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High Core Self-Evaluators Maintain Creativity: A Motivational Model of Abusive Supervision

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We present a motivational model of abusive supervision to examine the effects that exposure to abusive supervision has on creativity. In particular, we predict that intrinsic motivation mediates the negative relation between abusive supervision, as perceived by employees, and their creativity. In addition, we examine the extent to which core self-evaluations attenuate the main effect of abusive supervision and the indirect effect of intrinsic motivation. Our results, based on multiwave, multisource data collected in China, fully support our hypotheses, address unexplored theoretical predictions, and offer new directions for mistreatment, creativity, motivation, and personality research.

Keywords: *abusive supervision; creativity; motivation; core self-evaluations*

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The past decade has witnessed a dramatic increase in research interest focused on abusive supervision, specifically "subordinates' perceptions of the extent to which their supervisors engage in the sustained display of hostile verbal and non-verbal behaviors, excluding physical contact" (Tepper, 2000: 178). Considerable empirical evidence attests to its detrimental effects on organizational and employee outcomes. For example, studies have indicated a positive relation between abusive supervision and unfavorable work attitudes (Duffy, Ganster, & Pagon, 2002; Tepper, 2000), resistance behavior (Tepper, Duffy, & Shaw, 2001), psychological distress (Tepper, 2000), work–family conflict (Tepper, 2000), and family undermining (Hoobler & Brass, 2006). Concomitantly, abusive supervision has been found to have a negative relation with job performance and organizational citizenship behavior (Harris, Kacmar, & Zivnuska, 2007; Zellars, Tepper, & Duffy, 2002). In addition, the effects of abusive supervision on interpersonal deviance (J. Liu, Kwan, Wu, & Wu, 2010), job performance (Jian, Kwan, Qiu, Liu, & Yim, 2012), and organizational citizenship behavior (Aryee, Chen, Sun, & Debrah, 2007) have been generalized to the East.

The increasingly turbulent global business environment and unpredictable technological advances have rendered creativity, defined as the production of novel and potentially useful ideas about products, services, processes, and procedures by an individual or group of individuals working together (Amabile, 1988), crucial to organizational innovation, effectiveness, and survival (Kijkuit & van den Ende, 2007). Amabile's (1996) componential model of creativity suggests that threatening critical evaluations suggesting incompetence constitute one of the important contextual factors undermining creativity in the workplace. Abusive supervision is one form of such evaluation, as it involves a supervisor who represents the organization showing his or her dissatisfaction with subordinates' performance in an abusive manner during evaluation (Tepper, Moss, & Duffy, 2011) and pushing these subordinates to work hard with a hostile intention (D. Liu, Liao, & Loi, in press). Exploring how abusive supervision undermines employee creativity is thus of significant research interest. However, the current framework of abusive supervision is unable to explain fully the impact that such supervision has on employee creativity because a key assumption driving the abusive supervision literature is that the perception of abusive supervision undermines job performance and organizational citizenship behavior through reduced emotional resources (Aryee, Sun, Chen, & Debrah, 2008), organizational justice (Aryee et al., 2007), and organization-based self-esteem (Jian et al., 2012). Although the assumption of these mediating mechanisms has provided for fruitful research, its limitations for realizing the full impact of abusive supervision are increasingly apparent.

Creativity has unique features and processes that can be explained primarily by intrinsic motives. Creativity research has argued that new idea production involves different processes and takes substantial time and effort; consequently, individuals need to hold relatively enduring levels of inner interest (Amabile, 1996). In addition, scholars have also suggested that the highest forms of novel and useful ideas are generated under conditions in which individuals are able to tap their intuitive minds and unconscious thoughts (Koestler, 1964) and have fewer external constraints, such as evaluation by others, that restrict their personal freedom (Crutchfield, 1962). All of these arguments indicate that the key to facilitating employee creativity is for employees to internalize the view that creative production is an end in itself, which is not captured by emotion, justice, or self-esteem. We thus believe a

motivational model to be more readily applicable to abusive supervision's demonstrated impact on creativity.

Amabile's (1988) model of creativity suggests that intrinsic motivation, specifically the degree to which an individual is interested and engages in an activity for the sake of the activity itself (Deci, 1972), is an important mediating mechanism for linking work context and creativity. Intrinsic motivation can facilitate creativity because intrinsically motivated employees are likely to challenge the status quo, put forth effort toward and persist in innovative goals, and create novel and useful ideas (Amabile, 1988). In addition, Shalley, Zhou, and Oldham (2004: 935) posit that "each contextual characteristic affects creativity via its effects on employees' 'intrinsic motivation' to perform a work assignment." All of these studies maintain that linkages between work contexts and creativity should be via intrinsic motivation.

Although intrinsic motivation has been theoretically linked with contextual characteristics and creativity, examination of its mediating role has yielded inconsistent results (Shalley et al., 2004). Hon (2012) reported that intrinsic motivation fully mediates the influence of workplace climate, empowering leadership, supportive coworkers, and task conflict on employee creativity, whereas Shin and Zhou (2003) provided evidence to suggest that such motivation only partially mediates the relation between transformational leadership, as perceived by employees, and their creativity. In addition, Shalley and Perry-Smith (2001) found intrinsic motivation to play no mediating role between expected evaluation and creativity. There are three key potential reasons for these mixed findings: (a) inadequate intrinsic motivation measurement, (b) the existence of potential moderators, and (c) the existence of other potential mediators (Shalley et al., 2004). Hence, scholars have called for research that accurately measures intrinsic motivation and examines whether it mediates the relation between contextual characteristics and creativity by considering the moderating effects of personal characteristics (Shalley et al., 2004). This research is in answer to that call.

Realizing the mediating role played by intrinsic motivation is of significant research value, as intrinsic motivation has been tested empirically as a proximal antecedent and well-established mediating mechanism of creativity (Hon, 2012). Although D. Liu et al.'s (in press) recent study found a negative relationship between team leader abusive supervision and team member creativity and *conceptualized* intrinsic motivation as a key mediating mechanism for linking abusive supervision and creativity, it did not empirically examine the mediating role of intrinsic motivation in explaining the destructive impact of abusive supervision on creativity. Their investigation focused on the trickle-down effect of department head abusive supervision on team member creativity via team leader abusive supervision. Hence, it remains unclear how and why employees abused by supervisors would display thwarted creativity. To enrich the creativity theory and realize the mediating mechanism between abusive supervision and creativity, the current study aims to test a model centered on intrinsic motivation to determine the destructive effect that abusive supervision has on creativity.

This mediating approach contributes to the mistreatment and creativity literatures by highlighting how abusive supervision can be characterized as a barrier to intrinsic motivation, allowing our model to provide a theoretical framework for better understanding the impact of abusive supervision on creativity. Although creativity has been recognized as an important

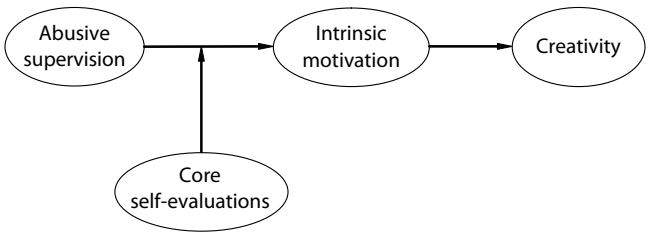
work outcome associated with work context (Amabile, 1988), to date few studies have actually examined the relation between abusive supervision and creativity, hindered perhaps by the lack of a theoretical framework outlining the mediating mechanisms underlying this relation. We maintain that a motivational model of abusive supervision offers a strong theoretical foundation for how and why abusive supervision influences creativity.

In addition, the inconsistent findings to date on the mediating role of intrinsic motivation may be explained by the moderating effect of personal characteristics (e.g., personality; Shalley et al., 2004). By investigating when individual differences moderate the main effects of abusive supervision and the mediating effects of intrinsic motivation, we argue that the ways in which abusive supervision undermines intrinsic motivation and creativity are unlikely to influence all individuals equally. Drawing on the person–context interaction perspective, Shalley et al. (2004) suggested that contextual characteristics may interact with personal characteristics to predict creativity because the latter influence the way that individuals react to contextual situations. Such predictions are aligned with and extend both extant and unexplored theoretical abusive supervision frameworks in that victims who appear weak and vulnerable are theorized to be more influenced by abusive supervision than others (Tepper, 2007). We posit that employees with weaker core self-evaluations (CSEs) are prototypically weak and vulnerable, providing an opportunity to examine this unexplored prediction. CSE constitutes the "fundamental premise that individuals hold about themselves and their function in the world" (Judge, Erez, & Bono, 1998: 168). People with high levels of CSE are more likely to evaluate their worth, competence, and capabilities positively. If negative self-evaluations convey weakness and vulnerability, thus explaining how individuals respond to unfavorable environments, then CSE provides an appropriate measure to capture individual differences.

Behavioral plasticity theory suggests that individuals who evaluate themselves positively are less likely to be influenced by unusual performance-relevant evaluations from others than those who evaluate themselves negatively (Brockner, 1988). On the basis of this theory, we argue that CSE acts as a buffer to alleviate the negative reaction of those who face unexpected evaluations of their performance. More specifically, high CSE allows employees to maintain their external focus on job performance by buffering the negative impact of abuse, whereas abusive supervision is likely to be internalized via anxiety and rumination, and this internal dialogue can interfere with an external focus on job performance. Kacmar, Collins, Harris, and Judge (2009) recently issued a call for the application of behavioral plasticity theory to an examination of whether employees who possess high CSE are able to buffer themselves against unfavorable work environments. It is important to answer this call for three key reasons. First, unfavorable work environments are becoming increasingly unavoidable. For example, a rising number of employees have reported that they were treated rudely, and most employees responded that they have personally witnessed interpersonal mistreatment in the workplace (Porath & Pearson, 2010). In addition, 28% of the respondents from an online survey indicated that they had been bullied at least twice weekly in the past 6 months (Lutgen-Sandvik, Tracy, & Alberts, 2007). Identifying who is most damaged by abusive supervision can help organizations to effectively repress the destructive effects of abusive supervision.

Second, as previously discussed, some prior research has failed to find a significant mediating effect of intrinsic motivation on the relation between contextual characteristics

Figure 1
The Conceptual Model



and creativity (Shalley et al., 2004). These studies, however, have not explicitly tested the moderating effects of personal characteristics. Hence, the failure to find a significant mediating effect for intrinsic motivation may result from the presence of one or more unmeasured moderators. To address this possibility, we need to untangle the complexities of the context-creativity process and outline the conditions under which abusive supervision is the most detrimental to creativity and intrinsic motivation exerts the largest mediating effects on the relation between abusive supervision and creativity.

Third, we know little about individual-level buffering characteristics (Harris, Harvey, & Kacmar, 2009). Scholars have proposed that CSE exerts buffering effects when individuals find themselves in negative situations because high self-evaluators focus on strengths and positive thoughts about themselves and suppress weaknesses (Bono & Colbert, 2005). However, the lack of evidence on the buffering effects of CSE has hindered the theoretical development of the CSE concept and its application to the buffering of the detrimental impact of unfavorable situations. To clarify CSE's important buffering role, it is important that we include the CSE concept in our motivational model.

In sum, the main contribution of this study is to integrate behavioral plasticity theory with a motivational model of abusive supervision by incorporating both moderating and mediating mechanisms into a single model that explains both how and when abusive supervision undermines creativity. In this manner, we demonstrate who suffers the most destruction from abusive supervision and develop practical implications by identifying leverage points to alleviate the impact of abusive supervision. In other words, the present investigation provides a motivational model of abusive supervision that tests the extant propositions in abusive supervision research and extends current abusive supervision theorizing by highlighting the effects of abusive supervision on intrinsic motivation. Figure 1 presents our conceptual model.

We begin by reviewing relevant literature on intrinsic motivation, illustrating how abusive supervision undermines employees' intrinsic motivation and how less intrinsically motivated employees display reduced creativity. We subsequently discuss how individual differences in CSE may moderate the main effects of abusive supervision and the indirect effect of intrinsic motivation. Finally, we present the findings of a multiwave, multisource study examining our hypotheses.

Literature Review and Hypotheses

According to Amabile's (1996) componential model of creativity, intrinsic motivation is one of the most critical components for employee creativity because it "makes the difference between what an individual can do and what an individual will" (Amabile, 1988: 133). As indicated earlier, creativity involves multiple processes that consume substantial time and effort (Amabile, 1996). If individuals pay little attention to resolving a problem, then they will engage less in the problem-solving process, and, thus, their solutions may not be novel or useful (Crutchfield, 1962). Conversely, creative solutions may be generated when individuals devote considerable attention to and engage themselves fully in the creative process—that is, they actively identify the problem and attempt to resolve it from a variety of perspectives, scan different environments, gather diverse but relevant information, provide and evaluate various alternatives, self-regulate and persist in handling difficulties that arise in the creative process, and effectively implement creative solutions (Zhang & Bartol, 2010). Intrinsic motivation enhances the control of attention, effort, and persistence (Simon, 1967). When employees are intrinsically motivated, they are more likely to gather diverse but relevant information because they devote their attention to each problem they encounter. Such attention leads employees to engage in the creative process through self-regulation (Zhang & Bartol, 2010). In addition, intrinsically motivated employees tend to put more effort into challenging the status quo and persisting in the pursuit of innovative goals (D. Liu et al., in press). This persistence directs employees to apply staying power to the achievement of their goals and strengthen their resiliency to adversity. A comprehensive literature review of creativity also suggests that intrinsic motivation regarded as an important creative internal process has increasingly captured the attention of scholars (Shalley et al., 2004). Indeed, a number of empirical studies have provided evidence for the claim that intrinsic motivation is one of the underlying mechanisms of creativity (e.g., Hon, 2012; Shin & Zhou, 2003; Zhang & Bartol, 2010). These arguments suggest a possible positive relation between intrinsic motivation and creativity.

As creative processes are time- and effort-consuming, supervisor support is extremely important (Shalley et al., 2004). When employees receive positive encouragement and stimulation from their supervisors, they are motivated to consider new ideas and, in turn, exercise creativity (Amabile, 1996). Several studies have examined the positive impact that supervisors can have on employees' performance expectations and creativity. For example, past research has found that a supervisor's expectations and supportive behavior motivate employees to expect and achieve high levels of creativity (Tierney & Farmer, 2002, 2004, 2011). In addition, empowering leaders (Zhang & Bartol, 2010) and transformational leaders (Gong, Huang, & Farh, 2009) stimulate employees to challenge the status quo and take novel approaches to problems, thereby facilitating employees' creativity. However, not all supervisor–subordinate relationships are high in quality—some even deteriorate into negative exchanges in which supervisors engage in abusive behavior to demonstrate their dissatisfaction to their subordinates (Tepper, 2000). In the context of creativity, such negative relationships may represent an important social-environmental factor.

Amabile's (1996) componential model of creativity proposes several types of contextual factors that potentially influence intrinsic motivation and creativity. However, past research

has focused on the positive side of these factors, ignoring their negative side. Amabile's (1996: 120) model asserts that a negative social environment may undermine intrinsic motivation and, in turn, creativity and that one of the aforementioned negative social-environmental factors is "threatening critical evaluation connoting incompetence." Such negative evaluation may prompt individuals to focus their attention on short-term problem solving to avoid further rejection and punishment. At the same time, it may reduce individuals' enjoyment of the problem-solving process and their external focus on job performance, thereby making it less likely that they will exercise creativity (Amabile, 1996). To the best of our knowledge, no research to date has actually tested negative evaluation's destructive effects on employees' intrinsic motivation and creativity. Recent research has provided evidence that abusive supervision, which represents the dark side of leadership, relates to the incompetence of employees (Tepper et al., 2011). That is, supervisors are more likely to abuse employees whom they regard as low performers. According to Olweus's (1978) concept of provocative victims, low performers become targets for victimization because they are perceived as difficult to work with. In the context of supervisor–subordinate relationships, supervisors are more likely to view low-performing employees as frustrating or annoying and, consequently, exhibit abusive supervision (Tepper et al., 2011). Hence, abusive supervision may represent the most theoretically relevant construct for linking an unfavorable social environment with reduced intrinsic motivation and creativity within Amabile's (1996) componential model.

Mistreatment at the hands of supervisors may undermine subordinates' perceptions of their competence and expectations of future creativity (D. Liu et al., in press). Individuals form their self-concepts through inferences drawn from how other people treat them, so treatment perceived by employees within an organization influences their understanding of themselves (McAllister & Bigley, 2002). Because of the important role that supervisors play in representing an organization, the treatment of supervisors is very likely to influence their subordinates' perceptions of self-worth in the workplace (Jian et al., 2012). Abusive supervision constitutes counternormative behavior that subordinates perceive as hostile, demeaning, excluding, derogatory, and/or rude (Tepper, 2000). When subordinates perceive the presence of abusive supervision, they feel their reputations to be undermined (D. Liu et al., in press). Moreover, they begin to doubt whether the organization respects their value and contributions (Jian et al., 2012) and question whether they are competent to fulfill their organization's expectations (Tepper et al., 2011). Such doubt may prompt employees to question the meaning of their work effort and, in turn, diminish the enjoyment they obtain from the job itself and their external focus on performance. Research has revealed the negative relation between abusive supervision and job satisfaction (Tepper, 2000) and job performance (Harris et al., 2007). In addition, abused employees are likely to suffer from depression, anxiety, and emotional exhaustion (Tepper, 2000). Indeed, psychological distress is a pervasive response for individuals who are mistreated by social groups because of incompetence or unattractiveness (Baumeister & Tice, 1990). In this context of psychological distress, such employees are less likely to develop a personal interest in their work, thereby repressing their intrinsic motivation to create novel and useful ideas.

In sum, according to Amabile's (1996) componential model that links social environments, intrinsic motivation, and creativity, we suggest that employees who are abused by their

supervisors experience a reduction in their enjoyment of work activities for their own sake and contribute to decreased creativity via repressed intrinsic motivation. Hence, we propose,

Hypothesis 1: Intrinsic motivation mediates the negative relation between abusive supervision, as perceived by employees, and their creativity.

CSEs are rooted in fundamental appraisals of individual worth, image, competence, and capabilities (Judge et al., 1998). Integrating eight diverse literatures across psychology, sociology, and philosophy, Judge, Locke, and Durham (1997) conceptualized CSE as reflecting three primary characteristics: fundamentality (fundamental trait as opposed to other surface traits), scope (cardinal trait as opposed to other minor traits), and self-evaluative (self-appraisals as opposed to descriptions of oneself or other people). According to meta-analyses, Judge and Bono (2001) found that CSE is a central personality trait that underlies and causes more peripheral personality traits, such as self-esteem, general self-efficacy, locus of control, and emotional stability. Behaviorally, high-CSE people seek active problem-solving skills and like to hold challenging jobs that give them the opportunity to cope with difficulties and achieve superior performance (Kammeyer-Mueller, Judge, & Scott, 2009). In addition, such people are motivated to actively and effectively set and attain high goals and are likely to demonstrate high levels of job motivation and performance (Erez & Judge, 2001).

We argue that CSE is a particularly important construct to examine as a moderator for two reasons. First, its role as a moderator represents an untested perspective of the original theory on abusive supervision. In his review of the abusive supervision literature, Tepper (2007) pointed out that abusive supervision may be more threatening to individuals who are weak and vulnerable. Low-CSE people would seemingly represent such prototypically weak and vulnerable persons who are emotionally reactive or viewed as difficult and frequently fail to achieve their goals (Erez & Judge, 2001). They exhibit a low degree of self-esteem and confidence and less effective coping behavior when facing hardship (Kammeyer-Mueller et al., 2009). They doubt their competence and capability, regarding themselves as powerless and blaming themselves for failures (Judge et al., 1997), focusing on weaknesses and negative thoughts about themselves, and suppressing strengths in the face of negative feedback (Bono & Colbert, 2005). They also view themselves as having lost any sense of control, easily influenced by unfavorable environments (Kacmar et al., 2009). Indeed, low-CSE people seem to fit the criteria required for weak and vulnerable employees under unfavorable situations, which we define as high perceptions of abusive supervision. Hence, CSE provides an opportunity to examine an unexplored theoretical proposition that is associated with the original abusive supervision theory.

Second, behavioral plasticity theory suggests that people who evaluate themselves positively are less likely to depend on external cues to guide their motivation and behavior; consequently, such people are less likely to be influenced by the "unusual manipulation of performance-relevant cognitions" (Brockner, 1988: 44). In other words, this theory posits that performance-relevant cognitions are less influential among people who evaluate themselves positively than it is among those who evaluate themselves negatively. Applied to the work setting, the implication is that high-CSE employees trigger self-regulatory processes and maintain their external focus on performance without paying too much attention to abusive

supervision. Consequently, they should also maintain relatively positive cognitions and effects, particularly those that are self-relevant. Research has concluded that high core self-evaluators view situations as being consistent with their positive self-images (Chang, Ferris, Johnson, Rosen, & Tan, 2012). Hence, being abused is inconsistent with their worth, competence, and capability. Drawing on behavioral plasticity theory, we argue that high core self-evaluators are less likely to take such inconsistency personally, given their greater lack of dependence on external cues. CSE encourages employees to perceive their jobs in a favorable light, thus leading them to focus on the desirable characteristics of their jobs (Harris et al., 2009). Hence, employees who formulate high CSE are less likely to lose their enjoyment with and focus on their jobs in the face of supervisory abuse. Research has provided evidence for the claim that employees with high CSE maintain their commitment to developmental goals even when the ratings of feedback from self and others contain discrepancies (Bono & Colbert, 2005). Although abusive supervision represents negative evaluations by supervisors, employees with high CSE are more capable of coping with this disagreement in evaluations between themselves and their supervisors. Consequently, they are less likely to be demotivated as a result of abuse and more likely to maintain intrinsic motivation. In addition, CSE is regarded as constituting an important personal resource that helps individuals to cope effectively with stressors by facilitating positive appraisals of their jobs (Chang et al., 2012). Hence, we propose,

Hypothesis 2: CSE moderates the relation between abusive supervision and intrinsic motivation, such that the relation is weaker when the level of CSE is high rather than low.

The prior arguments represent an integrated framework in which intrinsic motivation mediates the negative relation between abusive supervision and creativity and CSE moderates the relation between abusive supervision and intrinsic motivation. According to the notion that CSE moderates the relation between abusive supervision and intrinsic motivation, and considering that intrinsic motivation is positively related to creativity, it is logical to propose that CSE also moderates the strength of the mediating mechanism for intrinsic motivation in the relation between abusive supervision and creativity—a mediated moderation model (Edwards & Lambert, 2007). As previously discussed, a weaker relation between abusive supervision and intrinsic motivation will emerge among high-CSE employees, and the indirect effect of abusive supervision on creativity via intrinsic motivation may also be weaker among such employees. Specifically, when high core self-evaluators react to abusive supervision less sensitively by maintaining intrinsic motivation for their work activity, the indirect effect of abusive supervision on creativity should be weaker. However, when low core self-evaluators respond to abusive supervision by becoming highly demotivated in their personal workplace engagement and performance, the indirect effect of abusive supervision on creativity should be stronger. Hence, we propose,

Hypothesis 3: CSE moderates the mediating effect of intrinsic motivation on the abusive supervision–creativity relationship, such that the mediating effect is weaker when the level of CSE is high rather than low.

Method

Sample and Procedures

The participants in this study were technicians working in a large automotive company in the south of China. All were engaged in the manufacture of automobile parts (e.g., clutches, gas pedals, steering wheels). These technicians were encouraged to formulate creative methods to resolve the regular work-related problems they faced (e.g., develop a new system to reduce opportunities for miscommunication) and to improve the production process (e.g., reduce the rate of deficient products and raw material waste), which required them to come up with novel and useful ideas. Three waves of data collection were applied to reduce the potential common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003*)*. In the first-wave survey (T1), employees reported their perceived abusive supervision, CSE, and demographic and other control variables. In the second-wave survey (T2), employees who had returned the complete first-wave questionnaires were surveyed again and asked to rate their intrinsic motivation. In the third-wave survey (T3), supervisors (only those whose subordinates had returned the complete first- and second-wave questionnaires) were surveyed. They were asked to evaluate their subordinates' creativity.

Data were collected via the following procedure. The human resource managers from the organization helped us organize a randomly selected list of 420 subordinates and their immediate supervisors (each supervisor was matched with only one subordinate). Separate questionnaires were then delivered to the subordinates and supervisors. The survey questionnaires were coded before being distributed so as to match the employee responses (T1 and T2) with the responses of their supervisors (T3). Data collectors ensured the confidentiality of their data and highlighted that the survey aimed to realize human resource practices. Respondents put their completed surveys into sealed envelopes and placed them in a box in the organization's human resource department.

In the first wave we acquired 334 complete questionnaires from employees (79.5% response rate). Three months later, the second survey (T2) was delivered to these 334 employees. Because 5 employees had left the organization, only 329 employees received the T2 questionnaires. We acquired complete T2 questionnaires from 281 subordinates (85.4% retention rate). Finally, 3 months after T2 the third survey (T3) was distributed to the supervisors of the 281 subordinates who had completed both the T1 and T2 surveys. Because 3 subordinates and 6 supervisors had left the organization, only 272 supervisors received the T3 questionnaires. A total of 235 supervisors returned the complete T3 questionnaires (86.4% response rate). As a result, the final sample consisted of 235 supervisor–subordinate dyads.

Of the 235 employees, 73.6% were male. The average age was 33.34 years (SD = 5.74), and the average organizational tenure was 4.91 (SD = 3.43). For their education, 4.70% had finished a middle school education or below, 28.50% had finished a high school education, 41.30% had an associate's degree (i.e., a 2-year program of study beyond high school), 22.10% had a bachelor's degree, and 3.40% had a postgraduate degree.

Measures

The survey was conducted in Chinese. Because the measurements we used were originally developed in English, to ensure the equivalence of the meaning we followed the commonly used back-translation procedure to translate the English measurements into Chinese (Brislin, 1980). More specifically, the measurements were first translated from English into Chinese by a management professor and then back translated from Chinese into English by another professor. Finally, one bilingual management scholar checked both the English and Chinese versions and made modifications to resolve the discrepancies.

Abusive supervision. We used a 15-item scale originally developed by Tepper (2000) and applied by J. Liu et al. (2010) in Chinese samples to measure abusive supervision. Response options ranged from 1 (*never behaves this way*) to 5 (*often behaves this way*). Sample items include "My supervisor tells me my thoughts or feelings are stupid" and "My supervisor puts me down in front of others." Cronbach's alpha of this scale was .94.

CSE. A 12-item scale developed by Judge, Erez, Bono, and Thoresen (2003) was used to measure CSE. Response options ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). Sample items include "Overall, I am satisfied with myself," "I complete tasks successfully," "I determine what will happen in my life," and "There are times when things look pretty bleak and hopeless to me" (reverse coded). Confirmatory factor analysis (CFA) of the 12 items produced acceptable fit indices, with $\chi^2(50) = 119.66$, $p < .01$; comparative fit index (CFI) = .95, Tucker–Lewis index (TLI) = .94, root mean square error of approximation (RMSEA) = .077. Cronbach's alpha of this scale was .88.

Intrinsic motivation. We used a six-item scale developed by Warr, Cook, and Wall (1979) to measure intrinsic motivation. The scale measures the degree to which an employee wants to perform his or her job well. Response options ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). Sample items include "I take pride in doing my job as well as I can" and "I feel unhappy when my work is not up to my usual standard." Cronbach's alpha of this scale was .86.

Creativity. A 13-item scale originally developed by Zhou and George (2001) and applied by Zhang and Bartol (2010) in Chinese samples was used to measure creativity. Sample items include "This employee suggests new ways to achieve goals or objectives" and "This employee comes up with new and practical ideas to improve performance." Response options ranged from 1 (*not at all characteristic*) to 5 (*very characteristic*). Cronbach's alpha of this scale was .92.

Control variables. Previous research has indicated that employee demographics (e.g., age, gender, organizational tenure, and education) are likely to be associated with employee creativity (e.g., Zhang & Bartol, 2010). Hence, we controlled for these variables. Age and organizational tenure were self-reported in years. Gender was dummy coded, with

male coded as 0 and female coded as 1. Education was coded as 1 for employees who had finished a middle school education or below, 2 for employees who had finished a high school education, 3 for employees who had an associate's degree, 4 for employees who had a bachelor's degree, and 5 for employees who had a postgraduate degree. In addition, we controlled for skill variety, which has long been considered an important contributor to employee creativity (Tierney & Farmer, 2002, 2004; West & Farr, 1990). Skill variety was measured using the three-item scale developed by Hackman and Oldham (1974). A sample item is "The job requires me to use a number of complex or high-level skills." Cronbach's alpha for this measure was .68.

Results

Attrition Analysis

Considering the potential attrition effects caused by our three-wave investigation, we followed Goodman and Blum's (1996) approach to test whether there were systematic differences between those who experienced all waves of the data collection process and those who experienced only Waves 1 and 2. The following multiple logistic regressions were conducted: (a) the first used survey time (T1 and T2) as the dependent variable and age, gender, organizational tenure, education, skill variety, abusive supervision, and CSE as the independent variables; (b) the second used survey time (T2 and T3) as the dependent variable and age, gender, organizational tenure, education, skill variety, abusive supervision, CSE, and intrinsic motivation as the independent variables; and (c) the third used survey time (T1 and T3) as the dependent variable and age, gender, organizational tenure, education, skill variety, abusive supervision, and CSE as the independent variables. The results of all three multiple logistic regressions showed that all of the logistic regression coefficients were nonsignificant.

Moreover, the following *t* tests were performed to assess the mean differences in key variables across time: (a) the first assessed the mean differences of age, gender, organizational tenure, education, skill variety, abusive supervision, and CSE between the T1 and T2 samples; (2) the second assessed the mean differences of age, gender, organizational tenure, education, skill variety, abusive supervision, CSE, and intrinsic motivation between the T2 and T3 samples; and (3) the third assessed the mean differences of age, gender, organizational tenure, education, skill variety, abusive supervision, and CSE between the T2 and T3 samples. The results of all of these *t* tests indicated no significant mean differences. Taken together, the above results suggest that the attrition of respondents did not substantially affect the findings.

Confirmatory Factor Analyses

Because our measures of abusive supervision, CSE, and intrinsic motivation came from the same source, we performed CFAs to test the construct validity before testing our hypotheses. We first examined the baseline model that included all three variables. The overall model's chi-square, CFI, RMSEA, and TLI were applied to assess the model fit. The

Table 1
Means, Standard Deviations, and Correlations

Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9
1. Age	33.33	5.74									
2. Gender	0.26	0.44	.04								
3. Organizational tenure	4.91	3.43	.47**	.02							
4. Education	2.91	0.91	.07	–.03	.04						
5. Skill variety	3.12	0.72	.01	–.13*	–.05	.12	(.68)				
6. Abusive supervision	1.80	0.68	–.01	.12	.01	–.07	–.04	(.94)			
7. Core self-evaluations	3.38	0.56	.05	.16*	.00	.07	.13	–.20**	(.88)		
8. Intrinsic motivation	3.54	0.67	.01	–.02	.07	.14*	.18**	–.32**	.23**	(.86)	
9. Creativity	3.56	0.66	.09	–.01	.12	.16*	.19**	–.19**	.17**	.40**	(.92)

Note: $N = 235$. Values in parentheses on the diagonal are the Cronbach's alpha value of each scale.
*$p < .05$, two-tailed. **$p < .01$, two-tailed.

baseline model fit the data well, with $\chi^2(457) = 834.04$, $p < .01$; CFI = .91, TLI = .91, RMSEA = .059. In addition, all of the factor loadings were significant, demonstrating convergent validity.

The discriminant validity of the three constructs was tested by contrasting the baseline model against two alternative models: Model 1, in which abusive supervision and intrinsic motivation were combined into a single factor and CSE were distinct, and Model 2 in which all three factors were combined into one overall factor. Models 1 and 2 yielded poor fits to the data: $\chi^2(459) = 1323.87$, $p < .01$; CFI = .80, TLI = .79, RMSEA = .090, and $\chi^2(464) = 2655.23$, $p < .01$; CFI = .50, TLI = .46, RMSEA = .142, respectively. Thus, the distinctiveness of the three constructs in this study was supported.

Descriptive Statistics

Table 1 presents the means, standard deviations, and zero-order Pearson correlations of all key variables. As shown in Table 1, abusive supervision was negatively correlated with intrinsic motivation ($r = –.32$, $p < .01$) and creativity ($r = –.19$, $p < .01$). Moreover, intrinsic motivation was positively correlated with creativity ($r = .40$, $p < .01$). These results are consistent with and provide initial support for our hypotheses.

Hypothesis Testing

We conducted a hierarchical multiple regression analysis to test Hypotheses 1 and 2. Hypothesis 1 predicts that intrinsic motivation mediates the negative relationship between abusive supervision and creativity. We entered the variables into the model in three steps. The control variables were entered first, followed by the independent variable of abusive supervision and, finally, the mediator (intrinsic motivation) was entered to test the mediation effect.

Table 2
Results of Hierarchical Regression Analysis

	Intrinsic Motivation				Creativity			
	M1	M2	M3	M4	M5	M6	M7	M8
Control variables								
Age	–.04	–.06	–.06	–.07	.03	.02	.04	.04
Gender	.00	.04	.01	–.00	.02	.04	.02	.03
Organizational tenure	.09	.10	.10	.09	.11	.12	.08	.08
Education	.12	.10	.09	.11	.14*	.13*	.09	.09
Skill variety	.17*	.17*	.15*	.16*	.18**	.18**	.12	.12
Independent variable								
Abusive supervision		–.31**	–.28**	–.25**		–.18**		–.07
Moderator								
Core self-evaluations			.15*	.11				
Interaction								
Abusive supervision × core self-evaluations				.19**				
Mediator								
Intrinsic motivation							.37*	.34**
R	.23	.38	.41	.45	.27	.32	.44	.45
R^2	.05	.15	.17	.20	.07	.10	.20	.20
ΔR^2	.05	.10	.02	.03	.07	.03	.13	.10
F	2.52*	6.57**	6.55**	7.06**	3.45**	4.22**	9.26**	8.11**
ΔF	2.52*	25.47**	5.63*	9.00**	3.45**	7.61**	35.74**	28.40*

Note: $N = 235$.
*$p < .05$, two-tailed. **$p < .01$, two-tailed.

As shown in Table 2, abusive supervision was negatively related to intrinsic motivation (β = –.31, $p < .01$, Model 2) and creativity (β = –.18, $p < .01$, Model 6). Moreover, intrinsic motivation was positively related to creativity (β = .37, $p < .01$, Model 7). Finally, when intrinsic motivation was entered, the relationship between abusive supervision and creativity became nonsignificant (β = –.07, *ns*, Model 8), whereas intrinsic motivation was still found to be positively related to creativity (β = .34, $p < .01$, Model 8). Thus, Hypothesis 1 was supported.

Hypothesis 2 proposes that CSE moderates the relationship between abusive supervision and intrinsic motivation. As shown in Table 2, the interaction between abusive supervision and CSE was positively related to intrinsic motivation (β = .19, $p < .01$, Model 4). We plotted the interaction effects using Stone and Hollenbeck's (1989) procedure. Figure 2 shows that abusive supervision is less negatively related to intrinsic motivation when CSE is high (r = –.12, *ns*) rather than low (r = –.50, $p < .01$). Hence, Hypothesis 2 received support.

Hypothesis 3 predicts that CSE moderates the abusive supervision–intrinsic motivation–creativity mediating linkage. To test this hypothesis, we employed Edwards and Lambert's (2007) general path analytic framework. The results, summarized in Table 3, show that the size of the difference in the indirect effect of abusive supervision on creativity was .20, with the 99% confidence intervals computed using bootstrap estimates excluding zero. Specifically, the indirect effect of intrinsic motivation on the relation between abusive supervision and creativity was significantly weaker at a high level of CSE. Thus, Hypothesis 3 was supported.

Figure 2
The Moderating Effect of Core Self-Evaluations on the Relationship Between Abusive Supervision and Intrinsic Motivation

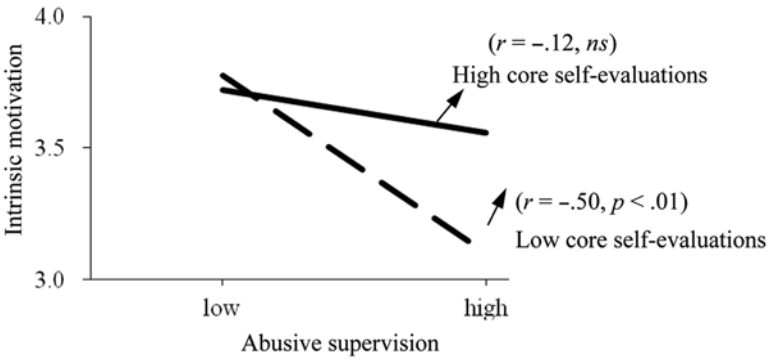


Table 3
Results of the Moderated Path Analysis

	Abusive Supervision (X) → Intrinsic Motivation (M) → Creativity (Y)				
	Stage		Effect		
	First	Second	Direct Effects	Indirect Effects	Total Effects
Moderator Variable	P_{MX}	P_{YM}	P_{YX}	$(P_{YM} P_{MX})$	$(P_{YX} + P_{YM} P_{MX})$
Simple paths for low core self-evaluations	–.47**	.44**	–.11	–.21**	–.32**
Simple paths for high core self-evaluations	–.02	.26**	.05	–.01	.05
Differences	.45**	–.18	.16	.20**	.37**

Note: $N = 235$. P_{MX} = path from abusive supervision to intrinsic motivation; P_{YM} = path from intrinsic motivation to creativity; P_{YX} = path from abusive supervision to creativity. Low core self-evaluations refer to one standard deviation below the mean of core self-evaluations; high core self-evaluations refer to one standard deviation above the mean of core self-evaluations. Tests of differences for the indirect and total effects are based on bias-corrected confidence intervals derived from bootstrap estimates.
**$p < .01$, two-tailed.

Moreover, the results presented in Table 3 support a first-stage moderating effect ($\Delta\beta = .45$, $p < .01$), suggesting that abusive supervision interacts with CSE to predict intrinsic motivation, which, in turn, influences creativity. Hence, Hypothesis 2 received further support.

Discussion

As interest in the abusive supervision research has dramatically increased (Tepper, 2007), the limitations of the original theoretical framework for realizing the effect of abusive supervision have started to appear. This study sought to test a model centered on intrinsic

motivation and individual differences to explain the boundary conditions of abusive supervision's impact on creativity. Within this model, perceptions of abusive supervision serve to undermine employees' intrinsic motivation, particularly for those who evaluate their worth, competence, and capability negatively (i.e., low core self-evaluators). Consequently, employees begin to lose their enjoyment in the work itself and their external focus on performance. A result of this loss is that employees are less likely to devote their attention to diverse and relevant information, challenge the status quo, put effort toward and persist in innovative goals, and create novel and useful ideas.

Applying multiwave, multisource research design, we found support for all of our hypotheses: Intrinsic motivation mediated the effect of abusive supervision on creativity with particularly pronounced negative effects for employees who possess low CSE. In focusing on both mediating and moderating effects together, our model helps to explain both how abusive supervision undermines creativity and whose intrinsic motivation and creativity will suffer the most damage at the hands of abusive supervision. In so doing, our investigation not only offers strong evidence for the arguments that abusive supervision can affect creativity (D. Liu et al., in press), but also enriches our realization of how such a relation emerges. Although the D. Liu et al. (in press) study focuses on the trickle-down effect on employee creativity of abusive supervision by the department head and supervisor, our study goes further to explore the mediating mechanism between such supervision and employee creativity. Our work integrates Amabile's (1996) model of creativity and behavioral plasticity theory (Brockner, 1988), explaining how and when abusive supervision influences employee creativity most negatively. This integration answers the call issued by D. Liu et al. (in press) for a better understanding of the mediating mechanism between abusive supervision and creativity and that of Shalley et al. (2004) for examination of the mediating role of intrinsic motivation and moderating role of personal characteristics (e.g., personality) in the relation between contextual characteristics and creativity to clarify the inconsistent findings to date on contextual factors, intrinsic motivation, and creativity. It also addresses the call of Kacmar et al. (2009) to use behavioral plasticity theory to explain the moderating role of CSE when employees face unfavorable situations, and the call of Bono and Colbert (2005) to explore the moderating role of CSE in improving motivation.

We also suggest that although our model specifically deals with abusive supervision, its core is likely applicable to victimization as the result of a wide variety of interpersonal mistreatment that represents an unfavorable situation that undermines intrinsic motivation and creativity. Recent research has revealed the overlap among various constructs associated with interpersonal mistreatment, such as bullying, incivility, abuse, undermining, and social isolation (Tepper & Henle, 2011). Given that these constructs all relate to interpersonal mistreatment that is likely to represent unfavorable social environments that undermine intrinsic motivation and creativity, future research can easily apply our framework to study these other constructs as well.

One strength of our motivational model of abusive supervision is that it explains a mediator that associates unfavorable situations with creativity. Although research has provided evidence that links abusive supervision with reduced emotional resources (Aryee et al., 2008), organizational justice (Aryee et al., 2007), and organization-based self-esteem (Jian et al., 2012), Amabile's (1988) model and a comprehensive review of creativity (Shalley et al.,

2004) have asserted that linkages between contextual factors and creativity might be via intrinsic motivation. For example, empirical investigation has revealed that intrinsic motivation is a proximal predictor and a key underlying mechanism of creativity (Zhang & Bartol, 2010). Although recent research has provided evidence for the claim that abusive supervision should negatively affect creativity (D. Liu et al., in press), it is unclear how and why employees exposed to abusive supervision experience a reduction in their creativity. Within a motivational model of abusive supervision, reduced creativity follows a decrease in enjoyment of the work itself and of an external focus on performance. Abusive supervision has been conceptualized as negative evaluations from supervisors connoting employee incompetence in which the supervisors express their disappointment in employees' low-level job performance (Tepper et al., 2011), often applying a rude manner with the ultimate aim of promoting employee job performance (D. Liu et al., in press). Despite this evidence linking abusive supervision with creativity via intrinsic motivation, Shalley et al. (2004) noted that the findings on the mediating effects of intrinsic motivation on the association between work contexts and creativity were mixed. Although the motivational model helps to explain how abusive supervision thwarts creativity, no research to date has actually tested the mediating role played by intrinsic motivation in the relation between abusive supervision and creativity, which leaves open the question of whether such motivation really accounts for abusive supervision's effects on creativity. Hence, our study extends Amabile's (1988) model to include abusive supervision, using intrinsic motivation to explain how and why this negative social-environmental factor affects creativity.

A second strength of our motivational model of abusive supervision is that it offers a fruitful model for future research that focuses on the outcomes of abusive supervision. As previously discussed, intrinsic motivation represents a broad underlying mechanism with a number of insights into organizational behavior that can be steadily applied to future abusive supervision studies. For instance, intrinsic motivation leads employees to be curious, risk taking, affectively and cognitively flexible, and persistent in the face of difficulties (Amabile, 1996), potentially causing other unnoticed work and family outcomes resulting from abusive supervision such as voice behavior, innovative behavior, and work–family enrichment. Hence, aside from motivating employees to create novel and useful ideas, intrinsic motivation represents another important mechanism through which one might perform other work and family behavior.

The Moderating Role of CSE

One of the key contributions of our study lies in the examination of individual differences—CSE—as a moderator of abusive supervision's impact. As previously discussed in the introduction, CSE is an interesting moderator because, on one hand, low CSE represents a weak and vulnerable personality and should enhance the effects of abusive supervision. Although our main effect prediction is generally consistent with Amabile's (1996) model in that abusive supervision, which represents the negative evaluation of employees by supervisors, undermines employees' intrinsic motivation and creativity, the impact of abusive supervision should be most destructive to those who evaluate themselves negatively and

focus on weaknesses in the face of barriers. On the other hand, our work is consistent with behavioral plasticity theory (Brockner, 1988), suggesting that unusual performance-relevant evaluations are less influential among people who evaluate themselves positively.

Our results extend the role of CSE in negative situations as it relates to the motivation literature. Research has revealed the positive relationship between CSE and employees' job motivation and performance (Erez & Judge, 2001) and the moderating role of CSE in strengthening the positive effects of favorable environments on job performance (Kacmar et al., 2009). Although such findings are fruitful, there are no compelling theories to restrict CSE research from exploring the benefit of possessing high CSE in unfavorable situations. Our finding about the moderating role of CSE in buffering the negative effects of abusive supervision on intrinsic motivation bridges a gap between CSE and motivation by considering the context of unfavorable situations. As previously stated, there is a certain degree of overlap between abusive supervision and other interpersonal mistreatment constructs (Tepper & Henle, 2011). Research has also suggested that negative types of behavior may co-occur, although they are theoretically distinct (Barclay & Aquino, 2011). Hence, it is possible that different types of interpersonal mistreatment may simply be different manifestations of a supervisor's dissatisfaction with his or her subordinates' performance and that all leading employees to doubt their competence. Although most types of deviant behavior are low-base-rate phenomena, studies have uncovered their negative relation to various work and well-being outcomes (Tepper & Henle, 2011). Finding a way to buffer the destructive effects of interpersonal mistreatment has become an important topic in organizational behavior research. However, the interpersonal mistreatment literature reveals little about individual-level buffering characteristics, despite the proposition that subordinates' characteristics can effectively diminish the destructive effects of abusive supervision (Tepper, 2007). Given that CSE frees individuals of the extraneous concerns of external environments and allows them to concentrate their attention on the job itself, which is likely to serve as an important personal buffer to exposure to various types of interpersonal mistreatment that impede motivation and creativity, our model provides an ideal basis for future research examining the buffering effects of CSE on the influences of other forms of interpersonal mistreatment. We hope that our investigation and other pioneering work in the personality arena (e.g., Erez & Judge, 2001; Kacmar et al., 2009) will inspire further CSE research in a variety of contexts, thus producing a comprehensive picture of CSE's buffering role in reducing the negative impacts of deviant behavior.

In addition, examination of CSE uncovers the boundary conditions of intrinsic motivation's mediating role in abusive supervision and creativity. Our findings indicate that its mediating effects are significant when CSE is low, but become nonsignificant when it is high. These findings thus extend those of previous studies dealing with contextual characteristics only as antecedents to intrinsic motivation and creativity, thereby ignoring the moderating role of personality (e.g., Shalley & Perry-Smith, 2001). As previously noted, research has produced inconsistent findings on the mediating role of intrinsic motivation (Shalley et al., 2004). Our findings lead us to challenge the approach taken in prior research and argue that the mediating effects of intrinsic motivation are moderated by a target's CSE. These moderating effects are unsurprising, as the person–context approach has long indicated that consideration of the interaction between individual and contextual characteristics can boost the predictive power

of work behavior (Kacmar et al., 2009). Hence, personality should be regarded as an important moderator that provides boundary conditions for the mediating role of intrinsic motivation in the link between work contexts and creativity. Accordingly, our results suggest that future research related to the motivational process of creativity should apply a fine-grained approach to examine both personal and contextual antecedents.

It is also suggested that future studies apply behavioral plasticity theory to better understand the boundary conditions of the impact of leader behavior. Although our findings reveal that low core self-evaluators are sensitive to supervisor mistreatment, we do not necessarily regard them as conclusively ruling out the moderating effects of CSE on the influences of positive behavior. For example, behavioral plasticity theory suggests that employees with low levels of self-esteem are more likely to depend on the receipt of a positive evaluation from their supervisors than their counterparts with high levels of self-esteem (Brockner, 1988). Because high core self-evaluators are goal-oriented planners who like to make and implement their own work plans independently (Kacmar et al., 2009), they are less likely to need leader support and guidance. Hence, it is possible that low core self-evaluators acquire more benefits from positive leader behavior (e.g., leader support, transformational leadership) than do high core self-evaluators. We leave empirical confirmation of our predictions to future studies.

As a final note, we suggest that research on the moderating role of CSE in abusive supervision's effects is particularly timely given that interpersonal mistreatment is on the rise. Research has suggested that interpersonal mistreatment has grown sharply because of increasing workloads and communication opportunities (Pearson, Andersson, & Porath, 2000). For example, between 1998 and 2005 the percentage of employees who reported being mistreated rose to nearly half (Porath & Pearson, 2010). The intersection of CSE and abusive supervision positions our results concerning CSE's buffering role as an important way to offer both theoretical and practical insights.

Limitations

Despite these contributions, our study has several noteworthy limitations. First, the findings may be contaminated by common method bias because our examples of abusive supervision, intrinsic motivation, and CSE came from the same source. However, as recommended by previous research (Podsakoff et al., 2003), we collected the abusive supervision and intrinsic motivation data at different time points to alleviate such bias. In addition, common method bias should not represent a viable explanation for moderating effects in our study because our proposed hypotheses were developed by the theoretical framework (Siemsen, Roth, & Oliveira, 2010). Therefore, common method bias should have little or no effect on our empirical findings.

Second, CSE was measured only at the beginning of our field survey. Because CSE represents fundamental, enduring human dispositions largely imprinted by genetic origins and childhood experiences (Judge, 2009), we assumed CSE would not change drastically during the time-lagged data collection. Although longitudinal research has provided strong evidence for the moderately high stability of CSE over 20 years (.62), and this stability is

particularly evident in adults (Judge, Bono, & Locke, 2000), it is possible that work experience may cause fluctuation in one's CSE. For example, employees who experience major breakthroughs in their novel and useful ideas may increase their CSE. When employees feel that their ability to challenge the status quo has been disabled, their CSE may decline. As such, a valuable avenue for future research is to examine whether employees' CSE varies with their level of creativity.

Third, the effect sizes were small, and the explained variance was 20% or less in our regression analyses. A number of important motivational variables suggested by Shalley et al. (2004), such as role modeling, self-efficacy, and creative role identity, were excluded from this study. Although prior research has indicated that intrinsic motivation is a powerful mediator in the creativity process, other motivational variables have also been theoretically linked with work contexts and creativity and can help to explain this process (Shalley et al., 2004). The explained variance may increase sharply when other important motivational variables are included to account for creativity.

Fourth, the mean of abusive supervision in our study (M = 1.80, SD = 0.68 on a 5-point scale) is relatively low compared to those of other studies using Chinese samples: for example, Jian et al. (2012; M = 2.32, SD = 0.66 on a 6-point scale) and J. Liu et al. (2010; Study 1: M = 2.63, SD = 0.95 on a 7-point scale; Study 2: M = 2.04, SD = 0.59 on a 5-point scale). Other unmeasured variables may be responsible for this relatively low mean. For example, research has proposed that a high-justice climate (Aryee et al., 2007) and low-power distance orientation (Tepper, 2007) may repress abusive supervision. We are unable to assess the accuracy of this proposition, as our questionnaire did not include these constructs. Nevertheless, to determine the potential impact of low-rate abusive supervision on our findings, we compared the correlation of abusive supervision and creativity between our study and that of D. Liu et al. (in press) and found the correlation in ours to be higher (–.19 vs. –.12). A possible explanation of abusive supervision's larger effect in our study is that employees may respond more strongly to such supervision when it occurs less frequently. However, this speculation is left to future research.

Fifth, our measurement of abusive supervision is based only on frequency. Although this approach is consistent with past studies (e.g., Tepper, 2000), it is possible that the frequency and intensity of abusive supervision have different effects. For example, loud outbursts may exert stronger effects than the silent treatment. Although both are viewed as abusive, they may not affect intrinsic motivation and creativity to precisely the same magnitude. Hence, future research involving a 2 × 2 study of high/low frequency versus high/low intensity is recommended.

Sixth, our investigation examined only individual-level variables, although the large body of research on team work and innovation has inspired burgeoning research interest in team creativity over the past decade (Farh, Lee, & Farh, 2010). It is probable that team-level abusive supervision is an aggregated score of individual-level abusive supervision, which, in turn, thwarts team creativity. To the best of our knowledge, no study to date has examined team-level abusive supervision. To enrich theory and knowledge of deviant leadership and creativity at the team level, future research should investigate whether and how team-level abusive supervision influences team creativity.

Seventh, past research has indicated that individuals with a certain amount of work experience are more likely to exercise creativity (Lorenz & Lundvall, 2011). However, our

questionnaire did not assess respondents' work experience, and we thus remain uncertain about its effect on the influence of abusive supervision on intrinsic motivation and creativity. Work experience should be incorporated in future research to determine how much of the variance in intrinsic motivation and creativity that abusive supervision can account for when such experience becomes a factor.

Finally, this study was conducted in an automotive organization in China, leading to concern that its findings may not be generalizable to the West or to other industries. The Chinese are characterized by a high power distance orientation and hold traditional Chinese values, both of which may alleviate negative responses to abusive supervision (Lian, Ferris, & Brown, 2012). Accordingly, abusive supervision may exert stronger effects on the intrinsic motivation and creativity of individuals in the West than on those of their Chinese counterparts. In addition, employees in service industries spend less time in contact with their supervisors than do those in manufacturing industries, and abusive supervision may thus influence the former to a different degree than the latter (Jian et al., 2012). A cross-cultural study using a sample of service employees would thus be desirable to examine the generalizability of our model.

Practical Implications

In practical terms, employees' creativity is essential to an organization's innovative performance (Kijkuit & van den Ende, 2007). Our findings suggest two paths by which managers and organizations can promote employee creativity. The first is to take steps to reduce abusive supervision. Research has indicated that supervisor depression is related to the presence of abusive supervision (Tepper, Duffy, Henle, & Lambert, 2006). Thus, supervisors must find other ways to release their job stress and negative feelings than the mistreatment of subordinates. Organizations should reduce their tolerance of abusive behavior and attempt to offer abuse-prevention training for supervisors (J. Liu et al., 2010). Research has also revealed that perceptions of organizational injustice (Aryee et al., 2007), violations of psychological contracts (Hoobler & Brass, 2006), and department heads' abusive supervision (D. Liu et al., in press) all lead supervisors to exhibit abusive behavior over subordinates. Organizations should consider the supervisors' expectations, promote a just work climate, and implement transparent procedures. Moreover, recent research indicates that relationship conflict results in abusive supervision (Tepper et al., 2011). Thus, organizations should encourage managers and employees to use appropriate behavioral strategies such as mediation, reconciliation, seeking clarity, and seeking forgiveness (Bradfield & Aquino, 1999) as tools for coping with relationship conflict.

The second path to facilitating creativity is to identify employees who possess low CSE. As studies have revealed, interpersonal mistreatment is growing in the workplace (Porath & Pearson, 2010), so some level of abusive supervision is likely to remain for the foreseeable future. Hence, practitioners may wish to highlight how best to mitigate the impact of abusive supervision. Our results indicate that the destructive influences of abusive supervision are most severe for low self-evaluators, and, thus, organizations should pay additional attention

to such employees and their supervisors' abusive supervision to encourage the supervisors to participate in management development programs aimed at reducing abusive supervision. Organizations should also particularly consider subordinate CSE when matching supervisors with employees.

Conclusion

There is no doubt that creativity is important to the success, survival, and innovative performance of organizations (Kijkuit & van den Ende, 2007). Our study provides a motivational model of abusive supervision that incorporates intrinsic motivation as an important mediator of the relation between abusive supervision and creativity and identifies CSE as a key moderator. Taken together, our mediated moderation model explains how and to whom abusive supervision matters most. Our findings contribute to the mistreatment, motivation, creativity, and personality literatures by examining the relation of abusive supervision and creativity to previously unexplored mediators and moderators. In doing so, our work serves as a springboard for future research linking other constructs and exploring the underlying processes that facilitate creativity.

References

Amabile, T. M. 1988. A model of creativity and innovation in organizations. In B. M. Staw & L. L. Cummings (Eds.), *Research in organizational behavior*, vol. 10: 123-167. Greenwich, CT: JAI.

Amabile, T. M. 1996. *Creativity in context.* Boulder, CO: Westview.

Aryee, S., Chen, Z. X., Sun, L.-Y., & Debrah, Y. A. 2007. Antecedents and outcomes of abusive supervision: Test of a trickle-down model. *Journal of Applied Psychology*, 92: 191-201.

Aryee, S., Sun, L.-Y., Chen, Z. X. G., & Debrah, Y. A. 2008. Abusive supervision and contextual performance: The mediating role of emotional exhaustion and the moderating role of work unit structure. *Management and Organization Review*, 4: 393-411.

Barclay, L. J., & Aquino, K. 2011. Workplace aggression and violence. In S. Zedeck (Ed.), *Handbook of industrial and organizational psychology:* 615-640. Washington, DC: American Psychological Association.

Baumeister, R. F., & Tice, D. M. 1990. Anxiety and social exclusion. *Journal of Social and Clinical Psychology*, 9: 165-195.

Bono, J. E., & Colbert, A. E. 2005. Understanding responses to multi-source feedback: The role of core self-evaluations. *Personnel Psychology*, 58: 171-203.

Bradfield, M., & Aquino, K. 1999. The effects of blame attributions and offender likableness on forgiveness and revenge in the workplace. *Journal of Management*, 25: 607-631.

Brislin, R. W. 1980. Translation and content analysis of oral and written material. In H. C. Triandis & J. W. Berry (Eds.), *Handbook of cross-cultural psychology*, vol. 2: 349-444. Boston: Allyn & Bacon.

Brockner, J. 1988. *Self-esteem at work: Research, theory, and practice.* Lexington, MA: Lexington Books.

Chang, C.-H., Ferris, D. L., Johnson, R. E., Rosen, C. C., & Tan, J. A. 2012. Core self-evaluations: A review and evaluation of the literature. *Journal of Management*, 38: 81-128.

Crutchfield, R. 1962. Conformity and creative thinking. In H. Gruber, G. Terrell, & M. Wertheimer (Eds.), *Contemporary approaches to creative thinking:* 120-140. New York: Atherton Press.

Deci, E. L. 1972. Intrinsic motivation, extrinsic reinforcement, and inequity. *Journal of Personality and Social Psychology*, 22: 113-120.

Duffy, M. K., Ganster, D. C., & Pagon, M. 2002. Social undermining in the workplace. *Academy of Management Journal*, 45: 331-351.

Edwards, J. R., & Lambert, L. S. 2007. Methods for integrating moderation and mediation: A general analytical framework using moderated path analysis. *Psychological Methods*, 12: 1-22.

Erez, A., & Judge, T. A. 2001. Relationship of core self-evaluations to goal setting, motivation, and performance. *Journal of Applied Psychology*, 86: 1270-1279.

Farh, J.-L., Lee, C., & Farh, C. I. C. 2010. Task conflict and team creativity: A question of how much and when. *Journal of Applied Psychology*, 95: 1173-1180.

Gong, Y., Huang, J.-C., & Farh, J.-L. 2009. Employee learning orientation, transformational leadership, and employee creativity: The mediating role of employee creative self-efficacy. *Academy of Management Journal*, 52: 765-778.

Goodman, J. S., & Blum, T. C. 1996. Assessing the non-random sampling effects of subject attrition in longitudinal research. *Journal of Management*, 22: 627-652.

Hackman, J. R., & Oldham, G. R. 1974. *The job diagnostic survey: An instrument for the diagnosis of jobs and the evaluation of job redesign projects* (Tech. Rep. No. 4). New Haven, CT: Yale University, Department of Administrative Sciences.

Harris, K. J., Harvey, P., & Kacmar, K. M. 2009. Do social stressors impact everyone equally? An examination of the moderating impact of core self-evaluations. *Journal of Business and Psychology*, 24: 153-164.

Harris, K. J., Kacmar, K. M., & Zivnuska, S. 2007. An investigation of abusive supervision as a predictor of performance and the meaning of work as a moderator of the relationship. *Leadership Quarterly*, 18: 252-263.

Hon, A. H. Y. 2012. Shaping environments conductive to creativity: The role of intrinsic motivation. *Cornell Hospitality Quarterly*, 53: 53-64.

Hoobler, J. M., & Brass, D. J. 2006. Abusive supervision and family undermining as displaced aggression. *Journal of Applied Psychology*, 91: 1125-1133.

Jian, Z., Kwan, H. K., Qiu, Q., Liu, Z. Q., & Yim, F. H.-K. 2012. Abusive supervision and frontline employees' service performance. *Service Industries Journal*, 32: 683-698.

Judge, T. A. 2009. Core self-evaluations and work success. *Current Directions in Psychological Science*, 18: 58-62.

Judge, T. A., & Bono, J. E. 2001. Relationship of core self-evaluations traits—self-esteem, generalized self-efficacy, locus of control, and emotional stability—with job satisfaction and job performance: A meta-analysis. *Journal of Applied Psychology*, 86: 80-92.

Judge, T. A., Bono, J. E., & Locke, E. A. 2000. Personality and job satisfaction: The mediating role of job characteristics. *Journal of Applied Psychology*, 85: 237-249.

Judge, T. A., Erez, A., & Bono, J. E. 1998. The power of being positive: The relation between positive self-concept and job performance. *Human Performance*, 11: 167-187.

Judge, T. A., Erez, A., Bono, J. E., & Thoresen, C. J. 2003. The Core Self-Evaluations Scale: Development of a measure. *Personnel Psychology*, 56: 303-331.

Judge, T. A., Locke, E. A., & Durham, C. C. 1997. The dispositional causes of job satisfaction: A core evaluations approach. *Research in Organizational Behavior*, 19: 151-188.

Kacmar, K. M., Collins, B. J., Harris, K. J., & Judge, T. A. 2009. Core self-evaluations and job performance: The role of the perceived work environment. *Journal of Applied Psychology*, 94: 1572-1580.

Kammeyer-Mueller, J. D., Judge, T. A., & Scott, B. A. 2009. The role of core self-evaluations in the coping process. *Journal of Applied Psychology*, 94: 177-195.

Kijkuit, B., & van den Ende, J. 2007. The organizational life of an idea: Integrating social network, creativity and decision-making perspectives. *Journal of Management Studies*, 44: 863-882.

Koestler, A. 1964. *The act of creation*. New York: Dell.

Lian, H., Ferris, D. L., & Brown, D. J. 2012. Does power distance exacerbate or mitigate the effects of abusive supervision? It depends on the outcome. *Journal of Applied Psychology*, 97: 107-123.

Liu, D., Liao, H., & Loi, R. in press. The dark side of leadership: A three-level investigation of the cascading effect of abusive supervision on employee creativity. *Academy of Management Journal*.

Liu, J., Kwan, H. K., Wu, L.-Z, & Wu, W. 2010. Abusive supervision and subordinate supervisor-directed deviance: The moderating role of traditional values and the mediating role of revenge cognitions. *Journal of Occupational and Organizational Psychology*, 83: 835-856.

Lorenz, E., & Lundvall, B. 2011. Accounting for creativity in the European Union: A multi-level analysis of individual competence, labor market structure, and systems of education and training. *Cambridge Journal of Economics*, 35: 269-294.

Lutgen-Sandvik, P., Tracy, S. J., & Alberts, J. K. 2007. Burned by bullying in the American workplace: Prevalence, perception, degree and impact. *Journal of Management Studies*, 44: 837-862.

McAllister, D. J., & Bigley, G. A. 2002. Work context and the definition of self: How organizational care influences organization-based self-esteem. *Academy of Management Journal*, 45: 894-904.

Olweus, D. 1978. *Aggression in the schools: Bullies and whipping boys.* Washington, DC: Hemisphere (Wiley).

Pearson, C. M., Andersson, L. M., & Porath, C. L. 2000. Assessing and attacking workplace incivility. *Organizational Dynamics*, 29: 123-137.

Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. 2003. Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88: 879-903.

Porath, C. L., & Pearson, C. M. 2010. The cost of bad behavior. *Organizational Dynamics*, 39: 64-71.

Shalley, C. E., & Perry-Smith, J. E. 2001. Effects of social-psychological factors on creative performance: The role of informational and controlling expected evaluation and modeling experience. *Organizational Behavior and Human Decision Processes*, 84: 1-22.

Shalley, C. E., Zhou, J., & Oldham, G. R. 2004. The effects of personal and contextual characteristics on creativity: Where should we go from here. *Journal of Management*, 30: 933-958.

Shin, S. J., & Zhou, J. 2003. Transformational leadership, conservation, and creativity: Evidence from Korea. *Academy of Management Journal*, 46: 703-714.

Siemsen, E., Roth, A., & Oliveira, P. 2010. Common method bias in regression models with linear, quadratic, and interaction effects. *Organizational Research Methods*, 13: 456-476.

Simon, H. A. 1967. Motivational and emotional controls of cognition. *Psychological Review,* 74: 29-39.

Stone, E. F., & Hollenbeck, J. R. 1989. Clarifying some controversial issues surrounding statistical procedures for detecting moderator variables: Empirical evidence and related matters. *Journal of Applied Psychology*, 74: 3-10.

Tepper, B. J. 2000. Consequences of abusive supervision. *Academy of Management Journal*, 43: 178-190.

Tepper, B. J. 2007. Abusive supervision in work organizations: Review, synthesis, and research agenda. *Journal of Management*, 33: 261-289.

Tepper, B. J., Duffy, M. K., Henle, C. A., & Lambert, L. S. 2006. Procedural injustice, victim precipitation, and abusive supervision. *Personnel Psychology*, 59: 101-123.

Tepper, B. J., Duffy, M. K., & Shaw, J. D. 2001. Personality moderators of the relationship between abusive supervision and subordinates' resistance. *Journal of Applied Psychology*, 86: 974-983.

Tepper, B. J., & Henle, C. A. 2011. A case for recognizing distinctions among constructs that capture interpersonal mistreatment in work organizations. *Journal of Organizational Behavior*, 32: 487-498.

Tepper, B. J., Moss, S. E., & Duffy, M. K. 2011. Predictors of abusive supervision: Supervisor perceptions of deep-level dissimilarity, relationship conflict, and subordinate performance. *Academy of Management Journal*, 54: 279-294.

Tierney, P., & Farmer, S. M. 2002. Creative self-efficacy: Its potential antecedents and relationship to creative performance. *Academy of Management Journal*, 45: 1137-1148.

Tierney, P., & Farmer, S. M. 2004. The Pygmalion process and employee creativity. *Journal of Management*, 30: 413-432.

Tierney, P., & Farmer, S. M. 2011. Creative self-efficacy development and creative performance over time. *Journal of Applied Psychology*, 96: 277-293.

Warr, P., Cook, J., & Wall, T. 1979. Scales for the measurement of some work attitudes and aspects of psychological well-being. *Journal of Occupational Psychology*, 52: 129-148.

West, M. A., & Farr, J. L. 1990. Innovation at work. In M. West & J. Farr (Eds.), *Innovation and creativity at work: Psychological and organizational strategies:* 3-13. Chichester, UK: Wiley.

Zellars, K. L., Tepper, B. J., & Duffy, M. K. 2002. Abusive supervision and subordinates' organizational citizenship behavior. *Journal of Applied Psychology*, 87: 1068-1076.

Zhang, X., & Bartol, K. M. 2010. Linking empowering leadership and employee creativity: The influence of psychological empowerment, intrinsic motivation, and creative process engagement. *Academy of Management Journal*, 53: 107-128.

Zhou, J., & George, J. M. 2001. When job dissatisfaction leads to creativity: Encouraging the expression of voice. *Academy of Management Journal*, 44: 682-696.