

THE DARK SIDE OF LEADERSHIP: A THREE-LEVEL INVESTIGATION OF THE CASCADING EFFECT OF ABUSIVE SUPERVISION ON EMPLOYEE CREATIVITY

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This research sheds light on the role of the dark side of leadership in employee creativity by examining how and when department leader abusive supervision may flow down organizational levels to undermine team member creativity. Analyses of multiphase, multisource, and multilevel data show that team leader abusive supervision mediates the negative relationship between department leader abusive supervision and team member creativity. Team leaders' and members' attributions for the motives behind their own supervisors' abusive supervision, which we classify as performance-promotion and injury-initiation motives, determine the extent to which team leader abusive supervision accounts for the effect of department leader abusive supervision on team member creativity.

Because of the rapidly changing economy and continuing globalization of business, employee creativity—referring to the development of novel and useful ideas about products, practices, services or procedures—has become increasingly crucial for the survival and competitiveness of organizations today (Shalley, Gilson, & Blum, 2009). A plethora of research has looked at the link between positive leader behaviors such as “transformational leadership” and employee creativity (e.g., Shin & Zhou, 2003). Nevertheless, existing knowledge on the role of leadership in employee creativity remains incomplete because little is known as to whether the *dark side* of leadership in general and abusive supervision in particular may affect creative performance of employees. Drawing on a comprehensive review of psychological studies, Baumeister, Bratslavsky, Finkenauer, and Vohs (2001) concluded that a general principle across a broad range of

psychological phenomena is that individuals are more responsive to negative than to positive aspects of external context, so the negative contextual aspects thus tend to have stronger influence on individual attitudes and behaviors than the positive ones. More recently, Zhou (2010) pointed out that a critical and fruitful future avenue for research on creativity would be to explore the relationship between the negative side of leadership and employee creativity. Given the prevalence and far-reaching impact of abusive supervision (Tepper, 2007; Tepper, Carr, Breaux, Geider, Hu, & Hua, 2009), it is of both theoretical and empirical importance to illuminate the influence of abusive supervision on employee creativity as well as the boundary conditions for this influence.

Tepper conceptualized *abusive supervision* as leaders' engagement in “the sustained display of hostile, verbal and nonverbal behaviors, excluding physical contact” (2000: 178). A number of studies have reported that, owing to their higher organizational positions and stronger decisional power, leaders are inclined to exhibit abusive supervisory behaviors such as ridiculing, yelling at, and intimidating subordinates; taking credit for subordinates' achievements; and attributing undesirable outcomes to subordinates' personal factors (e.g., Hoobler & Brass, 2006; Tepper et al., 2009). Tepper,

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Duffy, Henle, and Lambert (2006) estimated that U.S. companies incur a tremendous annual cost of \$23.8 billion as a result of abusive supervision's negative influence on employees. To date, supervisory abuse has been found to result in a variety of attitudinal outcomes among subordinates, such as decreased job satisfaction (Tepper, Duffy, Hoobler, & Ensley, 2004) and increased intentions to quit (Tepper, 2000). Nevertheless, only a small number of studies have focused directly on the associations between abusive supervision and subordinate performance outcomes (for exceptions, see Aryee, Chen, Sun, and Debrah [2007] and Zellars, Tepper, and Duffy [2002]), and no research has been conducted on the impact of abusive supervision on employee creative performance. This is an unfortunate oversight both practically and theoretically. Practically, individual creativity contributes substantively to organizational effectiveness (Shalley, Zhou, & Oldham, 2004), and leader behaviors have also been argued to play a significant role in the growth and prohibition of creativity (Hennessey & Amabile, 2010). Theoretically, in view of extant abusive supervision and creativity research, we expect abusive supervision to decrease employee creativity. Therefore, the first purpose of our research is to integrate and extend research on leadership and creativity to examine whether abusive supervision undermines employee creativity in teams.

In addition, leadership research has highlighted a cascading effect of positive leader behaviors: leaders at a lower level of a hierarchy, may engage in role modeling in which they mimic and display the positive behaviors of leaders at a higher hierarchical level (Bass, 1990; Bass, Waldman, Avolio, & Webb, 1987). More recently, Mayer, Kuenzi, Greenbaum, Bardes, and Salvador (2009) presented convincing evidence, based on data from a sample of 904 employees and 195 supervisors in 195 departments, for the cascading effect of positive aspects of leadership by demonstrating that top management ethical leadership triggers supervisory ethical leadership. A second purpose of this research is to contribute to the leadership literature, and especially the research on abusive supervision, through extending the idea that negative aspects of leadership may have a cascading effect and investigating whether team leader abusive supervision may be a function of department leader abusive supervision. More specifically, we examine the indirect effect of department leader abusive supervision on team member creativity via team leader abusive supervision.

Another critical issue of note in theory on the impact of abusive supervision is the role of attribution in subordinates' perceptions of abuse. In his

review of abusive supervision research, Tepper (2007) pointed out that an important future research direction is to scrutinize how subordinates may respond differently to supervisory abuse depending on the attributed motives for supervisors' abusive behaviors. Prior research on abusive supervision has implied that two separate types of motives may be associated with supervisory abuse: *performance promotion* and *injury initiation* (Tepper, 2007). Thus, on the one hand, leaders may mistreat their subordinates to enhance subordinate performance; on the other hand, leaders may exercise abusive supervision to purposely harm subordinates. Answering the call to incorporate subordinates' attributions for abusive supervision into examination of abusive supervision's effects on subordinate outcomes (Tepper, 2007), we draw on the attribution literature (Heider, 1958; Martinko, Harvey, & Douglas, 2007a) to examine *when* department leader supervision cascades down to trigger team leader abusive supervision and in turn, decreases team member creativity. Specifically, this research looks at the contingent effects of team leader-attributed performance promotion motives and injury initiation motives on the link between department leader abusive supervision and team leader abusive supervision. In addition, at two levels down the organizational hierarchy from departments, we investigate team member-attributed performance promotion motives and injury initiation motives for team leader abusive supervision as the boundary condition of the negative relationship between team leader abusive supervision and team member creativity.

The current research tests a three-level theoretical model of the relationship between abusive supervision and creativity and is designed to make three unique contributions. First, we offer a theoretical rationale for and provide the first empirical test of whether abusive supervision exerts a negative effect on employee creativity. An examination of this effect is likely to advance current understanding of the consequences of the dark side of leadership in organizations. Second, we build a trickle-down model to unveil how abusive supervision manifested at the department level flows down through an organizational hierarchy to stimulate team leader abusive supervision and consequently undermines team member creativity. This multilevel investigation of the antecedents and outcomes of team leader abusive supervision is crucial, in that abusive supervision scholars have increasingly recognized the value of a multilevel perspective on the dynamics and richness of abusive behaviors that are likely to traverse different organizational levels (e.g., Tepper, 2007). Third, we

extend current thinking about the trickle-down effect of leader behaviors by drawing on research on attribution (Heider, 1958) to clarify the boundary conditions of such an effect on creativity: that is, the contingent roles of subordinates' attributions for the motives behind leaders' abusive supervision. This examination contributes to both the leadership and attribution literatures by demonstrating the ways in which subordinate attributional perspectives can affect leadership processes and consequences.

LITERATURE REVIEW AND HYPOTHESES

The Effect of Abusive Supervision on Employee Creativity in Teams

Leaders have traditionally been conceptualized as an important contextual factor that cultivates or stifles employee creativity (George, 2008). Although extant literature has not examined the effect of abusive supervision on creativity, a limited but growing body of abusive supervision research has demonstrated that exposure to abusive supervision results in subordinates' unwillingness to "go the extra mile" to perform behaviors that benefit their organizations (e.g., Zellars et al., 2002), which may involve advancing creative ideas and solutions that improve organizational effectiveness. Drawing on prior creativity research, we argue that team leader abusive supervision may undermine team member creativity because it reduces team member intrinsic motivation, which refers to the degree to which an individual undertakes an activity for the sake of his/her enjoyment of and interest in the activity itself, rather than as a result of external pressures and rewards (Deci, 1972). Intrinsic motivation is conducive to creativity because the more intrinsically motivated toward their jobs employees are, the more likely they are to challenge the status quo, come up with novel and useful ideas, and adhere to innovative goals in the face of challenges, thereby becoming more creative (Deci & Ryan, 2008; Zhou & George, 2001).

Comprehensive reviews of the creativity literature suggest that intrinsic motivation as an internal process that leads to employee creativity has garnered the most significant attention from organizational scholars (e.g., George, 2008; Shalley et al., 2004). In particular, a number of conceptual and empirical studies have generated evidence for intrinsic motivation as a pivotal psychological mechanism that underlies creativity (e.g., Amabile, 1996; Grant & Berry, 2011). Shalley and colleagues pointed out that "each contextual characteristic affects creativity via its effects on employees' 'intrinsic

motivation' to perform a work assignment" (2004: 935). We argue that abusive supervision may also dampen employees' intrinsic motivation and hence their creativity.

When team members encounter abuse by leaders, in the form of public criticism, derogating comments, loud and angry tantrums, rudeness, inconsiderate actions, and coercion, they are apt to feel belittled, humiliated, and undermined as to their reputation in the workplace (Keashly & Harvey, 2005). Abusive supervision also leads subordinates to doubt whether organizations respect their contributions and whether their jobs are meaningful to their own and organizations' development (Rafferty & Restubog, 2011). Studies have demonstrated that abusive supervision results in employees being unsatisfied with their jobs and intending to quit (Tepper, 2000). Accordingly, abusive supervision should reduce employees' enjoyment of their jobs, thereby causing diminished intrinsic motivation towards their jobs. In addition, abusive supervision is viewed as a significant source of psychological distress (Restubog, Scott, & Zagenczyk, 2011). Abused employees often suffer from depression, anxiety, and emotional exhaustion, and they tend to alienate themselves from their jobs (Aryee et al., 2007; Hoobler & Brass, 2006; Tepper et al., 2004). In such a distressed psychological state, abused employees may have little chance of developing interest in their work, so their intrinsic motivation should decline substantially (Deci & Ryan, 2008).

Research has shown that the supportive relationships between leaders and subordinates enhance subordinate intrinsic motivation (Shin & Zhou, 2003), whereas pressuring, controlling, and disparaging relationships between leaders and subordinates, which typically result from abusive supervision (Tepper, 2007), reduce intrinsic motivation (Deci, Connell, & Ryan, 1989; Vansteenkiste, Simons, Lens, Sheldon, & Deci, 2004). Considering the above arguments as well as abundant empirical evidence of the positive relationship between intrinsic motivation and creativity (e.g., Amabile, Hadley, & Kramer, 2002; Grant & Berry, 2011), we propose:

Hypothesis 1. Team leader abusive supervision is negatively related to team member creativity.

The Trickle-down Effect of Abusive Supervision in Organizational Hierarchy

Drawing on social learning theory (Bandura, 1977, 1986), we further propose that abusive supervision on the part of a team leader's own supervisor (i.e., a department leader) can directly trigger the

team leader's abusive behaviors, thus indirectly decreasing team member creativity. Social learning theory suggests that by observing and emulating the behavior of significant social contacts (e.g., leaders), individuals learn how to interpret external stimuli and respond in a certain manner (Bandura, 1986). In the workplace, leaders are in charge of the allotment of critical organizational resources, guide and evaluate followers on completing job tasks, and make important personnel decisions (e.g., promotion, salary, training opportunities), so employees are inclined to carefully observe their leaders' behaviors and decide how they should behave accordingly (Mayer et al., 2009; Tucker, Turner, Barling, & McEvoy, 2010).

Extending the extant literature on the trickle-down effect of leaders' behaviors (Mayer et al., 2009), we contend that employees may emulate not only positive but also negative leader behaviors. Some support for our proposition comes from the aggression literature, which suggests that individuals engage in aggressive behaviors in part as a result of learning from role models in a social setting (Bandura, 1973, 1977). Previous research on workplace aggression (e.g., Glomb & Liao, 2003), child aggression (e.g., Tucker et al., 2010), and family violence (e.g., Brezina, 1999) has provided evidence for this social learning perspective on aggression. In particular, Tucker and colleagues (2010) revealed that team leaders' behaviors significantly affect the extent to which team members are aggressive. Goldstein (1986) also found that individual aggressive behaviors toward social contacts are cultivated by the similar behaviors of those in higher status positions.

In the context of abusive supervision, a role modeling process characterized by followers' observational learning of leaders' abusive supervision may stimulate abusive supervision to flow down from the department level to the team level (Bandura, 1986; Bass et al., 1987). Specifically, when team leaders discern frequent occurrence of abuse by their department leaders, they tend to feel it is appropriate and acceptable to display abusive behaviors toward their own subordinates and thus engage in such behaviors frequently. Conversely, if they observe little or no abuse by department leaders, team leaders may conclude that abusive supervision is not legitimate or a norm in their respective departments. As a result, they will follow department leaders in refraining from abusing their direct reports—team members. For example, drawing from social learning theory, Lian, Ferris, and Brown (2012: 108) argued that “abusive supervision can be ‘learned’ and mimicked by subordinates, potentially perpetuating an organizational

atmosphere of abuse.” Using three separate samples, they demonstrated that subordinates model behavior on that of their abusive supervisors when engaging in interpersonal deviance. We want to note that subordinates do not necessarily learn leaders' abusive behaviors purposely. Social learning theory has emphasized that “most of the intricate responses people display are learned, either deliberately or inadvertently, through the influence of example” (Bandura, 1973: 44). Researchers have indeed shown that individuals may mimic social contacts' behaviors unintentionally and subconsciously (Chartrand & Bargh, 1999). Therefore, a team leader may become increasingly abusive as a result of the frequent exposure to an abusive department leader, even without the team leader's full awareness.

Given that oftentimes, a department leader has frequent, *direct* contacts with team leaders, who in turn, supervise team members, department leader abusive supervision is expected to weaken team member creativity *indirectly*, via its influence on team leader abusive behavior. Specifically, team leader abusive supervision may serve as the central psychological conduit that links department leader abusive supervision to team member creativity. Hierarchically proximal leaders have been demonstrated to have the strongest impact on subordinates' perceptions and behaviors (Offermann & Malamut, 2002). As immediate followers of department leaders, team leaders are inclined to mimic supervisory abuse from department leaders. Compared to departments, teams constitute a more proximate work environment for team members, who thus have more frequent and intensive interactions with team leaders than department leaders. Consequently, department leaders generally need to rely on team leaders to influence team members; team leader abusive supervision as a function of department leader abusive supervision thus has a more direct and dominant impact on team member creativity. Empirical evidence supporting this idea has been accumulating. For examples, Zohar and Luria (2005) reported that as a hierarchically proximal factor for employees, supervisor safety leadership translates top management team safety leadership to employee safety outcomes. More recently, top management ethical leadership has been found to have indirect effects on group citizenship behaviors and deviance via group-level supervisory ethical leadership (Mayer et al., 2009). Therefore, we propose:

Hypothesis 2. Team leader abusive supervision mediates the cross-level relationship between

department leader abusive supervision and team member creativity.

The Contingent Effects of Team Leader Attributions on the Link between Department Leader Abusive Supervision and Team Leader Abusive Supervision

A social learning theory contention is that the degree to which people mimic certain behaviors of their role models depends on three factors: retention (remembering what behavior one has observed); reproduction (having the ability to reproduce the behavior); and motivation (having a good reason to justify the initiation of the behavior) (Bandura, 1973, 1977). The motivation component of the theory underscores the fact that the likelihood of individuals choosing to enact the behaviors learned from role models depends on their perceptions of the purposes or the objectives of the behaviors (Bandura, 1986). People generally wish to obtain positive learning outcomes and avoid negative learning consequences (Bandura, 1977, 1986). If individuals expect a positive outcome from a behavior they observed, or believe the behavior was enacted to achieve a favorable outcome, then they will have higher motivation to adopt the behavior. On the contrary, if individuals expect a negative outcome or believe the behavior was enacted to cause harm, they will have less motivation to adopt the behavior.

In a similar vein, the central finding of attribution research is that people make causal explanations for the behaviors of the individuals around them to adjust their own behaviors to social environments (Heider, 1958; Martinko et al., 2007a). Accordingly, when encountering abuse, employees are inclined to develop causal attributions for the reason or the objectives of the actor's abuse, which result in their behavioral responses. In his seminal review of abusive supervision research, Tepper (2007) pointed out that a fundamental difference between abusive supervision and work aggression is that subordinates may attribute abusive behaviors to two distinct causal motives—to cause injury and to accomplish an objective such as eliciting high performance—but they attribute work aggression behaviors only to the motive of causing injury. Therefore, in this research, we examine the contingent roles of subordinate-attributed *performance promotion* and *injury initiation* motives for leaders' abuse in qualifying the trickle-down effect of abusive supervision on team member creativity.

Informed by social learning theory and attribution studies (Bandura, 1986; Mikula, 2003), we argue that after observing abusive behaviors of de-

partment leaders, team leaders proceed to process relevant information to discern the intended objective of the behavior. When team leaders interpret the department leaders' motive as performance promotion, they may believe that department leader abusive supervision is aligned with their own personal interests and will be beneficial for their long-term career development. Because improved performance may bring benefits such as promotion and compensation (Carmeli, Shalom, & Weisberg, 2007) as well as a greater sense of job enjoyment and accomplishment, subordinate-attributed performance promotion motives for leader abuse may stimulate subordinates to legitimize abusive supervision. As a result, the subordinates will be more likely to view their leaders as social role models that they aspire to learn from and thus spread similar behavior down the organizational hierarchy in their workplace. Therefore, to the extent that abusive supervision is attributed to improving subordinate performance, a team leader will be more likely to model his or her own behavior on such behavior by the department leader, thereby abusing his or her team members more. We thus argue that the positive relationship between department abusive supervision and team leader abusive supervision may be accentuated by team leader-attributed performance promotion motives.

In contrast, when team leaders interpret department leaders' motives as injury initiation, they may perceive abusive supervision as unethical and harmful to subordinates' experiences in their organization. People are discouraged from emulating and enacting unethical and harmful behaviors to avoid negative consequences and inconsistency with moral standards and social norms (Harman & Thomson, 1996). Therefore, in this case, team leaders should engage in abusive supervision less because of ethical concern that abusive supervision may harm subordinates. Nonetheless, the perceived injury initiation motives may not lead individuals to completely avoid abusing subordinates. As pointed out early, both social learning theory and empirical studies have shown that people imitate others' behaviors both consciously and unconsciously (Bandura, 1973; Chartrand & Bargh, 1999). In other words, team leaders may learn from abusive department leaders and in turn, abuse team members without being fully aware of this social learning effect. Therefore, we expect the positive link between department abusive supervision and team leader abusive supervision to be attenuated rather than canceled by team leader-attributed injury initiation motives. We propose:

Hypothesis 3a. Team leader-attributed motives moderate the positive relationship between department leader abusive supervision and team leader abusive supervision: The relationship is stronger when team leaders interpret department leader abusive supervision as driven by higher (vs. lower) levels of performance promotion motives.

Hypothesis 3b. Team leader-attributed motives moderate the positive relationship between department leader abusive supervision and team leader abusive supervision: The relationship is weaker when team leaders interpret department leader abusive supervision as driven by higher (vs. lower) levels of injury initiation motives.

The Contingent Effects of Team Member Attributions on the Link between Team Leader Abusive Supervision and Team Member Creativity

Integrating attribution and abusive supervision research, we further contend that team members' causal attributions for abusive behaviors of team leaders may affect the ways they interpret and respond to team leader abusive supervision. Specifically, team members' causal attributions and team leader abusive supervision may interact to influence team members' creativity.

Our earlier arguments suggest that team members may also decode the motives behind team leader abusive supervision as performance promoting or injury initiating. When team members perceive team leader abusive supervision as triggered by the positive intent of improving their performance and thus as conducive to their personal growth, the team members are less likely to form negative feelings and lose enjoyment of and interest in their jobs. As a result, they are less prompted to withdraw from advancing novel and useful ideas in their workplace. Therefore, team leader abusive supervision is less negatively related to team member creativity in the presence of team member-attributed performance promotion motives. In contrast, perceiving team leaders to be abusing subordinates with the negative purpose of causing harm more likely makes team members form various negative emotions and lose interest in their jobs. As a result, the abused team members who make injury initiation attributions should exhibit a bigger decrease in their desire to propose novel and useful ideas regarding their jobs. Team member-attributed injury initiation motives thus exacerbate the negative role of team leader abusive supervision in the develop-

ment of team member creative performance. Therefore, we hypothesize:

Hypothesis 4a. Team member-attributed motives moderate the negative relationship between team leader abusive supervision and team member creativity: The relationship is weaker when team members interpret team leader abusive supervision as driven by higher (vs. lower) levels of performance promotion motives.

Hypothesis 4b. Team member-attributed motives moderate the negative relationship between team leader abusive supervision and team member creativity: The relationship is stronger when team members interpret team leader abusive supervision as driven by higher (vs. lower) levels of injury initiation motives.

An Integrative Moderated Mediation Model

Thus far, we have developed theoretical underpinnings for the mediating effect of team leader abusive supervision as well as for the contingent effects of the causal motives subordinates attribute to supervisors for abuse at different organizational levels. That is, team leader abusive supervision mediates the relationship between department leader abusive supervision and team member creativity (Hypothesis 2). Team leader-attributed motives moderate the positive relationship between department leader abusive supervision and team leader abusive supervision (Hypotheses 3a and 3b); and team member-attributed motives moderate the negative relationship between team leader abusive supervision and team member creativity (Hypotheses 4a and 4b). The theoretical rationales behind the above hypotheses also suggest an integrative moderated mediation model.

Specifically, subordinate-attributed motives for supervisory abuse may moderate the indirect effect of department leader abusive supervision on team member creativity through team leader abusive supervision. The theorizing behind Hypotheses 2, 3a, and 3b indicates that through augmenting or attenuating the association between department leader abusive supervision and team leader abusive supervision, team leaders' causal motive attributions affect the degree to which department leader abusive supervision flows down organizational levels to damage team member creativity. Likewise, team members' causal motive attributions, owing to their moderating influence on the link between team leader abusive supervision and team member creativity (Hypotheses 4a and 4b), may also hold the potential of changing the indirect trickle-down ef-

fect of department leader abusive supervision on team member creativity through team leader abusive supervision (Hypothesis 2). Taking these predictions together, we propose two sets of integrative moderated mediation hypotheses:

Hypothesis 5a. Team leader-attributed motives moderate the indirect negative effect of department leader abusive supervision on team member creativity via team leader abusive supervision: The indirect negative effect is stronger when team leaders interpret department leader abusive supervision as driven by higher (vs. lower) levels of performance promotion motives.

Hypothesis 5b. Team leader-attributed motives moderate the indirect negative effect of department leader abusive supervision on team member creativity via team leader abusive supervision: The indirect negative effect is weaker when team leaders interpret department leader abusive supervision as driven by higher (vs. lower) levels of injury initiation motives.

Hypothesis 6a. Team member-attributed motives moderate the indirect negative effect of department leader abusive supervision on team member creativity via team leader abusive supervision: The indirect negative effect is stronger when team members interpret team leader abusive supervision as driven by higher (vs. lower) levels of performance promotion motives.

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Hypothesis 6b. Team member-attributed motives moderate the indirect negative effect of department leader abusive supervision on team member creativity via team leader abusive supervision: The indirect negative effect is stronger when team members interpret team leader abusive supervision as driven by higher (vs. lower) levels of injury initiation motives.

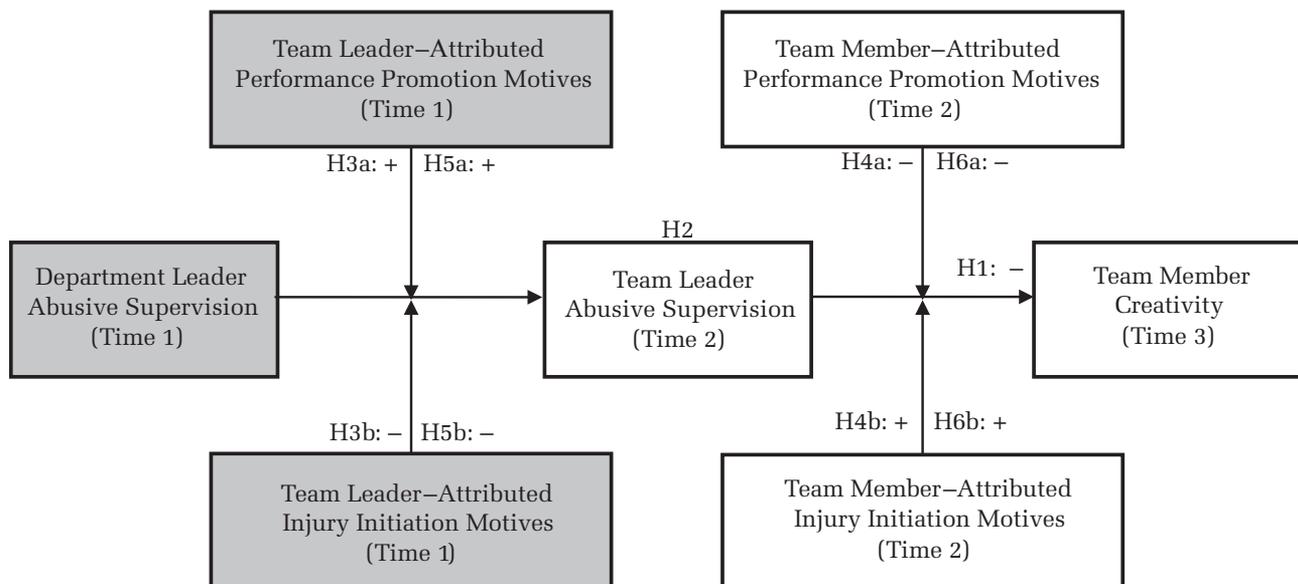
Figure 1 depicts the hypothesized theoretical framework in this research.

METHODS

Scale Development for Subordinate-Attributed Motives for Abusive Supervision

No prior research has looked at victims' attributions for perpetrator's intentions when studying the role of attributions in abusive supervision. Therefore, following Hinkin's (1995, 1998) scale development procedures, we first adopted an inductive multistage approach to developing a measure of subordinate-attributed motives behind abusive su-

FIGURE 1
Theoretical Model



Shaded boxes = Team-level constructs evaluated by team leaders
White boxes = Individual-level constructs evaluated by team members, except for team member creativity, which was evaluated by team leaders.

pervision using two separate samples. First, to generate items, we administered a questionnaire survey to 128 executive MBA and MBA students in a large northwest research-oriented university in the United States. At the beginning of the survey, the students read the definition of abusive supervision (Tepper, 2000) and were then asked to draw from their work experience and describe the possible motives stimulating their supervisors to supervise them abusively. Ninety-three students returned our questionnaires, providing 189 statements (e.g., "They desire to stimulate me to meet my performance goals"; "They desire to make me feel bad about myself").

Second, three leadership researchers, who were outside our research team and not aware of the research purpose, were invited to independently sort the 189 statements into categories. They sorted the statements into two categories, and their sortings showed high consistency (average $r = .90$). Through extensive discussion, they resolved their few disagreements on the statement sorting and reached a final consensus. Then, to increase variance in the three leadership researchers' ratings and thus allow us to select a manageable number of representative items from the 189 statements, we asked the three outside researchers to rate the representativeness of the statements under each category on this scale: 1, "not representative at all"; 6, "neutral"; 11, "fully representative." We retained 20 statements with the highest average ratings in each category; the dropped items largely represented different ways to frame the same content covered in the retained statements. We then asked the three leadership researchers to explain the meanings of the two categories in terms of the selected 40 statements. Their explanations were consistent with Tepper's (2007) categorization of the causal motives for abusive behaviors: performance promotion and injury initiation.

Third, after refining the 40 statements to improve their clarity and accuracy, we explored their factor structure by surveying 298 employees in a bank in the northwestern United States. The employees were requested to indicate the extent to which each of the 40 items represented possible causal motives for their leaders' abusive behaviors toward them (1 = "not representative at all," 4 = "neutral," 7 = "fully representative"). We received 237 responses. Using exploratory factor analyses, we eliminated the items with low loadings and high cross-loadings. A two-factor structure with five items for each factor emerged and explained 73 percent of the total variance (see Appendix A for the items). In line with our conceptualization, the five items for factor 1 represent performance promotion motives

and have factor loadings larger than .75 ($\alpha = .85$). Factor 2 indicates injury initiation motives and consists of five items with factor loadings larger than .77 ($\alpha = .88$).

To provide further evidence supporting our developed measures, we then performed a series of confirmatory factor analyses (CFAs) using LISREL 8.7. An excellent fit was found for the two-factor model ($\chi^2 = 85.36$, $df = 34$, NNFI = .93, CFI = .92, RMSEA = .06), with all items loading strongly on their expected factors. Additionally, the two-factor model fit the data significantly better than a one-factor model in which all items were loaded on a single factor ($\chi^2 = 155.78$, $df = 35$, NNFI = .72, CFI = .75, RMSEA = .18; $\Delta\chi^2 = 70.42$, $\Delta df = 1$, $p < .001$). The above scale development procedures and empirical results support our conceptualization of subordinate-attributed causal motives for abusive supervision as involving two distinct components: performance promotion motives and injury initiation motives.

Data Collection for Hypothesis Testing

To test our hypotheses, we collected multilevel, multiphase, and multisource data in a large U.S. midwest automobile parts manufacturing company. The company has traditionally maintained an organizational structure with teams responsible for manufacturing similar automobile parts nested in the same department. Within each team, members manufactured the same type of automobile parts (e.g., automobile bearings) and offered technical support to one another (e.g., helping coworkers resolve their technical problems and checking the quality of automobile parts made by coworkers). Team leaders, who reported to department leaders, were in charge of monitoring and evaluating the work of members. Yet department leaders might directly provide technical advice and performance feedback to team members. Team members were encouraged to find creative ways to enhance their production processes (e.g., proposing useful ideas about how to enhance coordination with teammates and resolve conflict) as well as the quality of manufactured automobile parts (e.g., developing new software for more accurately identifying deficient products) and solve work-related problems (e.g., designing a website for team members to provide immediate constructive feedback to each other). To solicit participation, we gave multiple presentations on the purpose and benefits of our research project to the company's top management team and human resource management department. With strong support from the surveyed company's management, we were able to conduct a

three-phase data collection with the intent of assessing the causal relationships specified in our model.

In phase 1, questionnaires were sent to 153 team leaders under 25 departments through the company's internal mail system. On the questionnaire, we asked team leaders to evaluate department leader abusive supervision as well as the performance promotion and injury initiation motives to which they attributed it. We received 138 responses from team leaders in 22 departments, thus obtaining response rates of 91 percent at the team level and 88 percent at the department level. One month later, we engaged in phase 2 data collection. Questionnaires were administered to all 1,392 team members supervised by the 138 team leaders who responded to our phase 1 data collection. On the questionnaire, we requested team members to rate team leader abusive supervision as well as the performance promotion and injury initiation motives to which they attributed team leader abusive supervision. Of the team members, 915 responded to our survey, a response rate of 66 percent. In phase 3, which took place one month after phase 2, we administered questionnaires to 138 team leaders to collect their evaluations of the 915 responding team members' creativity, again through the company's internal mail system. The 762 evaluations we obtained from 108 team leaders constituted response rates of 83 percent at the team member level and 78 percent at the team level. From the surveyed company's production control department, we also collected data on department leader–team leader relationship length (number of days), team leader–member relationship length (number of days) and team member objective task performance (number of automobile parts produced in the month prior to our survey).

In sum, our final sample was composed of 762 team members from 108 teams under 22 departments. On average, a department had 4.81 teams (s.d. = 1.22), and a team had 7.06 members (s.d. = 5.11). The average department leader–team leader relationship length was 138.25 days (s.d. = 112.11); the average team leader–member relationship length was 104.93 days (s.d. = 100.47); and members' average age was 31.53 years (s.d. = 3.87). Among team members, 319 were female and accounted for 41 percent of the sample. We did not find any significant difference between the final sample ($n = 762$) and target sample ($n = 1,392$) in terms of demographic characteristics.

Measures

Abusive supervision was rated on the scale 1, “never,” to 5, “very often.” All other measures were

rated either 1, “strongly disagree,” to 7, “strongly agree” or 1, “never,” to 7, “always.”

Department leader and team leader abusive supervision. Using a 15-item scale developed by Tepper (2000), we asked team leaders to evaluate the abusive behaviors of their department leaders and asked team members to assess the abusiveness of their team leaders ($\alpha = .93$, team leader abusive supervision; $\alpha = .90$, department leader abusive supervision).

Team leader- and member-attributed performance promotion motives. The five-item scale developed for this study was used to measure team leaders' and team members' attributions of performance promotion motives as behind their supervisors' abusive behaviors ($\alpha = .77$, team leader-attributed performance promotion motives; $\alpha = .80$, team member-attributed performance promotion motives).

Team leader- and member-attributed injury initiation motives. Again, we measured team leaders' and team members' attributions of injury initiation motives as behind their supervisors' abusive behaviors using the five-item scale that we developed for this study ($\alpha = .76$, team leader-attributed injury initiation motives; $\alpha = .81$, team member-attributed injury initiation motives).

Team member creativity. In accordance with prior creativity studies (e.g., Zhou, 2003; Zhou & George, 2001), team member creativity was assessed by team leaders via a 13-item scale developed by Zhou and George (2001) ($\alpha = .89$).

Control variables. Following prior attribution, creativity, leadership and abusive supervision research (e.g., Amabile, 1996; Erdogan & Liden, 2002; Martinko et al., 2007a; Tepper, 2007), we included control variables at three levels to rule out explanations representing alternatives to our model. At the individual level (level 1), we controlled for team member's age, gender, education, length of relationship with team leader, and objective task performance. At the team level (level 2), we controlled for team size (i.e., number of members) and department leader–team leader relationship length. Number of teams and number of employees within a department were controlled for at the department level (level 3).

Roberts, Walton, and Viechtbauer (2006) reported that age is negatively associated with neuroticism, or dispositional tendency to experience negative emotions. Researchers have shown negative emotions exert a significant effect on creativity (Feist, 1999). Task performance is an effective indicator of an individual's skills in his or her job, which is, according to Amabile's (1983) componential conceptualization of creativity, a funda-

mental contributor to the individual's creativity. In addition, subordinates' age, gender, education, and task performance were significantly associated with supervisors' liking for them (Tsui & O'Reilly, 1989). The victim-precipitation literature underscores the fact that leaders are prone to mistreat employees who are not likeable (Elias, 1986). More recently, Tepper, Moss, and Duffy (2011) verified that those with lower task performance are more likely to be targets of abusive supervision. Given that leader-subordinate relationship length, team size, number of teams, and department size may affect the quality of the social exchanges between leaders and followers (Cogliser & Schriesheim, 2000; Erdogan & Liden, 2002; Maslyn & Uhl-Bien, 2001) and thus the extent to which an employee is exposed to abusive behaviors of team and department leaders, we controlled for these variables as well.

Analytical Strategy

We first conducted CFAs to confirm the dimensionality and the discriminant validity of our multi-item measures. Next, to partition the variance at the individual (team member), team, and department levels in hypothesis testing, we calculated hierarchical linear models with HLM 6.08 (Raudenbush, Bryk, Cheong, & Congdon, 2004) to test our hypotheses. These HLM3 models could estimate the individual-level effects (level 1) as well as the separate effects of team-level and department-level predictors (levels 2 and 3) on the intercepts and slopes at the individual level. To separate the cross-level from between-group interaction (Hofmann & Gavin, 1998), we used the group-mean-centering technique when testing the cross-level interactive effects of team leader abusive supervision and team leader attributions for department leader abusive supervision on team member creativity (the second-stage moderation effects in Hypotheses 5a and 5b) as well as the cross-level interactive effects of department leader abusive supervision and team member attributions for team leader abusive supervision on team leader abusive supervision (the first-stage moderation effects in Hypotheses 6a and 6b). We also added the group means back at the higher level to properly control for the main effects of the lower-level factors when assessing these cross-level interaction effects (Hofmann & Gavin, 1998). For the rest of the analyses, we applied grand mean centering to reduce potential collinearity between level 2 intercept and slope terms and to model the potential influences of both within- and between-team vari-

ances (Hofmann & Gavin, 1998; Mathieu & Taylor, 2007).

We tested our moderated mediation Hypotheses 5a, 5b, 6a, and 6b taking the moderated path analysis approach (Edwards & Lambert, 2007), which integrates moderated regression procedures into the path analytic method for testing mediation. In testing moderated mediation, the moderated path analysis approach (Edwards & Lambert, 2007) can address the shortcomings of Baron and Kenny's (1986) moderated causal steps approach and more clearly delineate the moderated and mediated nature of the relationships among variables.

RESULTS

The variables' descriptive statistics, reliabilities, and correlations, as well as data sources and collection schedule, are displayed in Table 1. The reliabilities of our variables are above .75, and their correlations are as expected.

Preliminary Analyses

The CFA results demonstrate that our hypothesized four-factor model (i.e., abusive supervision, performance promotion motives, injury initiation motives, and creativity) was a better fit to the data ($\chi^2_{(659)} = 1,850.05$, RMSEA = .07, CFI = .92, NNFI = .91) than these more parsimonious models: a three-factor one collapsing performance promotion motives and injury initiation motives ($\Delta\chi^2_{(3)} = 1,123.36$, $p < .001$, RMSEA = .12, CFI = .81, NNFI = .80); a two-factor one with all independent variables loaded on one factor ($\Delta\chi^2_{(5)} = 1,327.55$, $p < .001$, RMSEA = .14, CFI = .78, NNFI = .76); and a one-factor model with all variables loaded on a single factor ($\Delta\chi^2_{(6)} = 1,823.93$, $p < .001$, RMSEA = .18, CFI = .73, NNFI = .70). To justify that HLM3 was appropriate for analyzing our three-level data, we first ran null models with no predictors but creativity as the dependent variable (Raudenbush et al., 2004). The results show significant between-team variance ($\chi^2_{(86)} = 215.68$, $p < .001$; ICC1 = .28 [indicating 28 percent of variance resides between teams]) and between-department variance ($\chi^2_{(21)} = 112.43$, $p < .001$; ICC1 = .18 [indicating 18 percent of variance resides between departments]) in creativity. The above results substantiate that HLM3 could be applied to test our multilevel hypotheses.

The Main and Mediating Effects of Team Leader Abusive Supervision

Hypothesis 1 proposes a negative relationship between team leader abusive supervision (level 1)

TABLE 1
Individual-Level Descriptive Statistics, Reliabilities, and Correlations among Measures, and Data Sources and Collection Schedule^a

Variables	Mean	s.d.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Age, time 1	31.53	3.87																
2. Gender, time 1	1.41	0.39	.02															
3. Education, time 1	4.07	1.01	-.10**	.05														
4. Team leader-member relationship length, time 1	104.93	100.47	.07	-.05	-.05													
5. Objective performance, time 1	42.60	13.12	-.01	-.02	.02	.04												
6. Team size, time 1	7.06	5.11	-.07*	.00	-.05	.06	-.01											
7. Department leader-team leader relationship length, time 1	138.25	112.11	.01	-.03	-.02	.00	.05	.06										
8. Number of teams in a department, time 1	4.91	1.22	-.04	-.02	.06	.03	-.01	-.36**	.01									
9. Number of employees in a department, time 1	34.63	21.09	.09*	-.06	-.05	.06	.00	.77**	.04	.03								
10. Department leader abusive supervision, time 1	2.37	0.87	.00	.04	-.00	-.08*	-.07	.06	.06	-.12**	-.03							
11. Team leader-attributed performance promotion motives, time 1	4.23	1.61	.04	-.05	-.08*	-.11**	-.03	.09*	.01	.04	.17**	.05	(.77)					
12. Team leader-attributed injury initiation motives, time 1	4.03	0.96	-.01	.02	-.06	.10**	.00	-.04	-.00	-.09*	-.06	-.08*	-.15**	(.76)				
13. Team leader abusive supervision, time 2	2.20	1.09	.06	-.04	.06	-.01	.03	.08*	-.02	.05	.02	.13**	.09*	-.08*				
14. Team member-attributed performance promotion motives, time 2	3.86	0.91	.10**	-.02	-.00	.11**	.08*	.08*	.01	.00	.08	.01	.01	-.07	.09*	(.80)		
15. Team member-attributed injury initiation motives, time 2	4.24	1.01	.08*	-.01	-.01	.06	.12**	.02	.00	-.07	.06	-.09*	.06	.08*	-.10*	-.15**	(.81)	
16. Creativity, time 3	4.20	1.21	-.07*	-.04	-.04	-.01	.03	.04	-.01	.08*	.03	-.09*	.03	-.06	-.12**	.03	-.08*	(.89)

^a $n = 762$ at the individual level, $n = 108$ at the team level, and $n = 22$ at the department level; reliabilities of the scales are boldfaced and noted in the diagonals. Data on variables 1–3 and 13–15 were reported by individual team members; data on variables 4–9 were collected from the company's manufacturing control department or human resource department; variables 10–12 and 16 were evaluated by team leaders.

* $p < .05$

** $p < .01$

Two-tailed tests.

and team member creativity (level 1). As shown by the results of model 7 in Table 2, team leader abusive supervision was negatively related to team member creativity ($\gamma = -.53, p < .01$). Thus, Hypothesis 1 is supported. Hypothesis 2 suggests team leader abusive supervision (level 1) mediates the cross-level relationship between department leader abusive supervision (level 2) and team member creativity (level 1). We used the PRODCLIN program (MacKinnon, Fritz, Williams, & Lockwood, 2007) to conduct a product of coefficients test for this hypothesis; these results indicate that the indirect effect of department leader abusive supervision on team member creativity via team leader abusive supervision is significant (95% confidence interval [CI] = $-.25, -.02$ [not containing 0]). Therefore, Hypothesis 2 receives support.

The Contingent Effects of Team Leader Attributions

With respect to Hypothesis 3a, the interactive effect of department leader abusive supervision (level 2) and team leader-attributed performance promotion motives (level 2) on team leader abusive supervision (level 2) was also significant ($\gamma = .12, p < .05$). Figure 2 and slope tests show that with high team leader-attributed performance promotion motives (1 s.d. above the mean), department leader abusive supervision was more positively related to team leader abusive supervision ($\gamma = .30, p < .05$) than with low team leader-attributed performance promotion motives (1 s.d. below the mean; $\gamma = .15, p < .05$). Thus, Hypothesis 3a is supported.

Regarding Hypothesis 3b, the results of model 3 in Table 2 reveal that the interactive effect of department leader abusive supervision (level 2) and team leader-attributed injury initiation motives (level 2) on team leader abusive supervision (level 2) was significant ($\gamma = -.10, p < .01$). Slope tests, as shown in Figure 3, demonstrate that when team leader-attributed injury initiation motives were high (1 s.d. above the mean), department leader abusive supervision was less positively related to team leader abusive supervision ($\gamma = .13, p < .05$) than when team leader-attributed injury initiation motives were low (1 s.d. below the mean; $\gamma = .31, p < .01$). Therefore, Hypothesis 3b is verified.

The Contingent Effects of Team Member Attributions

Per Hypothesis 4a, the results of model 8 in Table 2 indicate that the interaction between team leader abusive supervision (level 1) and team member-attributed performance promotion motives (level 1)

was positively related to team member creativity (level 1) ($\gamma = .15, p < .05$). Figure 4 and slope tests reveal that when team member-attributed performance promotion motives were high (1 s.d. above the mean), team leader abusive supervision was less negatively related to team member creativity ($\gamma = -.37, p < .01$) than when team member-attributed performance promotion motives were low (1 s.d. below the mean; $\gamma = -.66, p < .01$). Hence, Hypothesis 4a receives support.

With regard to Hypothesis 4b, as shown by the results of model 8 in Table 2, the interactive effect of team leader abusive supervision (level 1) and team member-attributed injury initiation motives (level 1) on team member creativity (level 1) was significant ($\gamma = -.20, p < .01$). Figure 5 and slope tests demonstrate that with high team member-attributed injury initiation motives (1 s.d. above the mean), team leader abusive supervision was more negatively related to team member creativity ($\gamma = -.72, p < .01$) than with low team member-attributed injury initiation motives (1 s.d. below the mean; $\gamma = -.31, p < .01$). Thus, Hypothesis 4b is verified.

An Integrative Moderated Mediation Model

To test moderated mediation Hypotheses 5a, 5b, 6a, and 6b, we applied Edwards and Lambert's (2007) moderated path analysis approach to estimate four sets of effects at the high and low levels of the moderating variables (i.e., team leader attributions and team member attributions): a first-stage effect (i.e., the effect of department leader abusive supervision on team leader abusive supervision); second-stage effect (i.e., the effect of team leader abusive supervision on team member creativity); direct effect (i.e., the effect of department leader abusive supervision on team member creativity); and overall indirect effect (i.e., the effect of department leader abusive supervision on team member creativity through team leader abusive supervision).

Hypothesis 5a predicts that team leader-attributed performance promotion motives moderate the indirect negative effect of department leader abusive supervision on team member creativity through team leader abusive supervision. The results reported in Table 3 suggest that the indirect effect of department leader abusive supervision on team member creativity via team leader abusive supervision was significantly moderated by team leader-attributed performance promotion motives ($\Delta\gamma = .08, p < .05$). Specifically, as shown by Figure 6, the indirect effect was stronger with high team leader-attributed performance promotion

TABLE 2
HLM Results: The Main and Interactive Effects of Abusive Supervision and Attributed Motives on Team Member Creativity^a

Variables	Team Leader Abusive Supervision: Level 1, Time 2					Team Member Creativity: Level 1, Time 3				
	Model 1	Model 2	Model 3	Model 4 ^b	Model 5 ^b	Model 6	Model 7	Model 8	Model 9 ^b	Model 10 ^b
1 <i>Intercept</i>	2.36**	2.41**	2.33**	2.39**	2.37**	4.13**	4.09**	4.15**	4.14**	4.15**
2 <i>Level 1 control</i>										
Team member age	.04	.02	.08	.08	.08	-.13**	-.13*	-.09*	-.10*	-.09*
Team member gender	-.01	.01	-.01	-.02	-.01	-.00	-.01	.01	-.00	.00
Team member education	.06*	.06*	.06	.06	.06	-.01	.01	.01	-.00	.01
Team leader-member relationship length	-.00	.02	.03	.03	.03	-.09	-.05	-.05	-.05	-.07
Team member objective performance	.05	.04	-.01	-.01	-.01	-.01	-.03	.05	.02	.04
3 <i>Level 1 independent</i>										
Team leader abusive supervision							-.53**	-.51**	-.50**	-.53**
Team member-attributed performance promotion motives								.04	.05	
Team member-attributed injury initiation motives								-.32**		-.32**
Team leader abusive supervision × team member-attributed performance promotion motives								.15*	.13*	
Team leader abusive supervision × team member-attributed injury initiation motives								-.20**		-.19**
4 <i>Level 2 control and independent</i>										
Team size	.08	.09	.17*	.12*	.14*	.04	.08	.13*	.12*	.13*
Department leader-team leader relationship length	-.02	-.03	-.01	-.01	-.02	-.03	-.04	-.02	-.03	-.03
Department leader abusive supervision		.22*	.24*	.25*	.23*	-.24*	-.18	-.07	-.06	-.07
Team leader-attributed performance promotion motives			.01	.07		.05	.05	.05	.07	.06
Team leader-attributed injury initiation motives			-.17**	.12*	-.20**	-.06	-.06	-.06	-.06	-.06
Department leader abusive supervision × team leader-attributed performance promotion motives			.12*			.07	.07	.07	.08	.07
Department leader abusive supervision × team leader-attributed injury initiation motives			-.10**		-.13**			-.05	-.05	-.05
5 <i>Level 3 control</i>										
Number of teams in a department	.14	.09	.09	.12	.06	.39*	.34	.36*	.37*	.37*
Number of employees in a department	.04	.03	-.01	.01	.01	-.02	.03	.05	.05	.06
R ^{2c}	.07*	.13*	.22*	.17*	.18*	.09*	.14*	.25*	.20*	.22*

^a $n = 762$ at the individual level, $n = 108$ at the team level, and $n = 22$ at the department level. To facilitate comparisons of the magnitudes of effects at each level stemming from differently scaled variables, we entered standardized predictors to the estimated models.

^b Models 4–5 and 9–10 are supplementary analyses to demonstrate that the detected moderating effects are not caused by the multicollinearity among the two types of motives.

^c R² is calculated based on proportional reduction of error variance, due to predictors in the models of Table 2 (Snijders & Bosker, 1999).

* $p < .05$

** $p < .01$

Two-tailed tests.

FIGURE 2
The Interactive Effect of Department Leader Abusive Supervision and Team Leader–Attributed Performance Promotion Motives on Team Leader Abusive Supervision

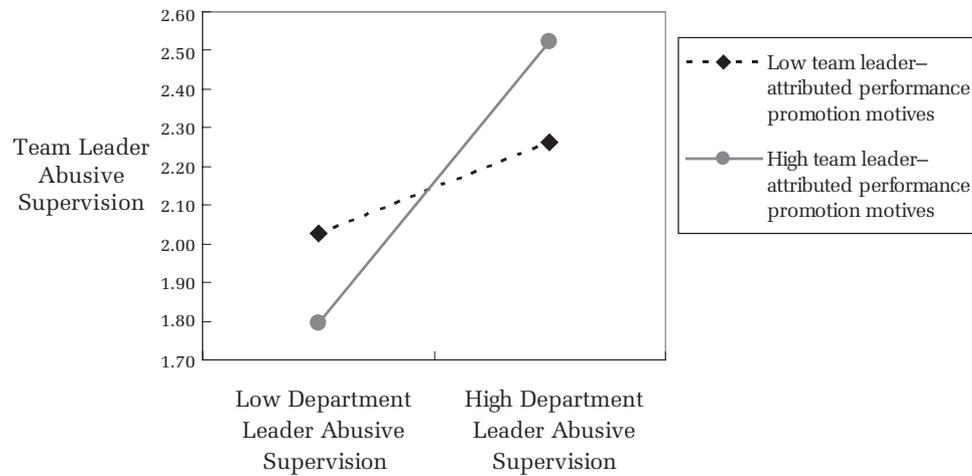
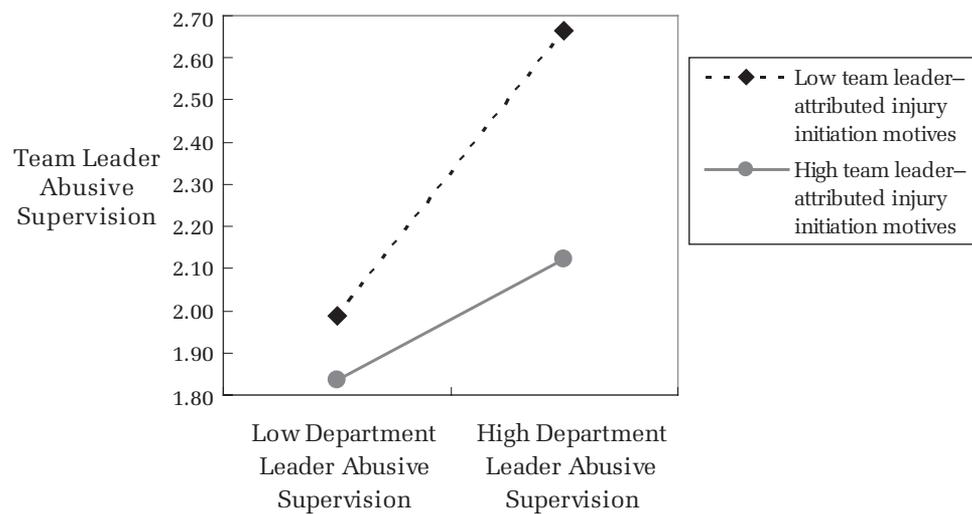


FIGURE 3
The Interactive Effect of Department Leader Abusive Supervision and Team Leader–Attributed Injury Initiation Motives on Team Leader Abusive Supervision



motives ($\gamma = -.15, p < .05$) than with low team leader-attributed performance promotion motives ($\gamma = -.07, p < .05$). Additionally, Table 3 shows that team leader-attributed performance promotion motives moderated the indirect effect of department leader abusive supervision on team member creativity via team leader abusive supervision owing to its moderating effect on the relationship between department leader abusive supervision and team leader abusive supervision (i.e., the first-stage effect; $\Delta\gamma = -.15, p < .05$). Team leader-attributed performance promotion did not moderate the relationship between team leader abusive supervision and team member creativity (i.e., the second-stage

effect; $\Delta\gamma = .04, n.s.$). Consequently, Hypothesis 5a is supported.

Hypothesis 5b predicts that team leader-attributed injury initiation motives moderate the indirect negative effect of department leader abusive supervision on team member creativity through team leader abusive supervision. The results of Table 3 reveal a significant overall moderating effect of team leader-attributed injury initiation motives on the indirect relationship of department leader abusive supervision with team member creativity via team leader abusive supervision ($\Delta\gamma = -.06, p < .05$). In full support of Hypothesis 5b, Figure 7 suggests the indirect effect was stronger with low

FIGURE 4
The Interactive Effect of Team Leader Abusive Supervision and Team Member–Attributed Performance Promotion Motives on Team Member Creativity

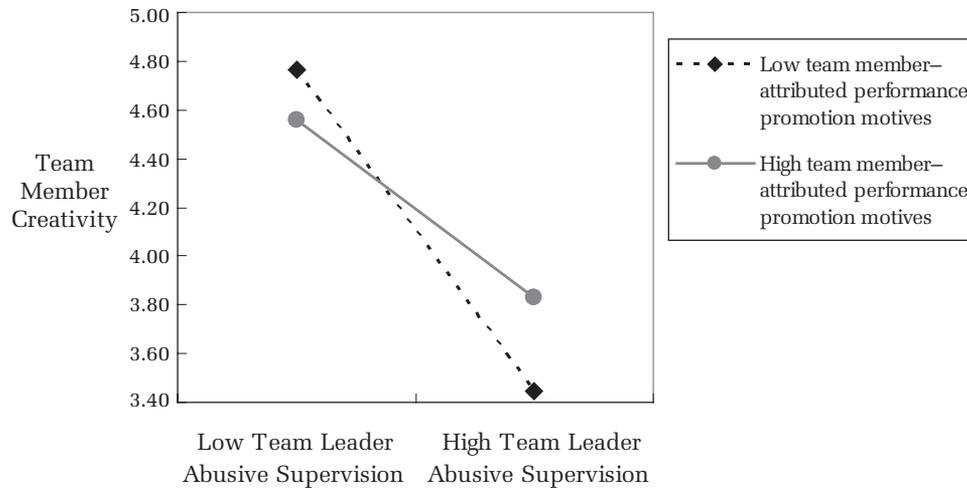
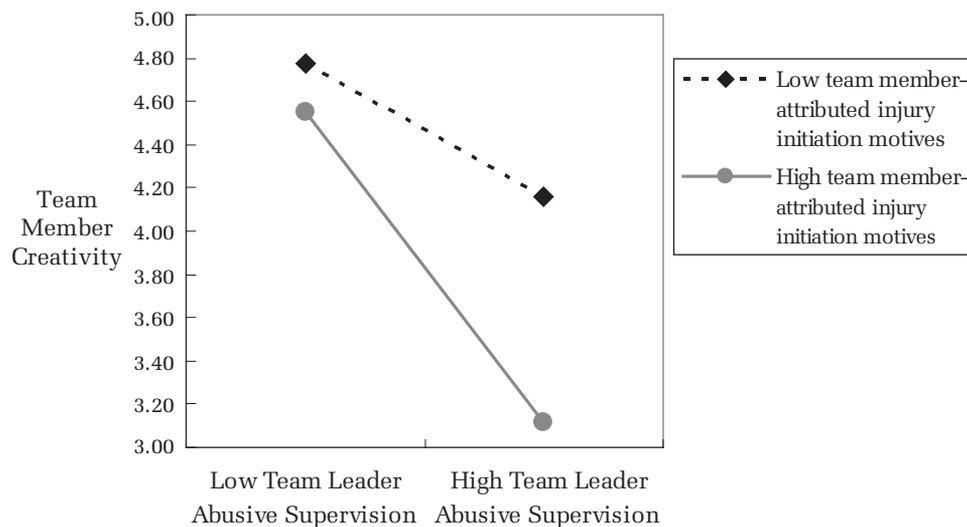


FIGURE 5
The Interactive Effect of Team Leader Abusive Supervision and Team Member–Attributed Injury Initiation Motives on Team Member Creativity



team leader–attributed injury initiation motives ($\gamma = -.10, p < .05$) than with high team leader–attributed injury initiation motives ($\gamma = -.04, p < .05$). Furthermore, the results of Table 3 show that team leader–attributed injury initiation motives moderated the indirect effect of department leader abusive supervision on team member creativity, because of its moderating role in the first-stage effect ($\Delta\gamma = .18, p < .01$), namely, the relationship between department leader abusive supervision and team leader abusive supervision. In addition, team leader–attributed injury initiation motives did not moderate the second-stage effect, or the relationship between team leader abusive supervi-

sion and team member creativity ($\Delta\gamma = -.01, n.s.$). Therefore, Hypothesis 5b receives support.

The results of Table 4 support Hypothesis 6a; the indirect negative effect of department leader abusive supervision on team member creativity via team leader abusive supervision was moderated by team member-attributed performance promotion motives ($\Delta\gamma = -.09, p < .01$). Specifically, as indicated by Figure 8, the indirect negative effect was stronger in the presence of low team member-attributed performance promotion motives ($\gamma = -.20, p < .01$) than in the presence of high team member-attributed performance promotion motives ($\gamma = -.11, p < .01$). The results of Table 4 further show

TABLE 3
Results of the Moderated Path Analysis^a

Moderator Variables	Department Leader Abusive Supervision (X_1) → Team Leader Abusive Supervision (M) → Creativity (Y)			
	First Stage P_{MX1}	Second Stage P_{YM}	Direct Effect P_{YX1}	Indirect Effect $P_{MX1} \times P_{YM}$
<i>Team leader-attributed performance promotion motives^b</i>				
Low (−1 s.d.)	.15*	−.46**	−.06	−.07*
High (+1 s.d.)	.30*	−.50**	−.03	−.15*
Differences between low and high	−.15*	.04	−.03	.08*
	First Stage P_{MX2}	Second Stage P_{YM}	Direct Effect P_{YX2}	Indirect Effect $P_{MX2} \times P_{YM}$
<i>Team leader-attributed injury initiation motives^b</i>				
Low (−1 s.d.)	.31**	−.33**	−.01	−.10*
High (+1 s.d.)	.13*	−.32**	−.03	−.04*
Differences between low and high	.18**	−.01	.02	−.06*

^a $n = 762$ at the individual level, $n = 108$ at the team level, and $n = 22$ at the department level.

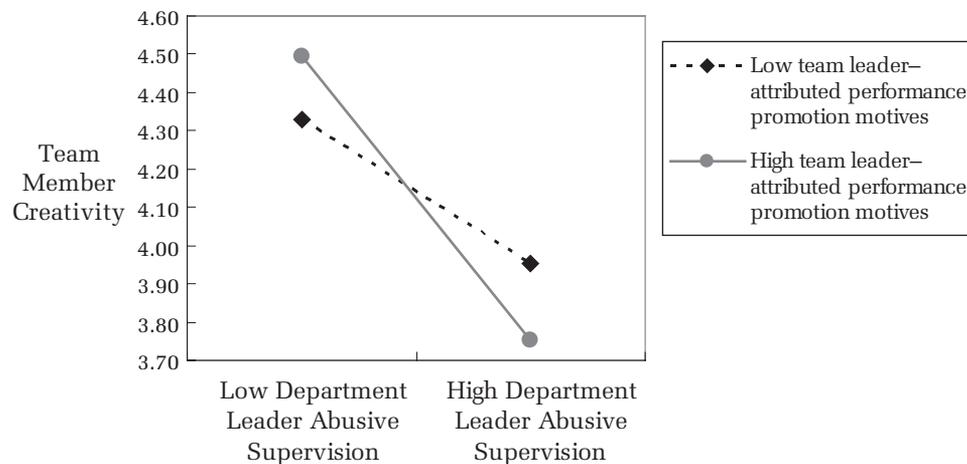
^b “Low” moderator variable refers to one standard deviation below the mean of the moderator; “high” moderator variable refers to one standard deviation above the mean of the moderator.

* $p < .05$

** $p < .01$

Two-tailed tests.

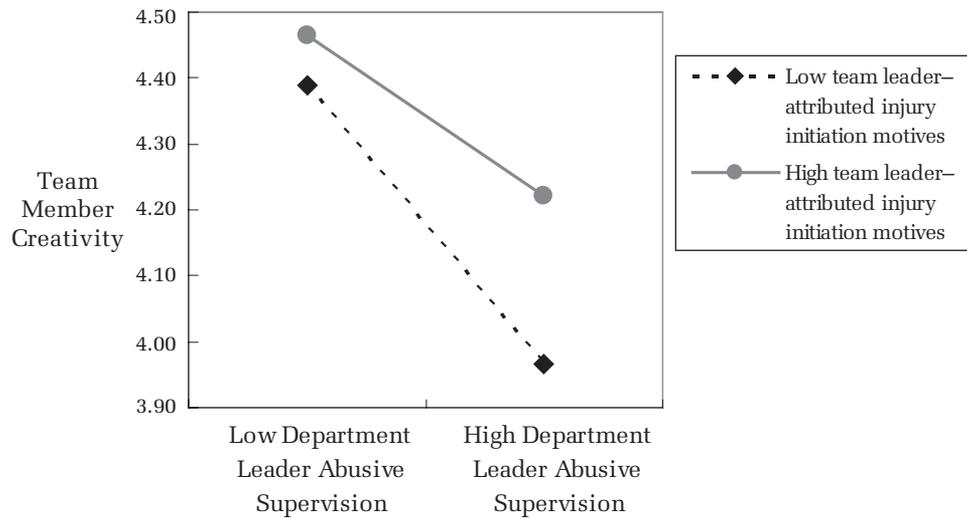
FIGURE 6
The Moderating Effect of Team Leader-Attributed Performance Promotion Motives on the Indirect Relationship of Department Leader Abusive Supervision with Team Member Creativity through Team Leader Abusive Supervision



that the overall significant moderating effect of team member-attributed performance promotion motives on the indirect effect was caused by its significant moderating role in the second-stage effect ($\Delta\gamma = -.29$, $p < .05$), namely, the relationship between team leader abusive supervision and team member creativity. In addition, team member-attributed performance promotion motives did not moderate the first-stage effect ($\Delta\gamma = .01$, n.s.), namely, the relationship between department leader abusive supervision and team leader abusive supervision. Hence, Hypothesis 6a is verified.

The results reported in Table 4 also substantiate Hypothesis 6b; team member-attributed injury initiation motives moderated the indirect effect of department leader abusive supervision on team member creativity via team leader abusive supervision ($\Delta\gamma = .10$, $p < .01$). Figure 9 suggests that the indirect negative effect was stronger with high team member-attributed injury initiation motives ($\gamma = -.19$, $p < .01$) than with low team member-attributed injury initiation motives ($\gamma = -.09$, $p < .01$). The overall significant moderating effect of team member-attributed injury initiation resulted from

FIGURE 7
The Moderating Effect of Team Leader–Attributed Injury Initiation Motives on the Indirect Relationship of Department Leader Abusive Supervision with Team Member Creativity through Team Leader Abusive Supervision



its significant moderating role in the second-stage effect that is the relationship between team leader abusive supervision and team member creativity ($\Delta\gamma = .41, p < .01$). Additionally, the first-stage effect (i.e., the relationship between department leader abusive supervision and team leader abusive supervision) was not moderated by team member–attributed injury initiation motives ($\Delta\gamma = .02, n.s.$). Thus, Hypothesis 6b receives support.

Supplementary Analysis

In this research, we examine how followers’ attributions of leader abusive supervision motives may moderate the trickle-down process of abusive supervision and the ultimate effect on employee creativity. One might argue that for employees who did not experience any abusive supervision, it would be irrelevant to examine

TABLE 4
Results of the Moderated Path Analysis^a

Moderator Variables	Department Leader Abusive Supervision (X1) → Team Leader Abusive Supervision (M) → Creativity (Y)			
	First Stage P_{MX1}	Second Stage P_{YM}	Direct Effect P_{YX1}	Indirect Effect $P_{MX1} \times P_{YM}$
<i>Team member–attributed performance promotion motives^b</i>				
Low (−1 s.d.)	.30**	−.66**	−.09	−.20**
High (+1 s.d.)	.31**	−.37**	−.08	−.11**
Differences between low and high	−.01	−.29*	−.01	−.09**
<i>Team member–attributed injury initiation motives^b</i>				
Low (−1 s.d.)	.29**	−.31**	−.06	−.09**
High (+1 s.d.)	.27**	−.72**	−.07	−.19**
Differences between low and high	.02	.41**	.01	.10**

^a $n = 762$ at the individual level, $n = 108$ at the team level, and $n = 22$ at the department level.

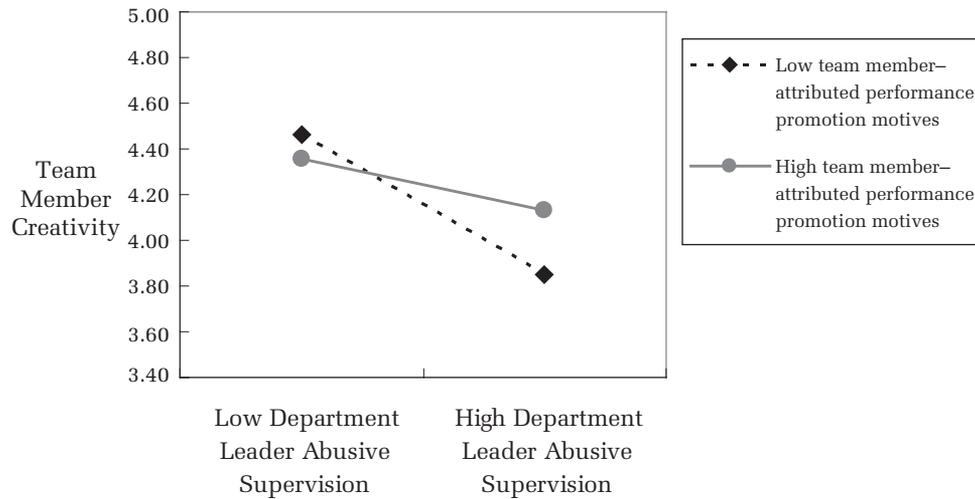
^b “Low” moderator variable refers to one standard deviation below the mean of the moderator; “high” moderator variable refers to one standard deviation above the mean of the moderator.

* $p < .05$

** $p < .01$

Two-tailed tests.

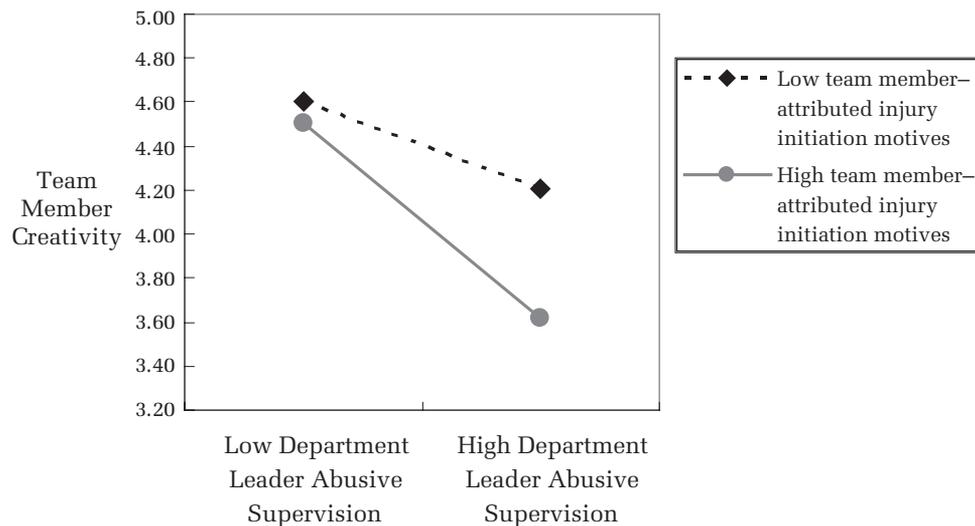
FIGURE 8
The Moderating Effect of Team Member–Attributed Performance Promotion Motives on the Indirect Relationship of Department Leader Abusive Supervision with Team Member Creativity through Team Leader Abusive Supervision



their attributions of abusive supervision. In our sample, on the scale 1, “never,” to 5, “very often,” the mean of department leader abusive supervision was 2.37, and the mean of team leader abusive supervision was 2.20. Therefore, on average, the respondents in our sample experienced some level of abusive supervision. However, 2 team leaders and 10 team members indicated 1 (“never”) for all of the abusive supervision items, thus reporting no abusive supervision. Although

this represented a very small portion of our sample of 108 team leaders and 762 team members, to alleviate concern as to how these respondents might have influenced our results, we reperformed all the analyses excluding them and found that the statistical significance of the hypothesis tests remained unchanged and that the magnitude of the coefficient estimates remained essentially the same. Considering these results and the fact that examining the trickle-down pro-

FIGURE 9
The Moderating Effect of Team Member–Attributed Injury Initiation Motives on the Indirect Relationship of Department Leader Abusive Supervision with Team Member Creativity through Team Leader Abusive Supervision



cess of abusive supervision and the effect on employee creativity would still be relevant for those who experienced no abusive supervision, we retained the full sample for all analyses. Results of these supplementary analyses are available upon request.

DISCUSSION

This research examined how and when abusive supervision may cascade down to harm employee creativity. In support of our conceptual analysis, we found that department leader abusive supervision exerted a negative indirect effect on team member creativity through team leader abusive supervision and that this cascading effect was moderated by team leader and team member attributions. Team leader-attributed performance promotion motives augmented the positive influence of department leader abusive supervision on team leader abusive supervision, whereas team leader-attributed injury initiation motives weakened such influence. The negative relationship between team leader abusive supervision and team member creativity was accentuated by team member-attributed injury initiation motives but attenuated by team member-attributed performance promotion motives. The findings of this research generate some interesting theoretical and managerial implications.

Theoretical Implications

Our findings contribute to the leadership, creativity, and attribution literatures in four primary ways. First, this research enhances understanding of the role of negative aspects of leadership in the development of employee creativity. Past research concerning the link between leadership and creativity has exclusively concentrated on identifying positive leader behaviors that may facilitate subordinate creativity; identified behaviors include transformational leadership (e.g., Shin & Zhou, 2003) and a supportive supervisory style (Oldham & Cummings, 1996). Consequently, the influence on creativity of negative leader behaviors such as abusive supervision, which has been found to occur frequently in organizational contexts (Tepper, 2000; Tepper et al., 2009), has generally been left unexplored. We addressed this research gap by using a temporally lagged field research design to provide empirical evidence about the detrimental effect of abusive supervision on subordinate creativity. Our research also responds to creativity scholars' call for a fine-grained, multilevel approach to the precursors of individual creativity

(Zhou & Shalley, 2008). Using three-level hierarchical data, we demonstrate that department leader abusive supervision and team leader abusive supervision exerted unique, independent effects on employee creativity. Hence, our research testifies to the promise of extending creativity theory by investigating socially undesirable behaviors by supervisors (e.g., abusive supervision) from a multilevel perspective. In addition, we add to the abusive supervision literature by broadening the range of individual outcomes resulting from abusive behaviors to follower performance consequences (e.g., creativity). This addition is important because the extant literature has primarily examined the attitudinal outcomes of abusive supervision for the subordinates involved, such as their job satisfaction and psychological distress (for exceptions, see Aryee et al. [2007] and Harris, Kacmar, and Zivnuska [2007]).

Second, whereas recent years have witnessed a growing interest in studying abusive supervision, antecedents of abusive supervision are little studied (Breux, 2010; Tepper et al., 2011). Responding to Tepper's (2007) call for exploring the predictors of abusive supervision from a multilevel perspective, we investigate the trickle-down impact of department leader abusive supervision on team leader abusive supervision and, in turn, team member creativity, with data collected in three phases bearing out the specified causal relationships among the study variables. Team leader abusive supervision was found to account for the negative influence of department leader abusive supervision on team member creativity. This finding supports social learning theory and sheds light on the socially learned nature of workplace abusive behaviors (Bandura, 1986). That is, middle-level managers are likely to adopt their supervisors as role models and thus mimic top management's abuse by abusing their own subordinates. Our results also reinforce the veracity of the cascading effect of leader behaviors. Adding to the literature on the cascading effect of positive leader behaviors (e.g., Bass et al., 1987; Mayer et al., 2009), we show that leaders lower in an organizational hierarchy may also emulate negative behaviors of higher-level leaders (e.g., abusive behaviors). This suggests that leadership research may advance by shifting its emphasis from positive leader behaviors to combined leader behaviors of different valences and studying how they may jointly trickle down organizational levels to affect followers' attitudes and behaviors.

A third theoretical implication of this research is that it extends the trickle-down model of leadership by integrating attribution theory to unveil the

contingent roles of subordinate attributions in stimulating or preventing the spreading of abusive supervision down an organizational hierarchy. Guided by Green and Mitchell's (1979) theoretical framework, researchers have generally looked at how leaders' causal attributions for followers' behaviors may impinge on leaders' responses to followers (e.g., Campbell & Swift, 2006; Eastman, 1994; Lam, Huang, & Snape, 2007). For example, Lam and colleagues (2007) documented that supervisors respond differently to employee feedback-seeking behavior depending on whether they ascribe the behavior to employee performance-enhancement motives or impression management motives. Employees whose extra-role behaviors are labeled citizenship behaviors by supervisors receive greater rewards than employees whose extra-role behaviors are interpreted as ingratiation by supervisors (Eastman, 1994). Surprisingly, empirical research that examines followers' attributions for leader behaviors is still scarce. Directly addressing this research gap, we found that followers not only develop two causal attributions for leaders' abuse, but also that such attributions significantly affect the impact of abusive supervision. Our results thus suggest that examining follower attributions as the boundary conditions of the cascading effect of leader behaviors may generate crucial insights into the research on leadership processes and consequences.

Finally, in support of attribution theory, our test of the overall integrative moderated mediation model provides solid evidence that the extent to which team leader abusive supervision mediates the relationship between department leader abusive supervision and team member creativity depends on team leaders' own and followers' attributions. Past findings on cascading effects of leadership corroborate that middle-level managers are the pivotal psychological link between top management and frontline workers (e.g., Zohar & Luria, 2005). However, past research is silent as to the conditions under which the mediating effect of middle-level managers is amplified or attenuated. This may be a partial consequence of methodological defects. We employed a unified moderated path analysis method (Edwards & Lambert, 2007) to overcome the methodological limitations in previous organizational studies and conduct a holistic test of the model. As such, our research offers valuable insights into how to simultaneously examine cascading behavioral contagion effects as well as their boundary conditions through conceptualizing and testing a moderated mediation model.

Practical Implications

Our research brings significant implications for practice. We have shown that abusive supervision by top management renders middle-level managers more likely to display abusive behaviors and harm employee creativity. This result ought to serve as a warning to organizations that abusive supervision should be avoided. An overall zero-tolerance policy with regard to abusive supervision should be adopted and stated to organizational members at all hierarchical levels (Sutton, 2007). In addition, organizations should implement training programs to teach management how to prevent the occurrence of abusive supervision. Our results imply that as employees' immediate supervisors, middle-level managers (e.g., team leaders) hold the key to spreading abusive behaviors from top management to employees. Thus, organizations may want to invest more in training programs geared toward middle-level managers. Furthermore, an organizational culture of fairness, combined with leaders' enhanced interpersonal skills, may help cultivate a work environment that sets employees free from abusive supervision (Aryee et al., 2007).

Another implication of our research relates directly to organization members' attributions regarding leaders' abusive behaviors. We found that subordinates' judgments about why leaders abuse them either exacerbate or mitigate the effects of abusive supervision. Accordingly, organizations should take into account the role of subordinate attributions about abusive supervision when they take steps to enhance the managerial awareness of abusive supervision's detrimental effects and discourage middle managers from modeling and further spreading such behavior to mistreat their own subordinates. In particular, middle managers should be aware that they are more likely to engage in abusive supervision and harm subordinate creativity when they attribute abuse from higher-level managers to performance promotion motives. Additionally, middle managers need to be informed that abusive supervision will have a more detrimental effect on their subordinates' creativity if their subordinates perceive its motive as initiating injury rather than promoting performance. Therefore, middle managers should especially avoid making subordinates feel that they are subject to abusive supervision triggered by injury initiation motives, and they should endeavor to convey their intent to enhance subordinate performance to mitigate the negative impact of abusive supervision on subordinate creativity. Nevertheless, our research indicates that even coupled with performance-enhancing motives, abusive supervision still prevents

employee creativity. Hence, to encourage employee creativity, organizational leaders should exercise transformational leadership, which has been shown to be positively associated with employee creative performance (e.g., Shin & Zhou, 2003).

Limitations and Directions for Future Research

As with any empirical study, ours has several limitations that point to avenues for future research. First, we did not empirically test the possible psychological mechanisms between team leader abusive supervision and team member creativity, because our theoretical model centers on the conditional, cascading effect of abusive supervision from department leader to team leader to ultimately undermine team member creativity. In this research, we draw on the theoretical arguments and empirical evidence from the extant creativity research (e.g., Bies & Tripp, 1998; Deci et al., 1989; Hoobler & Brass, 2006) to theorize that team leader abusive supervision will undermine team member intrinsic motivation and subsequently, creativity. Accordingly, a valuable extension of this research is to empirically test if subordinate intrinsic motivation may indeed serve as the mediating process that links abusive supervision to subordinate creativity.

Second, although we draw on social learning theory (Bandura, 1986) to explain the trickle-down effect of abusive supervision, additional theory can perhaps be invoked to explain it. For example, from a justice perspective, abused subordinates' sense of injustice may arise when they hold their supervisors accountable for their abusive behavior (Breux, Tepper, Carr, & Folger, 2010). Consequently, they may be prompted to engage in abuse to vent their negative feelings such as frustration and anger (Aryee et al., 2007; Tepper et al., 2006). In addition, Miller, Pederson, Earleywine, and Pollock's (2003) displaced aggression model suggests that a triggering provocation (e.g., abuse) stimulates individuals to develop cognitive rumination and ultimately aggression displacement (e.g., abusing lower-status individuals). More recently, Breux (2010) adopted Mullen's (2007) affective model of justice reasoning to explain why abusive supervision occurs. She verified an underlying emotional conduit that links supervisors' experiences of interpersonal justice from their own superiors to their engagement in abusing followers. Thus, to further the understanding of the cascading effect of abusive supervision, scholars can extend our research by testing whether role modeling, justice perception, abuse displacement, and emotions (e.g., anger) may be the mediating mechanisms in the relationship between department leader abusive supervision and team leader abusive supervision.

Third, given the focus of our research on subordinates' reactions to abusive supervision, we explored subordinate attributions only. Yet Martinko and Gardner (1987) contended that both leader and subordinate attributions for subordinate successes and failures might explain variance in leader and subordinate behaviors. Therefore, a valuable extension of our research is to investigate how leader and subordinate attributions for leader abusive supervision may simultaneously affect the ways subordinates respond to abusive supervision and the extent to which leaders engage in further abuse. We speculate that when leaders interpret their abusive behaviors as driven by performance promotion motives rather than injury initiation motives, they will tend to abuse subordinates more. In contrast, subordinates will respond less negatively to abusive supervision if they attribute leader abusive behavior to performance promotion motives instead of injury initiation motives.

Fourth, our research could also be extended by considering leader and subordinate attribution styles regarding abusive supervision. Attribution style has been conceptualized as a stable individual trait that reflects the propensity to "explain different events in the same way (i.e., make similar attributions) over time" (Martinko, Moss, Douglas, & Borkowski, 2007b: 159). Martinko and colleagues (2007b) demonstrated that leaders' optimistic attribution styles and subordinates' pessimistic attribution styles interact to shape subordinates' perceptions of leader-subordinate relationship quality. Accordingly, future research may scrutinize the joint effects of leaders' optimistic attribution styles and subordinates' pessimistic attribution styles on leader and subordinate interpretations of the motives behind abusive behaviors and ultimately, consequences of abusive supervision.

Fifth, another interesting avenue for future research is to explore how individual differences such as degree of negative affectivity may affect an employee's experience with abusive supervision and creativity.¹ High negative affectivity may lead to more victimization as a target of abusive supervision as supervisors might find such employees to be provocative, weak, and obedient (Aquino, Lewis, & Bradfield, 1999; Aryee et al., 2007). Negative affectivity has also been found to be negatively associated with creativity (Ng & Feldman, 2009). Therefore, ideally, it needs to be controlled for to examine the unique influence of abusive supervision on creativity. Although we do not have

¹ We thank an anonymous reviewer for offering this insight.

negative affectivity in our current data, we controlled for team members' task performance (i.e., number of automobile parts manufactured in the month prior to our survey, a key metric the company uses to evaluate employees' job performance and determine pay and bonus). Prior research has shown that individual differences such as affectivity and personality affect job performance (for meta-analytical reviews, see Barrick and Mount [1991], Hertz and Donovan [2000], and Kaplan, Bradley, Luchman, and Haynes [2009]). Accordingly, we argue that to the extent negative affectivity and other individual difference variables affect/manifest their influences in job performance and creativity as well as encounters of abusive supervision, controlling for job performance would at least to some extent account for the effects of negative affectivity and other individual differences variables. Nonetheless, we acknowledge it would be ideal to measure individual differences variables directly in future research.

Finally, future research may control for employee job characteristics and adopt objective measures of employee creativity to replicate our results. Job characteristics may not only determine the extent to which employees can be creative but also bear on the relationship between leaders and employees. Additionally, following past creativity research, we asked team leaders to evaluate team member creativity. Nevertheless, supervisory evaluations may be subject to numerous contextual and personal biases (Landy & Farr, 1980). Hence, a recent trend in creativity research is to use objective measures of creativity, such as creative performance bonuses, new ideas proposed, invention disclosure forms, research reports, and patent announcements (e.g., Liao, Liu, & Loi, 2010; Oldham & Cummings, 1996; Taggar, 2001; Tierney, Farmer, & Graen, 1999). Therefore, it would be worth investigating in the future if subjective and objective measures of creativity may generate convergent results for our proposed model.

Conclusions

Our examination of the contingent roles of subordinate attributions in the ways department leader abusive supervision flows down organizational hierarchy to undermine employee creativity makes valuable contributions to leadership, attribution, and creativity literatures. We call upon scholars to continue to look into the multilevel causation and effectuation of abusive supervision from an attribution perspective, considering the abundance of research opportunities in this area.

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APPENDIX A

Measurement Items

The survey read as follows: "Abusive supervision means the sustained display of hostile, verbal and non-verbal behaviors, excluding physical contact. To what extent, do you agree that the following may be the reason for or cause of your supervisor's behaviors toward you, which could be considered abusive?"

Performance Promotion Motives

1. Desire to elicit high performance from me. (.90)
2. Desire to send me messages that mistakes will not be tolerated. (.86)
3. Desire to alert me of my mistakes and problems. (.82)
4. Desire to push me to work harder. (.80)
5. Desire to stimulate me to meet my performance goals. (.75)

Injury Initiation Motives

1. Desire to cause injury on me. (.92)
2. Desire to hurt my feelings. (.91)
3. Desire to harm my reputation. (.87)
4. Desire to make me feel bad about myself. (.81)
5. Desire to sabotage me at work. (.77)

Abusive Supervision (Tepper, 2000)

My supervisor

1. Ridicules me.
2. Tells me my thoughts or feelings are stupid.
3. Gives me the silent treatment.
4. Puts me down in front of others.
5. Invades my privacy.
6. Reminds me of my past mistakes and failures.
7. Doesn't give me credit for jobs requiring a lot of effort.
8. Blames me to save himself/herself embarrassment.
9. Breaks promises he/she makes.

10. Expresses anger at me when he/she is mad for another reason.
11. Makes negative comments about me to others.
12. Is rude to me.
13. Does not allow me to interact with my coworkers.
14. Tells me I'm incompetent.
15. Lies to me.

Creativity (Zhou & George, 2001)

This team member

1. Suggests new ways to achieve goals or objectives.
2. Comes up with new and practical ideas to improve performance.
3. Searches out new technologies, processes, techniques, and/or product ideas.
4. Suggests new ways to increase quality.
5. Is a good source of creative ideas.
6. Is not afraid to take risks.
7. Promotes and champions ideas to others.
8. Exhibits creativity on the job when given the opportunity to.
9. Develops adequate plans and schedules for the implementation of new ideas.
10. Often has new and innovative ideas.
11. Comes up with creative solutions to problems.
12. Often has a fresh approach to problems.
13. Suggests new ways of performing work tasks.