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Effects of ethical leadership on emotional exhaustion in high moral intensity situations

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ABSTRACT

Emotional exhaustion is a threat to standard operations, particularly in organizations in which physical safety is at risk. High moral intensity is inherent in such organizations due to the magnitude of consequences associated with ethical/unethical conduct. The authors proposed a psychological process in which ethical leadership affects emotional exhaustion directly and indirectly through team cohesion. As military operational contexts typically are (or frequently have the potential to become) high moral intensity situations, the authors tested their model among 338 military personnel deployed in combat zones. They found that: (1) team cohesion partially mediated the relationship between ethical leadership and emotional exhaustion, and (2) this psychological process of direct and indirect effects of ethical leadership did not hold among individuals approaching the low end of conscientiousness.

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Listing Enron, Arthur Andersen, WorldCom, Tyco, Parmalat, and HealthSouth as organizations in which leaders failed ethically, Bello (2012, p. 228) argued, "Ethical leadership is a clarion call to the recent credit crisis, the worst global recession since the 1930s, and the various scandals in former leading corporate business organisations." The Jerry Sandusky scandal at Penn State and the David Petraeus–Paula Broadwell scandal at the Central Intelligence Agency serve as reminders that failures of ethical leadership are not unique to the private sector. In light of these scandals, researchers have increasingly focused on the important role of ethical leadership in both civilian and military settings (e.g., Brown, Treviño, & Harrison, 2005; Schaubroeck et al., 2012).

Jones (1991) noted that ethical decision-making is issue-contingent and thus a function of "moral intensity" (p. 371); that is, moral issues vary in saliency and strength, impacting the moral awareness and ethical reasoning involved in the situation. An important aspect of moral intensity is the magnitude of consequences (Frey, 2000; Lincoln & Holmes, 2010; McMahon & Harvey, 2006; Reynolds, 2006; Singer & Singer, 1997; Valentine & Hollingworth, 2012). Ethical leadership is important in most organizations, although the magnitude of consequences of ethical decision-making is likely to be limited to internal (e.g., personnel decisions) and external customer experiences (e.g., service delivery). However, in situations where decisions frequently affect life and death (e.g., military operations, fire-fighting, law enforcement, and health care) and/or the safety of the community or environment (e.g., handling of hazardous waste), the magnitude of consequences is high; consequently, ethical leadership is particularly salient. In line with the

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emerging literature indicating a positive relationship between ethical leadership and follower well-being (e.g., Avey, Wernsing, & Palanski, 2012; Chughtai, Byrne, & Flood, 2014; Den Hartog & Belschak, 2012), we investigated the relationship between ethical leadership and emotional exhaustion among uniformed military personnel deployed in combat zones overseas.

Following Ashforth, Gioia, Robinson, and Treviño's (2008) call for increased scholarly attention to ethics, we describe a psychological process in which ethical leadership has both indirect and direct effects on emotional exhaustion via team cohesion. Team cohesion is considered an essential determinant of military effectiveness, psychological stress, and performance by scientists and military practitioners (e.g., Mael & Alderks, 1993; Mitchell, Gallaway, Millikan, & Bell, 2013; Oliver, Harman, Hoover, Hayes, & Pandhi, 1999). We argue that ethical leadership enhances cohesion, which, in turn, lessens emotional exhaustion. Furthermore, we suggest that follower conscientiousness moderates the direct and indirect effects of this psychological process. In so doing, we aim to make at least three contributions with this study. First, we add to the growing body of research on the effects of ethical leadership on follower well-being in high moral intensity situations. Second, we identify a mediating mechanism that is responsible for the effects of ethical leadership on follower well-being. Specifically, our study sheds light on how ethical leadership can influence one of the most important aspects of military team functioning, team cohesion, which in turn can serve as a resource to reduce emotional exhaustion. Third, we highlight how follower personality traits may influence the effects of ethical leadership.

Literature Review and Theoretical Foundation

Emotional exhaustion

Burnout refers to a syndrome of emotional exhaustion, depersonalization, and diminished personal accomplishment (Maslach, 1982). Emotional exhaustion is characterized by fatigue and feeling worn out because of work (Maslach & Jackson, 1981; Wright & Cropanzano, 1998) and has emerged as the central dimension of burnout (Cordes & Dougherty, 1993; Maslach, 1982; Wright & Bonett, 1997). Emotional exhaustion captures the "core meaning" of burnout given its relevance to physical and psychological depletion (Shirom, 1989). Moreover, meta-analytic findings have indicated that emotional exhaustion exhibits stronger relationships with other work outcomes than depersonalization and diminished personal accomplishment (Lee & Ashforth, 1996). Emotional exhaustion affects job performance, health, voluntary turnover, and citizenship behavior (Cropanzano, Rupp, & Byrne, 2003; Halbesleben & Buckley, 2004; Wright & Cropanzano, 1998). Emotional exhaustion gives rise to safety concerns for individuals whose work may be impaired by fatigue (e.g., military personnel, miners, and police officers; Gaines & Jermier, 1983). Thus, we focused on emotional exhaustion rather than the other facets of burnout.

Antecedents of emotional exhaustion include both aspects of the situation and person (e.g., Halbesleben, 2006; Lee & Ashforth, 1996; Wang, Bowling, & Eschleman, 2010). Leadership style is one such aspect of the situation (e.g., Densten, 2005). With the present study, we focused on ethical leadership. Consistent with scholars who described antecedents of burnout in terms of resources (e.g., Lee & Ashforth, 1996), we employed a resource-based rationale to link ethical leadership with emotional exhaustion.

Ethical leadership

Ethical leadership refers to "the demonstration of normative appropriate conduct through personal actions and interpersonal relationships, and the promotion of such conduct to followers through two-way communication, reinforcement, and decision-making" (Brown et al., 2005, p. 120). Behaviors that reflect high levels of ethical leadership are: (1) engaging in normative appropriate conduct, (2) acting consistent with espoused values (vs. conforming in response to political pressure), (3) talking with followers about ethics and proactively encouraging them to behave ethically, (4) managing situations with morality in mind, (5) explicitly valuing honest relationships, and (6) punishing unethical behavior (Brown & Treviño, 2006; Brown et al., 2005; Kalshoven, Den Hartog, & De Hoogh, 2011).

Although ethical leadership conceptually overlaps with transformational leadership (Bass & Avolio, 2000), efforts to assess the construct validity of ethical leadership have supported its distinctiveness from the idealized influence dimension of transformational leadership (Brown et al., 2005; Mayer, Aquino, Greenbaum, & Kuenzi, 2012). The difference between ethical leadership and transformational leadership is one of breadth. Whereas both forms of leadership contain transactional and ethical components, ethical leadership focuses explicitly on the ethical aspect of transactional behavior, which involves a specific obligation to set ethical guidelines and hold employees accountable for following these standards (Brown & Treviño, 2006; Brown et al., 2005). The transactional component of ethical leadership, which is also referred to as the "moral manager" facet (Brown et al., 2005), is unique to the construct of ethical leadership. In line with Mayer et al. (2012), we argue that other aspects of ethical leadership, such as fairness, people orientation, power sharing, and role clarification (Kalshoven et al., 2011) overlap with other leadership constructs (e.g., interactional justice). With the current study, we focused on the moral manager aspect of ethical leadership.

The effects of higher levels of ethical leadership on subordinates include: (1) higher satisfaction and dedication (Brown et al., 2005; De Hoogh & Den Hartog, 2009; Weaver, Treviño, & Agle, 2005), (2) higher task and contextual performance (Brown et al., 2005; Kalshoven & Boon, 2012; Mayer et al., 2012; Piccolo, Greenbaum, den Hartog, & Folger, 2010), (3) fewer deviant and unethical acts (Mayer et al., 2012; Schaubroeck et al., 2012; Stouten et al., 2010), and (4) greater well-being (Avey et al., 2012; Chughtai et al., 2014; Den Hartog & Belschak, 2012; Kalshoven & Boon, 2012; Li, Xu, Tu, & Lu, 2013).

Viewing ethical leadership as a valuable resource for employees, we draw on conservation of resources theory (COR; Hobfoll, 1989, 2001) to posit that ethical leadership decreases the emotional exhaustion of followers. The perception of resources loss, threat to resources, and inability to gain new resources can result in strain (Hobfoll, 1989). "Resources are anything that people personally value; they can be categorized as objects, conditions, personal characteristics, and energy" (Halbesleben, Harvey, & Bolino, 2009, p. 1453).

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Ethical leadership behaviors yield conditions that provide resources in at least four ways. First, employees rely on leaders for ethical guidance in order to behave ethically in the organization (Brown et al., 2005; Kohlberg, 1969; Treviño, 1986); this guidance in the form of open discussions of ethics helps followers navigate or avoid involvement in negative ethically-related situations. Moreover, it reduces uncertainty about what the organization considers "right" to be (Schein, 2010) by yielding a normative understanding of ethical conduct. Second, ethical leadership behaviors yield a sense of ethical treatment of followers and customers by demonstrating trustworthiness and moral decision-making. Third, in the demonstration and rewarding of ethical behavior, they influence followers to express ethically-endorsed behaviors, which in turn minimize team members' uncertainty when cooperating with the group. Fourth, because supervisors high in ethical leadership behave in a manner consistent with their ethical values, subordinates know that they can rely on their supervisors for such resources over the long-term. This reliable behavior is another positive condition of ethical leadership that reduces anxiety and feelings of uncertainty (Lind & van den Bos, 2002). Indeed, the anticipation of a steady stream of future resources is a resource in itself, and uncertainty increases emotional exhaustion (Hochwarter, Ferris, Zinko, Arnell, & James, 2007; Van den Bos, 2001). In contrast, the absence of these positive conditions – ethical guidance, influences on team member ethical behavior, ethical treatment, and predictability in ethical decision-making – are likely to require individuals to spend resources coping with the uncertainty and low- or unethical behavior. Accordingly, we proposed:

Hypothesis 1. Ethical leadership is negatively related to emotional exhaustion.

Team cohesion

The role of leadership in team contexts has received increasing attention (Morgeson, DeRue, & Karam, 2010; Zaccaro, Rittman, & Marks, 2001). Zaccaro et al. (2001) proposed a model of team leadership and suggested that mediating mechanisms through which leadership functions to enhance team effectiveness include team motivational processes, such as team cohesion, which is the extent to which work group members bond with each other and unite to achieve team goals (Walsh, Matthews, Tuller, Parks, & McDonald, 2010). Existing literature on ethical leadership has not examined the role of ethical leadership in team dynamics. Some leaders may think that an emphasis on ethics may distract team members from work goals and therefore undermine team cohesion. We argue the opposite — that ethical leadership provides opportunities for followers to bond together as a team, which provides beneficial support resources that enhance individual well-being.

In cohesive teams, work group members are motivated to work hard (Davis, 1969). Team cohesion is positively related to performance and retention (Beal, Cohen, Burke, & McLendon, 2003; Mullen & Copper, 1994; Oliver et al., 1999) and negatively related to the risk of posttraumatic stress disorder in military settings (e.g., Wright, Kelsall, Sim, Clarke, & Creamer, 2013). Antecedents of cohesion include: (1) characteristics of team members, such as extraversion, emotional stability, psychopathy, and implicit aggression (Barrick, Stewart, Neubert, & Mount, 1998; Baysinger, Scherer, & LeBreton, 2014), and (2) contextual factors, such as dysfunctional relationships (de Jong, Curşeu, & Leenders, 2014), performance-based rewards (Podsakoff & Todor, 1985), instrumental and supportive leadership behavior (Greene & Schriesheim, 1980), and transformational leadership (Sparks & Schenk, 2001).

Following Brown and Treviño's (2006) call for work exploring the underlying mechanisms through which ethical leadership influences employee outcomes, we focused on team cohesion as a mediator through which ethical leadership affects emotional exhaustion. Anecdotal evidence suggests that ethical leadership promotes team cohesion (Shay, 1994). In general, effective leadership yields team cohesion (Greene & Schriesheim, 1980) and team efficacy (Lester, Meglino, & Korsgaard, 2002). Leaders influence cohesion by satisfying team members' needs, enhancing the attractiveness of the team, and increasing reward expectancy for hard work (Schriesheim, Mowday, & Stogdill, 1979). Along these same lines, we suggest that ethical leadership influences these outcomes in at least four ways.

First, ethical leaders satisfy followers' needs for ethical guidance (Brown et al., 2005). Ethical leadership can influence subordinates' work outcomes through social learning theory and social exchange mechanisms (e.g., Kacmar, Bachrach, Harris, & Noble, 2012; Li et al., 2013). Through the use of role-modeling and a rewards and punishment system, social learning theory purports that ethical leaders influence their followers to mimic their ethical standards (Bandura, 1986). Furthermore, in line with social exchange theory (Blau, 1964), we echo Brown and colleagues' (2005) suggestion that followers of ethical leaders feel increased trust and caring and are likely to reciprocate ethical treatment by increasing effort to achieve goals. Therefore, followers may be more likely to work harder to satisfy the leader's needs (i.e., achieve team objectives) by working closely with other coworkers in the team.

Second, the ethical guidance received likely enhances efficacy in understanding priorities for decision-making. An ethical leader is likely to prescribe a clear way to deal with problems and handle business situations, and, as social learning theory suggests, employees will likely mimic their supervisor's behavior when navigating ethical boundaries. The ethical culture dictated by the leader provides guidance regarding what is right and wrong, thus clarifying group decision processes and enhancing cohesion. Indeed, "leadership actions that persuade and develop subordinate competency beliefs may be as critical a determinant of collective efficacy as the group's prior performance experiences, if not more so" (Zaccaro, Blair, Peterson, & Zazanis, 1995, p. 317). Ethical leadership behaviors likely enhance perceptions of efficacy with regard to ethical matters.

Efforts to identify the processes underlying moral behavior have conceptualized moral thinking as a process of information integration (Bandura, 1991). Social cognitive and social information processing theories explain how individuals make sense of themselves and others: individuals observe and model others' behavior while simultaneously linking these acts to information about incentives (Bandura, 1971). As ethical leadership carries a transactional element, incentives guide subordinates regarding appropriate moral behavior. Leader ethical behavior influences follower moral behavior by indicating the standards for moral and social conduct and by establishing the collective support in the social milieu for adherence to those standards. These processes are particularly salient

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in high moral intensity situations. The moral intensity of a situation reflects not only the magnitude of consequences for others but also: (1) the strength of the ethical norms relevant to that situation, (2) the temporal immediacy of the event, and (3) the probability of the effect under consideration (Beu & Buckley, 2004; Brown & Treviño, 2006). We argue that combat situations typically reflect moral intensity situations. As noted by Olsen, Eid, and Larsson (2010, p. 138):

> In a military operational context, a high moral intensity situation unfolds in a dangerous environment, given the high risk of injuring or killing innocent bystanders or ruining civilian property in a disproportional way. Though low moral intensity situations will challenge the ability to recognize ethical aspects in a complex situation, high moral intensity situations will challenge moral character, discipline, and the ability to act in accordance with ethical norms in a more direct way—even when such behavior requires personal sacrifice.

Third, the clarity in prescribed norms and expected behaviors voiced by ethical leaders creates a climate for ethical conduct (Mayer, Kuenzi, & Greenbaum, 2010; Mulki, Jaramillo, & Locander, 2009). In turn, the perception of shared beliefs and norms created through ethical guidance likely increases the affective commitment of team members and positions team members to achieve common team goals. In other words, when ethical leaders make efforts to define clear ethical expectations and approaches to ethical dilemma, their followers should perceive high team cohesion (Dickson, Smith, Grojean, & Ehrhart, 2001).

Fourth, ethical leaders may decrease the occurrence of interpersonal conflicts among members (Mayer et al., 2012), which affects team cohesion (Tekleab, Quigley, & Tesluk, 2009). Ethical leadership has trickle-down effects (Mayer, Kuenzi, Greenbaum, Bardes, & Salvador, 2009) and at higher organizational levels influences ethical culture in work groups (Schaubroeck et al., 2012). Thus, team members of ethical leaders may treat coworkers in ethical ways, which likely limits interpersonal conflict. Accordingly, we proposed:

Hypothesis 2. Ethical leadership is positively related to team cohesion.

Cohesion buffers soldiers from stress (Mitchell et al., 2013). In their meta-analysis, Lee and Ashforth (1996) found that team cohesion was negatively related to emotional exhaustion. Individuals who perceive high levels of team cohesion feel an attachment to the team, which motivates them to contribute to team outcomes and promote the well-being of the team. This attachment reflects perceptions of coworker support that is associated with low levels of burnout (Halbesleben, 2006). Perceptions of current and future coworker support are resources. Accordingly and to replicate previous findings, we proposed:

Hypothesis 3. Team cohesion is negatively related to emotional exhaustion.

At least two studies have indicated that team cohesion mediates the effects of leadership on outcomes. Bass, Jung, Avolio, and Berson (2003) found that platoon (team) cohesion mediated the effects of both transformational and transactional leadership on platoon performance. Sosik, Avolio, and Kahai (1997) found that group potency mediated the relationship between transformational leadership and group effectiveness. The underlying notion is that leadership influences team processes (Zaccaro et al., 2001), which then affect individual team member behavior. Hence, we anticipated that ethical leadership affects emotional exhaustion through team cohesion.

Ethical leaders unite their followers together toward common team goals, enhancing followers' positive views about the supportiveness of the team. Such positive views, in turn, likely lessen employee emotional exhaustion. That is, we argue that ethical leadership increases perceptions of team cohesion, which then minimizes emotional exhaustion. In other words, at least some of the effect of ethical leadership on emotional exhaustion is indirect through team cohesion. However, for at least two reasons, some of the effect of ethical leadership on emotional exhaustion is likely direct. First, the physical and psychological efforts needed to combat work demands are directly related to burnout (Bakker & Demerouti, 2007). Individuals who observe higher (lower) levels of ethical leadership behavior likely experience less (more) emotional duress over time. Hence, ethical leadership to some extent directly decreases employees' emotional exhaustion. Second, team cohesion does not fully capture other variables that may mediate the link between ethical leadership and emotional exhaustion. For example, other types of resources linked with ethical leadership, such as task significance and autonomy (Piccolo et al., 2010), might act as mediators (see Bakker & Demerouti, 2007). Chughtai et al. (2014) found that trust in supervisors mediated the relationship between ethical leadership and work engagement and emotional exhaustion. Hence, some of the effects of ethical leadership on emotional exhaustion are likely direct.

Hypothesis 4. The effect of ethical leadership on emotional exhaustion is both direct and indirect through team cohesion.

Conscientiousness

We know that personality traits of subordinates (e.g., internal locus of control, conscientiousness, and emotional stability) affect the relationship between leadership behaviors and employee well-being (De Hoogh & Den Hartog, 2009; Perry, Witt, Penney, & Atwater, 2010). However, the process behind this relationship remains unclear. Trait activation theory (Tett & Burnett, 2003; Tett & Guterman, 2000) may help us understand how and when personality affects strain. According to its advocates, "personality traits are expressed as responses to trait-relevant situational cues" (Tett & Burnett, 2003, p. 502); that is, when situations allow for variance in behavior (i.e., weak situations), they trigger activation of relevant personality traits. In other words, when an individual possesses the cued trait, the trait is activated; when an individual does not possess the cued trait, no trait is activated. For example, an informal meeting might cue extraversion. Persons approaching higher (lower) levels of extraversion would be likely to proactively (reactively) engage others.

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We focused on conscientiousness – a trait in the Five-Factor model that is especially powerful in predicting work behavior. Conscientiousness consists of two major facets – dependability and achievement (Digman, 1990; McCrae & Costa, 1987; Mount & Barrick, 1995). Individuals lower on the spectrum of conscientiousness tend to be disorganized, careless, and easily distracted (Johnson & Ostendorf, 1993). As people move toward the high end of conscientiousness, they are likely to: (1) be achievement-oriented, organized, and follow both rules and socially prescribed norms for impulse control (John & Srivastava, 1999), (2) think carefully and adhere closely to moral standards (Costa & McCrae, 1992), and (3) when in leadership roles, demonstrate ethical leadership behaviors (Kalshoven et al., 2011). Therefore, we argue that conscientiousness is particularly relevant to the issue of ethics. In other words, conscientiousness is a trait relevant to situations reflecting the ethical behaviors of the leader.

We suggest that ethical leadership is most strongly (weakly) related to emotional exhaustion among subordinates approaching the higher (lower) poles of conscientiousness. Because they value rule-adherence, highly conscientious individuals may be more sensitive to ethical leadership. They likely experience: (1) high levels of ethical leadership in terms of resources – ethical guidance, ethical treatment, influences on team member ethical behavior, and reliability in ethical decision-making – because they value these conditions, and (2) low levels of ethical leadership in terms of a resource drain (i.e., having to "make the call" in the absence of guidelines) and anticipation of ongoing resource expenditures (i.e., a threat to resources). In contrast, as people move toward the low end of conscientiousness, they are likely to care less about ethical leadership behaviors. Not predisposed to adhere to rules and norms, they are less sensitive to the presence or absence of leader ethical behaviors and attend minimally to the ethical behaviors of the boss, making ethical leadership less salient and relevant to their levels of emotional exhaustion. Hence, we hypothesized:

Hypothesis 5. The direct effect of ethical leadership on emotional exhaustion is moderated by conscientiousness; the negative relationship is stronger among individuals approaching the higher (vs. lower) end of conscientiousness.

We suggest that conscientiousness also moderates the relationship between ethical leadership and team cohesion (i.e., first stage moderation; Edwards & Lambert, 2007). Because they value ethical norms and rules, highly conscientious individuals who perceive higher levels of ethical leadership likely have their needs for ethical guidance met. Indeed, these employees are likely grateful for the ethical behaviors promoted by ethical leaders, resulting in more positive interactions with coworkers. Together, the satisfied needs for ethical guidance, attractiveness of the team, and positive interactions with other unit members may contribute to the perception of team cohesion (Schriesheim et al., 1979). In contrast, people approaching the low end of conscientiousness and perceiving ethical leadership are less likely to judge the attractiveness and outlook of the team based on the ethical behavior of the leader, because: (1) they may not find the leader as particularly helpful in meeting their needs, and (2) they might not appreciate the ethical working environment and therefore not see it as a factor relevant to team cohesion. Accordingly, we proposed:

Hypothesis 6. Conscientiousness moderates the relationship between ethical leadership and team cohesion; the positive relationship is stronger among individuals approaching the higher (vs. lower) end of conscientiousness.

We suggest that conscientiousness also moderates the relationship between team cohesion and emotional exhaustion (i.e., second stage moderation; Edwards & Lambert, 2007). As highly conscientious employees tend to be hardworking, achievement-driven, and dutiful (McCrae & John, 1992), they likely value a cohesive team as a resource to perform tasks and cope with stressors; that is, team cohesion is a situational cue that is salient to individuals approaching the high end of conscientiousness. For these individuals, low levels of team cohesion can be a potential obstacle to success. In contrast, individuals approaching the low end of conscientiousness are less motivated (Johnson & Ostendorf, 1993). Hence, they likely care less about how their team functions and therefore are emotionally less reactive to team cohesion. Accordingly, we proposed:

Hypothesis 7. Conscientiousness moderates the relationship between team cohesion and emotional exhaustion; the negative relationship is stronger among persons approaching the higher (vs. lower) end of conscientiousness.

We present in Fig. 1 our overall theoretical model. As shown there, Hypotheses 6 and 7 suggest that conscientiousness functions as a moderator at both the first (path *a* in Fig. 1) and the second (path *b* in Fig. 1) stages of the mediation. Models proposing this configuration are moderated mediation models (Preacher, Rucker, & Hayes, 2007). Whereas Hypotheses 1, 2, 3, and 5 may be examined by

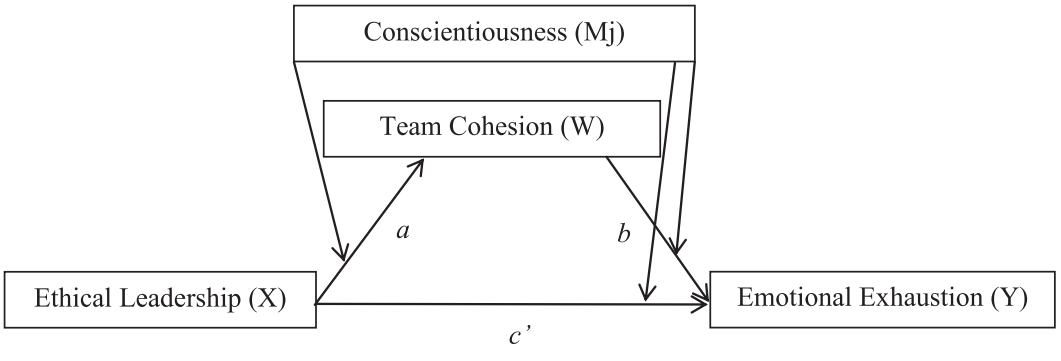

Fig. 1. The proposed conceptual model.

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testing the significance of individual paths in the model, testing individual paths is inappropriate for establishing mediation (Hypothesis 4) and moderated mediation effects (Hypotheses 6 and 7; Edwards & Lambert, 2007). Thus, we offer a hypothesis specifying the proposed overall moderated mediation effects:

Hypothesis 8. Conscientiousness moderates the indirect effect of ethical leadership on emotional exhaustion through team cohesion, such that the indirect effect is stronger among individuals approaching the higher (vs. lower) end of conscientiousness.

Control variables

Emotional stability predicts emotional exhaustion (e.g., De Hoogh & Den Hartog, 2009). Emotionally unstable individuals are prone to experience negative emotions and are sensitive to stressful situations (e.g., Buhler & Land, 2003; LePine, LePine, & Jackson, 2004). Demographic differences predict well-being (e.g., Iversen et al., 2008; MacDonald, Chamberlain, & Long, 1997; Penk et al., 1989). Hence, we employed emotional stability, gender, minority status, age, and hierarchical rank as control variables.

Method

Participants and procedure

We collected data from 338 of 578 (58%) uniformed military personnel deployed in combat zones overseas. They voluntarily completed a survey during duty hours. Of the 338: (1) 55.6% were non-minorities, and 44.4% were minorities; (2) 80.2% were men, and 19.8% were women; (3) 13.9% were less than 20 years old, 46.4% were between 20 and 25 years old, 25.7% were between 26 and 30 years old, 12.1% were between 31 and 40 years old, and 1.8% were over 40 years old; and (4) 11.5% held junior enlisted rank, 67.2% held mid-level enlisted rank, 10.9% held senior enlisted rank, .6% held command-level enlisted rank, 5.3% held junior officer rank, 4.1% held senior officer rank, and .3% held flag-level rank.

Measures

Participants responded to each of the scales described below on a 5-point Likert-type scale ranging from 1 = strongly disagree to 5 = strongly agree.

Ethical leadership

To reflect the work context, we adapted five items from the Brown et al. (2005) ethical leadership scale to assess ethical leadership. The original scale contains 10 items. However, Mayer et al. (2012, p. 160) argued "that there may be some value in representing the moral manager component alone without the more redundant ethical leadership items." Of the five items from the Brown et al. (2005) scale used by Mayer et al. (2012) to assess the moral manager aspect of ethical leadership, we adapted four: (1) "My immediate supervisor discusses military ethics or values with unit personnel;" (2) "My immediate supervisor defines success not just by results but also the way they are obtained;" (3) "My immediate supervisor sets an example of how to do things the right way in terms of ethics;" and (4) "My immediate supervisor disciplines unit personnel who violate ethical standards." Mayer et al.'s (2012) additional item was, "Asks 'what is the right thing to do?' when making decisions." Consultation with our military sponsors revealed that the phrase, "What is the right thing to do," was neither likely to be interpreted by the respondents as involving ethical issues nor likely to be uttered by many military leaders in the field. Accordingly, we used another of the Brown et al. (2005) items, namely, "My immediate supervisor conducts his/her personal life in an ethical manner." High scores reflect high levels of ethical leadership.

Emotional exhaustion

We assessed exhaustion using five items adapted from Maslach, Jackson, and Leiter (1996). We used the phrase "duty" or "duty assignments" in place of "work" (e.g., "Over the past 6 months, I felt emotionally drained from my duty assignments"). High scores reflect high levels of emotional exhaustion.

Team cohesion

We used the four-item (e.g., "Members of my work group really care about each other") Walsh et al. (2010) team cohesion scale. High scores reflect high levels of team cohesion.

Personality

We used three items from Goldberg's (1999) Big Five Factor markers in the International Personality Item Pool to measure conscientiousness (e.g., "Am always prepared") and three items to measure emotional stability (e.g., "Am relaxed most of the time"). High scores reflect high levels of conscientiousness and emotional stability, respectively.

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Table 1
Descriptive statistics, intercorrelation matrix and reliability estimates.

Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9
1. Age	2.41	0.09									
2. Gender	1.20	0.40	−.09								
3. Rank	2.35	1.16	.52**	−.01							
4. Minority status	1.44	0.50	.01	.15**	.02						
5. Emotional stability	3.42	0.78	.13*	−.17**	.10	.01	(.60)				
6. Ethical leadership	3.53	0.84	.12*	−.09	.08	−.04	.31**	(.84)			
7. Conscientiousness	4.02	0.73	.16**	−.02	.13*	−.10	.40**	.51**	(.77)		
8. Team cohesion	3.83	1.06	.21**	−.14**	.18**	−.17**	.18**	.36**	.16**	(.92)	
9. Emotional exhaustion	3.01	1.03	−.09	.06	−.06	−.11**	−.49**	−.35**	−.11**	−.31**	(.91)

Note. "Age" reflects categories of age (1 = "<20 years," 2 = "20–25 years," 3 = "26–30 years," 4 = "31–40 years," 5 = "41–50 years," and 6 = "51 or over"). Gender: 1 = male, 2 = female. Minority status: 1 = "non-minority," 2 = "minority." Values on the diagonal represent Cronbach's alpha (α). $N = 338$.
** $p < .01$.
* $p < .05$.

Results

Table 1 presents the descriptive statistics, reliability estimates, and intercorrelation matrix. As shown there, ethical leadership was related to both emotional exhaustion ($r = -.35$, $p < .01$) and team cohesion ($r = .36$, $p < .01$), which also was related to emotional exhaustion ($r = -.31$, $p < .01$); these results are consistent with Hypotheses 1, 2, and 3, respectively. Also reflected in Table 1, two of our control variables, minority status and emotional stability, predicted emotional exhaustion. Because including unnecessary covariates reduces statistical power and biases the estimates (Becker, 2005), we excluded the other three control variables in subsequent analyses.

Measurement issues

Due to the limitation of survey length, we were unable to assess conscientiousness and emotional stability with the full scales. In order to test the validity of the shortened scales, we administered these measures along with the conscientiousness and emotional stability subscales from the Big-Five Factor markers developed by Goldberg (1992) to college students ($n = 103$). Donnellan, Oswald, Baird, and Lucas (2006) argued that a correlation of .60 reflected reasonable or even good convergent validity. Adopting their standard, we suggest that the results of the validation demonstrate reasonable convergent validity with Goldberg's measures ($r = .73$ for conscientiousness, $r = .64$ for emotional stability). We also administered a separate survey to a group of civilian workers employed in a variety of industries ($N = 306$, 46.4% full-time employees, 54.6% part-time employees, 99.7% completed high school education). In the survey, we included all 10 items in an ethical leadership scale developed by Brown et al. (2005). The results indicated that the shortened 5-item ethical leadership scale used in the study demonstrated high convergent validity with the original 10-item measure ($r = .94$).

Because all of our measures were answered by the same source, we conducted a series of confirmatory factor analyses to test the distinctiveness of the constructs. We compared the measurement model (four-factor model) with two nested models. We present the results of the confirmatory factor analyses in Table 2. As shown there, a 3-factor measurement model that allowed ethical leadership and team cohesion to load on the same factor did not improve model fit ($\Delta\chi^2 = 578.98$, $\Delta df = 3$, $p < .01$).

We further tested a 2-factor model with ethical leadership, team cohesion, and emotional exhaustion combined, as these three measures were all about participants' work experience. This 2-factor model displayed worse fit indices than the measurement model ($\Delta\chi^2 = 1209.92$, $\Delta df = 5$, $p < .01$). In these factor analyses, we allowed the error terms of the third and the fourth team cohesion items to correlate, as these two items, unlike the other items in the team cohesion scale, are specifically about interpersonal relationships with team members (i.e., "care about each other" and "trust each other"). It is reasonable to expect that the unique variances of these two items overlap (Kline, 2011).

We also conducted a separate confirmatory factor analysis to test the impact of common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). We allowed every item to load on its respective construct and a latent method factor that was uncorrelated with other constructs. The variance explained by the latent method factor was 4%, which was lower than the 25% median score in published studies (Williams, Cote, & Buckley, 1989).

Table 2
Comparison of confirmatory factor analyses models.

Models	χ^2	*df*	$\Delta\chi^2$	*CFI*	*TLI*	*RMSEA*	*SRMR*
4-Factor model (measurement model)	323.16	112	–	.94	.93	.08	.05
3-Factor model (combining ethical leadership and team cohesion)	902.14	115	578.98	.77	.73	.14	.14
2-Factor model (combining ethical leadership, team cohesion, and emotional exhaustion)	1526.08	117	623.94	.59	.53	.19	.17

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Table 3
Regression results for direct and indirect effects.

Variable	*B*	*SE*	*t*	*p*
Total and direct effects				
Total effect of ethical leadership on emotional exhaustion	−.27	.06	−4.54	.000
Team cohesion regressed on ethical leadership	.41	.07	6.09	.000
Emotional exhaustion regressed on team cohesion, controlling for ethical leadership	−.20	.05	−4.22	.000
Emotional exhaustion regressed on ethical leadership, controlling for team cohesion	−.19	.06	−3.08	.002
Bootstrapping results for indirect effect	*M*	*SE*	LL 99% CI	UL 99% CI
Effect	−.08	.03	−.15	−.04

Preliminary analyses

As respondents were clustered in teams, we investigated the between-group variance in team cohesion and emotional exhaustion. Significant between-group variance in team cohesion and emotional exhaustion would necessitate the use of multilevel modeling to take into account potential biases from the non-independence of the data. Therefore, to determine whether multilevel modeling was needed for the analyses, we estimated two null random intercept models with no predictor for team cohesion and emotional exhaustion using SAS Proc Mixed (Snijders & Bosker, 2007). Equivalent to a one-way ANOVA, this provides estimates of between-group (level-2) variance and within-group (level-1) variance in a given variable (respectively, the parameters are labeled τ^2 and σ^2; Bliese, 2000). We found that emotional exhaustion did not significantly vary between teams ($\tau^2 = .01$, $SE = .03$, $p =$ ns; $ICC(1) = .01$), and neither did team cohesion ($\tau^2 = .02$, $SE = .04$, $p =$ ns; $ICC(1) = .02$). Nevertheless, we conducted both hierarchical linear modeling (HLM) and ordinary least squares (OLS) regression. As can be seen by comparing Table 5 to Tables 3 and 4, the HLM results and OLS regression results were identical. For the sake of parsimony, we only reported the results of OLS regression analyses in the subsequent sections.

Tests of mediation

To test mediation effects, we conducted formal significance tests of the indirect effect, which is calculated as the product of the regression coefficient of mediator M regressed on independent variable X (path *a* in Fig. 1) and the regression coefficient of outcome Y regressed on mediator M while controlling for X (path *b* in Fig. 1). Because the indirect effect is not normally distributed, bootstrapping, which does not require the sampling distribution of the product of two variables to be normal, is more appropriate than the traditional Sobel test (Preacher & Hayes, 2008). For the test of moderated mediation, we used a moderated path analysis approach to integrate moderation and mediation tests (Edwards & Lambert, 2007). We present the structural model in Fig. 2.

Table 4
Regression results for conditional indirect effect.

Independent variables	*B*	*SE*	*t*	*p*
Team cohesion				
Intercept	3.79	.06	66.16	.000
Minority status	−0.36	.11	−3.38	.001
Emotional stability	0.13	.08	1.68	.093
Ethical leadership	0.42	.08	5.65	.000
Conscientiousness	−0.04	.10	−.44	.654
Ethical leadership × conscientiousness	0.14	.07	1.93	.054
Emotional exhaustion				
Intercept	3.09	.05	65.30	.000
Minority status	−0.26	.09	−2.84	.005
Emotional stability	−0.59	.06	−9.36	.000
Ethical leadership	−0.25	.07	−3.77	.000
Team cohesion	−0.17	.05	−3.71	.000
Conscientiousness	0.17	.08	2.10	.037
Ethical leadership × conscientiousness	−0.21	.06	−3.44	.001
Team cohesion × conscientiousness	−0.15	.05	−2.80	.005

Bootstrapping results for conditional indirect effect at conscientiousness = M ± 1 SD

Conscientiousness	Effect	SE	LLCI	ULCI
−1 SD (−0.73)	−0.02	.02	−.09	.02
M (0)	−0.07	.03	−.14	−.03
+1 SD (0.73)	−0.15	.05	−.25	−.07

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Table 5
Results of hierarchical linear modeling.

Independent variables	*B*	*SE*	*t*	*p*
Team cohesion				
Intercept	3.79	.06	63.77	.000
Minority status	−0.37	.11	−3.41	.001
Emotional stability	0.13	.08	1.68	.094
Ethical leadership	0.43	.08	5.67	.000
Conscientiousness	−0.05	.10	−.49	.623
Ethical leadership × conscientiousness	0.14	.07	1.93	.055
Emotional exhaustion				
Intercept	3.09	.05	65.30	.000
Minority status	−0.26	.09	−2.84	.005
Emotional stability	−0.59	.06	−9.36	.000
Ethical leadership	−0.25	.07	−3.77	.000
Team cohesion	−0.17	.05	−3.71	.000
Conscientiousness	0.17	.08	2.10	.037
Ethical leadership × conscientiousness	−0.21	.06	−3.44	.001
Team cohesion × conscientiousness	−0.15	.05	−2.80	.005

We used an SPSS macro (PROCESS; Models 4 and 59) developed by Hayes (2012) to test our hypotheses. This macro allowed us to test both the simple mediation and moderated mediation models. It provides bootstrapped confident intervals (CIs) for indirect effects. When the moderator is designated in the model, it also provides bootstrapped CIs for the conditional indirect effect at different values of the moderator variable.

Table 3 presents the results of mediation tests (PROCESS; Model 4) reflecting Hypothesis 1–4. As shown there and consistent with Hypothesis 1, ethical leadership was negatively related to emotional exhaustion ($B = -.27$, $t = -4.54$, $p < .01$). Additionally, consistent with Hypothesis 2, ethical leadership was positively related to team cohesion ($B = .41$, $t = 6.09$, $p < .01$). Our results show support for Hypothesis 3, as team cohesion was negatively related to emotional exhaustion, controlling for ethical leadership ($B = -.20$, $t = -4.22$, $p < .01$). The R^2 values were .16 for team cohesion and .30 for emotional exhaustion.

With Hypothesis 4, we predicted that the effect of ethical leadership on emotional exhaustion was both direct and indirect through team cohesion. Results indicated a significant indirect effect of ethical leadership on emotional exhaustion through team cohesion, as evidenced by the bootstrap 99% confidence interval (CI) around the indirect effect not including zero (−.15, −.04). The direct effect of ethical leadership on emotional exhaustion when controlling for team cohesion was still significant and negative ($B = -.19$, $t = -3.08$, $p < .01$). This indicates that, as predicted, team cohesion partially mediated the relationship.

Tests of moderated mediation

Table 4 presents the results reflecting Hypotheses 5–8 (PROCESS; Model 59). As shown there and consistent with Hypothesis 5, the ethical leadership × conscientiousness cross-product term predicted emotional exhaustion ($B = -.21$, $t = -3.44$, $p < .01$). The R^2

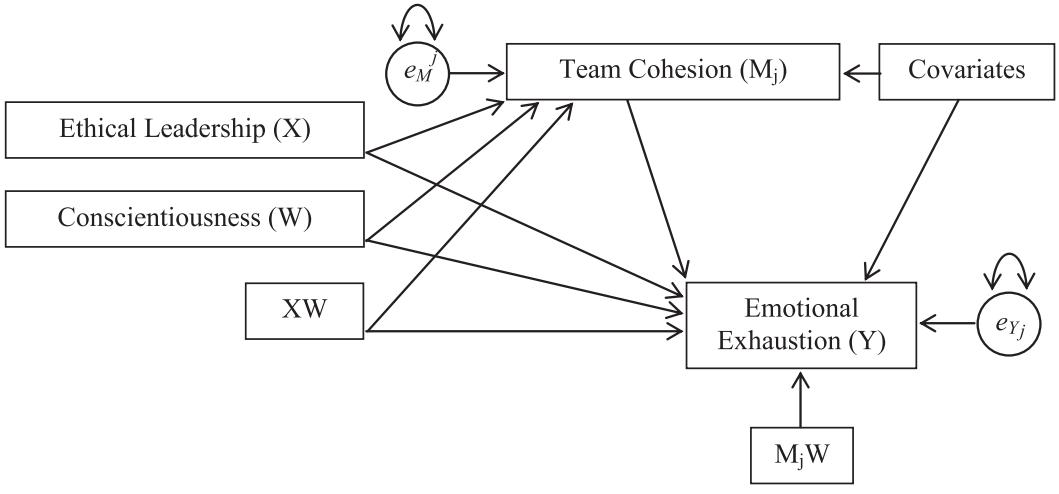

Fig. 2. The proposed structural model. *Note.* covariates = emotional stability and minority status.

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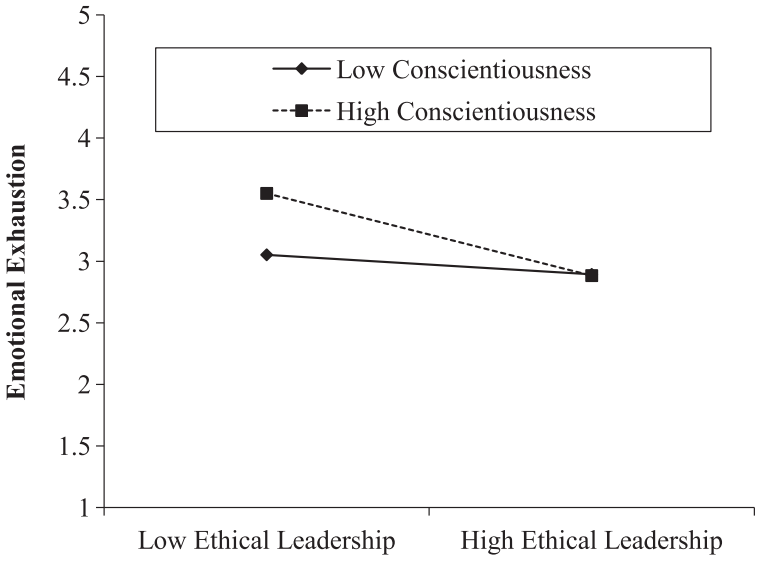

Fig. 3. Direct effect (path c').

value was .41. We present in Fig. 3 the form of this interaction. The ethical leadership–emotional exhaustion relationship was significant among high- (simple slope = −.40, $t = -5.07$, $p < .01$) but not among low-conscientiousness personnel (simple slope = −.10, $t = -1.21$, p = ns).

As also shown in Table 4 and in line with Hypothesis 6, the ethical leadership × conscientiousness cross-product term predicting cohesion was significant ($B = .14$, $t = 1.93$, $p = .05$). The R^2 value was .17. Fig. 4 presents the form of this interaction. As illustrated in the figure, the ethical leadership–team cohesion relationship was stronger among high- (simple slope = .53, $t = 6.18$, $p < .01$) than low-conscientiousness individuals (simple slope = .32, $t = 3.21$, $p < .01$). The team cohesion × conscientiousness cross-product term predicted emotional exhaustion ($B = -.15$, $t = -2.80$, $p < .01$). The nature of this interaction is presented in Fig. 5. As shown there, the relationship between team cohesion and emotional exhaustion was significant among high- (simple slope = −.28, $t = -4.64$, $p < .01$) but not among low-conscientiousness individuals (simple slope = −.06, $t = .94$, p = ns).

With Hypothesis 8, we predicted that conscientiousness moderates the indirect effect of ethical leadership on emotional exhaustion through team cohesion, such that the indirect effect of ethical leadership on emotional exhaustion via team cohesion is stronger among high- than low-conscientiousness individuals. According to Preacher et al. (2007), if one, either, or both of the interaction

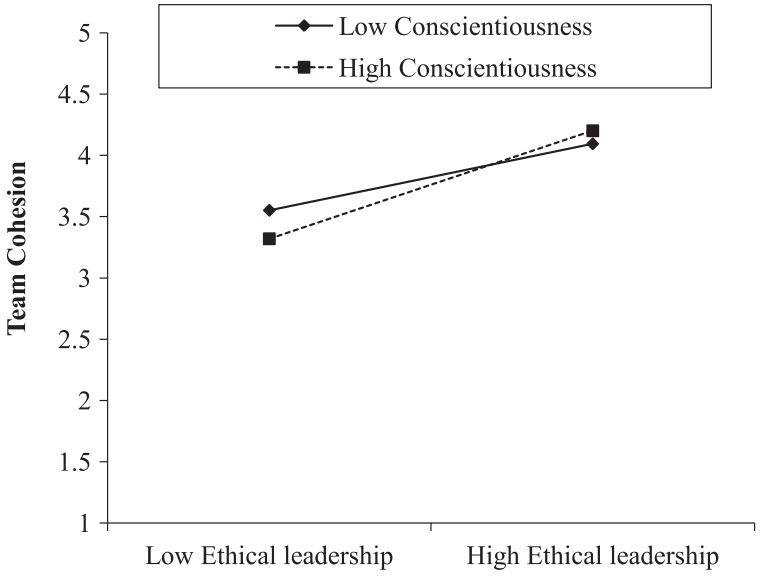

Fig. 4. First stage of the mediation (path a).

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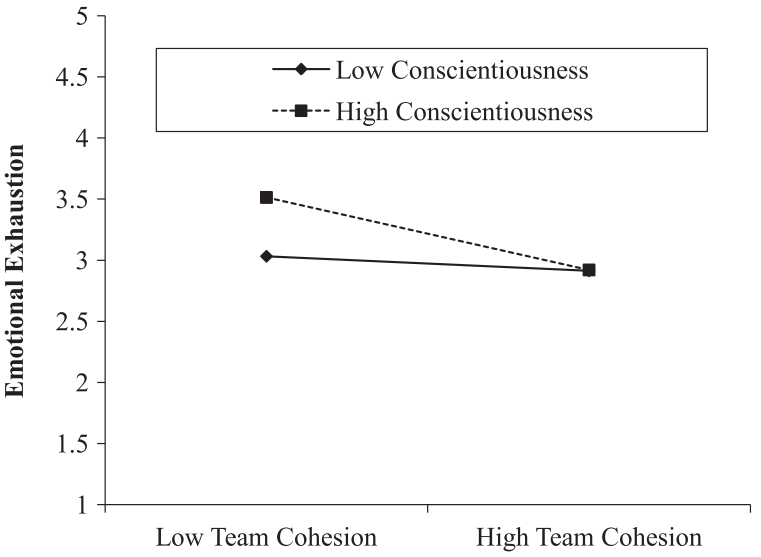

Fig. 5. Second stage of the mediation (path b).

terms from the first model and second model are statistically significant, and the 95% CI associated with the indirect effect does not contain zero, moderated mediation exists. We examined the conditional indirect effect of ethical leadership on emotional exhaustion (through team cohesion) at three values of conscientiousness: the mean, one standard deviation above the mean, and one standard deviation below the mean. The bottom of Table 4 presents the bootstrap results for the conditional indirect effects. As shown there, the bootstrap 99% CI around the conditional indirect effect overlapped zero only at the low conscientiousness value (−.09, .02). We present the form of this interaction in Fig. 6 (i.e., the conditional indirect effect of ethical leadership on emotional exhaustion through team cohesion). As illustrated there and consistent with Hypothesis 8 and the bootstrap 99% CI, the relationship between ethical leadership and emotional exhaustion controlling for team cohesion did not hold among low-conscientiousness individuals.

Discussion

We proposed and found support for a psychological process in which ethical leadership affects follower emotional exhaustion directly and indirectly through team cohesion. However, our data revealed that follower conscientiousness moderates the direct and indirect effects of ethical leadership. Personnel at lower (higher) levels of conscientiousness benefit less (more) from ethical leadership.

Theoretical implications

Our findings potentially contribute to the literature in at least three ways. First, the direct effect of ethical leadership on emotional exhaustion reflects the likelihood that: (1) high levels of ethical leadership behavior provide subordinates with resources that, other things being equal, protect them from emotional exhaustion; and (2) low levels of ethical leadership leave subordinates with fewer

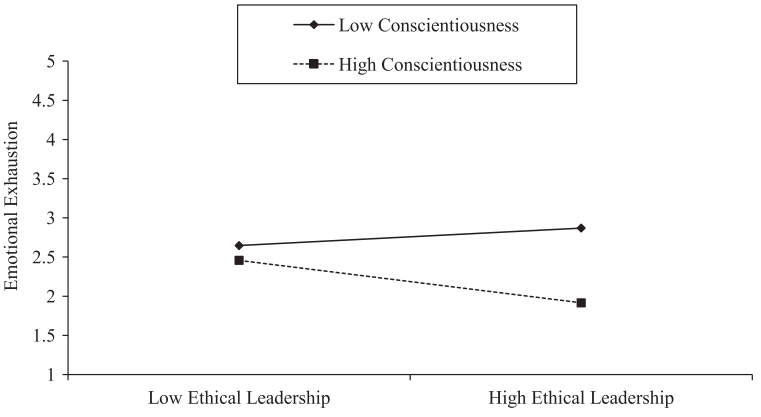

Fig. 6. Conditional indirect effect.

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resources that, other things being equal, expose them to emotional exhaustion. The low levels of ethical leadership likely require individuals to spend resources to cope with the situation (e.g., spending emotional energy to deal with concerns over making a wrong decision). By applying a resources-based stress theory (COR) to understanding the link between ethical leadership and emotional exhaustion, we have offered an explanation of the process by which low levels of ethical leadership – and not just unethical leadership – can contribute to follower strain.

Second and following Brown and Treviño's (2006) call for future research, we have identified an underlying mechanism through which ethical leadership relates to follower outcomes. The indirect effect of ethical leadership on emotional exhaustion reflects the likelihood that: (1) higher (lower) levels of ethical leadership enhance (diminish) team members' experience of team cohesion by meeting (not meeting) their needs of ethical guidance, enhancing (reducing) their efficacy in understanding priorities for decision-making, increasing (decreasing) the attractiveness of the team through ethical (low-ethics or unethical) decision-making, and decreasing (increasing) the occurrence of interpersonal conflicts that undermine team cohesion; and (2) perceptions of higher (lower) levels of team cohesion minimize (engender) emotional exhaustion by creating an attachment to (detachment from) the team and expectations of considerable (limited) support from coworkers.

Third, the direct and indirect effects of ethical leadership do not hold among individuals approaching the low end of conscientiousness. Not predisposed to adhere to rules and norms, they likely do not care much about ethical behaviors. In contrast, because they value rule-adherence, highly conscientious individuals are more sensitive to the ethical behavior of the leader. As reflected in Figs. 3 and 4, ethical leadership was more strongly related to emotional exhaustion and team cohesion, respectively, among the individuals higher than lower in conscientiousness. Similarly, because higher (lower) conscientiousness individuals are more (less) concerned about performance outcomes, team cohesion is (is not) a trait relevant cue for strain for them. As reflected in Fig. 5, team cohesion was more strongly related to emotional exhaustion among the individuals higher than lower in conscientiousness. Among individuals reporting higher levels of team cohesion, the highly conscientious individuals reported essentially the same levels of emotional exhaustion that individuals approaching the low end of conscientiousness reported. However, among individuals reporting lower levels of team cohesion, the highly conscientious individuals reported about half of a standard deviation higher levels of emotional exhaustion than did individuals lower in conscientiousness. A similar pattern emerged for the ethical leadership–emotional exhaustion relationship, suggesting that highly conscientious individuals become more drained and depleted when ethical leadership is low. Applying trait activation theory, we suggest that low levels of ethical leadership and team cohesion are cues that activate conscientiousness. In such circumstances, individuals at the higher end of conscientiousness have to spend their own resources to maintain their desired performance levels, and they experience increased levels of emotional exhaustion as a result. Hence, we offer a resources-based stress perspective of how low levels of ethical leadership affect team cohesion and emotional exhaustion, but we simultaneously emphasize that low levels of ethical leadership and team cohesion are situational cues primarily for individuals approaching the high end of conscientiousness.

As shown in Table 1, several interesting correlations involving demographic control variables emerged. We found that female and racioethnic minority soldiers in our sample reported lower team cohesion. Previous research has found similar results indicating that women and minority military personnel reported less positive job attitudes (Menon & Kotze, 2007). In addition, racioethnic minority soldiers also reported lower emotional exhaustion. Extant research on race and soldier well-being has mainly focused on severe psychological disorders, such as posttraumatic stress disorder (PTSD), yet less is known about how minority status may be related to burnout or other less severe forms of psychological strain. We call for future research to investigate potential gender and racial differences in this area.

Practical implications

Or findings reinforce a growing literature indicating that ethical leadership has considerable effects on employee well-being (e.g., Avey et al., 2012; Chughtai et al., 2014; Den Hartog & Belschak, 2012). The construct of ethical leadership focuses on the leader's proactive efforts to make ethics an explicit part of his/her agenda (Brown et al., 2005). Hence, we advocate training/developing leaders to act proactively regarding ethical matters and rewarding them for doing so. We suspect that leaders will be more likely to proactively address ethical issues once they realize that such efforts affect not only how individuals experience the team dynamics but also their well-being. Of course, as there are individual differences in ethical behavior, we advocate assessing integrity when selecting leaders (Mayer et al., 2012).

Our findings concerning the moderating role of follower conscientiousness suggest two opportunities for management practice. The first opportunity involves the treatment of highly conscientious employees. Anecdotal evidence suggests that leaders rely on highly conscientious employees because they are effective. However, leaders may overlook the needs of conscientious employees and underestimate the level of support that they require. We suggest that leaders not simply assume that conscientious employees will just do the right thing and thus pay little attention to addressing ethical issues with them. Rather, we suggest that leaders are likely to be well-served by proactively and regularly addressing ethical issues with all employees. In addition, leaders may reap benefits by paying attention to the well-being of highly conscientious employees, as our results suggest they may be emotionally vulnerable when the situation (i.e., lower levels of ethical leadership) inhibits their conscientiousness.

Second, we call on human resource managers to install or strengthen communication infrastructures that enable individuals to seek help with situations involving unethical leaders. Consistent with the notion of "tattle-tale," normative influences dictate appropriate and inappropriate methods for dealing with such leaders. The majority of such influences discourage talking negatively about the leader. However, we argue that such norms are dysfunctional when ethics are involved, particularly in high moral intensity situations.

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Limitations and opportunities for future research

We emphasize eight potential weaknesses of the study. First, our conditional process model implies causal relationship between ethical leadership, team cohesion, and emotional exhaustion. However, due to the cross-sectional design of our study, we cannot draw conclusions about causality. Second, even though we found that the potential influence of a common method factor was comparatively low, we utilized self-reported surveys that are subject to the influence of common method variance (Podsakoff et al., 2003). Third, it is possible that military personnel might have responded to questions about their leaders in a socially desirable manner, even though their responses were anonymous.

Fourth, due to limitations in terms of survey length, we used selected items from established scales instead of the full scales; although we provided evidence of their construct validity, we acknowledge that the uniqueness of the measures used may raise construct validity issues. Moreover, shortened personality scales are subject to a slight reduction in validity and internal consistencies (Donnellan et al., 2006; e.g., $\alpha = .60$ for emotional exhaustion). Nevertheless, in their efforts to develop and validate a short form of Big Five personality, Donnellan and colleagues (2006) noted that such short scales can be practically useful, efficient, and economical substitutes when survey length is limited. To measure ethical leadership, we focused on the "moral manager" component of ethical leadership and excluded five items that were overlapping with other leadership behaviors (Mayer et al., 2012). Many, if not most, scholars have included fairness as a component of ethical leadership in their work. In contrast, we view fair treatment of subordinates as a separate, albeit related construct (Brown et al., 2005; Mayer et al., 2012). Specifically, we view ethical leadership as reflecting moral issues — issues that might not always reflect distributive, interpersonal, or procedural justice. We recognize that this decision may limit the generalizability of our findings. Thus, we encourage future researchers to: (1) include fairness items when assessing ethical leadership and investigating the psychological processes described here, and (2) investigate the utility of treating ethical leadership and fairness scales as separate variables to permit assessment of leader behaviors that could potentially be ethical but unfair, and vice versa.

Fifth, we did not assess the cultural backgrounds of the participants. Cultural backgrounds may influence definitions and perceptions of ethical behavior (Resick et al., 2011). Therefore, we call on future researchers to employ approaches to minimizing method bias prior to data collection, collect data (e.g., emotional exhaustion) from other sources, use longer personality scales, use longitudinal data, control for cultural background, and test the model in multiple samples representing different cultures and industries.

Sixth, emotional exhaustion and team cohesion did not vary significantly between teams. Although burnout has been traditionally measured at the individual level, recent studies have demonstrated merits in examining it at the team level (e.g., Diefendorff, Erickson, Grandey, & Dahling, 2011; Garman, Corrigan, & Morris, 2002). We encourage future researchers to investigate circumstances in which emotional exhaustion is an individual-level phenomenon and when it is influenced by team-level factors. With respect to team cohesion, it may be conceived as being both a between- and within-group phenomenon (Cogliser & Schriesheim, 2000). It is possible that some variables not assessed in our study, such as task independence or leader–member exchange variability, may have contributed to the lack of between-group variance in our sample. We also suspect that we did not find group-level effects because ethical leadership and team cohesion are not trait-relevant situational cues to persons approaching the low end of conscientiousness; we also call on future researchers to further investigate this issue.

Seventh, like all models, our model is misspecified (Hayes, 2013), as we did not incorporate all likely mediating mechanisms. With the current study, we examined team cohesion, a very relevant phenomenon in military setting, and demonstrated that ethical leadership can benefit follower well-being through efforts to enhance cohesion. There are a number of other mediating mechanisms that may also explain the relationship between ethical leadership and emotional exhaustion. For example, psychological safety, as a consequence of ethical leadership (Liang, 2014), may function as a meaningful resource that lessens emotional exhaustion. We call for work to investigate other potential mediating mechanisms that might also explain the indirect effects of ethical leadership on emotional exhaustion.

Eighth, we did not control for the technical competence of the leaders. Anecdotal evidence suggests that promotions of military personnel are based more on competence and effectiveness than on character. Whereas ethical leadership is associated with effectiveness (Brown et al., 2005; Hassan, Mahsud, Yukl, & Prussia, 2013), we emphasize that the technical competence of the leaders might have influenced the results.

We encourage future researchers to continue to probe the ethical environment of organizations. A next step in research might be to test a more complex path of the proposed model by adding performance or counterproductive work behavior as a final outcome. Furthermore, we call for approaches that involve interviews with participants. Such efforts might help researchers identify how people are actually processing the ethical behaviors of the leader. Interviews may also provide relevant information regarding the nature of the morally intense (i.e., ethically demanding) situations encountered. We call for researchers to examine the role of conscientiousness in influencing how followers respond in terms of compliance and performance to leader ethical behaviors.

Finally, we emphasize that ethical leadership in other situations deserves as much attention as it does in high moral intensity situations studied in the present study. Most existing research on ethical leadership was conducted in civilian organizations, and the body of work clearly indicates the effectiveness of ethical leadership (e.g., Brown et al., 2005; Piccolo et al., 2010; Schaubroeck et al., 2012). However, we are unaware of work examining how the level of moral intensity as a characteristic of the environment influences the effects of ethical leadership. Efforts to explicitly assess the impact of ethical leadership across the levels of situational moral intensity are likely to be of utility. Work that simultaneously investigates the ethicality of difficult decisions (e.g., violating codes of conduct to save lives) would be particularly insightful.

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Strengths

Applying trait activation theory and a resources-based stress (COR) theory, we explained how (via low levels of valued work conditions or "resources") and when (primarily among individuals approaching the high end of conscientiousness) low levels of ethical leadership affect team cohesion and emotional exhaustion. Whereas with few exceptions (Olsen et al., 2010; Schaubroeck et al., 2012), ethical leadership scholars have investigated scenarios and outcomes primarily in civilian organizations, we studied a sample of military personnel deployed in combat zones. We consider this a strength for five reasons. First, there are approximately 89 million people employed as uniformed military personnel across the globe (International Institute for Strategic Studies, 2010); that is, our findings are potentially relevant to a considerable number of people in uniform. Second, ethical failures in military operations can bring serious consequences (Beu & Buckley, 2004; Olsen et al., 2010), such as injuring or killing innocent bystanders (Olsen et al., 2010). Hence, a focus on ethical leadership in military organizations is potentially of high utility. Third, because of the moral intensity of many combat situations, the findings reported here might be relevant to other situations where decisions frequently affect life and death (e.g., health care) and/or the safety of the community/environment (e.g., handling of pollutants). Fourth, emotional exhaustion is especially a threat to operations, particularly when physical safety is at risk. Hence, our findings are likely relevant to such other professions as emergency responders, manufacturing, logistics, and law enforcement. In addition, we consider our focus on team cohesion as a factor influencing emotional exhaustion a possible strength, as it has ramifications for theory and practice in organizations that structure work in teams.

Conclusion

In sum, we found that ethical leadership affects emotional exhaustion directly and indirectly through team cohesion. However, conscientiousness is a likely boundary condition of these effects. Ethical leadership is essentially irrelevant to these outcomes among individuals approaching the low end of conscientiousness.

References

Ashforth, B.E., Gioia, D.A., Robinson, S.L., & Treviño, L.K. (2008). Re-viewing organizational corruption. *The Academy of Management Review*, *33*, 670–684. http://dx.doi.org/10.2307/20159430.

Avey, J.B., Wernsing, T.S., & Palanski, M.E. (2012). Exploring the process of ethical leadership: The mediating role of employee voice and psychological ownership. *Journal of Business Ethics*, *107*, 21–34. http://dx.doi.org/10.1007/s10551-012-1298-2.

Bakker, A.B., & Demerouti, E. (2007). The job demands–resources model: State of the art. *Journal of Managerial Psychology*, *22*, 309–328. http://dx.doi.org/10.1108/02683940710733115.

Bandura, A. (1971). *Social learning theory.* Morristown, NJ: General Learning Press.

Bandura, A. (1986). *Social foundations for thought and action: A social cognitive theory.* Englewood Cliffs, NJ: Prentice-Hall.

Bandura, A. (1991). Social cognitive theory of self-regulation. *Organizational Behavior and Human Decision Processes*, *50*, 248–287.

Barrick, M.R., Stewart, G.L., Neubert, M.J., & Mount, M.K. (1998). Relating member ability and personality to work–team processes and team effectiveness. *Journal of Applied Psychology*, *83*, 377–391. http://dx.doi.org/10.1037/0021-9010.83.3.377.

Bass, B.M., & Avolio, B.J. (2000). *Multifactor leadership questionnaire.* Redwood City, CA: Mindgarden.

Bass, B.M., Jung, D.I., Avolio, B.J., & Berson, Y. (2003). Predicting unit performance by assessing transformational and transactional leadership. *Journal of Applied Psychology*, *88*, 207–218. http://dx.doi.org/10.1037/0021-9010.88.2.207.

Baysinger, M.A., Scherer, K.T., & LeBreton, J.M. (2014). Exploring the disruptive effects of psychopathy and aggression on group processes and group effectiveness. *Journal of Applied Psychology*, *99*, 48–65. http://dx.doi.org/10.1037/a0034317.

Beal, D.J., Cohen, R.R., Burke, M.J., & McLendon, C.L. (2003). Cohesion and performance in groups: A meta-analytic clarification of construct relations. *Journal of Applied Psychology*, *88*, 989–1004. http://dx.doi.org/10.1037/0021-9010.88.6.989.

Becker, T.E. (2005). Potential problems in the statistical control of variables in organizational research: A qualitative analysis with recommendations. *Organizational Research Methods*, *8*, 274–289. http://dx.doi.org/10.1177/1094428105278021.

Bello, S.M. (2012). Impact of ethical leadership on employee job performance. *International Journal of Business and Social Science*, *11*, 228–236.

Beu, D.S., & Buckley, M.R. (2004). This is war: How the politically astute achieve crimes of obedience through the use of moral disengagement. *The Leadership Quarterly*, *15*, 551–568. http://dx.doi.org/10.1016/j.leaqua.2004.05.007.

Blau, P.M. (1964). *Exchange and power in social life.* New York: Wiley.

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 in organizations* (pp. 349–381). San Francisco: Jossey-Bass.

Brown, M.E., & Treviño, L.K. (2006). Ethical leadership: A review and future directions. *The Leadership Quarterly*, *17*, 595–616. http://dx.doi.org/10.1016/j.leaqua.2006.10.004.

Brown, M.E., Treviño, L.K., & Harrison, D.A. (2005). Ethical leadership: A social learning perspective for construct development and testing. *Organizational Behavior and Human Decision Processes*, *97*, 117–134. http://dx.doi.org/10.1016/j.obhdp.2005.03.002.

Buhler, K.E., & Land, T. (2003). Burnout and personality in intensive care: An empirical study. *Hospital Topics*, *81*, 5–12.

Chughtai, A., Byrne, M., & Flood, B. (2014). Linking ethical leadership to employee well-being: The role of trust in supervisor. *Journal of Business Ethics*. http://dx.doi.org/10.1007/s10551-014-2126-7.

Cogliser, C.C., & Schriesheim, C.A. (2000). Exploring work unit context and leader–member exchange: A multi-level perspective. *Journal of Organizational Behavior*, *21*, 487–511. http://dx.doi.org/10.1002/1099-1379(200008)21:5<487::AID-JOB57>3.0.CO;2-P.

Cordes, C.L., & Dougherty, T.W. (1993). A review and an integration of research on job burnout. *The Academy of Management Review*, *18*, 621–656. http://dx.doi.org/10.2307/258593.

Costa, P.T., & McCrae, R.R. (1992). Four ways five factors are basic. *Personality and Individual Differences*, *13*, 653–665. http://dx.doi.org/10.1016/0191-8869(92)90236-I.

Cropanzano, R., Rupp, D.E., & Byrne, Z.S. (2003). The relationship of emotional exhaustion to work attitudes, job performance, and organizational citizenship behaviors. *Journal of Applied Psychology*, *88*, 160–169. http://dx.doi.org/10.1037/0021-9010.88.1.160.

Davis, J.H. (1969). *Group performance.* Reading, MA: Addison-Wesley.

De Hoogh, A.B., & Den Hartog, D.N. (2009). Neuroticism and locus of control as moderators of the relationships of charismatic and autocratic leadership with burnout. *Journal of Applied Psychology*, *94*, 1058–1067. http://dx.doi.org/10.1037/a0016253.

de Jong, J.P., Curşeu, P.L., & Leenders, R.J. (2014). When do bad apples not spoil the barrel? Negative relationships in teams, team performance, and buffering mechanisms. *Journal of Applied Psychology*, *99*, 514–522. http://dx.doi.org/10.1037/a0036284.

Please cite this article as: Zheng, D., et al., Effects of ethical leadership on emotional exhaustion in high moral intensity situations, *The Leadership Quarterly* (2015), http://dx.doi.org/10.1016/j.leaqua.2015.01.006

Den Hartog, D., & Belschak, F. (2012). Work engagement and Machiavellianism in the ethical leadership process. *Journal of Business Ethics*, *107*, 35–47. http://dx.doi.org/10.1007/s10551-012-1296-4.
Densten, I.L. (2005). The relationship between visioning behaviours of leaders and follower burnout. *British Journal of Management*, *16*, 105–118. http://dx.doi.org/10.1111/j.1467-8551.2005.00428.x.
Dickson, M.W., Smith, D., Grojean, M.W., & Ehrhart, M. (2001). An organizational climate regarding ethics: The outcome of leader values and the practices that reflect them. *The Leadership Quarterly*, *12*, 197–217. http://dx.doi.org/10.1016/S1048-9843(01)00069-8.
Diefendorff, J.M., Erickson, R.J., Grandey, A.A., & Dahling, J.J. (2011). Emotional display rules as work unit norms: A multilevel analysis of emotional labor among nurses. *Journal of Occupational Health Psychology*, *16*, 170–186. http://dx.doi.org/10.1037/a0021725.
Digman, J.M. (1990). Personality structure: Emergence of the five-factor model. *Annual Review of Psychology*, *41*, 417–440. http://dx.doi.org/10.1146/annurev.ps.41.020190.002221.
Donnellan, M.B., Oswald, F.L., Baird, B.M., & Lucas, R.E. (2006). The Mini-IPIP Scales: Tiny-yet-effective measures of the Big Five Factors of personality. *Psychological Assessment*, *18*, 192–203. http://dx.doi.org/10.1037/1040-3590.18.2.192.
Edwards, J.R., & Lambert, L. (2007). Methods for integrating moderation and mediation: A general analytical framework using moderated path analysis. *Psychological Methods*, *12*, 1–22. http://dx.doi.org/10.1037/1082-989X.12.1.1.
Frey, B.F. (2000). Investigating moral intensity with the World-Wide Web: A look at participant reactions and a comparison of methods. *Behavior Research Methods, Instruments, & Computers*, *32*, 423.
Gaines, J., & Jermier, J.M. (1983). Emotional exhaustion in a high stress organization. *Academy of Management Journal*, *26*, 567–586. http://dx.doi.org/10.2307/255907.
Garman, A.N., Corrigan, P.W., & Morris, S. (2002). Staff burnout and patient satisfaction: Evidence of relationships at the care unit level. *Journal of Occupational Health Psychology*, *7*, 235–241. http://dx.doi.org/10.1037/1076-8998.7.3.235.
Goldberg, L.R. (1992). The development of markers for the Big-Five factor structure. *Psychological Assessment*, *4*, 26–42. http://dx.doi.org/10.1037/1040-3590.4.1.26.
Goldberg, L.R. (1999). A broad-bandwidth, public-domain, personality inventory measuring the lower-level facets of several five-factor models. In I. Mervielde, I.J. Deary, F. De Fruyt, & F. Ostendorf (Eds.), *Personality psychology in Europe, vol. 7*. (pp. 7–28). Tilburg, The Netherlands: Tilburg University Press.
Greene, C.N., & Schriesheim, C.A. (1980). Leader–group interactions: A longitudinal field investigation. *Journal of Applied Psychology*, *65*, 50–59. http://dx.doi.org/10.1037/0021-9010.65.1.50.
Halbesleben, J.B. (2006). Sources of social support and burnout: A meta-analytic test of the conservation of resources model. *Journal of Applied Psychology*, *91*, 1134–1145. http://dx.doi.org/10.1037/0021-9010.91.5.1134.
Halbesleben, J.B., & Buckley, M. (2004). Burnout in organizational life. *Journal of Management*, *30*, 859–879. http://dx.doi.org/10.1016/j.jm.2004.06.004.
Halbesleben, J.R., Harvey, J., & Bolino, M.C. (2009). Too engaged? A conservation of resources view of the relationship between work engagement and work interference with family. *Journal of Applied Psychology*, *94*, 1452–1465. http://dx.doi.org/10.1037/a0017595.
Hassan, S., Mahsud, R., Yukl, G., & Prussia, G.E. (2013). Ethical and empowering leadership and leader effectiveness. *Journal of Managerial Psychology*, *28*(2), 133–146. http://dx.doi.org/10.1108/02683941311300252.
Hayes, A.F. (2012). PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling [White paper]. Retrieved from http://www.afhayes.com/public/process2012.pdf
Hayes, A.F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach.* New York: The Guilford Press.
Hobfoll, S.E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, *44*, 513–524. http://dx.doi.org/10.1037/0003-066X.44.3.513.
Hobfoll, S.E. (2001). The influence of culture, community, and the nested self in the stress process: Advancing conservation of resources theory. *Applied Psychology: An International Review*, *50*, 337–421. http://dx.doi.org/10.1111/1464-0597.00062.
Hochwarter, W.A., Ferris, G.R., Zinko, R., Arnell, B., & James, M. (2007). Reputation as a moderator of political behavior–work outcomes relationships: A two-study investigation with convergent results. *Journal of Applied Psychology*, *92*, 567–576. http://dx.doi.org/10.1037/0021-9010.92.2.567.
International Institute for Strategic Studies (2010). In J. Hackett (Ed.), *Military balance 2010*. London: Routledge.
Iversen, A.C., Fear, N.T., Ehlers, A.A., Hughes, J., Hull, L.L., Earnshaw, M.M., et al. (2008). Risk factors for post-traumatic stress disorder among UK Armed Forces personnel. *Psychological Medicine*, *38*, 511–522. http://dx.doi.org/10.1017/S0033291708002778.
John, O.P., & Srivastava, S. (1999). The Big Five Trait taxonomy: History, measurement, and theoretical perspectives. In L.A. Pervin, & O.P. John (Eds.), *Handbook of personality: Theory and research* (pp. 102–138) (2nd ed.). New York, NY US: Guilford Press.
Johnson, J.A., & Ostendorf, F. (1993). Clarification of the five-factor model with the abridged big five dimensional circumplex. *Journal of Personality & Social Psychology*, *65*, 563–576. http://dx.doi.org/10.1037/0022-3514.65.3.563.
Jones, T.M. (1991). Ethical decision making by individuals in organizations: An issue-contingent model. *The Academy of Management Review*, *16*, 366–395. http://dx.doi.org/10.2307/258867.
Kacmar, K., Bachrach, D.G., Harris, K.J., & Noble, D. (2012). Exploring the role of supervisor trust in the associations between multiple sources of relationship conflict and organizational citizenship behavior. *The Leadership Quarterly*, *23*, 43–54. http://dx.doi.org/10.1016/j.leaqua.2011.11.004.
Kalshoven, K., & Boon, C.T. (2012). Ethical leadership, employee well-being, and helping: The moderating role of human resource management. *Journal of Personnel Psychology*, *11*, 60–68. http://dx.doi.org/10.1027/1866-5888/a000056.
Kalshoven, K., Den Hartog, D.N., & De Hoogh, A.B. (2011). Ethical Leadership at Work questionnaire (ELW): Development and validation of a multidimensional measure. *The Leadership Quarterly*, *22*, 51–69. http://dx.doi.org/10.1016/j.leaqua.2010.12.007.
Kline, R.B. (2011). *Principles and practice of structural equation modeling* (3rd ed.). New York: Guilford Press.
Kohlberg, L. (1969). State and sequence: The cognitive-development approach to socialization. In D. Goslin (Ed.), *Handbook of socialization theory and research* (pp. 347–480). Chicago: Rand-McNally.
Lee, R.T., & Ashforth, B.E. (1996). A meta-analytic examination of the correlates of the three dimensions of job burnout. *Journal of Applied Psychology*, *81*, 123–133. http://dx.doi.org/10.1037/0021-9010.81.2.123.
LePine, J.A., LePine, M.A., & Jackson, C.L. (2004). Challenge and hindrance stress: Relationships with exhaustion, motivation to learn, and learning performance. *Journal of Applied Psychology*, *89*, 883–891. http://dx.doi.org/10.1037/0021-9010.89.5.883.
Lester, S.W., Meglino, B.M., & Korsgaard, M.A. (2002). The antecedents and consequences of group potency: A longitudinal investigation of newly formed work groups. *Academy of Management Journal*, *45*, 352–368. http://dx.doi.org/10.2307/3069351.
Li, Y., Xu, J., Tu, Y., & Lu, X. (2013). Ethical leadership and subordinates' occupational well-being: A multi-level examination in China. *Social Indicators Research*. http://dx.doi.org/10.1007/s11205-013-0321-z.
Liang, J. (2014). Ethical leadership and employee voice: Examining a moderated-mediation model. *Acta Psychologica Sinica*, *46*, 252–264.
Lincoln, S., & Holmes, E.K. (2010). The psychology of making ethical decisions: What affects the decision? *Psychological Services*, *7*, 57–64. http://dx.doi.org/10.1037/a0018710.
Lind, E., & 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: An annual series of analytical essays and critical reviews* (pp. 181–223). US: Elsevier Science/JAI Press.
MacDonald, C., Chamberlain, K., & Long, N. (1997). Race, combat, and PTSD in a community sample of New Zealand Vietnam War veterans. *Journal of Traumatic Stress*, *10*, 117–124. http://dx.doi.org/10.1023/A:1024816615704.
Mael, F.A., & Alderks, C.E. (1993). Leadership team cohesion and subordinate work unit morale and performance. *Military Psychology*, *5*, 141. http://dx.doi.org/10.1207/s15327876mp0503_1 (Taylor & Francis Ltd).
Maslach, C. (1982). *Burnout: The cost of caring.* Englewood Cliffs, NJ: Prentice Hall.
Maslach, C., & Jackson, S.E. (1981). The measurement of experienced burnout. *Journal of Occupational Behavior*, *2*, 99–113.

Please cite this article as: Zheng, D., et al., Effects of ethical leadership on emotional exhaustion in high moral intensity situations, *The Leadership Quarterly* (2015), http://dx.doi.org/10.1016/j.leaqua.2015.01.006

Maslach, C., Jackson, S.E., & Leiter, M.P. (1996). *Maslach Burnout Inventory manual* (3rd ed.). Mountain View, CA: CPP, Inc.
Mayer, D.M., Aquino, K., Greenbaum, R.L., & Kuenzi, M. (2012). Who displays ethical leadership, and why does it matter? An examination of antecedents and consequences of ethical leadership. *Academy of Management Journal*, *55*, 151–171. http://dx.doi.org/10.5465/amj.2008.0276.
Mayer, D.M., Kuenzi, M., & Greenbaum, R.L. (2010). Examining the link between ethical leadership and employee misconduct: The mediating role of ethical climate. *Journal of Business Ethics*, *95*, 7–16. http://dx.doi.org/10.1007/s10551-011-0794-0.
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. http://dx.doi.org/10.1016/j.obhdp.2008.04.002.
McCrae, R.R., & Costa, P.T. (1987). Validation of the five-factor model of personality across instruments and observers. *Journal of Personality and Social Psychology*, *52*, 81–90. http://dx.doi.org/10.1037/0022-3514.52.1.81.
McCrae, R.R., & John, O.P. (1992). An introduction to the five-factor model and its applications. *Journal of Personality*, *60*, 175–215. http://dx.doi.org/10.1111/j.1467-6494.1992.tb00970.x.
McMahon, J., & Harvey, R. (2006). An analysis of the factor structure of Jones' moral intensity construct. *Journal of Business Ethics*, *64*, 381–404.
Menon, S.T., & Kotze, E. (2007). Human resource integration in the South African military: A view from the trenches. *Human Resource Management*, *46*, 71–94. http://dx.doi.org/10.1002/hrm.20146.
Mitchell, M.M., Gallaway, M., Millikan, A.M., & Bell, M.R. (2013). Combat exposure, unit cohesion, and demographic characteristics of soldiers reporting posttraumatic growth. *Journal of Loss & Trauma*, *18*, 383–395. http://dx.doi.org/10.1080/15325024.2013.768847.
Morgeson, F.P., DeRue, D., & Karam, E.P. (2010). Leadership in teams: A functional approach to understanding leadership structures and processes. *Journal of Management*, *36*, 5–39. http://dx.doi.org/10.1177/0149206309347376.
Mount, M.K., & Barrick, M.R. (1995). The Big Five personality dimensions: Implications for research and practice in human resource management. *Research in Personnel and Human Resources Management*, *13*, 153–200.
Mulki, J.P., Jaramillo, J., & Locander, W.B. (2009). Critical role of leadership on ethical climate and salesperson behaviors. *Journal of Business Ethics*, *86*, 125–141. http://dx.doi.org/10.1007/s10551-008-9839-4.
Mullen, B., & Copper, C. (1994). The relation between group cohesiveness and performance: An integration. *Psychological Bulletin*, *115*, 210–227. http://dx.doi.org/10.1037/0033-2909.115.2.210.
Oliver, L.W., Harman, J., Hoover, E., Hayes, S.M., & Pandhi, N.A. (1999). A quantitative integration of the military cohesion literature. *Military Psychology*, *11*, 57–83. http://dx.doi.org/10.1207/s15327876mp1101_4.
Olsen, O., Eid, J., & Larsson, G. (2010). Leadership and ethical justice behavior in a high moral intensity operational context. *Military Psychology*, *22*, S137–S156. http://dx.doi.org/10.1080/08995601003644437.
Penk, W.E., Robinowitz, R., Black, J., Dolan, M.P., Bell, W., Dorsett, D., et al. (1989). Ethnicity: Post-traumatic stress disorder (PTSD) differences among Black, White, and Hispanic veterans who differ in degrees of exposure to combat in Vietnam. *Journal of Clinical Psychology*, *45*, 729–735. http://dx.doi.org/10.1002/1097-4679(198909)45:5<729::AID-JCLP2270450507>3.0.CO;2-H.
Perry, S., Witt, L.A., Penney, L.M., & Atwater, L. (2010). The downside of goal-focused leadership: The role of personality in subordinate exhaustion. *Journal of Applied Psychology*, *95*, 1145–1153. http://dx.doi.org/10.1037/a0020538.
Piccolo, R.F., Greenbaum, R., den Hartog, D.N., & Folger, R. (2010). The relationship between ethical leadership and core job characteristics. *Journal of Organizational Behavior*, *31*, 259–278. http://dx.doi.org/10.1002/job.627.
Podsakoff, P.M., MacKenzie, S.B., Lee, J., & Podsakoff, N.P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, *88*, 879–903. http://dx.doi.org/10.1037/0021-9010.88.5.879.
Podsakoff, P.M., & Todor, W.D. (1985). Relationships between leader reward and punishment behavior and group processes and productivity. *Journal of Management*, *11*, 55–73. http://dx.doi.org/10.1177/014920638501100106.
Preacher, K.J., & Hayes, A.F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, *40*, 879–891. http://dx.doi.org/10.3758/BRM.40.3.879.
Preacher, K.J., Rucker, D.D., & Hayes, A.F. (2007). Addressing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate Behavioral Research*, *42*, 185–227. http://dx.doi.org/10.1080/00273170701341316.
Resick, C.J., Martin, G.S., Keating, M.A., Dickson, M.W., Kwan, H., & Peng, A.C. (2011). What ethical leadership means to me: Asian, American, and European perspectives. *Journal of Business Ethics*, *101*, 435–457. http://dx.doi.org/10.1007/s10551-010-0730-8.
Reynolds, S.J. (2006). Moral awareness and ethical predispositions: Investigating the role of individual differences in the recognition of moral issues. *Journal of Applied Psychology*, *91*, 233–243. http://dx.doi.org/10.1037/0021-9010.91.1.233.
Schaubroeck, J.M., Hannah, S.T., Avolio, B.J., Kozlowski, S.J., Lord, R.G., Treviño, L.K., et al. (2012). Embedding ethical leadership within and across organizational levels. *Academy of Management Journal*, *55*, 1053–1078. http://dx.doi.org/10.5465/amj.2011.0064.
Schein, E.H. (2010). *Organizational culture and leadership* (4th ed.). San Francisco: Jossey-Bass.
Schriesheim, C.A., Mowday, R., & Stogdill, R.M. (1979). Crucial dimensions of leader–group interactions. In J.G. Hunt, & L.L. Larson (Eds.), *Crosscurrents in leadership* (pp. 1979). Carbondale: Southern Illinois University Press.
Shay, J. (1994). *Achilles in Vietnam*. New York, NY: Athenum Press.
Shirom, A. (1989). Burnout in work organizations. In C.L. Cooper, & I.T. Robertson (Eds.), *International review of industrial and organizational psychology 1989* (pp. 25–48). Oxford England: John Wiley & Sons.
Singer, M.S., & Singer, A.E. (1997). Observer judgments about moral agents' ethical decisions: The role of scope of justice and moral intensity. *Journal of Business Ethics*, *16*, 473–484.
Snijders, T.B., & Bosker, R.J. (2007). *Multilevel analysis. An introduction to basic and advanced multilevel modeling* (2nd ed.). London, UK: Sage Publications.
Sosik, J.J., Avolio, B.J., & Kahai, S.S. (1997). Effects of leadership style and anonymity on group potency and effectiveness in a GDSS environment. *Journal of Applied Psychology*, *82*, 89–103. http://dx.doi.org/10.1037/0021-9010.82.1.89.
Sparks, J.R., & Schenk, J.A. (2001). Explaining the effects of transformational leadership: An investigation of the effects of higher-order motives in multilevel marketing organizations. *Journal of Organizational Behavior*, *22*, 849–869. http://dx.doi.org/10.1002/job.116.
Stouten, J., Baillien, E., Van den Broeck, A., Camps, J., De Witte, H., & Euwema, M. (2010). Discouraging bullying: The role of ethical leadership and its effects on the work environment. *Journal of Business Ethics*, *95*, 17–27. http://dx.doi.org/10.1007/s10551-011-0797-x.
Tekleab, A.G., Quigley, N.R., & Tesluk, P.E. (2009). A longitudinal study of team conflict, conflict management, cohesion, and team effectiveness. *Group & Organization Management*, *34*, 170–205. http://dx.doi.org/10.1177/1059601108331218.
Tett, R.P., & Burnett, D.D. (2003). A personality trait-based interactionist model of job performance. *Journal of Applied Psychology*, *88*, 500–517. http://dx.doi.org/10.1037/0021-9010.88.3.500.
Tett, R.P., & Guterman, H.A. (2000). Situation trait relevance, trait expression, and cross-situational consistency: Testing a principle of trait activation. *Journal of Research in Personality*, *34*, 397–423. http://dx.doi.org/10.1006/jrpe.2000.2292.
Treviño, L. (1986). Ethical decision making in organizations: A person–situation interactionist model. *Academy of Management Review*, *11*, 601–617. http://dx.doi.org/10.5465/AMR.1986.4306235.
Valentine, S., & Hollingworth, D. (2012). Moral intensity, issue importance, and ethical reasoning in operations situations. *Journal of Business Ethics*, *108*, 509–523. http://dx.doi.org/10.1007/s10551-011-1107-3.
Van den Bos, K. (2001). Uncertainty management: The influence of uncertainty salience on reactions to perceived procedural fairness. *Journal of Personality & Social Psychology*, *80*, 931–941. http://dx.doi.org/10.1037//0022-3514.80.6.931.
Walsh, B.M., Matthews, R.A., Tuller, M.D., Parks, K.M., & McDonald, D.P. (2010). A multilevel model of the effects of equal opportunity climate on job satisfaction in the military. *Journal of Occupational Health Psychology*, *15*, 191–207. http://dx.doi.org/10.1037/a0018756.
Wang, Q., Bowling, N.A., & Eschleman, K.J. (2010). A meta-analytic examination of work and general locus of control. *Journal of Applied Psychology*, *95*, 761–768. http://dx.doi.org/10.1037/a0017707.

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Weaver, G.R., Treviño, L., & Agle, B. (2005). "Somebody I look up to:" Ethical role models in organizations. *Organizational Dynamics*, *34*, 313–330. http://dx.doi.org/10.1016/j.orgdyn.2005.08.001.

Williams, L.J., Cote, J.A., & Buckley, M. (1989). Lack of method variance in self-reported affect and perceptions at work: Reality or artifact? *Journal of Applied Psychology*, *74*, 462–468. http://dx.doi.org/10.1037/0021-9010.74.3.462.

Wright, T.A., & Bonett, D.G. (1997). The contribution of burnout to work performance. *Journal of Organizational Behavior*, *18*, 491–499. http://dx.doi.org/10.1002/(SICI)1099-1379(199709)18:5<491::AID-JOB804>3.0.CO;2-I.

Wright, T.A., & Cropanzano, R. (1998). Emotional exhaustion as a predictor of job performance and voluntary turnover. *Journal of Applied Psychology*, *83*, 486–493. http://dx.doi.org/10.1037/0021-9010.83.3.486.

Wright, B.K., Kelsall, H.L., Sim, M.R., Clarke, D.M., & Creamer, M.C. (2013). Support mechanisms and vulnerabilities in relation to PTSD in veterans of the Gulf War, Iraq War, and Afghanistan deployments: A systematic review. *Journal of Traumatic Stress*, *26*, 310–318. http://dx.doi.org/10.1002/jts.21809.

Zaccaro, S.J., Blair, V., Peterson, C., & Zazanis, M. (1995). Collective efficacy. In J.E. Maddux (Ed.), *Self-efficacy, adaptation and adjustment: Theory, research and application* (pp. 305–328). New York: Plenum Press.

Zaccaro, S.J., Rittman, A.L., & Marks, M.A. (2001). Team leadership. *The Leadership Quarterly*, *12*, 451–483. http://dx.doi.org/10.1016/S1048-9843(01)00093-5.

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