedural justice communicates a leader's esteem for an employee, whereas low procedural justice signals disregard (Tyler and Lind 1992). As a result, if leaders show procedural justice, employees feel that valuable resources are secured and experience less emotional exhaustion. In contrast, procedural justice violations impose threats on employees because they feel insecure about their outcomes and standing in their team.

In support of this view, prior studies suggest a negative relationship between procedural justice and employees' emotional exhaustion. For example, Cole et al. (2010) found that when employees perceive organizations to have high procedural justice, they are less likely to experience emotional exhaustion. Combining these findings with the rationale for Hypothesis 1 suggests that leader mindfulness may have an indirect effect on employees' emotional exhaustion. Specifically, it suggests that employees of leaders with high mindfulness may experience lower levels of emotional exhaustion as their leaders are more likely to engage in procedurally fair behaviors—as compared to leaders with low levels of mindfulness. In summary, we hypothesize:

Hypothesis 2 Leader mindfulness will be negatively related to employee emotional exhaustion through the mediating influence of leader procedural justice enactment.

A Serial Mediation Model of Leader Mindfulness

Although emotional exhaustion indicates a state of poor employee health and, as such, is an important outcome variable in its own right, it has also attracted considerable attention from scholars and practitioners due to its link to lower employee performance (Halbesleben and Bowler 2007). When emotional exhaustion is high, employees experience an aversive state of depleted physical, cognitive, and emotional resources (Maslach and Leiter 2008). They are motivated to avoid the loss of additional resources and thus engage in withdrawal coping mechanisms and lower engagement with their tasks at work (Shirom 2003). As Maslach et al. (2001, p. 403) noted, "exhaustion is not something that is simply experienced—rather, it prompts actions to distance oneself emotionally and cognitively from one's work." This depletion of resources, combined with a withdrawal from one's tasks, is likely to result in lower job performance. In contrast, low emotional exhaustion is associated with a high sense of being rested and energetic that is conductive to high performance. Past work supports this view (Halbesleben and Bowler 2007; Wright and Bonett 1997). For example, Halbesleben and Bowler (2007) found that employees with high emotional exhaustion showed lower levels of job performance.

Considering these findings together with our reasoning and hypotheses above suggests a serial mediation model linking leader mindfulness and employee performance. Specifically, they suggest that leader mindfulness may relate to increased enactment of procedural justice toward employees, which, in turn, reduces employee emotional exhaustion and, ultimately, promotes employee job performance. This mediation chain is in line with the notion that leadership behaviors that enhance employee participation can foster employee performance (Newman et al. 2016). Moreover, the link between emotional exhaustion and work performance is consistent with the idea that emotional states have strong effects on subsequent behaviors (Miner and Glomb 2010). In sum, we therefore hypothesize:

Hypothesis 3 Leader mindfulness will be positively related to employee job performance through the mediating influence of leader procedural justice enactment and, in turn, employee emotional exhaustion.

Overview of Studies

We tested the proposed model in two field studies and one laboratory experiment. In Study 1, we surveyed US employees from a variety of industries and organizations. Study 2 was a multisource field study conducted among Chinese leaders and employees, in which we applied a time-lagged design and measured the independent variables, mediators, and outcomes at three different points in time. Finally, in Study 3, we experimentally manipulated mindfulness and examined the effects on procedural justice

enactment of 62 executives from various Chinese organizations. Although mindfulness has its roots in Eastern cultures, most mindfulness research to date has been conducted in Western societies (especially in the USA) and mindfulness research in Asian countries is still sparse (for recent exceptions, see Christopher et al. 2009; Reb et al. 2016). We thus believe that conducting three studies with different designs and in two different countries can help to bolster the confidence in the proposed effects of mindfulness (Chatman and Flynn 2005).

Study 1

Method

Participants and Design

To reach employees from a wide range of occupations and industries, we recruited participants through Amazon's Mechnical Turk (AMT). AMT provides a subject pool representative of the US population (Buhrmester et al. 2011). Only respondents who worked with a direct supervisor were invited for this study. Two-hundred seventy-seven employees participated in return for .5 US dollars. We excluded two participants from our analyses because they did not complete the full survey. Eighty-one percent of participants were Caucasian, 6% were African American, 6% were Hispanic/Latino, 4% were Asian, 1% were Native American, and 2% were mixed. Fifty-one percent of participants were men, and average age was 38.41 years (SD = 11.94). The average age of supervisors was 45.96 years (SD = 10.66); 52% were male. The average dyadic tenure with the supervisor was 4.33 years (SD = 5.51). Participants worked in various sectors with the most frequent ones being healthcare/pharmaceuticals (16%), technology/telecommunications (10%), and consumer products (9%).

Measures

We asked participants to answer all items referring to their situation at work. Specifically, we instructed them to rate the items on leader mindfulness and leader procedural justice enactment referring to their direct supervisor at work. Moreover, we asked them to rate the items on emotional exhaustion and performance referring to their own feelings/behaviors at work.

Leader Mindfulness

We measured leader mindfulness with the established scale by Brown and Ryan (2003) that has frequently been used in earlier studies (e.g., Hoefling et al. 2011; Huelsheger et al. 2013; Roche et al. 2014). In line with previous research (Grant et al. 2009), we used the five items with the highest factor loadings. These items were "My supervisor rushes through activities without being really attentive to them," "It seems that my supervisor is 'running on automatic' without much awareness of what s/he is doing," "My supervisor does jobs or tasks automatically, without being aware of what s/he is doing," "My supervisor drives places on 'automatic pilot' and then wonder why s/he went there," and "My supervisor finds him-/herself doing things without paying attention" (all items were reverse-coded). Items were rated on a seven-point scale from 1 = *almost always* to 7 = *almost never* (Cronbach's α = .94).

Leader Procedural Justice Enactment

To measure leader procedural justice enactment, participants rated the widely used seven-item scale by Colquitt (2001). In line with the original scale, respondents were asked to answer the items referring to important decisions of their supervisor. Specifically, respondents read the following instruction: "The following items refer to the procedures your immediate supervisor uses to make decisions about pay, rewards, evaluations, promotions, assignments, etc." They then answered to items such as "Are you able to express your views during those procedures?" and "Do those procedures uphold ethical and moral standards?" Items were rated on a seven-point scale from 1 = *to a very small extent* to 7 = *to a very large extent* (Cronbach's α = .82).

Employee Emotional Exhaustion

We assessed employee emotional exhaustion with the well-established five-item scale by Maslach and Jackson (1981). Sample items are "I feel emotionally drained from my work" and "I feel used up at the end of the workday." Items were rated on a seven-point scale from 1 = *strongly disagree* to 7 = *strongly agree* (Cronbach's α = .94).

Employee Performance

To measure employee performance, we used the established five-item scale by Van Dyne and LePine (1998). Participants were asked to rate their work performance on items such as "Quantity of work output" and "Quality of work output." Items were rated on a seven-point scale from 1 = *very much does not meet my supervisor's performance expectations* to 7 = *very much exceeds my supervisor's performance expectations* (Cronbach's α = .82).

Controls

We controlled for the supervisor's organization tenure and gender because these variables have been found to be

Table 1 Means, standard deviations, Cronbach's alpha, and correlations for Study 1

	M	SD	1	2	3	5	6	7
1. Leader gender[a]	1.48	.50	–					
2. Leader organization tenure	9.90	9.00	−.07	–				
3. Leader mindfulness	5.10	1.38	.11	.06	(.94)			
4. Leader procedural justice enactment	3.90	1.13	.02	.04	.37**	(.82)		
7. Employee emotional exhaustion	3.72	1.69	−.05	−.07	−.36**	−.44**	(.94)	
8. Employee performance	5.58	.91	.09	.03	.24**	.39**	−.37**	(.82)

$n = 275$ employees. Reliabilities are reported in the diagonal

[a] 1 = male, 2 = female

* $p < .05$. ** $p < .01$. *** $p < .001$. Two-tailed

theoretically and empirically related to leader procedural justice enactment (Colquitt et al. 2002; Cornelis et al. 2013).

Analysis and Results

Confirmatory Factor Analysis

First, as all variables were measured from employees, we conducted confirmatory factor analysis (CFA) to test whether the variables were empirically distinct. Results show that our four-factor measurement model (leader mindfulness, leader procedural justice enactment, employee emotional exhaustion, and employee performance) had an adequate fit with the data ($\chi^2 = 419.22$; $df = 198$; CFI = .95; RMSEA = .06). We compared the indices to three plausible alternative models—specifically, to three three-factor models that combined into one factor (a) the independent variable and the first mediator (leader mindfulness and leader procedural justice enactment), (b) the first mediator and the second mediator (leader procedural justice enactment and employee emotional exhaustion), and (c) the second mediator and the outcome into one factor (employee emotional exhaustion and performance). We also calculated the fit statistics of a model that combined all four variables. Results show that the measurement model fit the data significantly better than all four alternative models (all $ps < .001$). The best-fitting alternative model was the three-factor model that combined employee emotional exhaustion and performance ($\chi^2 = 813.10$; df = 201; CFI = .85; RMSEA = .11; $\Delta\chi^2$ to the measurement model = 393.88; df = 3; $p < .001$). These results indicate adequate discriminant validity of our model variables.

Hypotheses Tests

To test the hypothesized model, we conducted hierarchical linear regression analysis. Moreover, we followed the procedure by Taylor et al. (2008) to test for serial mediation (see also Hayes 2013). This procedure has repeatedly been used in recent studies (Fisher et al. 2012; Kovjanic et al. 2013; see also MacKinnon et al. 2002) and involves several steps: First, to test Hypothesis 1, we regressed leader procedural justice enactment on the independent variable (leader mindfulness). Second, to examine Hypothesis 2 (the indirect effect of leader mindfulness on employee emotional exhaustion via procedural justice enactment), we regressed the second mediator (employee emotional exhaustion) on the first mediator (leader procedural justice enactment), while controlling for the independent variable (leader mindfulness). Moreover, we examined the proposed indirect effect by estimating bias-corrected confidence intervals (CIs) using bootstrap analysis (5000 bootstrap samples; Taylor et al. 2008). We conducted these analyses using the PROCESS program by Hayes (2013). Finally, to test Hypothesis 3 (the indirect effect of leader mindfulness on employee performance via procedural justice enactment and emotional exhaustion), we regressed the outcome (employee performance) on the second mediator (emotional exhaustion) while controlling for the independent variable and the first mediator (leader mindfulness and procedural justice enactment). Again, we examined the proposed indirect effect by estimating bias-corrected confidence intervals using bootstrap analysis (Hayes 2013; Taylor et al. 2008).

Results

Descriptive statistics and correlations are presented in Table 1. The results of the hypotheses tests are shown in Table 2. First, results revealed that leader mindfulness significantly predicted leader procedural justice enactment. In line with Hypothesis 1, leaders who were perceived as being more mindful showed higher levels of procedural justice toward their employees than leaders who were less mindful ($b = .31$, SE = .05, $p < .001$). Second, we found that leaders' procedural justice enactment was significantly and negatively related to employee emotional exhaustion. Employees reported lower emotional exhaustion when

Table 2 Hypotheses tests: results of regression and indirect effects analyses for Study 1

	Model 1		Model 2		Model 3	
	DV: Leader procedural justice enactment		DV: Employee emotional exhaustion		DV: Employee performance	
	b	SE	*b*	SE	*b*	SE
Intercept	2.37***	.30	7.38	.47	4.95***	.35
Leader gender[a]	−.04	.13	−.09	.18	.12	.10
Leader organization tenure	.00	.01	−.01	.01	−.00	.01
Leader mindfulness	.31***	.05	−.27***	.07	.03	.04
Leader procedural justice enactment			−.53***	.09	.21***	.05
Employee emotional exhaustion					−.12***	.03
R^2	.14***		.24***		.21***	
df	3, 271		4, 270		5, 269	
Direct effect[b]			−.27**	.07	.03	.04
Indirect effect[c]			−.16*	.04	.02*	.01
CI of indirect effect			[−.17,−.10]		[.01, .04]	

$n = 275$ employees. Unstandardized regression coefficients are reported

CI confidence interval

[a] 1 = male, 2 = female

[b] Direct effect of leader mindfulness on employee emotional exhaustion and direct effect of leader mindfulness on employee performance

[c] Indirect effect of leader mindfulness on employee emotional exhaustion transmitted through leader procedural justice enactment (Model 2) and indirect effect of leader mindfulness on employee performance transmitted through leader procedural justice enactment and emotional exhaustion (Model 3)

* $p < .05$. ** $p < .01$. *** $p < .001$. Two-tailed

leaders enacted fair procedures toward their employees ($b = -.53$, SE = .09, $p < .001$). Moreover, results of the bootstrapping analysis supported the proposed indirect effect of Hypothesis 2 that leader mindfulness was indirectly and negatively related to employee emotional exhaustion via procedural justice enactment (point estimate $b = -.16$; 95% CI = [−.17, −.10]). Third, results showed that employees' emotional exhaustion was negatively related to employee performance. Employee performance was significantly lower when employees were exhausted rather than when they experienced relatively low levels of exhaustion ($b = -.12$, SE = .03, $p < .001$). Moreover, the results of the bootstrap analyses revealed that leader mindfulness had a positive and significant indirect effect on employee performance. Specifically, in line with Hypothesis 3, results showed that this indirect effect was serially mediated by leader procedural justice enactment and employee emotional exhaustion (point estimate $b = .02$; 95% CI = [.01, .04]).

Supplemental Analyses

Previous research suggests that leaders can enact multiple forms of justice (Greenberg 1993). Besides procedural justice, extant research has often discussed the forms of distributive justice (i.e., whether decision outcomes are fair), interpersonal justice (i.e., the propriety and dignity in decisions), and informational justice (i.e., the degree of truthfulness and justification in decisions; Colquitt 2001; Cropanzano and Ambrose 2001). These four forms of justice enactment tend to be empirically related (Colquitt et al. 2013). Hence, to explore discriminant validity and to provide further evidence for the proposed model, we conducted our analyses also with these other forms of justice enactment (i.e., distributive justice, interpersonal justice, and informational justice) as measured with the widely established scales by Colquitt (2001)[1]. Results showed that

[1] For the justice scales, we used the following introduction texts and items adapted from Colquitt 2001: For the items on *distributive justice*, participants were asked to refer to "the outcomes that you receive from your job, such as pay, rewards, evaluations, promotions, assignments, etc." They then responded to items such as "To what extent do those outcomes reflect the effort that you put into your work?" and "To what extent do those outcomes reflect what you contribute to the organization?" (Cronbach's $\alpha = .94$). For interpersonal justice, participants were asked to refer to "the interactions you have with your supervisor as decision-making procedures (about pay, rewards, evaluations, promotions, assignments, etc.) are implemented." They then responded to items such as "To what extent does your supervisor treat you in a polite manner?" and "To what extent does your supervisor treat you with dignity?" (Cronbach's $\alpha = .86$). For informational justice, the introduction is "questions

the hypothesized links between leader mindfulness, leader procedural justice enactment, emotional exhaustion, and employee performance were significant even when we controlled for the other three justice forms. Moreover, we found that the proposed model did not hold for any of the other forms of justice enactment. Specifically, results showed that mindfulness was significantly correlated with distributive justice enactment ($r = .31$), interpersonal justice enactment ($r = .46$), and informational justice enactment ($r = .49$). However, these three forms of justice did not mediate the proposed links between leader mindfulness, emotional exhaustion, and employee performance.

Discussion

The results of Study 1 are consistent with our hypotheses that leader mindfulness relates to positive employee job performance via increased procedural justice enactment and reduced employee emotional exhaustion. In particular, we found that leader mindfulness was positively related to leaders' enactment of procedural justice, which, in turn, went along with lower emotional exhaustion and subsequent higher performance of employees. These findings are important as they contribute to three emerging areas of mindfulness research. Indeed, they provide first evidence for the link between leader mindfulness and positive leader behaviors. Moreover, they suggest that mindfulness influences a central form of ethical conduct in organizations—i.e., procedural justice. Finally, they indicate that mindfulness effects can spillover to the social domain of organizational life.

Even though the results of Study 1 support our model, they need to be considered in light of some limitations. First, we measured all variables from one source, which may give rise to concerns of common method variance (Podsakoff et al. 2012). Second, we measured all variables at the same point in time, which does not follow the flow implied in our model. Therefore, we conducted a second study to test whether we can replicate our findings in a time-lagged setting using a multisource design.

Footnote 1 continued
below refer to the explanations your supervisor offers as decision-making procedures (about pay, rewards, evaluations, promotions, assignments, etc.) are implemented." Sample items included: "To what extent is your supervisor candid when communicating with you?" and "To what extent does your supervisor tailor communications to meet your personal needs?" (Cronbach's $\alpha = .93$). All items were rated on a five-point scale from 1 = *to a very small extent* to 5 = *to a very large extent*.

Study 2

Method

Participants and Design

The focal level of analysis was the team leader. Leaders rated their personal mindfulness and their employees' performance. Employees rated their leaders' behavior (i.e., procedural justice enactment) and their own feelings of emotional exhaustion. We collected a heterogeneous sample of 54 team leaders and 182 employees from various organizations in China. The average age of leaders was 41.83 years (SD = 4.29). Seventy-three percent were male. They had on average 12.89 years of leadership experience (SD = 4.38) and an average organizational tenure of 9.72 years (SD = 5.94). They worked in various sectors with the most frequent ones being technology/telecommunications (14%), consumer products (14%), and healthcare/pharmaceuticals/biotech (11%). The average age of employees was 35.35 years (SD = 6.01). Fifty-four percent were male. They had worked in their teams for on average 4.69 years (SD = 3.15) and in their organizations for on average 6.95 years (SD = 4.97). The average dyadic tenure with their supervisor was 5.25 years (SD = 2.81).

Procedure

We recruited team leaders in an executive program at a major university in eastern China. The program was targeted at senior managers. As a part of a leadership course, a total of 104 team leaders were invited to take part in a study on "leadership behaviors at work" and they were assured that their data would be treated confidentially. No incentives were paid for taking part in this study. We received completed questionnaires from 54 team leaders and at least three of their subordinates (response rate: 52%). Previous research indicates that three subordinate responses provide an adequate basis to assess leader behaviors (Mayer et al. 2009; Schneider et al. 2005).

We collected data in three stages. During stage 1, we examined the independent variable, leader mindfulness. We asked leaders to fill in an online survey and provide us with contact information of at least five direct subordinates. In phase 2, about two weeks later, we contacted the subordinates and asked them to complete an online survey. This survey measured leader procedural justice enactment and employee emotional exhaustion. During phase 3, another two weeks later, we asked leaders to rate employee performance.

Measures

We presented all items in Mandarin Chinese. Following the procedure by Brislin (1980), a bilingual researcher translated all English items into Chinese. Another research translated the items back into English. Comparison showed high levels of translation accuracy. Smaller discrepancies in translations were resolved through discussions. We instructed leaders and employees to answer all items referring to their feelings and behaviors at work.

Leader Mindfulness

We measured leaders' mindfulness with the same five-item scale that we used in Study 1 (Brown and Ryan 2003). Leaders rated the items on a five-point scale from 1 = *almost always* to 5 = *almost never* (Cronbach's $\alpha = .86$).

Leader Procedural Justice Enactment

Leaders' enactment of procedural justice was measured from the employees. We used the same seven-item scale by Colquitt (2001) as in Study 1. In line with the original scale by Colquitt (2001), respondents were asked to answer the items referring to important decisions of their supervisors. Employees then responded to items such as "Are you able to express your views during those procedures?" and "Do those procedures uphold ethical and moral standards?" Items were rated on a five-point scale from 1 = *to a very small extent* to 5 = *to a very large extent*. The reliability of the scale was Cronbach's $\alpha = .80$. Moreover, interrater agreement of $r_{wg} = .96$ exceeded the cutoff value of .70 (James et al. 1984). It shows that employees strongly agreed in the assessment of their leaders' behaviors (Bliese 2000). Moreover, interclass correlations (ICCs) were .45 (ICC[1]) and .60 (ICC[2]). These values are at the higher end of what is typically found in organizational research and supports aggregation (Bliese 2000; Liao and Chuang 2007). We thus aggregated employees' ratings of their leaders' procedural justice enactment.

Employee Emotional Exhaustion

As in Study 1, we measured emotional exhaustion with the same five-item scale by Maslach and Jackson (1981). Employees rated these items on a five-point scale from 1 = *strongly disagree* to 5 = *strongly agree* (Cronbach's $\alpha = .93$). Employees' interrater agreement was high with $r_{wg} = .88$ (James et al. 1984). Moreover, interclass correlations were .36 (ICC[1]) and .55 (ICC[2]) and again at the higher end of typical ICC values (Liao and Chuang 2007). We thus aggregated employees' responses.

Employee Performance

To measure employee performance, we used the established three-item scale by De Jong and Elfring (2010). It provides an aggregated measure of employee performance. Leaders responded to items such as "How do you rate the amount of work that your team accomplishes?" and "How do you rate the quality of work that your team accomplishes?" Items were rated on a five-point scale from 1 = *poor* to 5 = *superb* (Cronbach's $\alpha = .77$).

Control Variables

As in Study 1, we controlled for the leaders' organization tenure and gender (Colquitt et al. 2002; Cornelis et al. 2013).

Analyses

We conducted our analyses at the level of the team/leader. We followed this approach because it allowed us to examine the proposed indirect relationship between the leader mindfulness and team performance—both of which are level 2 variables. Accordingly, we aggregated employees' perceptions of leader procedural justice enactment and employee emotional exhaustion to the team level. This approach was supported by the aggregation statistics for these variables. Moreover, this approach is also in line with previous studies on procedural justice enactment and emotional exhaustion, which showed that these variables can be conceptualized as team-level phenomena and are "capable of reflecting differentiation between work units" (Moliner et al. 2005; p. 106; see also Ambrose et al. 2013; Colquitt et al. 2002; Mayer et al. 2009). Nevertheless, we also conducted multi-level analysis to examine whether our results also hold using this approach. Specifically, by conceptualizing procedural justice enactment and emotional exhaustion at the level of the individual employee, we were able to examine the proposed links between leader mindfulness (level 2), leader procedural justice enactment (level 1), and employee mindfulness (level 1) also within a multi-level framework. The results were consistent with our hypotheses and with the results for the aggregated model that we report below.[2]

[2] Specifically, in line with our hypotheses, the results of these analyses showed that leader mindfulness was significantly related to procedural justice enactment ($\gamma = .20$, SE = .07, $p < .01$). Procedural justice enactment, in turn, was significantly related to employee emotional exhaustion, even after controlling for leader mindfulness ($\gamma = -.48$, SE = .12, $p < .001$). Finally, results of a bootstrapping analysis supported the proposed indirect effect that leader mindfulness was indirectly and negatively related to employee emotional

Table 3 Means, standard deviations, Cronbach's alpha, and correlations for Study 2

	M	SD	1	2	3	4	5	6
1. Leader gender[a]	1.27	.45	–					
2. Leader organization tenure	9.72	5.95	−.48**	–				
3. Leader mindfulness	4.26	.60	.07	−.04	(.86)			
4. Leader procedural justice enactment	3.70	.52	.00	−.13	.23**	(.80)		
5. Employee emotional exhaustion	2.23	.85	.10	−.12	−.19*	−.30***	(.93)	
6. Employee performance	4.09	.56	.32**	.12	.20**	.16*	−.21**	(.77)

$n = 54$ leaders and 182 employees. Reliabilities are reported in the diagonal

[a] 1 = male, 2 = female

* $p < .05$. ** $p < .01$. *** $p < .001$. Two-tailed

Table 4 Hypotheses tests: results of regression and indirect effects analyses for Study 2

	Model 1		Model 2		Model 3	
	DV: Leader procedural justice enactment		DV: Employee emotional exhaustion		DV: Employee performance	
	b	*SE*	*b*	*SE*	*b*	*SE*
Intercept	4.38***	.25	5.82***	.80	3.24*	1.42
Leader gender[a]	−.14	.12	.03	.14	.63**	.17
Leader organization tenure	−.02	.01	−.02	.01	.03*	.01
Leader mindfulness	.19*	.08	−.06	.10	.05	.12
Leader procedural justice enactment			−.95***	.17	.15	.27
Employee emotional exhaustion					−.32[†]	.18
R^2	.16*		.47***		.31**	
df	3, 50		4, 49		5, 48	
Direct effect[b]			−.06	.10	.03	.04
Indirect effect[c]			−.18*	.07	.06*	.04
CI of indirect effect			[−.33, −.05]		[.01, .17]	

$n = 54$ leaders and 182 employees. Unstandardized confidents are reported

CI confidence interval

[a] 1 = male, 2 = female

[b] Direct effect of leader mindfulness on employee performance

[c] Indirect effect of leader mindfulness on employee emotional exhaustion transmitted through leader procedural justice enactment (Model 2) and indirect effect of leader mindfulness on employee performance transmitted through leader procedural justice enactment and emotional exhaustion (Model 3)

[†] < .10. * $p < .05$. ** $p < .01$. *** $p < .001$. Two-tailed

Results

Descriptive statistics, reliabilities, and intercorrelations are reported in Table 3. Consistent with Study 1, to test our hypotheses, we conducted hierarchical linear regression analysis and followed the procedure by Taylor et al. (2008) for serial mediation models, including bias-corrected bootstrapping analysis. The results are described in Table 4.

First, in support of Hypothesis 1, results revealed that leader mindfulness significantly predicted leader procedural justice enactment. Leaders who reported higher levels of mindfulness showed higher levels of procedural justice than leaders with lower levels of mindfulness

Footnote 2 continued
exhaustion via procedural justice enactment (point estimate = −.10; 95% CI = [−.19, −.02]). Hence, these results of the multilevel analysis are consistent with the results for the aggregated model.

($b = .19$, SE $= .08$, $p < .05$). Second and consistent with Hypothesis 2, we found that leaders' procedural justice enactment was significantly and negatively related to employees' emotional exhaustion. Employees reported lower emotional exhaustion when leaders enacted fair procedures toward them ($b = -.95$, SE $= .17$, $p < .001$). Moreover, results of the bootstrapping analysis supported the proposed indirect effect of Hypothesis 2 that leader mindfulness was indirectly and negatively related to employee emotional exhaustion via procedural justice enactment (point estimate $b = -.18$; 95% CI $= [-.33, -.05]$). Third, employee performance was marginally lower when employees were exhausted than when they experienced relatively low levels of exhaustion ($b = -.32$, SE $= .18$, $p = .07$; one-tailed $p = .04$). Moreover, the results of the bootstrap analyses revealed that leader mindfulness had a positive and significant indirect effect on employee performance. Specifically and in line with Hypothesis 3, results showed that this indirect effect was serially mediated by leader procedural justice enactment and employee emotional exhaustion (point estimate $b = .06$; 95% CI $= [.01, .17]$).

Discussion

Study 2 provided additional support for the links proposed in our theoretical model. Specifically, we found that leader mindfulness was positively related to leaders' enactment of procedural justice which, in turn, went along with lower emotional exhaustion and improved employee among employees. These findings are important as they provide support for the proposed links between leader mindfulness, leader behavior, and employee outcomes in a more rigorous design, using measurements from multiple sources and at different points in time.

Nevertheless, this study is not without its limitations. Despite the time lags, it is still correlational in nature and hence does not allow for causal inferences. Moreover, we cannot rule out that contextual variables (rather than leader mindfulness) may have fostered the link between our model variables. Accordingly, we conducted a laboratory experiment to provide further evidence for the central and novel link in our model—the relationship between leader mindfulness and procedural justice enactment. As noted by several scholars, field research and experimental studies can effectively complement each other as the strengths and weaknesses are effectively balanced (i.e., external validity in field studies and internal validity in laboratory experiments; Chatman and Flynn 2005).

Study 3

Method

Procedure and Participants

For this experimental study, we recruited 62 senior managers from various organizations in China. This experiment was part of a leadership course. Participation was voluntary and no incentive was paid. We closely followed the procedure of previous mindfulness experiments (Arch and Craske 2006; Hafenbrack et al. 2014; Kiken and Shook 2011; Long and Christian 2015). We applied a between-subject design, and participants were randomly assigned to one of two conditions—an experimental condition (mindfulness) and a control condition (unfocused attention). Participants were enrolled in an executive program at a leading business school in eastern China. Their average age was 39.60 years (SD $= 5.64$) and 55% were male. On average, they had 10.89 years of leadership experience (SD $= 4.24$) and were directly responsible for 12.19 employees (SD $= 9.57$). They worked in various industries with the most frequent sectors being industrial products (34%), consumer goods (11%), and telecommunications (10%).

We conducted this study in a controlled laboratory environment. At the beginning of the study, to minimize demand characteristics, participants were told that they took part in two exercises: a relaxation study and a leadership study. Then, participants listened to either a mindfulness or a control induction that were presented through pre-recorded audio clips. Afterward, participants completed a survey containing the manipulation checks for mindfulness and measures of procedural justice enactment. Finally, they were thanked and debriefed.

Manipulation

We adopted our manipulations from previous studies (Arch and Craske 2006; Kiken and Shook 2011). They are well established and can effectively induce mindful states (Hafenbrack et al. 2014). The manipulations lasted for ten minutes. They begin with a two-minute instructional segment, followed by an eight-minute practice segment, interspersed with three brief reminders at two-minute intervals. Consistent with previous studies, participants in the control condition listened to instructions of unfocused attention, an induction that is often used as a baseline condition in mindfulness research (Arch and Craske 2006; Hafenbrack et al. 2014; Kiken and Shook 2011; Long and Christian 2015). To ensure that the manipulations of the

two conditions were comparable, the structure of the recording in the control condition paralleled that of the mindfulness induction, with two minutes of instruction followed by eight minutes of practice. Specifically, the instruction in the mindfulness condition was as follows:

> We are going to use your breathing to anchor your attention in your present experience, by noticing the qualities of each breath as it unfolds. Start by bringing your attention to your belly and chest—wherever you feel your breath moving in your torso—feel this area rise or expand gently as you breathe in, and then feel it fall or draw back as you breathe out. Then continue to observe the feelings of each breath in and out, without trying to control your breathing if you can. The point is to be aware of your breathing, something we usually do without much awareness, feeling how it feels as it flows in and flows out.

In the control condition, the instructions were:

> We are going to ask you to think about whatever comes to mind, without having to focus on anything in particular. Take this time to follow your thoughts and feelings—whatever you want to think about—as you do when you have time to think things through thoroughly. For example, sometimes we think about ideas for later in the day or week to organize our plans. Or, sometimes we think about something that happened earlier in our day. You may have a lot to think about, maybe important things, or your mind might just wander to anything. Either way, take time to think about whatever you want. Just let your mind think and wander freely.

We translated all instructions and manipulations for this study into Mandarin Chinese using the back-translation procedure proposed by Brislin (1980). A bilingual researcher translated the materials from English to Mandarin Chinese. A second bilingual researcher translated the materials back to English. Comparisons of the original and back-translated versions showed high levels of agreement. Minor dissimilarities were resolved through discussion. To ensure the quality of the audio instructions, a professional meditation coach was hired to record the two different audio recordings.

Measures

Unless otherwise stated, items were measured on five-point scales (1 = *strongly disagree;* 5 = *strongly agree*).

Leader Mindfulness Manipulation Check

Following the audio clip, participants rated their experience in the relaxation exercise using two items, adapted from Long and Christian (2015). Specifically, they were asked whether they "focused on the present" and whether "they thought about anything they wanted (reversed coded)" ($r = .49$; $p < .001$).

Leader Procedural Justice Enactment

To measure leader procedural justice enactment, we adapted the scenario from Zhao et al. (2015). Specifically, participants read the following scenario: "In your team, traditionally, an employee's bonus was about 30% of his/her annual salary; but for the current year, you need to cut it at least in half." Participants then rated the widely used seven-item scale by Colquitt (2001) to indicate their procedural justice level during their decision-making process. Sample items are: "My subordinate would be able to express views and feelings during those procedures." and "I would apply those procedures consistently." (Cronbach's $\alpha = .70$). We instructed the participants to rate the items referring "to the last follower that you talked to before working on this survey" before they responded to the items referring to the focal follower (i.e., procedural justice enactment toward the follower). In doing so, we ensured that choosing the focal follower would be rather random (Chun et al. 2009).

Results

Manipulation checks

To test the effectiveness of our manipulation, we conducted a *t* test with the experimental condition as the independent variable and the leader mindfulness manipulation check as the dependent variable. Results showed a significant main effect of the experimental condition, $t(60) = 2.40$, $p < .05$, $\eta^2 = .09$. Participants in the mindfulness condition reported significantly higher mindfulness ($M = 3.21$, SD = .84) than participants in the control condition ($M = 2.73$, SD = .73). Thus, our manipulation of mindfulness was successful.

Hypothesis Testing

To test our hypothesis that leader mindfulness is related to procedural justice enactment, we conducted another *t* test with the experimental condition as the independent variable and leader procedural justice enactment as the dependent variable. Results showed a significant main effect of the experimental condition, $t(60) = 2.81$, $p < .01$, $\eta^2 = .12$. Consistent with our hypothesis, procedural justice enactment was significantly higher in the mindfulness condition ($M = 4.04$, SD = .38) than in the control condition ($M = 3.74$, SD = .45).

Discussion

In Study 3, we sought to provide additional evidence for a central link in our model—the link between leader mindfulness and leader procedural justice enactment. Using an experimental design, we found that leaders high in mindfulness showed more procedural justice enactment toward employees than leaders low in mindfulness. This finding is important because it provides first empirical support for the proposed causal effect of leader mindfulness on positive leader behaviors. One limitation of this study may be that the experimental scenario was rather short and relied on a self-reported measure of leader procedural justice enactment. However, we drew this scenario from previous research, which had shown that it offers a valid approach to capture procedural justice enactment (Zhao et al. 2015). Moreover, by using senior executives with substantial leadership experience as our participants and by asking them to reflect on their behaviors toward one of their actual followers (rather than toward a fictional employee), this study provides good ecological validity.

General Discussion

Recent years have seen a strong and increasing interest in the study of mindfulness. Indeed, even though it is still a relatively new concept in organizational research, mindfulness is regarding as a promising variable to foster employee performance, ethical conduct, and well-being (Good et al. 2016; Reb and Atkins 2015). In this study, we sought to extend our understanding of mindfulness by examining the effects of mindfulness in the domain of leadership. Across three studies, we found that leader mindfulness was positively related to leaders' enactment of procedural justice. Moreover, we found that leader mindfulness was indirectly related to employee performance via a serial mediation model—transmitted through leader procedural justice enactment and reduced employee emotional exhaustion. These findings have important implications for theory and practice.

Theoretical Implications and Future Directions

First, our findings contribute to the mindfulness literature by showing that leader mindfulness is indeed related to a central leadership behavior, i.e., the degree to which leaders engage in fair procedures toward their employees. This finding is important because leaders act as multipliers in organizations with their mindsets and actions influencing a large number of employees (Chemers 2001). Accordingly, given its positive potential, scholars have repeatedly argued that mindfulness should also be studied from a leadership perspective (Roche et al. 2014; see also Good et al. 2016). Our study addresses these calls, and, in doing so, we hope that it will inspire future research in the important realm of leader mindfulness. The present findings may bolster researchers' confidence that mindfulness is a promising and relevant variable for understanding crucial leader dynamics.

One interesting avenue for future research might be to extend the study of leader mindfulness to additional organizational contexts. For example, beyond the effects described in this study, leader mindfulness may be particularly useful in extreme situations. Indeed, as mindfulness is associated with lower reactivity to stress (Manocha et al. 2011), mindful leaders may be especially effective in managing tense situations such as organizational crises. By remaining calm and level-headed, they should be well suited to instill confidence in their employees that the crisis is under control and can be managed. Another area of interest might be employee voice. Indeed, mindful leaders may create environments that are conductive to employees' divergent thinking, given their openness to others' views (Brown and Ryan 2003). This, in turn, should promote the development and communication of novel ideas. Finally, other studies may examine the potential downside of mindful leadership. For instance, as mindfulness fosters a nonjudgmental, attentive stance, one may argue that it can actually interfere with a critical leadership skill—i.e., decisive decision-making (Thunholm 2004). Moreover, mindfulness has been linked to more persistent and effective pursuit of personal goals and objectives (Reb et al. 2016). Whereas this may be positive when leaders follow desirable goals (e.g., for the benefit of the greater good), these effects of mindfulness may be seen as detrimental if leaders pursue questionable objectives. It would be interesting to explore such potential negative aspects of mindfulness.

Beyond the link between mindfulness and leadership, our findings also contribute to the nascent study of mindfulness in the business ethics domain. First, they provide evidence that mindfulness is related to an important ethical behavior in organizations—the enactment of procedural justice (Brown et al. 2005; Xu et al. 2016). Indeed, the extent to which leaders act in an (un-)fair manner has a strong impact on employees and shapes ethical employee responses such as pro-social actions and deviance (Colquitt et al. 2013). However, most justice research to date has focused on the outcomes of justice; little is known about potential antecedents that facilitate justice enactment. Hence, scholars have argued that it is important to further examine and explain "why managers do not always practice fairness principles" (Folger and Skarlicki 2001, p. 98; see also Scott et al. 2007). The present study addresses

these calls and shows that the absence of an attentive and non-evaluative mindset may be one important reason. With this focus, we hope that our study can trigger future research on the ethical effects of mindfulness. Indeed, from an ethics perspective, mindfulness is an interesting and promising concept. Unlike other individual-level variables that promote ethical conduct, such as moral identity or moral awareness, mindfulness does not have a direct ethical connotation (Baer et al. 2006; May et al. 2014). Instead, it may affect ethical behaviors through other mechanisms such as self-control and social attentiveness (Glomb et al. 2011). Hence, it would be interesting to examine whether and how mindfulness interacts with other individual-level predictors of ethical conduct. For example, one may argue that mindfulness allows employees to overcome external distractions and to stay focused on their personal ideals, which may enhance the effects of their moral tendencies. Relatedly, mindfulness may buffer employees' reactivity to external events that can trigger unethical responses (e.g., abusive supervision, sleep deprivation, time pressure) and thus may foster ethical behaviors (cf. Long and Christian 2015).

Finally, the present findings may also help to promote further interest into the interpersonal side of mindfulness. Indeed, given that mindfulness seems to increase people's attentiveness to their social environment, it may have an impact on various situations in organizations. For example, it may help employees to effectively manage situations that involve conflicting views and interests, such as negotiations and conflicts (Krasner et al. 2009; Valentine et al. 2010). For example, a recent study by Reb et al. (2014) showed that mindfulness can lead to more positive negotiation outcomes. Relatedly, it could be interesting to examine mindfulness in the context of interpersonal influence and manipulation. As mindfulness reduces superficial and automatic information processing, mindful employees might be less prone to tactics of influence and manipulation.

Practical Implications

Our findings also have important practical implications. Organizations are increasingly striving to reduce unfair and unethical behaviors—partly because of moral considerations and partly because leaders' unethical practices are receiving increasing attention from employees, the media, and the public (Zona et al. 2013). Indeed, leaders' fairness behaviors are crucial within organizations as they directly affect the ethical conduct of various employees. This is because leaders' serve as role models for appropriate and expected actions (De Cremer and Van Knippenberg 2002). Moreover, unethical behaviors trickle down from leaders to employees and create a climate of deviance and retaliation (Wo et al. 2015). Organizations have used several ways to address and curb leaders' unethical actions, including leader trainings in fairness principles (Greenberg 2006) and campaigns that increase people's awareness of situations that may cause unethical conduct (e.g., slippery slope situations; Welsh et al. 2015). Our findings suggest a new way and indicate that promoting leader mindfulness may be an effective route to reduce unfair behaviors.

To reap the ethical benefits of mindfulness, organizations have several options: First, in selection processes, organizations may seek to go beyond the assessment of traditional personality and competence variables and also include measures of mindfulness. This may help to attract and retain employees with lower tendencies for unethical conduct (Cascio 2012). Moreover, organizations may seek to promote a culture that recognizes and rewards the benefits of mindfulness. Previous research suggests that organizational culture can have a strong and pervasive influence on employees' ethical behavior (Ambrose et al. 2008). Finally, another promising path may lie in mindfulness trainings. Mindfulness is an interesting concept as it is malleable and can be enhanced through short interventions (Kabat-Zinn 2003). As our experimental study suggests, short instructions can enhance mindfulness and, in turn, foster leaders' enactment of fair procedures. Moreover, there is evidence that the effects of mindfulness instructions are relatively durable and have positive medium-term to long-term effects (Huelsheger et al. 2013). Clearly, such interventions cost money and time and, accordingly, organizations may be reluctant to implement them. Yet, as our findings suggest, such training programs may amortize quickly. Not only can they benefit a climate of procedural justice in organizations (which is an important goal in its own right; Greenberg 2000). They can also contribute to better employee well-being and performance. Hence, they may indeed help organizations to do well by doing good.

Strengths and Limitations

We tested our model across three studies in different contexts and with different designs. We believe that this is a strength as it provides a constructive replication of our findings (Chatman and Flynn 2005). Moreover, our study is the first to examine the effects of leader mindfulness also in an experimental setting and thus heeds calls for such designs (Roche et al. 2014). However, the present research also has limitations. First, as noted earlier, our initial study (Study 1) measured all variables at the same time and thus did not follow the proposed causal flow of our model. We sought to address this shortcoming in Study 2 (with several data collection points) and in Study 3 (with its experimental design). Hence, our study provides evidence for causality in the link between leader mindfulness and

procedural justice enactment. Nevertheless, it would be interesting for future research to test the proposed model also in a fully cross-lagged design. This would provide further evidence for causality in all hypothesized links.

A second limitation is that the proposed effect of leader mindfulness may be subject to individual leader differences. Yet, we did not examine such influences. Indeed, some individual differences among leaders may heighten the positive effect of mindfulness on procedural justice enactment. For example, and as noted earlier, leaders with high moral identity may become more likely to enact procedural justice when they are also mindful (May et al. 2014). It would be interesting for future research to examine or control for such conditional effects.

Third, we found that mindfulness serves organizational goals by promoting employee well-being and performance. This suggests an instrumental perspective on mindfulness. However, it is important to note that, by definition, mindfulness requires individuals to have an observing, present moment awareness that is *not* deflected by future goals and means-end consideration (Brown et al. 2007). Indeed, once leaders seek to use mindfulness to impact employee performance, their intentional and judging stance may undermine the effects of mindfulness (Hyland et al. 2015). It may thus be important to examine how employees perceive and respond to leader mindfulness and subsequent leader behaviors that seem motivated by instrumental purposes. It may be that perceived instrumentality of mindfulness can backfire and provide a central boundary condition for the interpersonal benefits of mindful leadership.

Conclusion

"The most precious gift we can offer others is our presence" (Nguyen Xuan Bao). In line with this quote from the beginning of the paper, our findings suggest that mindfulness can shape central social dynamics and is a valuable concept to understand leadership effects in organizations. We hope that our work will inspire researchers to further examine the social dynamics of mindfulness—not only in the realm of leadership but also in other domains of organizational behavior. Given its links to fair leadership, employee well-being, and performance, we believe that this is an important and fruitful field of study.

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Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflict of interest.

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

Informed Consent Informed consent was obtained from all individual participants included in the study.

References

Ambrose, M. L., Arnaud, A., & Schminke, M. (2008). Individual moral development and ethical climate: The influence of person–organization fit on job attitudes. *Journal of Business Ethics, 77,* 323–333.

Ambrose, M. L., Schminke, M., & Mayer, D. M. (2013). Trickle-down effects of supervisor perceptions of interactional justice: A moderated mediation approach. *Journal of Applied Psychology, 98,* 678–689.

Arch, J. J., & Craske, M. G. (2006). Mechanisms of mindfulness: Emotion regulation following a focused breathing induction. *Behaviour Research and Therapy, 44,* 1849–1858.

Baer, R. A., Smith, G. T., Hopkins, J., Krietemeyer, J., & Toney, L. (2006). Using self-report assessment methods to explore facets of mindfulness. *Assessment, 13,* 27–45.

Barnes, S., Brown, K. W., Krusemark, E., Campbell, W. K., & Rogge, R. D. (2007). The role of mindfulness in romantic relationship satisfaction and responses to relationship stress. *Journal of Marital and Family Therapy, 33*(4), 482–500.

Beckman, H. B., Wendland, M., Mooney, C., Krasner, M. S., Quill, T. E., Suchman, A. L., et al. (2012). The impact of a program in mindful communication on primary care physicians. *Academic Medicine, 87,* 815–819.

Bliese, P. D. (2000). Within-group agreement, non-independence, and reliability: Implications for data aggregation and analysis. In K. J. Klein & S. W. J. Kozlowski (Eds.), *Multilevel theory, research, and methods* (pp. 349–381). San Francisco: Jossey-Bass.

Boyatzis, R., & McKee, A. (2005). *Resonant leadership: Renewing yourself and connecting with others through mindfulness, hope, and compassion*. Boston, MA: Harvard Business School Press.

Brebels, L., De Cremer, D., Van Dijke, M., & Van Hiel, A. (2011). Fairness as social responsibility: A moral self-regulation account of procedural justice enactment. *British Journal of Management, 22,* 47–58.

Brislin, R. W. (1980). Translation and content analysis of oral and written material. In H. C. Triandis & J. W. Berry (Eds.), *Handbook of cross-cultural psychology* (pp. 349–444). Boston, MA: Allyn & Bacon.

Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology, 84,* 822–848.

Brown, K. W., Ryan, R. M., & Creswell, J. D. (2007). Mindfulness: Theoretical foundations and evidence for its salutary effects. *Psychological Inquiry, 18,* 211–237.

Brown, M. E., Treviño, L. K., & Harrison, D. A. (2005). Ethical leadership: A social learning perspective for construct development and testing. *Organizational Behavior and Human Decision Processes, 97,* 117–134.

Buhrmester, M. D., Kwang, T., & Gosling, S. (2011). Amazon Mechanical Turk: A new source of inexpensive, yet high-quality, data? *Perspectives on Psychological Science, 6,* 3–5.

Burris, E. R. (2012). The risks and rewards of speaking up: Managerial responses to employee voice. *Academy of Management Journal, 55,* 851–875.

Carroll, M. (2008). *The mindful leader: Ten principles for bringing out the best in ourselves and others*. Boston, MA: Trumpeter.

Cascio, W. F. (2012). *Managing human resources: Productivity, quality of work life, profits* (9th ed.). New York, NY: McGraw-Hill.

Chatman, J. A., & Flynn, F. J. (2005). Full-cycle micro-organizational behavior research. *Organization Science, 16,* 434–447.

Chemers, M. M. (2001). Leadership effectiveness: An integrative review. In M. A. Hogg & R. S. Tindale (Eds.), *Blackwell handbook of social psychology: Group processes* (pp. 376–399). Oxford, UK: Blackwell.

Chiesa, A., & Serretti, A. (2009). Mindfulness-based stress reduction for stress management in healthy people: A review and meta-analysis. *Journal of Alternative and Complementary Medicine, 15,* 593–600.

Christopher, M. S., Christopher, V., & Charoensuk, S. (2009). Assessing "Western" mindfulness among Thai Theravāda Buddhist Monks. *Mental Health, Religion and Culture, 12,* 303–314.

Chun, J. U., Yammarino, F. J., Dionne, S. D., Sosik, J. J., & Moon, H. K. (2009). Leadership across hierarchical levels: Multiple levels of management and multiple levels of analysis. *The Leadership Quarterly, 20,* 689–707.

Cole, M. S., Bernerth, J. B., Walter, F., & Holt, D. T. (2010). Organizational justice and individuals' withdrawal: Unlocking the influence of emotional exhaustion. *Journal of Management Studies, 47*(3), 367–390.

Colquitt, J. A. (2001). On the dimensionality of organizational justice: a construct validation of a measure. *Journal of Applied Psychology, 86,* 386–400.

Colquitt, J. A., Noe, R. A., & Jackson, C. L. (2002). Justice in teams: Antecedents and consequences of procedural justice climate. *Personnel Psychology, 55,* 83–109.

Colquitt, J. A., Scott, B. A., Rodell, J. B., Long, D. M., Zapata, C. P., & Conlon, D. E. (2013). Justice at the millennium, a decade later: a meta-analytic test of social exchange and affect-based perspectives. *Journal of Applied Psychology, 98,* 199–236.

Cornelis, I., Van Hiel, A., De Cremer, D., & Mayer, D. M. (2013). When leaders choose to be fair: Follower belongingness needs and leader empathy influences leaders' adherence to procedural fairness rules. *Journal of Experimental Social Psychology, 49,* 605–613.

Cropanzano, R. S., & Ambrose, M. L. (2001). Procedural and distributive justice are more similar than you think: A monistic perspective and research agenda. In J. Greenberg & R. Cropanzano (Eds.), *Advances in organizational justice* (pp. 119–151). Palo Alto, CA: Stanford University Press.

Dane, E., & Brummel, B. J. (2014). Examining workplace mindfulness and its relations to job performance and turnover intention. *Human Relations, 67,* 105–128.

Davidson, R. J. (2010). Empirical explorations of mindfulness: Conceptual and methodological conundrums. *Emotion, 10,* 8–11.

De Cremer, D., & Van Knippenberg, D. (2002). How do leaders promote cooperation? The effects of charisma and procedural fairness. *Journal of Applied Psychology, 87,* 858–866.

De Jong, B. A., & Elfring, T. (2010). How does trust affect the performance of ongoing teams? The mediating role of reflexivity, monitoring, and effort. *Academy of Management Journal, 53,* 535–549.

Fisher, D. M., Bell, S. T., Dierdorff, E. C., & Belohlav, J. A. (2012). Facet personality and surface-level diversity as team mental model antecedents: Implications for implicit coordination. *Journal of Applied Psychology, 97,* 825–841.

Folger, R., & Skarlicki, D. P. (2001). Fairness as a dependent variable: Why tough times can lead to bad management. In R. Cropanzano (Ed.), *Justice in the workplace: From theory to practice* (pp. 97–118). Mahwah, NJ: Erlbaum.

Fry, L., & Kriger, M. (2009). Toward a theory of being centred leadership: Multiple levels of being as context for effective leadership. *Human Relations, 62,* 1667–1696.

Glomb, T. M., Duffy, M. K., Bono, J. E., & Yang, T. (2011). Mindfulness at work. In J. Martocchio, H. Liao, & A. Joshi (Eds.), *Research in personnel and human resource management* (pp. 115–157). Bingley: Emerald Group Publishing Limited.

Good, D. J., Lyddy, C. J., Glomb, T. M., Bono, J. E., Brown, K. W., Duffy, M. K., et al. (2016). Contemplating mindfulness at work. *Journal of Management, 42*(1), 114–142.

Grant, A. M., Parker, S., & Collins, C. (2009). Getting credit for proactive behavior: Supervisor reactions depend on what you value and how you feel. *Personnel Psychology, 62,* 31–55.

Greenberg, J. (1993). The social side of fairness: Interpersonal and informational classes of organizational justice. In R. Cropanzano (Ed.), *Justice in the workplace: Approaching fairness in human resource management* (pp. 79–103). Hillsdale, NJ: Erlbaum.

Greenberg, J. (2000). Promote procedural justice to enhance acceptance of work outcomes. In E. A. Locke (Ed.), *Handbook of principles of organizational behavior* (pp. 181–195). Oxford, England: Blackwell.

Greenberg, J. (2006). Losing sleep over organizational injustice: Attenuating insomniac reactions to underpayment inequity with supervisory training in interactional justice. *Journal of Applied Psychology, 91,* 58–69.

Hafenbrack, A. C., Kinias, Z., & Barsade, S. G. (2014). Debiasing the mind through meditation mindfulness and the sunk-cost bias. *Psychological Science, 25,* 315–324.

Halbesleben, J. R. B., & Bowler, W. M. (2007). Emotional exhaustion and job performance: The mediating role of motivation. *Journal of Applied Psychology, 92,* 93–106.

Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York: Guilford Press.

He, H., Zhu, W., & Zheng, X. (2014). Procedural justice and employee engagement: Roles of organizational identification and moral identity centrality. *Journal of Business Ethics, 122,* 681–695.

Hoefling, V., Ströhle, G., Michalak, J., & Heidenreich, T. (2011). A short version of the Kentucky inventory of mindfulness skills. *Journal of Clinical Psychology, 67,* 639–645.

Huelsheger, U. R., Alberts, H. J., Feinholdt, A., & Lang, J. W. (2013). Benefits of mindfulness at work: The role of mindfulness in emotion regulation, emotional exhaustion, and job satisfaction. *Journal of Applied Psychology, 98,* 310.

Hyland, P. K., Lee, R. A., & Mills, M. J. (2015). Mindfulness at Work: A New Approach to Improving Individual and Organizational Performance. *Industrial and Organizational Psychology, 14,* 1–27.

James, L. R., Demaree, R. G., & Wolf, G. (1984). Estimating within-group interrater reliability with and without response bias. *Journal of Applied Psychology, 69,* 85–98.

Johnson, R. E., Lanaj, K., & Barnes, C. M. (2014). The good and bad of being fair: Effects of procedural and interpersonal justice behaviors on regulatory resources. *Journal of Applied Psychology, 99,* 635–650.

Kabat-Zinn, J. (2003). Mindfulness-based interventions in context: past, present, and future. *Clinical Psychology: Science and Practice, 10,* 144–156.

Karelaia, N., & Reb, J. (2015). Improving decision making through mindfulness. In J. Reb & P. W. B. Atkins (Eds.), *Mindfulness in organizations: Foundations, research, and applications* (pp. 256–284). Cambridge: Cambridge University Press.

Kasser, T., & Sheldon, K. M. (2009). Time affluence as a path toward personal happiness and ethical business practice. *Journal of Business Ethics, 84,* 243–255.

Kiken, L. G., & Shook, N. J. (2011). Looking up: Mindfulness increases positive judgments and reduces negativity bias. *Social Psychological and Personality Science, 2,* 425–431.

Kovjanic, S., Schuh, S. C., & Jonas, K. (2013). Transformational leadership and performance: An experimental investigation of the mediating effects of basic needs satisfaction and work engagement. *Journal of Occupational and Organizational Psychology, 86,* 543–555.

Krasner, M. S., Epstein, R. M., Beckman, H., Suchman, A. L., Chapman, B., Mooney, C. J., et al. (2009). Association of an educational program in mindful communication with burnout, empathy, and attitudes among primary care physicians. *Journal of the American Medical Association, 302,* 1284–1293.

Krishnakumar, S., & Robinson, M. D. (2015). Maintaining an even keel: An affect-mediated model of mindfulness and hostile work behavior. *Emotion, 15,* 579–589.

Leventhal, G. S. (1980). *What should be done with equity theory?* (pp. 27–55). New York: Springer.

Liao, H., & Chuang, A. (2007). Transforming service employees and climate: A multilevel, multisource examination of transformational leadership in building long-term service relationships. *Journal of Applied Psychology, 92,* 1006–1019.

Lin, S.-H., Ma, J., & Johnson, R. E. (2016). When ethical leader behavior breaks bad: How ethical leader behavior can turn abusive via ego depletion and moral licensing. *Journal of Applied Psychology, 101,* 815–830.

Lind, E. A., & Van den Bos, K. (2002). When fairness works: Toward a general theory of uncertainty management. In B. M. Staw & R. M. Kramer (Eds.), *Research in organizational behavior* (Vol. 24, pp. 181–222). Boston: JAI Press.

Long, C. P. (2016). Mapping the main roads to fairness: Examining the managerial context of fairness promotion. *Journal of Business Ethics*, *137*, 1–27.

Long, E. C., & Christian, M. S. (2015). Mindfulness buffers retaliatory responses to injustice: A regulatory approach. *Journal of Applied Psychology, 100,* 1409–1422.

MacKinnon, D. P., Lockwood, C. M., Hoffman, J. M., West, S. G., & Sheets, V. (2002). A comparison of methods to test mediation and other intervening variable effects. *Psychological Methods, 7,* 83–104.

Malinowski, P., & Lim, H. J. (2015). Mindfulness at work: Positive affect, hope, and optimism mediate the relationship between dispositional mindfulness, work engagement, and well-being. *Mindfulness, 2,* 1–13.

Manocha, R., Black, D., Sarris, J. & Stough, C. (2011). A randomised, controlled trial of meditation for work stress, anxiety and depressed mood in full-time workers. *Evidence-Based Complementary and Alternative Medicine*. doi:10.1155/2011/960583.

Marsh, C. (2013). Business executives' perceptions of ethical leadership and its development. *Journal of Business Ethics, 114,* 565–582.

Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Occupational Behavior, 2*(2), 99–113.

Maslach, C., & Leiter, M. P. (2008). Early predictors of job burnout and engagement. *Journal of Applied Psychology, 93,* 498–512.

Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology, 52,* 397–422.

May, D. R., Luth, M. T., & Schwoerer, C. E. (2014). The influence of business ethics education on moral efficacy, moral meaningfulness, and moral courage: A quasi-experimental study. *Journal of Business Ethics, 124,* 67–80.

Mayer, D. M., Kuenzi, M., Greenbaum, R., Bardes, M., & Salvador, R. (2009). How low does ethical leadership flow? Test of a trickle-down model. *Organizational Behavior and Human Decision Processes, 108,* 1–13.

Miner, A. G., & Glomb, T. M. (2010). State mood, task performance, and behavior at work: A within-persons approach. *Organizational Behavior and Human Decision Processes, 112,* 43–57.

Moberg, D. J. (2006). Ethics blind spots in organizations: How systematic errors in person perception undermine moral agency. *Organization Studies, 27,* 413–428.

Moliner, C., Martínez-Tur, V., Peiró, J. M., Ramos, J., & Cropanzano, R. (2005). Relationships between organizational justice and burnout at the work-unit level. *International Journal of Stress Management, 12,* 99–116.

Newman, A., Rose, P. S., & Teo, S. T. T. (2016). The role of participative leadership and trust-based mechanisms in eliciting intern performance: Evidence from China. *Human Resource Management, 55,* 53–67.

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, 1,* 539–569.

Reb, J., & Atkins, P. W. B. (Eds.). (2015). *Mindfulness in organizations: Foundations, research, and applications*. Cambridge: Cambridge University Press.

Reb, J., & Narayanan, J. (2014). The influence of mindful attention on value claiming in distributive negotiations: Evidence from four laboratory experiments. *Mindfulness, 5,* 756–766.

Reb, J., Narayanan, J., & Chaturvedi, S. (2014). Leading mindfully: Two studies on the influence of supervisor trait mindfulness on employee well-being and performance. *Mindfulness, 5,* 36–45.

Reb, J., Narayanan, J., Chaturvedi, S., & Ekkirala, S. (2016). The mediating role of emotional exhaustion in the relationship of mindfulness with turnover intentions and job performance. *Mindfulness, 8,* 707–716.

Reb, J., Narayanan, J., & Ho, Z. W. (2015a). Mindfulness at work: Antecedents and consequences of employee awareness and absent-mindedness. *Mindfulness, 6,* 111–122.

Reb, J., Sim, S., Chintakananda, K., & Bhave, D. P. (2015b). Leading with mindfulness: Exploring the relation of mindfulness with leadership behaviors, styles, and development. In J. Reb & P. W. B. Atkins (Eds.), *Mindfulness in organizations: Foundations, research, and applications* (pp. 256–284). Cambridge: Cambridge University Press.

Roche, M., Haar, J. M., & Luthans, F. (2014). The role of mindfulness and psychological capital on the well-being of leaders. *Journal of Occupational Health Psychology, 19,* 476.

Roeser, R. W., Schonert-Reichl, K. A., Jha, A., Cullen, M., Wallace, L., Wilensky, R., et al. (2013). Mindfulness training and reductions in teacher stress and burnout: Results from two randomized, waitlist-control field trials. *Journal of Educational Psychology, 105,* 787–804.

Ruedy, N. E., & Schweitzer, M. E. (2010). In the moment: The effect of mindfulness on ethical decision making. *Journal of Business Ethics, 95,* 73–87.

Schneider, B., Ehrhart, M., & Mayer, D. (2005). Understanding organization-customer links in service settings. *The Academy of Management Journal, 48,* 1017–1032.

Scott, B. A., Colquitt, J. A., & Zapata-Phelan, C. P. (2007). Justice as a dependent variable: Subordinate charisma as a predictor of interpersonal and informational justice perceptions. *Journal of Applied Psychology, 92,* 1597–1609.

Shirom, A. (2003). Feeling vigorous at work? The construct of vigor and the study of positive affect in organizations. *Research in organizational stress and well-being, 3,* 135–165.

Sonnentag, S., Kuttler, I., & Fritz, C. (2010). Job stressors, emotional exhaustion, and need for recovery: A multi-source study on the benefits of psychological detachment. *Journal of Vocational Behavior, 76*(3), 355–365.

Taylor, A. B., MacKinnon, D. P., & Tein, J.-Y. (2008). Tests of the three-path mediated effect. *Organizational Research Methods, 11,* 241–269.

Thibaut, J., & Walker, L. (1975). *Procedural justice: A psychological analysis*. Hillsdale, NJ: Lawrence Erlbaum Associates.

Thunholm, P. (2004). Decision-making style: habit, style or both? *Personality and Individual Differences, 36,* 931–944.

Tyler, T. R., & Lind, E. A. (1992). A relational model of authority in groups. *Advances in Experimental Social Psychology, 25,* 115–191.

Valentine, S., Godkin, L., & Varca, P. E. (2010). Role conflict, mindfulness, and organizational ethics in an education-based healthcare institution. *Journal of Business Ethics, 94,* 455–469.

Van Dyne, L., & LePine, J. A. (1998). Helping and voice extra-role behaviors: Evidence of construct and predictive validity. *Academy of Management Journal, 41,* 108–119.

Verdorfer, A. P. (2016). Examining mindfulness and its relations to humility, motivation to lead, and actual servant leadership behaviors. *Mindfulness, 7,* 950–961.

Wachs, K., & Cordova, J. V. (2007). Mindful relating: Exploring mindfulness and emotion repertoires in intimate relationships. *Journal of Marital and Family Therapy, 33,* 464–481.

Weick, K. E. & Putnam, T. (2006). Organizing for mindfulness: Eastern wisdom and western knowledge. *Journal of Management Inquiry, 15,* 275–287.

Welsh, D. T., Ordóñez, L. D., Snyder, D. G., & Christian, M. S. (2015). The slippery slope: How small ethical transgressions pave the way for larger future transgressions. *Journal of Applied Psychology, 100,* 114–127.

Whiteside, D. B., & Barclay, L. J. (2016). The face of fairness: Self-awareness as a means to promote fairness among managers with low empathy. *Journal of Business Ethics*, *137*, 1–10.

Wo, D. X. H., Ambrose, M. L., & Schminke, M. (2015). What drives trickle-down effects? A test of multiple mediation processes. *Academy of Management Journal, 58,* 1848–1868.

Wright, T. A., & Bonett, D. G. (1997). The contribution of burnout to work performance. *Journal of Organizational Behavior, 18,* 491–499.

Xu, A. J., Loi, R., & Ngo, H. Y. (2016). Ethical leadership behavior and employee justice perceptions: The mediating role of trust in organization. *Journal of Business Ethics*, *134*, 1–12.

Zhang, J., Ding, W., Li, Y., & Wu, C. (2013). Task complexity matters: The influence of trait mindfulness on task and safety performance of nuclear power plant operators. *Personality and Individual Differences, 55,* 433–439.

Zhao, G., Chen, Y.-R., & Brockner, J. (2015). What influences managers' procedural fairness towards their subordinates? The role of subordinates' trustworthiness. *Journal of Experimental Social Psychology, 59,* 96–112.

Zona, F., Minoja, M., & Coda, V. (2013). Antecedents of corporate scandals: CEOs' personal traits, stakeholders' cohesion, managerial fraud, and imbalanced corporate strategy. *Journal of Business Ethics, 113,* 265–283.